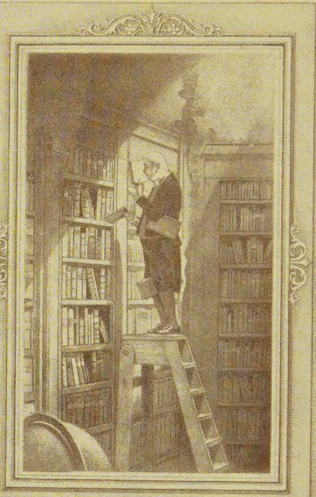

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IN TWO VOLUMES ANNUALLY.

VOLUME I.

EDITED BY
JAMES G. WAKLEY, M.D.

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Clinical Lecture
ON
TUBERCULAR PERITONITIS IN CHILDREN.

Delivered at St. Bartholomew's Hospital, Nov. 5th, 1880,

BY SAMUEL GEE, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—There are three kinds of tubercular abdominal disease occurring in children: chronic peritonitis, decay of the mesenteric glands, and ulceration of the intestines. These diseases are sometimes associated in different ways, sometimes they happen each alone by itself. They constitute a condition which the common people call "consumption of the bowels," although this term also includes the chronic enteritis which is not tubercular.

My topic to-day is tubercular peritonitis, or, what in the case of children is almost the same thing, chronic peritonitis.

I. PATHOGNOMONIC SIGNS.

They are discovered by physical examination of the abdomen, and are of two kinds: indurations and suppurations.

1. *Indurations* are detected by palpation. They have the form of bands and patches, or of lumps and knots. They certainly are present in most cases at some period or other of the disease. They begin to appear within a few weeks of the onset of the illness. They are more or less obscured by co-existing tympanites; and for this, or some other reason, they are not felt equally well at all times in the same patient. When the abdomen is very tender or resisting, I usually administer chloroform to the child before proceeding to the examination; and I strongly advise you to do the same thing in a doubtful case. The *bands* which I spoke of are commonly transverse, stretching right across the belly, or confined to one side of it. They are felt above the navel, on a level with the navel, or below it—for instance, parallel to Poupart's ligament. They are sometimes remarkably hard. They are mostly about the breadth of the finger, or rather more. The *patches* of induration, like the bands, may be met with anywhere; in a boy, now in the hospital, they are felt in the hypogastrium. The *lumps* and *knots* are sometimes very numerous, sometimes there are only one or two. Their size is very different, they often feel like nuts or pips. They differ very much in situation; there is no rule in these matters. The distinction (not always possible) between peritoneal and glandular lumps is to be found in the fact that the former are as a rule more superficial, less deeply seated than the latter.

2. *Suppuration.*—Discharge of pus from the navel, due to a local peritoneal abscess, is likewise characteristic. Sometimes there is nothing more than an appearance of pointing, which afterwards subsides, and never goes on to discharge. The navel looks red and swollen, not merely protruded, but its tissues swollen. This sign I believe to be no less characteristic. The pus is sometimes mixed with fæces. This is a condition which indicates ulceration of the intestine, and is a very much more dangerous affair than the discharge of pus alone.

Physical examination will also discover signs of either or both of two other abdominal lesions in most cases of tubercular peritonitis. *Tympanites* to a less or greater degree is a symptom almost always present at some period or other of the disease. *Ascites* is less common. In one case of this kind a diagnosis was made possible by the co-existence of phlegmonous scrofulides on the leg, otherwise there was nothing but ascites.

II. ONSET OF THE DISEASE.

Tubercular peritonitis is usually idiopathic, that is to say, it constitutes the disease in and by itself. This is the only case which I consider on the present occasion. I pass by the chronic peritonitis which is secondary to manifest tubercular disease of the lungs, intestines, or other parts.

1. The onset of protopathic tubercular peritonitis is mostly *gradual*. The belly becomes tender, painful, and large; at the same time the health of the child fails; there are emaciation, loss of appetite, and in many cases slight fever. At the beginning examination of the abdomen discovers nothing but more or less tympanites, sometimes associated with a little ascites. The tympanites usually remains moderate, but in some children it becomes excessive, so much so as to cause permanent dyspnœa. The ascites of the onset is small in quantity, and mostly goes away in a few weeks. Afterwards the indurations which I spoke of begin to appear.

2. The onset is sometimes *sudden*, and attended by very great tympanites. The tympanites is sometimes the only abdominal symptom. Sometimes it is associated with vomiting. And sometimes there are also all the signs of acute gastro-enteritis. In my lecture on tympanites last session I narrated a case of this kind—a child suddenly attacked by infantile cholera; violent vomiting and purging, with collapse, algidity, and tympanites. This was the beginning of chronic tubercular peritonitis.

III. COURSE OF THE DISEASE.

Suppose the chronic peritonitis established, you will most likely be able to detect one or other of the pathognomonic signs which I spoke of at the beginning. I will now speak of the symptoms which are attendant upon the confirmed disease. Emaciation from the first; appetite bad; vomiting now and then. Action of the bowels uncertain. Diarrhœa, occasional or even more continual, is no proof by itself of the co-existence of intestinal ulceration. Constipation is common, and it goes on in a few uncommon cases to absolute obstruction of the bowels. This obstruction is either temporary, giving way at length to the remedies employed, or it is permanent, and causes the death of the patient. The latter course is well illustrated by a case published by Dr. Wolston in the 10th vol. of the Clinical Society's Transactions. Obstruction of the bowels, although it may have been relieved, is apt to recur. Pain in the belly is sometimes severe, and is sometimes felt on heavy pressure only. The movements of the bowels are sometimes visible, whether there be much tympanites or not. Fever is present at first, but is seldom high; it often ceases altogether after a week or two; sometimes a low degree of fever is constant throughout the whole course of the disease. So that, at the time you see your patient, it may happen that there are no fever or other symptoms of disease, except the emaciation and the abdominal signs already spoken of.

IV. TERMINATION OF THE DISEASE.

1. *Recovery* from tubercular peritonitis is common. In the course of months, or a year or two, the tympanites disappears, and the indurations cease to be palpable. The patient is left pale and weak, and may continue so for the rest of life. On the other hand, he may regain his original state of health. The most positive proof of recovery from tubercular peritonitis is afforded by Mr. Spencer Wells' case,[1] in which the ascites of that disease resembled an ovarian cyst. Abdominal section was performed; the peritoneum was seen to swarm with tubercles; the intestines, for the most part, were adherent together. Acute peritonitis followed the operation, but the patient recovered, and six years afterwards she was stout, hearty, and well.

2. *Death* from tubercular peritonitis occurs in several ways. A slow exhaustion is common, especially when other forms of tubercular disease come to complicate the case. Increasing and great ascites may be the cause of death. You remember a girl who died in Mary ward after paracentesis for ascites? In her, tubercular peritonitis was associated with highly-marked cirrhosis of the liver, and this is a combination of lesions which I have seen before. Obstruction of the bowels is an uncommon cause of death.

When suppuration has occurred there is an additional danger. Mere pointing sometimes goes away without any manifest discharge of pus from the navel or any other part. When actual discharge of pus from the navel has occurred recovery is still possible. But when there are signs of a fistulous opening into the bowel the case is hopeless, as I said before.

V. THERAPEUTICS.

The first thing to mind, in the treatment of tubercular peritonitis, is to keep the abdomen at rest. This can be done only by keeping the patient in bed. I have known a boy, who was slowly recovering whilst he was in bed, undergo a fatal relapse of his disease by being taken up and dressed against orders.

Another part of the treatment consists in putting a flannel bandage round the belly, so as to reach from the hips to the ribs. Much pain in the abdomen is alleviated by hot and moist fomentations, as hot as the patient can bear; linseed meal poultices, flannel fomentations, or, what is usually best, a flannel bag full of bran or camomile flowers, which can be heated in hot water or an oven as often as needful. You may sprinkle the fomentation with laudanum; or you may smear the abdomen with a liniment composed of equal parts of extract of belladonna and glycerine.

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[1] Quoted by Dr. Fagge, Guy's Hospital Reports, third series, vol. xx., p. 203.

I need not say much about the necessity of allowing none but the most easily-digestible kinds of food; in short, to feed the patient very much as you would feed a baby. Cod-liver oil, if it can be taken, is sure to do good.

For the ascites you may try copaiba resin cautiously, beginning with three or four grains, made into an emulsion, with an equal quantity of compound tragacanth or almond powder, and some water. If this mixture disagree with the stomach you must discontinue it.

When suppuration has set in the proper treatment is assiduous poulticing.

Introductory Lecture

ON THE

CLINICAL STUDY OF THE DISEASES OF THE EYE.

Delivered at University College Hospital on Thursday, October 7th, 1880,

BY WHARTON JONES, F.R.C.S., F.R.S.,

PROFESSOR OF OPHTHALMIC MEDICINE AND SURGERY IN UNIVERSITY COLLEGE, AND OPHTHALMIC SURGEON TO THE HOSPITAL.

GENTLEMEN,—If you take the pains to examine for yourselves the cases which come under treatment in the Ophthalmic Department of the hospital, and watch their progress, you will soon learn to recognise the principal forms of eye disease and the remedies employed for them. The study of the diseases of the eye by the practical observation of cases is comparatively an easy task, soon comes to be interesting, and is sure to prove successful. But without the aid of such means of study, the attempt to become acquainted with the nature and treatment of eye diseases is painful and laborious, and in the end unsuccessful. May what I now say be an encouragement and inducement to you to bestow some attention to the clinical study of the diseases of the eye, while you have the opportunity of frequenting the ophthalmic department of the hospital. If, however, you do not accept it as hint sufficient to incline you to do so, let what I am going to say be taken as a warning against the neglect of it.

You are not likely to be long engaged in practice before meeting with a case of the purulent ophthalmia of new-born infants. Now, this disease, if seen in time and properly treated, may, in the large majority of cases, be completely cured; whereas, if it is not properly treated, it is liable to run on to the damage of the cornea, if not destruction of that important part of the eye, with irremediable blindness.

The proper treatment is simple; nothing, indeed, more simple. But picture to yourselves the position of a young practitioner who helplessly witnesses the eyes of his infant patient running on to destruction, and remembers that he never took the trouble when a student of the hospital to prepare himself for such an emergency by lending a hand in the manipulations necessary in the treatment of cases of ophthalmia neonatorum.

You will observe that the diagnosis is obvious, and that, as regards treatment, it depends merely on the practical tact you can bring to bear in the application of the local remedies whether you shall be successful or unsuccessful in curing your case.

Of the liquids which you will see dropped into the eyes of our patients, a solution of the nitrate of silver and a solution of the sulphate of atropia are those in most common use. The nitrate of silver solution—five or ten grains to the ounce—is one of the most efficacious applications in inflammations of the conjunctiva, though, let me remark, it is not the sole remedy at our command, for other irritating substances do nearly, if not quite, as well. Besides the drops which we apply ourselves at the hospital, we give the patients weaker solutions to use at home as lotions. The atropia lotion which we give is of the strength of one grain to eight ounces. We never give a nitrate of silver lotion. We give a weak solution of some other irritant, such as the bichloride of mercury of the strength of one grain to eight ounces, or alum, sixteen grains to eight ounces. The reason we do not entrust the patient with a nitrate of silver solution is that when its use is injudiciously prolonged, as it is liable to be under the circumstances, the conjunctiva becomes dyed by it of a dirty-olive hue. Though you will see the nitrate of silver or other irritating solution dropped into the eye in cases of inflammation of the conjunctiva, you will never see it dropped into the eye in cases of iritis or other internal inflammations of the eyeball, for in such cases irritating collyria do more ill than good. In cases of iritis you will see the solution of the sulphate of atropia dropped into the eye, not, however, with the expectation of subduing the inflammation of the iris, such as we have of subduing the inflammation of the conjunctiva when we drop the nitrate of silver solution into the eye in a case of catarrhal conjunctivitis. The principal object we have in view, when we drop the atropia solution into the eye in a case of iritis, is to counteract, as far as possible, the strong tendency which the pupil has, in the course of that inflammation, to become contracted.

But how are we to distinguish between conjunctivitis and iritis, you may perhaps desire to ask, in order to know when to drop in the nitrate of silver solution and when to abstain, but to drop in the atropia solution? My answer to such a question would be in the words with which I commenced this lecture, viz.:—"If you take the pains to examine for yourselves the cases which come under treatment in the ophthalmic department of the hospital and watch their progress, you will soon learn to recognise the principal forms of eye disease and the remedies employed for them." If you will but study clinically the nature and treatment of the purulent ophthalmia of new-born infants, catarrhal conjunctivitis, scrofulous ophthalmia, and iritis, you will find in the knowledge you thereby acquire of these forms of eye disease a foundation on which you may at leisure successfully erect the superstructure of whatever else the exigencies of practice may render it necessary for you to know respecting ophthalmic medicine and surgery.

At the Eye Infirmary you will have the opportunity of seeing performed the various operations on the eye. But let me observe that though it is of great importance that you should witness the operations, it is also of great importance for you to watch the progress of the case after the operation; and of equally great importance, moreover, it is to have examined the case before operation, and made yourselves acquainted with its pathology and the reasons for operating. Every now and then patients present themselves with injury of the eye of various degrees of severity, ranging from the case in which there is merely complaint that something has got into the eye to cases in which there is an actual wound, even smash of the eyeball. In the case in which something is in the eye, the foreign particle you will usually see discovered adhering to or embedded in the cornea; and if not there, you will most probably see it discovered on everting the upper eyelid adhering to the palpebral conjunctiva. In a case in which there is a wound or smash of the eyeball, it may be that you will see us cut out the whole damaged organ at once. One principal reason for performing this operation of enucleating the eyeball is to guard the other eyeball as far as possible from the risk of becoming affected with destructive sympathetic ophthalmitis, to which there is a great liability under the circumstances.

By even a short attendance at the Eye Infirmary the various points I have now touched on will become familiar in your mouths as household words, so that you will be able to understand what I may have to say more in detail in subsequent clinical lectures. Until a few years ago crowds of ear patients used to invade the ophthalmic department of the hospital. In commiseration I did not turn them away, though they necessarily cost me much additional labour. Of late, however, Mr. Barker has undertaken the task of looking after such cases. But the truth is, we cannot altogether exclude cases of disease of the ear from our attention at the Eye Infirmary, even if we would, because ophthalmic patients are often found to be at the same time labouring under some affection of the ears—for example, in children with scrofulous ophthalmia there is often chronic inflammation of the membrana tympani, with discharge from the ears. The most remarkable example of a connexion of disease of the ears with disease of the eyes is the supervention, in cases of keratitis or kerato-iritis from congenital syphilitic taint, of inflammation of the membrana tympani and lining membrane of the cavity of the tympanum with sometimes inflammation of the labyrinth attended by great and obstinate deafness.

In a large proportion of cases diseases of the ear are not very amenable to treatment—not by any means so amenable to treatment as diseases of the eye; but still there are some in which, when the disease is taken in time and treated on sound principles, much may be done for the patient's benefit.

In the course of practice you will often be called upon to attend a case of earache, for example. This means, pathologically speaking, acute inflammation of the membrana tympani. Now, in such a case you may quickly subdue the inflammation, relieve the patient from the excruciating pain he is suffering, and save him, perhaps, from subsequent confirmed deafness. The treatment from which such a very desirable result may be obtained is similar to that which you will see so beneficial in analogous cases of eye disease—viz., leeches behind the ear, hydrarg. c. creta and belladonna powders, with warm fomentations.

Last session I gave a special clinical lecture for the purpose of showing how the pathology and treatment of the diseases of the ear may be elucidated by a reference to our better knowledge of the pathology and treatment of the diseases of the eye. The lecture was printed in THE LANCET, Oct. 25th, 1879, p. 601, and I beg to refer you to it.

ABSTRACT OF

The Brown Lectures.

FURTHER INVESTIGATIONS ON ANTHRAX AND ALLIED DISEASES IN MAN AND ANIMALS.

BY PROF. W. S. GREENFIELD, M.D., F.R.C.P.

LECTURE II.

IN undertaking experiments with the view of preparing an artificial virus of anthrax, which whilst capable of affording sufficient protection on inoculation should not manifest such severity in its action as to endanger the life of the animal inoculated, Dr. Greenfield had, in common with many others working at the same subject, believed that so long as the anthrax bacillus maintained its morphological characters, and ordinary powers and mode of growth, it would still preserve the power of producing the disease on inoculation. He therefore sought to maintain a supply of the virus by artificial means rather than by the continuous inoculation of animals; the cultivation method employed being that in tubes partially filled with an albuminous fluid, preferably in aqueous humour. He soon found that these cultivations, though apparently identical in characters and mode of growth, were not of equal potency, and could not constantly be relied upon to produce the desired result. This was not due to admixture of other organisms or failure in the cultivation; and observations were made to determine, if possible, to what cause this deterioration was due, and whether there was any actual diminution in the potency of the virus in successive generations, and if without impairing the vitality of the bacillus its disease-producing power could be gradually abated. Cultivations of the anthrax bacillus direct from the blood of a guinea-pig which had died of the disease were repeatedly made through several generations, and each successive cultivation was submitted to rigorous microscopical and other tests. In this way cultivations were made up to twenty-five generations without any difference being detected in the mode of growth, or the morphological characters of the organism; the regular steps of growth and formation of spores taking place with the greatest regularity as to character and time, the sole perceptible difference consisting in the greater freedom of growth as the successive cultivations proceeded. The following is a summary of the results observed in rodent animals inoculated with the successive cultivations made in this way. With the first, second, and third cultivations the effects are almost, if not quite, as severe and fatal as in a direct inoculation from one animal (guinea-pig or mouse) dead of anthrax into another. It is from about the fourth cultivation that diminished virulence is first perceived, the effects being slower and less certain, although usually fatal sooner or later, and in the case of the fifth cultivation death may not occur for one hundred hours; between the sixth and eighth the result, even with an increased quantity, is less certain, and in some cases the material proves innocuous. From this point onwards the toxic effect is but little marked, sometimes considerable quantities being used with impunity. The latest period at which results were obtained was with the fourteenth cultivation, and then only in mice, and with marked differences in the condition produced from that seen with the earlier cultivations. Having described the results of some of the experiments illustrating the above statements, Dr. Greenfield said that some peculiar effects were observed with some of these inoculations—viz., the production of much slower death, apparently by a sort of chronic anthrax poisoning, with the presence of bacilli only in certain parts, especially in the lungs and pleural serum—a fact of importance in reference to woolsorters' disease.

The results in bovine animals (see Lecture I.) are strictly analogous with those obtained upon rodents, allowing for the greater power of resistance of bovine animals to the virus. No symptoms were produced with any cultivation later than the fourth, whilst in every case marked effects occurred in animals not previously inoculated when the first, second, or third cultivations were used. Moreover, the effect of inoculation with actively growing cultivations of the generations later than the seventh, was practically *nil*, and did not confer any appreciable degree of protection upon the animal so inoculated. It must be noted that in bovine animals there is not only a greater power of resistance, but also a varying degree of relative insusceptibility.

As to the possible contamination of the cultivations by other organisms, he remarked that in his later experiments he had rarely noted the presence of any other organisms, though of course they might be accidentally introduced. Of the organisms which might gain admittance micrococci were by far the commonest; bacterium termo had been only once observed. But wherever other organisms were present, they would not only be discovered by the tests to which each tube was submitted, but in the case of micrococci the changes produced in the fluid were often visible with the naked eye, owing to the opalescence they produced. Whenever other organisms were detected, the tube was thrown away and other pure tubes used. But had it not been so, further pure cultivations would not have been attained unless the micrococci had died out, although their presence does not prevent all growth of the bacilli. Further (as would be shown by microscopic specimens and photographs), great care was taken to obtain evidence that in their physical characters there was no real diversity between the bacilli of the earlier and those of the later cultivations; and it would be absurd to suppose that in every one of the numberless instances there should be invariably introduced, at a particular stage of the cultivation, another bacillus identical with the anthrax bacillus, which it entirely displaced; whilst in no cultivation of other bacteria did it ever show itself. He wished, however, to guard against the possible misconception that because the results found in this particular method were such as described they would therefore necessarily be the same with other cultivation methods and the use of other quantities of the material for inoculation. Buchner's experiments show beyond doubt that the virulence is longer maintained when the cultivations are made in meat infusion, and possibly in other fluids it may be still longer. And larger quantities of material inoculated may possibly produce more marked effects. Indeed, the poison may be readily intensified in the living body. If an animal dies of anthrax of modified form and slow course, and another be inoculated from it, the latter usually dies more rapidly, and the next in succession still more rapidly, so that by cultivation in the animal body the maximum potency of the virus may be speedily regained.

Dr. Greenfield then proceeded to discuss the remarkable experiments made by Dr. Hans Buchner at Munich, and lately brought under the notice of the profession in England by Professor Lister, and the bearing they had upon the relation of the anthrax bacillus and the bacillus of hay infusion, and of his ultimate success in causing the hay bacillus to grow in the blood until he obtained by inoculation of a considerable quantity of the material a disease analogous to anthrax with bacilli in the spleen and blood; that it could be inoculated upon other animals, and with each become more virulent until typical rapidly fatal anthrax was induced.

The late investigations of M. Pasteur upon "fowl cholera" were next considered. Fowl cholera is widely prevalent in France, highly fatal, consisting in a form of blood-poisoning, probably not arising from direct contagion, but by means of the excreta of diseased birds becoming mixed with the food, and inoculation through the alimentary canal. It has no analogy with human cholera, and probably is only one of a number of fatal epidemic diseases of this class among poultry. Its dependence upon a microphyte belonging to the class of micrococci was discovered by M. Perrencito of Turin, and subsequently investigated by MM. Pasteur and Toussaint. M. Pasteur announced to the Académie des Sciences that he had succeeded in cultivating the organism in neutral urine, and in decoction of fowl's muscle, and that by a peculiar method he had obtained it in the form of an attenuated virus, which if inoculated into fowls rendered them insusceptible of the effects of the most deadly virus. M. Toussaint by many experiments endeavoured to prove the identity between fowl cholera and septicæmia; but although suggestive of a close relation between the two diseases, Dr. Greenfield did not think them conclusive in establishing their identity.

M. Pasteur found that cultivations of the organism forming the virus of this disease decreased in potency the longer they were kept, if in contact with pure air, the rapidity of death being lessened and the disease remaining more local, the longer the interval between the time of inoculation and the time at which the cultivation of the virus was commenced. He pointed out that these changes occur in a very variable manner, some cultivations becoming greatly attenuated after three or four months; others much longer; and sometimes the parasite dies. There is no morphological difference to be seen between the less and the more virulent condition of the bacterium. If cultivations are made at short intervals of time of each successive virulence each maintains its own degree of intensity, and an interval which will kill a more attenuated virulence will only modify the more intensely virulent. He attributes this modification to the slow action of oxygen on the parasite; for if the tubes containing the virus and cultivating liquid be hermetically sealed, the virus will develop in proportion to the quantity of oxygen contained in the tube, and will retain its original virulence for long periods; but if the cultivation be exposed freely to the air there is a gradual diminution, even to extinction, of the strength of the virus.

But, Dr. Greenfield asked, may not these results be due to vital phenomena rather than external influences? When the access of free oxygen is prevented, the growth of the bacteria is continued to a certain period, at which the oxygen is exhausted; it then remains (in the case of bacillus anthracis with formation of spores) quiescent, the fluid having undergone hardly any chemical change. If new oxygen is supplied, fresh growth will occur. On the other hand, when there is free access of oxygen from the first, all the pabulum can be exhausted by the successive growth of the fungus, which continues to multiply until its food-supply is gone. It has thus no longer the power of forming a healthy and well-developed brood which can remain quiescent until called upon for further activity, but either destroys itself in the process, or is vitally deteriorated. In the resting stage probably the vital changes in the organism are very slow. Again, bacteria in their growth not merely produce chemical change in the fluids in which they develop, rendering them alkaline, but a certain quantity of a material prejudicial to their own life is also generated. And an exhaustive overgrowth of the bacteria must generate a larger quantity of this substance, which may in the presence of oxygen lead to further chemical changes in the fluid. Apart from this, the conditions of growth in the two cases are, as regards the vital activity of the fungus, totally distinct, and this difference should be borne in mind in estimating the result on its future condition.

Dr. Greenfield is, then, inclined to attribute these modifications to conditions which are common to the whole cycle of plant life rather than to mere chemical action, a view substantiated by other facts. For whether the action of the pathogenic bacteria be regarded as dependent upon some virus excreted by them in their growth, or upon some direct influence exerted by them, all analogy warrants the belief that these are largely governed by the vital activity of the organism and the soil and surroundings which condition its growth. Thus may be explained the differences observed in the results of cultivations in various media, as well as the effects when inoculated. If an organism be grown in any particular medium for a certain number of generations it must become more or less habituated to the medium, and it is not strange that on its transference to another medium it will not take an active growth until it is rehabituated to it; and conversely, when growth in any particular medium is well established, it can often be carried on with far greater ease in successive generations than at first; it is, in fact, acclimatised.

These facts, then, instead of militating against the view that the bacillus is the essential virus of anthrax, or the micrococcus that of fowl cholera, are strongly in favour of it, for they show that the condition of disease-production is the power of healthy and active growth of the parasite in the body, and the conditions which lessen or prevent the disease those which impede or check that growth, and the aim should be to modify the parasite by cultivation rather than allow it to fall into decadence or death from a sort of wilful neglect.

In conclusion, Dr. Greenfield described the methods of cultivation adopted by various observers, and exhibited various forms of apparatus used for the purpose.

ON THE ACTIONS AND USE OF CERTAIN REMEDIES EMPLOYED IN BRONCHITIS AND PHTHISIS.[1]

BY T. LAUDER BRUNTON, M.D., F.R.S.

IN both bronchitis and phthisis the first symptoms that attract notice are cough and expectoration, and the first remedies that claim our attention are the so-called sedatives and expectorants. Cough consists in deep inspiration, closure of the glottis, and violent expiratory effort, by which the glottis is forcibly opened by the compressed air, which carries with it, in its exit, mucus or other matters which may have lodged in the lungs or respiratory passages. The nervous centre for this act lies in the medulla oblongata. It is bilateral, and situated on each side of the central raphe. It is excited into action reflexly by irritation of the respiratory branches of the vagus distributed to the glosso-epiglottidean folds, to the whole interior of the larynx, to the trachea, especially at its bifurcation, and to the bronchi, and the substance of the lung itself, as well as the pleura when it is inflamed. Irritation of the internal auditory meatus at the point to which the auricular branch of the vagus is distributed also causes coughing, and so also may irritation of the liver and of the spleen. As coughing is a reflex act, excited by irritation applied to a sensory nerve, and reacting through a nerve centre upon the respiratory muscles, it is obvious that it may be lessened, either by removing the source of irritation or by diminishing the excitability of the nervous mechanism through which it acts. Both methods are employed in medicine. One of the commonest is that of lessening irritation by the use of glutinous and saccharine substances. These have in themselves little or no action upon the nervous mechanism. They do not pass down to the bronchi, or lung substance, so that they can have no direct effect upon the mucous membrane there, nor have they, so far as we know, any effect upon them after they have been absorbed into the blood; and yet one of the commonest observations is that glutinous and saccharine substances have a very great power to allay cough when applied to the back of the throat, even in cases where we know that inflammation and consequent irritation exist in the respiratory passages below the glottis, at a point which the mucilaginous substances cannot reach. The probable explanation of this action of such substances as marshmallow lozenges, jujubes, consisting of gum and sugar and Spanish liquorice, is that the irritation which occasions the cough exists at the root of the tongue and around the fauces, as well as in the trachea, bronchi, or lungs, the combined irritation rendering the cough worse than either the one or the other alone would do; and, therefore, if we soothe the tongue and fauces we relieve the cough, even though the irritation in the bronchial tubes or lung may remain as before. The power of such substances as those mentioned to relieve cough depends, no doubt, to a great extent either on their covering the inflamed and irritable surface directly with a mucilaginous coat, and thus protecting it from the action of the air or from irritation by other substances passing over it, or by exciting an increased flow of saliva or mucus, which has a similar effect. At the same time we cannot deny the possibility of their having other actions, though with these we are at present unacquainted. The use of the mucilaginous substances containing opium or other sedatives, which we know under the name of "linctus," is a more complicated one. In them we have the soothing action of the mucilaginous compound, combined with the local sedative action of morphia, chloroform, or hydrocyanic acid upon the inflamed or irritable mucous surfaces at the root of the tongue and back of the throat, and this renders even their local action more powerful than that of a mucilaginous substance alone. Such drugs as opium, hydrocyanic acid, and chloroform have a certain amount of local action upon the peripheral ends of sensory nerves, and lessen their sensibility to impressions. When they are applied to the ends of the nerves only for a very short time, as they are when we swallow these drugs in a liquid form, their local action is comparatively slight. It is much greater when they are taken in a mucilaginous vehicle, which, adhering to the irritated mucous membrane over which it passes, keeps the sedatives in contact with it for a longer time, and thus allows them to exert a more powerful action. But the sedatives which we give to relieve cough are not unfrequently administered in the form of solution, and then, though their local action must be comparatively slight, they still lessen a troublesome cough. Their action here is a different one from that which we have just discussed, but it is possessed by the sedative whether given in the form of linctus or of solution. In either way it is swallowed by the patient, absorbed from the stomach and intestines into the circulation, and carried by the blood to the medulla oblongata, and also to the inflamed mucous membranes, in which the blood circulates freely, just as well as in other parts of the body, although here its action is likely to be very much less than if it were applied for a length of time directly, as in the shape of the linctus; but, as we have mentioned, the linctus can only be applied to the back of the tongue and throat, and the source of irritation of the afferent nerves may be in the bronchi or in the lung itself. Here, no doubt, a linctus cannot penetrate, but we may to a certain extent act locally upon the nerves by the use of spray and inhalation. Some of these, such as the vapour of conium and the vapour of hydrocyanic acid, are intended to lessen the irritability of the sensory nerves in the respiratory passages, and thus lessen cough. Others, such as the spray of ipecacuanha, and inhalation of essential oils and terebinthinous substances, have probably a different action, and do not lessen the irritability of the sensory nerves in the respiratory passages, but alter the nutrition of the mucous membrane in such a way as to diminish the irritation which the abnormal condition of the membrane exerts upon the nerves. When the irritation is situated in the larynx, as in cases of laryngeal phthisis, one of the best means of relieving it is by applying the sedatives locally, whether by means of a brush, or, what is perhaps still better, by blowing it, in the form of a powder, directly upon the irritated surface. A useful application in laryngeal phthisis consists of a mixture of morphia and starch, in the proportion of about one-sixth of a grain of morphia to two grains of starch. This mixture is introduced into a glass tube, of a proper shape, and is blown down the throat at the instant that the patient takes a deep inspiration. The powder is thus distributed over the interior of the larynx, and exerts its local sedative influence upon the irritated surface, as well as a general sedative effect upon the central nervous system after its absorption.

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[1] Read before the Medical Society of London, Dec. 19th, 1880.

This brings us to the second mode in which sedatives relieve cough. After their absorption into the blood, in whatever manner they may have been applied, they are carried to the medulla, and there lessen the excitability of the nerve centre through which the reflex act of coughing is produced. In large doses their sedative effect may be so great as to endanger life, and the caution is given in every text-book, and by every teacher, that respiratory sedatives such as opium should be carefully administered to persons suffering from bronchitis with profuse expectoration, lest the irritability of the medulla should be so far diminished that it will no longer respond even to a powerful stimulus from the lungs, and the secretion may consequently go on accumulating until when the patient awakes the respiratory passages are so clogged with mucus that no effort which he can make is sufficient to clear them, and he dies of suffocation. By administering them in smaller quantities, however, the effect of respiratory sedatives may be graduated so as to diminish cough without any risk of causing death, and their effect would be exceedingly beneficial if they acted only upon the respiratory centre. Unluckily, however, this is not the case, and the most powerful of all—viz., opium—not only influences the respiration, but the digestion. It diminishes the cough, but sometimes, also, it diminishes the appetite, and may interfere with the proper action of the bowels. When this is the case, we are obliged carefully to steer between two dangers: (1) the injurious effects of the cough itself, and (2) the injurious effect of disturbed digestion. If we leave the cough alone, it exhausts the patient, for the muscular exertion involved in a violent fit of coughing is very considerable indeed, and the muscular effort exerted by a patient with a bad cough during the twenty-four hours is really more than equivalent to that of many a man in a day's work. Nor is this all. Anyone who watches the face of a patient during a violent fit of coughing will see the skin become flushed, and then dusky; the veins in the forehead and in the jugulars swell up, and become so tense that they seem as if about to burst; so that there is both venous engorgement and interference with the respiration. But what we see in the face takes place elsewhere. The same tension which we see in the jugulars is also present in the right side of the heart, in the vena cava, and in the portal system; for the portal vein has no valves, and the increased tension is transmitted backwards to the veins of the stomach, spleen, and intestines. By-and-by this all begins to tell upon the heart and upon the digestive system, as well as, to some extent, upon the kidneys. The stomach becomes congested, and we have loss of appetite, nausea, and vomiting. The patient, too, is kept awake, and we have nervous exhaustion, or loss of sleep, added to the weariness caused by the muscular exertion, and to the depression occasioned by digestive disturbance. These are what we have to fear: on the one hand, continuous coughing; on the other, we must avoid the digestive disturbance produced by our sedatives; and the duty of the physician is, so far as possible, to relieve the cough without disturbing the digestion. Numerous combinations have been devised, and are found to be, empirically, of very great service. If we take one of them and attempt to analyse it, we shall find that its components are such as to diminish the excitability of the respiratory centre, and at the same time to lessen the injurious effect of the sedatives upon the stomach. Such a one is the following mixture:—Solution of hydrochloride of morphia and dilute hydrocyanic acid, of each eighteen minims; spirit of chloroform and dilute nitric acid, of each one fluid drachm; glycerine, three fluid drachms; infusion of cascarilla or infusion of quassia, two fluid ounces: a sixth part to be taken three or four times a day.

In this mixture, which in its essence was much used by the late Dr. Warburton Begbie of Edinburgh, to relieve the cough in phthisis, we find the sedatives morphia, hydrocyanic acid, and chloroform, to lessen the excitability of the respiratory centre; we find glycerine, which will tend to retain the sedatives for a longer time in contact with the back of the throat, and will also act to some extent as a nutrient. We have combined with these nitric acid and infusion of cascarilla or of quassia, which have so-called tonic (?) action upon the stomach. In what this effect precisely consists we cannot at present say, but we may imagine that it will in some way partially counteract the effects of the congestion which the cough produces, and at the same time we know that they have the power of exciting appetite, and they will thus in a great measure counterbalance the injurious effects of the morphia upon digestion. Nor is this all, the nitric acid, as I shall shortly have to mention, has a very definite effect indeed upon the secretion in the lungs themselves; and this brings us to the consideration of another part of our subject—viz., the effect of drugs upon the secretion and nutrition of the lungs, by which they tend to restore the healthy condition of the bronchial and pulmonary tissues, and thus diminish coughing.

First of all, then, we must consider those drugs which lessen congestion. If a person, hastily eating or drinking, gets a crumb of bread or a drop of fluid down the larynx, or into the wrong throat, as it is termed, he suddenly begins to cough violently, and the cough continues until the source of irritation has been removed. If the irritation has been violent he may give a few coughs after the crumb has been coughed up, although the primary source of irritation—namely, the crumb—has disappeared; but the congestion which it occasions still remains for a short time, and acts as an irritant. If a person suffering from disease of the mitral valve makes any sudden exertion he is very likely to bring on a cough, which, however, quickly subsides after a short rest. The cough here is not due to inflammation of the mucous membrane, but simply to congestion, and when the congestion disappears the irritation goes with it. In cases where we have inflammation of the respiratory vessels actually present, as in persons suffering from bronchitis, the congested condition of the membrane is a source of considerable irritation, and we frequently notice that such persons, on going out into the cold air, may cease to cough, but again begin to cough violently when they return from the cold air into the warm room. The reason of this is that the cold air has acted upon the congested vessels of the respiratory passages in a somewhat similar way to what it does upon the vessels of the face; it causes them to contract, and the congestion being thus diminished the cough is lessened. When the patient goes into the warm room the face, which may have been pale while he was exposed to cold, flushes up with the heat, the vessels of the respiratory passages also become engorged, and the increased congestion causes irritation, bringing on the cough. In other cases, again, we notice that, just as the face becomes pale when exposed to cold, it shortly afterwards becomes flushed, although the application to cold continues. A person suffering from bronchitis, on going into a cold room, will begin to cough violently, the cold here increasing instead of diminishing congestion.

The pulmonary capillaries have great contractile power. Ten years ago I made some experiments, which I have not yet published, on the subject. I found that on the application of cold to the lung of a frog, when placed under the microscope, the capillaries would contract to two-thirds of their former diameter. We have, however, very few observations on the action of drugs upon the pulmonary circulation, the difficulties in the operative procedure being very considerable. I have observed that muscarin appears to have a power of contracting the pulmonary vessels, and that this effect is abolished by atropia. I am unaware, at present, of any other observations on the action of drugs upon the pulmonary circulation. Circumstances have prevented me from studying the recent researches on this subject in the way I should have wished, while drawing up this paper. From its power of contracting the vessels in other parts of the body, we should expect that digitalis would have a similar action upon the lungs; and we find, in looking over Beasley's "Book of Prescriptions," that digitalis has been used in pulmonary affections—as for example, in the following draught, employed by Sir A. Crichton in acute phthisis: lemon-juice, half an ounce; carbonate of potash, to saturation; decoction of sarsaparilla, ten drachms; tincture of digitalis, ten to thirty minims; acacia mucilage, ten drachms: to be taken every sixth hour. In such a prescription as this we have the tincture of digitalis, which will, in all probability, by contracting the vessels, diminish the pulmonary congestion and lessen cough. It is combined with carbonate of potash, and the effect of potash upon the lungs is very marked indeed. For my knowledge of its action I am indebted to Dr. Andrew Clark. Its action is perhaps best noticed in a patient suffering from consolidation and softening of a limited portion of one lung. When such a patient is in ordinary health, one may observe, on a stethoscopic examination, crepitant râles, limited to one spot. When he catches cold, one may hear, in addition to those, dry râles extending for some distance around the irritated spot, and the cough at the same time becomes more frequent and troublesome, while there is very little, if any, expectoration. If potash be now given alone, or, still better, in combination with a vegetable acid, the dry râles subside, and are replaced by moist ones, which in the course of a day or wo, as the potash is continued, alter in character, giving one the impression of their being caused by less viscid fluid. At the same time the expectoration becomes more copious, and the cough less frequent and less troublesome. Now is the time to alter the treatment, and for the potash to substitute nitric acid. If this be given too soon the cough, which had begun to get easier, will again become drier and harder, but if it be administered at the proper moment the cough becomes still less troublesome, the expectoration diminishes, and the moist râles disappear from the neighbourhood of the consolidated part of the lung, although they may still remain, as before, in that part itself. Potash, then, has a very marked effect in rendering the pulmonary secretion more fluid and abundant, while nitric acid has an opposite effect. As in many cases we wish to diminish the secretion rather than increase it, it is nitric acid rather than alkalies which we employ for long periods in the treatment of phthisis, as we have already seen in the modified formula of Dr. Begbie's phthisis mixture.

One of the most powerful expectorants is simply a little warm food in the stomach, and in cases of chronic bronchitis, in which the patients complain of violent coughing immediately after rising, one of the best expectorants is a glass of warm milk, either with or without a little rum, and a biscuit or a piece of bread about a quarter of an hour before they get up. A little warm beef-tea will have a similar effect. After taking this for a short time they generally tell you that the sputum comes away much more easily than before, and they are not so much exhausted by it. But perhaps the remedy, *par excellence*, not only in cases of phthisis, but in chronic bronchitis, is cod-liver oil. Persons suffering from long-standing chronic bronchitis will often come to a hospital to beg for cod-liver oil, saying that it eases their cough far more than any cough mixture. Other oils or fats have not this power to the same extent as cod-liver oil. We cannot say positively what the reason of this may be, but I think there is no doubt about the fact. My own belief is that cod-liver oil is more easily assimilated than other oils, and not only so, but more easily transformed into tissues themselves. Whether it owes this property to its admixture with biliary substances, or to its chemical composition, we cannot say. In his book on "Fat and Blood, and how to make them," Dr. Weir Mitchell quotes a remark made by an old nurse, that "some fats are fast, and some fats are fleeting, but cod-liver oil fat is soon wasted." By this she meant that there were differences in the kinds of fat accumulated under the subcutaneous tissues of men, just as there are differences in subcutaneous fats which accumulate in horses. The horse fed on grass soon gets thin by hard work, while fat laid on when the horse is feeding on hay and corn is much more permanent. Persons fattened on cod-liver oil soon lose the fatness again, and this, I think, points to the power of ready transformation which the oil possesses. Supposing that it does possess this power we can readily see how very advantageous it will be. In chronic bronchitis, and in catarrh and pneumonia, we have a rapid cell-growth, but want of development. The cells lining the respiratory cavities are produced in great numbers, but they do not grow as they ought to do. They remain, more or less, lymphoid cells, instead of developing into proper epithelium. They so rapidly form, and are thrown off so quickly, that they have not time to get proper nutriment, and if they are to grow properly we must supply them, not with an ordinary kind of nutriment, but with one which is much more rapidly absorbed, and is capable of much more rapid transformation in the cell itself than the usual one. This power is, I believe, possessed by cod-liver oil, and to its quality of nourishing the rapidly-formed cells in the lungs in cases of bronchitis and catarrhal pneumonia I believe its great curative power is owing.

The next subject we will consider is the action of some drugs in the vomiting associated with cough. The action of vomiting, like that of coughing, is reflex; the nervous centre for it is also in the medulla oblongata, closely associated with the respiratory centre, and it is excited by various afferent nerves, the chief of them being the branches of the vagus distributed to the stomach. When congestion of the stomach is present, these become irritated, and we get loss of appetite, nausea, and vomiting. Like coughing, vomiting may be prevented by the removal of the irritant. For example, where the irritant is indigestible food, the vomiting ceases after the ejection of the offending substances. When the irritation depends on inflammation of the walls of the stomach, it may be soothed by sedatives having a local action upon the nerves, such as ice and hydrocyanic acid, or by drugs having the power of lessening the irritability of the nerve centre of the medulla, such as opium. In the chronic vomiting of phthisis, all these drugs may be employed, but there is one other which has been useful in this affection, and which probably has no effect either upon the nerve centre or the nerve ends. This is alum. Its mode of action probably is that by its astringent power it contracts the vessels of the stomach, and thus lessens the congestion and consequent irritation produced by the continued coughing in the manner already described.

GASTROSTOMY; ESTABLISHMENT OF A GASTRIC FISTULA, IN A CASE OF STRICTURE OF THE ŒSOPHAGUS.

By GEORGE BUCHANAN,
PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF GLASGOW.

(*From notes by* J. L. STEVEN, M.B., *and* J. K. LOVE, M.B., *House-Surgeons in the Glasgow Western Infirmary.*)

THE following case is worthy of record; for although the patient died in a fortnight of inanition, the operation itself was performed with succees, the patient recovered from the effects of it, the wound healed, and a perfect gastric fistula was established.

The stomach, from long disuse, seemed to have lost much of its digestive and absorbent powers, so that the fluid nourishment which was introduced and retained failed to strengthen the patient. Whether an earlier resort to the operation might have enabled the man to live longer is difficult to say. But the case is another illustration of the fact that an opening can be made with safety into the stomach through the abominal walls.

Wm. B——, aged sixty, a porter, was admitted into Ward III. of the Western Infirmary on Sept. 10th, 1880, complaining of symptoms pointing to obstruction of the œsophagus. His family and personal history, apart from the present illness, are remarkably good. The symptoms above alluded to began in the month of February, 1880, with difficulty in the swallowing of solid food. Gradually this difficulty increased till, in the month of June, he was unable to swallow such substances as oatmeal porridge. For some time after this his diet consisted chiefly of porridge made with pea-meal. Soon, however, nothing but liquids could pass, and his diet was chiefly milk and beef-tea. On admission not even fluids could be swallowed, any attempt in that direction being followed by their regurgitation in a few minutes, or sometimes less, in a frothy condition. During all these months he had been getting steadily thinner, and on admission was very considerably emaciated. At no time was pain or dyspnœa a feature of the case; indeed, apart from the inability to swallow, he made no complaint but of weakness. Dr. Buchanan failed to pass a probang and œsophageal bougie, both of which stuck about half-way down the œsophagus.

No exact weight of patient was taken on admission, but it was evident that, notwithstanding the continued use of nutrient enemata, he was rapidly emaciating. These enemata were commenced on Sept. 20th. His weight on Oct. 16th was 7 st. 5 lb.; on Oct. 18th, 7 st. 2¾ lb. The emaciation continuing, Dr. Buchanan decided to operate, and on Oct. 27th gastrostomy was performed.

The operation.—An incision one and a half inches in length was made across the linea semilunaris, about an inch below and parallel to the eighth left costal cartilage. The tissues were divided down to the peritoneum and the cavity of the abdomen opened. The transverse colon was now exposed to view at the lower part of the wound. On the introduction of a pair of forceps in search of the stomach, the anterior wall of that organ was seen on withdrawing the instrument to have been grasped, and the gastro-epiploica artery on the greater curvature, two inches below the part, was seen to be held up. Through the part of the stomach wall thus brought to the opening two acupressure needles were thrust at a distance of one and a half inches apart, and, having been passed through the organ, were again thrust through the wall, and the ends made to rest on opposite sides of the wound. The stomach was now carefully stitched by ten carbolised silk sutures to the edges of the wound, and an incision about an inch in length made through the wall of the organ, between the rows of stitches, with a pair of scissors. A smaller transverse incision was now made, and the resulting corners secured to the lips of the wound in the abdominal wall by stitches. The operation, which had been performed under the spray, now being completed, a large acupressure needle was pushed through a long indiarubber tube, about three inches from one end. This end was then introduced into the stomach, while the ends of the needle rested on the thoracic and abdominal walls. The tube was fixed in this position by lateral strings. The long end of the tube was bent downwards and the wound dressed with antiseptic precautions, drainage being secured by the open tube leading from the stomach. During the three days immediately following the operation the tube was used for drainage purposes, and a small quantity of brownish bilious fluid was collected.

No symptoms due to the operation can be said to have followed, unless perhaps a slight rise of temperature. The maximum temperature did not, however, now exceed 100° F. There was no pain, and no tympanites or other symptom of local or general peritonitis. For a day or two after the operation he was fed entirely by enemata of beef-tea and brandy (usually four or five in the twenty-four hours). On the 30th of October (the fourth day), previous to which the wound had been dressed on antiseptic principles, the dressings were taken off, and the drainage function of the tube changed into a nutritive one, half an ounce of milk and a drachm of brandy being introduced into the stomach. This was continued every two hours during this and the following day, after which the amount introduced was increased gradually, while the intervals of digestion were lengthened till on the 4th of November twelve to fifteen ounces of brandy and milk were introduced in four or five meals during the twenty-four hours.

On the 6th the tube was taken out permanently, and the mouth in the stomach closed by a pad of boracic lint, kept in position by two or three strips of sticking-plaster, the whole being removed when anything was introduced into the stomach by a syringe. On the same day twenty-six ounces of brandy and milk were introduced, and on the two succeeding days this was replaced in part by beef-tea, peptonised fluids, &c.

During all this time, although no untoward symptom had occurred, it was evident that emaciation was progressing in spite of the continued enemata and the feeding by the stomach. The sensations of the patient varied from day to day, but on the whole tended to those of slowly increasing weakness. Occasionally he wandered a little at night; sometimes he was morose, complaining, and easily annoyed, sometimes happy and hopeful in his expressions. On the 7th it became evident that he was losing strength quickly, and rapidly emaciating; and on the 8th of November, the thirteenth day from the date of operation, he died of asthenia, having been sensible to within an hour of his death.

The edges of the wound in the abdominal wall were united to the opening in the stomach within a few days of the operation, so that on removing and replacing the tube there was no tendency to separation of the edges, except at the inner angle, where there was a small slough of the subcutaneous cellular tissue. But this did not extend into the abdomen, the peritoneal surfaces of the stomach and abdominal walls having become adherent very early.

In a post-mortem examination it was found that there was a small oval tumour encircling the œsophagus about two inches and a half above the cardiac orifice of the stomach. The œsophagus passed through the centre of this swelling and was contracted for an inch of its length, so that a probe was with difficulty passed through it, even after the partial softening of the mucous membrane, which occurs soon after death. The upper orifice of this structure was plugged with a grape seed, of which the smaller end was downwards, so that it was fixed like a stopper in a decanter. The tumour was tough and firm, and its intimate structure was that of epithelial cancer.

Glasgow.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES.

Mr. James Bentley, late of Cheshunt, bequeathed £1000 to St. Bartholomew's Hospital (of which institution he was formerly treasurer), and £100 to the Samaritan Fund, £500 to the Seamen's Hospital, £200 to St. Thomas's Hospital, and £100 to St. Luke's Hospital for Lunatics. Mr. T. E. Price, late of Stoke Newington, bequeathed £100 each to King's College and the Royal Free Hospitals.

THE SIMULATION OF SOMNAMBULISM.[1]

BY CHARLES RICHET, M.D. PARIS.

Is it possible, by having recourse to magnetic passes, by the fixed gaze, or analogous processes, to literally send people to sleep? In my opinion this question is completely answered. It is not so, however, with a large number of enlightened physicians and *savants*, who decline to admit the reality of facts which I regard as incontrovertible. In such a matter they say we have only to do with dupes or their accomplices, charlatans, who trade on public credulity, with simple observers who allow themselves to be abused by trickery, with hysterical girls who deceive and who simulate without any other motives than love of deception and simulation. Sometimes a few condescend to recognise that there may be some truth at the bottom of it. But this truth is so small that it is not really worth the trouble of talking about.

However, the number of sceptics is daily diminishing. During the past year especially very many works have appeared which have dispelled many convictions. But with a scientific fact it is not a question of convincing a few persons; everybody must be convinced. Thus it is necessary, before studying somnambulism, to scrupulously examine the proofs of its reality. Is it an illusion or a verity? Must we seriously accept what *savants* have told us about it, or scoff at their extreme simplicity?

Scientific certainty consists in this:—That the phenomenon observed can be reproduced at will by all those who shall proceed in the same manner as the first observer. Thus, when a chemist declares that chlorine in passing into potash results in the formation of chloride and chlorate of potassium, there is no need to repeat this experiment to be sure that it is the truth. If he who has discovered this reaction be ever so little experienced his word will be believed, certain that a repetition of the experiment will lead to the same result. It is just the same in mathematics, in physics, and to a certain extent in physiology; and proof is obtained by this fact only that it is known one can reproduce at will the same phenomenon under identical conditions. But with somnambulism it is otherwise. I declare, for example, that in making the "passes" for ten minutes over the forehead and head of a young man twenty-five years old I have sent him into a state of somnambulism, and that I have been able to observe in him contracture, catalepsy, hallucinations, &c. It does not follow, however, that another physician acting in the same manner on another young man will, in his turn, see the same phenomena reproduced. It is, on the contrary, very probable that the same result will not be obtained; for somnambulism occurring as in the first experiment is, in man, a very exceptional thing.

It is, therefore, necessary, in demonstrating the reality of facts which are not reproduced as often as one wishes, and which are in themselves so surprising, to seek for proofs which may carry with them, if not certainty, at least conviction. We may have either an absolute nullifying pathognomonic proof, or a collection of proofs, which, taken together, are equivalent to rigid and irrefutable demonstrations.

Now, it is impossible to produce absolute proof. An individual appears to be asleep. Whether he be more or less analagesic, more or less anæsthetic, matters little, they say, since, on the one hand, it is easy to simulate these two symptoms, and, on the other, they are far from being constant in somnambulism. If these modifications of sensibility be taken as absolute criteria, one would be almost certainly led to declare subjects hypnotised who, perhaps, are not so; and, on the other hand, to accuse of bad faith certain persons who are really hypnotised. The closed eyes, the jerking movements of the eyeballs, the fibrillar movements of the eyelids, contractions, hallucinations—all this it is certainly possible to simulate. Who can say that certain hysterics do not practise these manœuvres, with no other motive than the desire of deceiving the physician?

There is then no absolute sign, or rather there is only one, which, however, it is difficult to obtain, and which can only convince a single person—it is, to hypnotise her oneself, and to make her tell on waking, in the presence of trusty witnesses, the recital of the acts she has accomplished during her sleep, and of which the memory has escaped her thought. I have twice employed this measure, once in the case of Miss C——, and a second time with my friend F——. Miss C——, after having been present at an experiment, told me that she was not at all sure of the good faith of the hypnotised person. "What do you see extraordinary in it?" she said. "She has been able to simulate sleep perfectly. I cannot believe in somnambulism until you have sent me to sleep." I proposed to try the experiment on her; she accepted; and at the end of ten minutes was asleep. On awaking, and in spite of my affirmations and the assertions of her friend, Mdlle. D——, who, like her, is studying medicine, she would not believe in her own somnambulism, and almost accused me of having administered a soporific draught. However, she was forced to submit to the evidence, especially on looking at her watch, and on learning that what to her had appeared a minute had lasted an hour and a half. To sum up, there is no absolute irrefutable proof of somnambulism; a person can only be convinced by being himself hypnotised.

Unfortunately this method is not very practicable, and for many reasons; among others because *savants* whom it would be desirous to persuade would be very bad *magnetic* subjects. Besides, one could thus only convince a single person at once. We must therefore have recourse to other arguments.

First, the chief is the absurdity of supposing that all hypnotised persons have simulated sleep. For my part this supposition appears more than ridiculous. Here, for example, are two of my intimate friends, educated and enlightened young people, in whom I have absolute confidence. Must I admit that they have deceived me and have made sport of me? I could not be so unjust to five or six honourable individuals, whom I did not know, as to suspect them of bad faith for anything in the world. Besides, I should then have to believe that the fifty individuals, or thereabouts, of all ages and conditions, whom I have been able to hypnotise, were all without exception, *without a single exception*, knaves and liars. That would indeed be most absurd. The eminent professor of physiology at Breslau, M. H. Heidenhain, relates that he has been able to hypnotise his young brother, a distinguished student at the university. Can one admit that this young man has been acting so as to treacherously abuse the simplicity of his brother, and to make him a vulgar laughing-stock? It will be seen further on that nearly all women are, more or less, susceptible of being hypnotised. That would signify that nearly all women consent to feign sleep. Frankly is such a supposition admissible? Could not one woman be found to refuse this imposture? Two alternatives present themselves, and one is forced to recognise them: either all women are knaves and dissimulators, or somnambulism is a real fact. It will be granted, I think, that the former of these two hypotheses is manifestly absurd.

Second, another consideration should be invoked—viz., the agreement between the phenomena. The facts seen by Luysegur, Deleuze, Husson in France, sixty years ago, were observed by Braid in England about 1840; in Paris in 1860 by M. Broca; by myself in 1875; by M. Charcot and M. P. Richer in 1877; by M. Heidenhain, at Breslau, in 1880; and by so many other *savants*, during a century, in all Europe, that I could not quote all their names. That would be a very strange simulation to be reproduced so often in so long a time, with the same appearances—closed eyelids, fibrillar movements in the muscles of the face, hallucinations of vision and hearing, catalepsy, contracture. How is it that women coming from the country, having never heard the word magnetism pronounced, could simulate that of which they were ignorant? By what divination could a patient, whom I hypnotised at the Charité, and who had never witnessed any somnambulism, behave herself absolutely like a patient at the Beaujon Hospital, who came from the provinces, and whom I hypnotised the very day of her admission? That is a marvellous fact, quite as marvellous as the wonderful phenomena obtained by the professional magnetisers. On one view it should all be simulation, and the first dissimulator (the little peasant Victor, hypnotised about 1800 by M. de Luysegur) having set the fashion of a certain kind of sleep, all the other subjects, whom we believe to have been hypnotised, would only have imitated the fantasy of this little impostor?[2]

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[1] By "somnambulism" the author means "hypnotism." In order to avoid confusion the term "hypnotise" has been used for "endormir" throughout this article, although the author never employs the former word

Third, let us suppose even that there is fraud, and examine if this supposition can be made to accord with facts. I think I can affirm the contrary; for simulation, as it would be practised, must suppose a profound knowledge of anatomy and physiology. M. Charcot insists strongly on this fact, that if the nerves be pressed the muscles supplied by them contract, at least in certain somnambulists. Thus, by pressure on the facial nerve, the zygomatic muscle and the levators of the lip are made to contract. By exciting the sterno-mastoid muscle it is made to contract; the head then turns to the opposite side. Now, it must require a considerable knowledge of the physiology of movement to know that the sterno-mastoid, in contracting, turns the head to the opposite side. With somnambulists one can by direct incitation cause contraction of the muscles (rudimentary in man) moving the auricle of the ear. Now, this contraction is impossible in the individual when awake. By opening the right eye, one provokes a catalepsy of the right side, in consequence of the double decussation of the optic nerves and the cord. In another hysteric, by opening the right eye aphasia was produced; whilst by opening the left eye no such effect was obtained. Certainly, if this be simulation, one must assume that the patient knows that speech is affected by the left cerebral hemisphere, and that the retina of the right eye is in relation with this hemisphere, whilst the right hemisphere is useless for speech.

All those who have seen hysterical contractures during somnambulism are satisfied that these disorders of the muscular system are not simulated. There is no individual strong enough to preserve voluntarily the contraction of a muscle during a quarter of an hour without one perceiving in it the slightest tendency to weakness or relaxation. Now, the somnambulists maintain their contractures for many hours, and on waking they have no recollection of, no fatigue from, this prolonged and improbable effort. As to the so-called passion-attitudes, when the different emotions of the soul are expressed with an unheard-of fervour, I doubt very much if there be in the world an actor so good as to perform these mimicries with such success as the poor hysterical girls of the Salpêtrière. All somnambulists behave thus; their mimicry is so expressive, their sentiments of ecstasy, of love, admiration, anger, disgust, scorn, menace, are expressed with so striking a vigour, that all those who have witnessed them are convinced that there is no room for simulation.

(To be concluded.)

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[2] Some time ago, when travelling in Algeria, preoccupied with seeking for a proof of the reality of somnambulism, I tried to hypnotise an Arab woman of the negro village of Biskra (an officer, a friend of mine, who knew the Arab tongue, served as interpreter). In a few minutes this woman, feeling her eyelids grow heavy, said to her stupefied companion, "My eyes are closing." "Say, 'By Allah,'" the other advised. "By Allah, my eyes are closing." And, in fact, she soon went to sleep, to the great surprise of all present. Must the influence of the little Victor be involved in this case also? At the hospital of La Pitié I have only made one experiment, and I guarded myself against any cause of simulation. The patient on whom I experimented did not know what I wished to do. I told her that I would galvanise her for a disease of the knee from which she was suffering, and, in fact, I had a galvanic battery near the bed. This battery, which the patient thought very active, did not act; yet the patient experienced such somnolence and lassitude that she was forced to close her eyes. As I did not wish to make the "passes," I could not obtain complete sleep; but many times I succeeded in producing very manifest somnolence.

SALICYLIC SILK AS A SURGICAL DRESSING.

By A. F. McGILL, F.R.C.S.,

SURGEON TO THE LEEDS PUBLIC DISPENSARY.

THE time has now passed when it is either necessary or expedient to discuss the antiseptic treatment of wounds. The success of the treatment is generally admitted by those surgeons who have given it a fair trial, and many are only deterred from using the Lister dressing by the supposed extra trouble which it entails. Any plan, therefore, which we can adopt whereby the practice may be simplified while the principle remains unaffected cannot but aid in leading to the more general adoption of antiseptic surgery.

When a wound of considerable size is dressed antiseptically in the usual manner with carbolic gauze, the dressing must of necessity be changed several times during the first week. If this is not done, the serous discharge, which exudes in large quantity, soaks to the outside. Putrefactive changes ensue, and the case, as it is generally called, "breaks down." The frequent changing of the dressing in the early days after the infliction of a wound, during the time that healing by first intention may be expected, is an unmixed evil. It is probably owing to this cause that immediate healing of wounds treated antiseptically is not of more frequent occurrence. The handling of a wound at a later period when primary adhesions have become firm, or when granulation has occurred, is a matter of little moment. Unfortunately it happens that disturbance is necessitated at the very time when rest is most imperatively needed. If, then, we can use as a dressing some material which will not require to be renewed except at long intervals, we not only increase the patient's chance of a speedy recovery, but lessen very considerably the work and expense of the surgeon. Such a material is, I think, found in salicylic silk. The silk used is the article called in the trade "silk noils." These noils are a waste product, and are consequently of comparatively small value; they are sold for stuffing cushions and chair bottoms. The silk is soaked in a solution of salicylic acid, made by dissolving the acid in methylated spirit and boiling water. After soaking and drying ten parts of the silk should weigh eleven; consequently the silk when ready for use contains 10 per cent. of the acid.[1] Before using it is advisable to tease the fibres asunder; though this is not absolutely necessary, it considerably improves the dressing, making it softer and more absorbent. At the same time its bulk is much increased, and consequently a smaller quantity is required for a dressing. When the silk is adopted as a dressing no antiseptic precautions should be neglected, the carbolic-acid spray and lotion being used in the usual manner. For drainage in large operations I have been in the habit of using the ordinary india-rubber tubes, either wholly or partially removing them at the end of the first week; in smaller wounds, tubes of decalcified bone, catgut threads or fiddlestrings, prepared antiseptically and twisted into a spiral, have been inserted. These last, which are in suitable cases very efficacious, were first suggested and made by my friend Mr. G. D. Todd, a former house-surgeon at the Leeds Public Dispensary; being made of an absorbent material, they possess the advantage that they do not require any change of dressing for the purpose of removal. All absorbent tubes have, however, a common fault—they are not efficient in cases where they are exposed to the pressure of heavy flaps, as any considerable pressure causes them to collapse prematurely. The dressing is usually applied direct to the wound; in some cases where there has been a long incision, a strip of thin muslin or gauze soaked in carbolic lotion has been first applied, covering all the wound except the points where the drainage-tube has presented; over this, silk in large quantities has been lightly bandaged. Wherever the silk has touched the wound it has been usual to dip a small portion in carbolic lotion before applying it. This has been done in deference to Professor Lister's teaching—to destroy any putrefactive germs which might alight with impunity on the non-volatile salicylic acid; but, as any liquid which reaches the germ would at the same time reach and dissolve the acid, it seems improbable that any putrefactive changes would result if this precaution were neglected.

The first dressing applied as directed above is not disturbed for from five to ten days, unless the condition of the patient necessitates an examination of the wound. If the temperature remains above 100° Fahr. it is probable that drainage is interfered with, and an examination of the wound is called for. If, however, proper care has been taken at the first dressing, such an examination will rarely have to take place. The second dressing may be left on for an indefinite time, and will not usually be removed till the wound is entirely or almost entirely healed. I need hardly add that all dressings are changed under the spray. The following cases are fairly typical of many others which have occurred in my practice.

Amputation of Leg.—A woman, aged fifty-seven, had suffered from an ulcer of the left leg for many years; the ulcer extended all round the limb; it had been healed on several occasions, but the cicatrix always broke down a few weeks after leaving bed. The patient was a fat, flabby woman, who had partaken freely of spirits. I amputated below the knee, making a long posterior flap; two large india-rubber drainage-tubes were inserted, the limb was covered with salicylic silk, and bandaged on to a piece of Gouche's splinting. On the sixth day the dressing was removed. On the fifteenth day the stump was again examined, and found entirely healed. The patient's temperature reached 99·2° on the second day, but was never afterwards as high as 99°.

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[1] It is manufactured by Messrs. Harvey & Reynolds, Leeds. Mr. Reynolds, to whom I am much obliged for the trouble he has taken in the matter, has recently added one ounce of glycerine to each pound of silk. This fixes the acid, and prevents it from shaking out and causing unpleasant sneezing.

Removal of Mamma.—The patient, aged fifty-one, was suffering from a scirrhus of the left breast, accompanied by enlargement of the lymphatic glands in the axilla. The breast was of large size, and the operation an extensive one of its kind. The silk dressing was applied in the usual manner. The first dressing was on the fifth day, when half the drainage-tube was removed. The second dressing on the tenth day was necessary to enable us to remove the remainder of the tube. The wound was all healed, except where the tube had prevented union. The third dressing was on the twenty-first day, when the healing was complete. The temperature reached 100·5° on the second day; by the third day it was below 99°, and never reached it again.

Ligature of the Femoral Artery for Popliteal Aneurism.—An ordinary straightforward case in a man, aged thirty-nine. The aneurism was a small one which had only been discovered a week before operation. The artery was tied with carbolised silk; drainage was insured by the use of three strands of catgut; catgut sutures were used. At the first dressing on the eighth day the wound was healed with the exception of a small superficial sore a quarter of an inch in diameter, situated at the point where the catgut threads emerged. The dressing was reapplied and removed on the fifteenth day, when cicatrisation was complete.

In estimating the value of the new dressing it can be compared (1st) with carbolic gauze, and (2nd) with the salicylic cotton-wool used by Professor Thiersch. Compared with carbolic gauze: (1) It requires less frequent renewal, thereby saving the patient pain and discomfort, and the surgeon time. (2) It increases the chance of a speedy union of the wound by insuring rest in the early days of treatment. (3) It will keep for an indefinite time, whereas the gauze after the lapse of a few months loses its antiseptic properties. (4) It is cheap, and consequently saves the surgeon and patient expense. Compared with the salicylic cotton-wool it is found to possess two great advantages: it is more absorbent and more elastic. Its absorbing properties make it a much safer antiseptic; its elasticity prevents it from caking, and makes it more comfortable.

Leeds.

ADDITIONAL NOTES ON

FILARIA SANGUINIS HOMINIS AND FILARIA DISEASE.

By PATRICK MANSON, M.D.

I REVERT to this subject in continuation of a paper of mine which appeared in last year's *Customs Gazette* in order to bring forward some evidence lately obtained corroborating unmistakably my conjectures as to the habitat of the parent filaria. Those who have followed these investigations will remember that, reasoning from the position in which I found in certain cases the ova and embryos of the parasite, I concluded that the parent worm lived in the lymphatic trunks. The following are my notes of a case in which I found the mature parasite *in situ*, and in the place conjectured. The parent worm has been found by Bancroft in Australia, Lewis in India, Aranjo in Brazil, but this is the first time, as far as I know, in which it has been possible to state precisely from direct observation the particular structures it occupied. I therefore think the observation of sufficient value to justify its publication.

CASE 57. *Lymph scrotum, filaria embryos in lymph from scrotum, but not in the blood; excision of parts of the scrotum; parent filaria in dilated lymphatic.*—P. M——, aged forty-six, a pedlar and farmer. Four or five years ago he noticed that after much walking he had pain in both groins along the course of the spermatic cords, but he says it was never or very seldom associated with fever. He says he has never had inflammation nor abscess of the scrotum. At first there was swelling of and pain in the groin lymphatics, but on the bursting of a vesicle which had formed on the scrotum, and the escape of much fluid, these subsided. During the first year or two scrotal discharges occurred only once or twice a year; then they became more frequent, and during the last three months the discharge has been nearly constant. It may stop for a day or two occasionally, but as a rule the scrotum drips lymph night and day, perhaps to the extent of ten to fifteen ounces in the twenty-four hours. The discharge, he says, is always clear, like water, and when collected in a bowl, coagulum with red particles and streaks forms rapidly. Has never had chyluria nor any serious illness. He is very thin and anæmic, but, though much debilitated, is in fairly good health.

Oct. 11th, 1880.—Inguino-femoral glands on both sides enlarged, especially those on the right side; they are neither distinctly varicose nor firmly indurated, but have a soft spongy feel. The bulk of the scrotum is only slightly increased, but everywhere on its dusky red-brown surface are scattered innumerable minute vesicles, varying in size from a No. 6 to a No. 2 shot. Pricking any of these permits the escape of a clear watery fluid. As I examine the scrotum, this fluid, oozing from some ruptured vesicles, drips constantly. The right testicle is absent, probably undescended; there is no hydrocele on the other, which feels large and healthy. The under surface of the sheath of the penis is somewhat swollen, but is not vesiculated. The scrotum feels soft and silky. There is no elephantiasis or swelling of the legs. The clear watery nature of the lymph is peculiar. I found, in a short examination of sediment of some drawn at 11 A.M. to-day, one embryo filaria. I collected two other specimens of lymph—one drawn between 4 and 5 P.M., the other at 7 P.M., and stood the three specimens to await resolution of coagulum. Blood drawn from the finger at 7.45 P.M. had no filariæ. I again, at 8 P.M., examined a large slide an inch and a half by one inch, but found no filariæ. The blood is very watery, and defective in corpuscles.

12th.—Examined the sediment of the three specimens of lymph—viz., that drawn yesterday at 11 A.M., at 5 P.M., and at 7 P.M., and found embryo filariæ in all of them, two or three in every slide of sediment. It is evident from this that the filariæ observe no periodicity while they are in the lymph, and that reproduction is a continuous process.

In this case, I believe, the obstruction in the lymphatic circulation of the scrotum is very low down, probably not higher than the inguino-femoral glands, and that it is complete. Because: (1) Had the lymph regurgitated after passing through the glands it would be milky or sanguineous, and be much richer in corpuscles than it is. (2) It is clear and watery, as it is near the radicles of the lymphatics. (3) There is an absence of marked varicosity of the lymphatic glands it first reaches; were the obstruction higher up the lymph circulation these lower glands would be distended by accumulating lymph. (4) Filaria in lymph, but not in blood—proving that the obstruction is complete. I think it probable, considering these facts, that the parent worm is between the surface of the scrotum and the first lymphatic glands, and that we will find it when the scrotum is excised. (This was written before the operation.)

13th.—Removed part of the scrotum this forenoon, the dripping of lymph continuing, and thought it advisable to operate to save the man's life. As he lay on the operating table under chloroform, I could see the anterior border of the spleen bulging out the relaxed and wasted abdominal muscles, and could feel that the organ was very much enlarged. Under such circumstances I generally abstain from all serious operations, but when I remembered the corpuscles and watery state of the blood, the absence of a history of malarial fever, the usual cause of splenic tumour here, the probability that it was the result of the state of the blood, and that this again was caused by the constant day and night dripping of lymph from the scrotum, I determined to proceed. The operation was a very simple affair. I dragged down the affected portion of the scrotum till it was clear of the testicle; transfixed the fold thus formed with a finger-knife; cut upwards and then downwards, removing a circle of about two and a half to three inches in diameter of soft, spongy, watery scrotum. Only three arteries required ligature. Pressing with the palm of the hand over the right inguino-femoral glands, I forced from an enlarged lymphatic on the upper and right corner of the wound a stream of lymph the thickness of a fine knitting-needle, and with a projection of three to four inches. The lymph thus expressed was clear and watery. I failed to do the same on the left side. The solitary testicle, the left, was healthy. The edges of the wound were brought together with catgut sutures. The scrotum when excised had been placed in a clean bowl, and when the operation was finished, I took it up and carefully examined the cut surface. Finding nothing unusual, I folded it up, intending to examine it at my leisure. However, being curious about my prognostication, I took it up again, and unfolding and exposing the cut surface saw wriggling on it very vigorously a long and slender worm of a catgut opaline look, the thickness of a medium-sized horsehair. One end of the worm was free, the other entered the cut end of the lymphatic corresponding to that from which I expressed the lymph on the right side. About two inches of the worm were free. I tried to coax out the rest with my finger, but failed. The worm appeared to be working back again into the scrotum. Fearing it would succeed in this, and also being afraid to crush it with the forceps, I laid it on the handle of a scalpel when it had partly dried and adhered. I made gentle traction, but the worm snapping in the vessel, I procured only about two inches of the free extremity, with long pieces of uterine tubes and alimentary canal dangling from the transverse fracture of the integuments. I did not attempt any further examination of the scrotum (which contains the caudal end of the female, and probably the male worm), but placed it in spirits and sent it to England. Dr. Bennett, of H.M.S. *Swinger*, was present, and assisted at the operation and saw the worm.

The same evening I examined with the microscope that part of the worm I had broken off. It was the head end of a female. The body was quite plain, without any markings, and tapered rather abruptly to the simple, somewhat club-shaped, mouth. The vagina opened about 1-25″ from the mouth. Uterus was packed with embryos in different stages of development. In the lower part of the uterine tubes the embryos lay at full length, outstretched, as we see them in the blood, and the sheath was very distinct in one embryo that had escaped from the vagina. This particular worm was certainly not oviparous. The following are my measurements carefully made:—Greatest diameter of body, 1-125″; diameter of alimentary canal, 1-900″; diameter of head at shoulder, 1-450″; orifice of vagina from mouth, 1-25″; diameter of body at vagina, 1-125″; ova before differentiation of embryo cleavage complete, 1-650″ × 1-850″; ova after differentiation of embryo, 1-590″ × 1-700″; diameter of uterine tubes, 1-200″; free embryo, 1-95″ × 1-3000″; length of sheath visible beyond the head of free embryo, 1-1400″. The animal was mounted in urine of a specific gravity similar to that of lymph, for examination. In such a medium the parts retain their natural proportions. If mounted in water, glycerine, or spirits, there is often much distortion, and an incorrect idea of relative and actual size produced.

15th.—Doing well. A slide of blood drawn from the finger at 5.30 P.M. contained no filariæ.

16th.—One slide of blood drawn at 5.30 A.M. contained no filariæ.

26th.—Had an attack of fever yesterday, and is still hot. The sheath of the penis is considerably swollen, but otherwise the case is doing well; the wound is granulating kindly, and there has been no escape of lymph since the operation.

Nov. 3.—Wound nearly healed; swelling of penis subsided. Patient, who has been taking large quantities of iron, much stronger; spleen smaller; blood still very defective in corpuscles; one slide drawn at 4 P.M. contained no filariæ.

6th.—Wound healed; no filariæ in the blood; going home to-morrow.

Amoy.

ON Wednesday last Princess Christian opened a new Cottage Hospital on Englefield Green, near Egham. The hospital has been built to accommodate eight adult patients and six children, and has cost about £2500, the whole of which has been raised by the residents in the neighbourhood, the Queen having been a very liberal subscriber to the funds.

THE EFFECTS OF THE INDUCED CURRENT UPON PARTURITION.

BY WALTER J. KILNER, B.A., M.B. CANTAB.,
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IT is not an uncommon occurrence to meet with cases of confinements in which it seems likely that the child will be born in a few minutes, and yet there is a delay owing to the pains being very short, feeble, and at long intervals, although the mother shows no sign of fatigue. In these instances ergot might be of use, but it is not administered because it is expected that before it has time to act the labour would be over. Having met with three similar cases almost consecutively, I came to the conclusion that electricity might be of use, and I think that the results of my observations may interest some of the profession, as I am unable to find any mention of the induced current being used in parturition, except for the purpose of controlling post-partum hæmorrhage.

My first experiments were especially directed to discover whether the pregnant uterus, like the voluntary muscles, possesses *motor points*. After many trials, the conclusion I arrived at is that motor points exist, and can be easily found by bisecting the line drawn from the umbilicus to the middle of Poupart's ligament. This point is approximate, being only applicable before the uterus has descended, to allow the head of the child to enter the pelvis, and the spot varies slightly in each case according to the position of the uterus. When we talk of motor points, we must recollect that the uterine muscular fibres are of the unstriped variety, and that they do not respond to galvanic stimulation so quickly as the striped muscles.

When the poles of the coil are placed upon the spots just indicated the first thing observed is the immediate contraction of the abdominal muscles, the intensity of which depends upon the strength of the current. Occasionally, at the instant of contact uterine contractions commence, but more often a lapse of about a quarter of a minute is required, and not unfrequently they are delayed for two or three minutes. But still the current is taking effect, as the intermittent use, for instance, half a minute on and the same off, rarely fails to induce contractions in a few minutes; these increasing gradually in severity and duration while the intermissions become less and less. Latterly, however, I have applied the current only during the contraction, to obtain the benefit of the relief of pain. The following is a well-marked instance of galvanism producing uterine action:—

CASE 1.—Mrs. A——, aged twenty-nine. Third confinement, Oct. 1879. At 9.30 P.M. the os was very nearly dilated. The membranes were thick, and the child's head was in the first position. The pains were weak, and at intervals of rather more than ten minutes. The membranes were ruptured, and the terminals of the induction coil were placed one upon either side upon the motor points, and the current was only turned on during the pains. After she had three the pains became almost incessant, and they never ceased until the current was stopped. Although the contractions were violent she did not feel them so acutely as before the coil was applied. The child was soon born, and under the influence of the current the placenta was expelled forcibly outside the vulva. She had an excellent getting up, having very few after-pains.

The above case illustrates another frequent occurrence—namely, that *the pains do not cease until the current be discontinued*, but however more frequently, although the pains become very prolonged, yet they stop of their own accord. If it be wished merely to prolong any one uterine contraction, the current is best applied near the termination of the pain, when it will commence *de novo*. In one instance, which will be directly related in full, the induced current did not produce any uterine contractions, although the abdominal muscles did so violently.

CASE 2.—Mrs. B——, aged thirty. First confinement, June, 1879. Labour pains commenced yesterday soon after midnight. This afternoon at four o'clock the os was about the size of a crown piece, and very rigid. I administered an injection of hot water for six or seven minutes, during which time the pains were severe, and in ten minutes from the commencement of the injection the os was fully dilated. Subsequently the head did not advance further than the lower part of the pelvis, and remained stationary although the pains were strong for three or four hours. About this time the pulse rose to 120 per minute in the intervals, and higher during the pains. I was then allowed to use the coil, and applied a gentle current to the abdomen, avoiding the motor points during the pains. The contractions of the uterus, which were previously every three or four minutes, increased in number to one about every thirty seconds. The most singular effect, however, was that the pulse rate during the interruption after the first pain, during which the current was used, declined to eighty per minute, and for twenty minutes the pulse did not rise above that number. Besides *during* the second pain the pulse fell to sixty beats per minute; subsequently the pulse did not vary either during or between the pains. After twenty minutes it rose to a hundred, and as I came to the conclusion that mechanical interference was necessary, I applied the forceps and delivered her. Another striking effect was that before the current was used the woman was very fatigued and worn out, and every pain tried her much, but immediately upon the application of the galvanism the careworn expression vanished, and the subsequent pains were not so trying, although she still felt them, but not so severely. Mother and child went on well.

CASE 3.—Mrs. C——, third confinement, July, 1879. Soon after midnight, when I saw her for the first time, the os was half dilated. Cranial presentation, first position. The pains had commenced at about 3 o'clock on the previous afternoon, and there was about five minutes interval between them. At 4 A.M. I was called again, the os was nearly dilated. The pains had become very slight, and soon disappeared entirely. Pulse 140. She looked worn out, and complained of faintness, which was the reason I was called. As there was no obstruction I gave a dose of ergot, and applied the coil. Neither had the slightest effect of producing uterine contractions, although the abdominal muscles responded freely. In less than half a minute the pulse rate was lowered to 108, and all the sense of fatigue disappeared. As all the bad symptoms were arrested, I gave her a sedative. Eighteen hours afterwards the pains commenced again spontaneously, and the child was born at 10.40. The placenta was, as in previous labours, entirely adherent. She had a good getting up.

The first consideration we will take will be that of the sensation of pain. In Case 1 this was almost entirely removed by the current, while in Case 2 it was lessened, and in other instances not quoted it continued more or less severe. As we find that the induced current has such a variable effect upon the pain during labour, we think it is impossible to ascribe the whole of it to the sensation caused by uterine contraction, and we think there is another factor usually present which partakes of the character of neuralgia. This conclusion is founded partly upon the fact that the pain is not in proportion to the intensity of the uterine contractions even during the same labour, and partly that when the pain is disproportionately severe, there usually accompanies it other more or less distressing symptoms, such as nausea and vomiting, or the peculiar sinking feeling at the pit of the stomach; and besides, we find that pain is excessive more commonly in weakly women whom we should expect to suffer from neuralgia, rather than in those of a phlegmatic temperament. Of course allowance has to be made for the circumstance that one woman will bear with fortitude the pain which will demoralise another, also for the mechanical difficulties attending the dilatation of the maternal soft parts, and for the relative sizes of the child and mother. If this division be made, it is not more difficult to understand that the induced current will remove the neuralgia attending labour than that it will frequently do the same in other cases, while in no instance in which, when present, was the sinking feeling entirely removed, and I have not as yet met with a single instance of vomiting after the current was applied, although in several it was previously incessant.

As regards the influence of the current upon the pain produced by the second factor—namely, the uterine contraction—it may be stated, in short, that it is slightly diminished. One of the best methods of testing this question is by observing that when the contractions are intensified and prolonged under the influence of faradaism, the woman does not complain of their being more painful; and in one instance I was even begged to discontinue the current because "the pains were no good," although the pressure upon the child, as perceived by vaginal examination, was much more considerable than when the current was omitted.

Very nearly allied to the subject of pain is the constitutional effect of galvanism upon the woman. In Cases 2 and 3 the current was not used until the patient was prostrated, and her pulse rapid. In the former case not only did the fatigue disappear, and the pulse become slower, but the pains were absolutely intensified; while in the latter the prostration was removed, but no uterine contractions could be produced. These are the only two instances I have met with, because the patients in the other confinements allowed the coil to be applied before prostration became manifest.

Faradaism has a very striking effect upon the pulse rate during parturition, having a tendency to equalise it. If the rate be normal, the pulse is slightly quickened both during its use and also during the intermissions. But should the rate be much too rapid, it is lowered, and usually approaches the same number per minute as that to which in the former instance it rises. Taking an average, the number of the pulse beats per minute under the influence of the current is about 90; and this does not alter, as a rule, during or between the pains. It may be mentioned here that the after-pains do not seem to be in any way affected when the current has been used in labour, nor has anything gone wrong in any one case subsequently.

From what has already been stated, it is comparatively easy to say beforehand what patients are the most likely ones to be affected favourably by the induced current—viz., (1) those of a nervous temperament, who are easily excited, and who usually feel pain acutely; (2) those who have sympathetic disturbances, such as vomiting and hiccough; (3) those who require stimulation.

In my opinion, the best way of applying the current is to place the electrodes (each being about three inches in diameter) upon the abdomen over the motor points, these being retained in their proper places by the binder. It is very easy to make flat electrodes of spongio-piline by running through the waterproof covering several wires in different directions. Large electrodes are preferable to small ones, because the same current spread over a large surface is not felt so acutely as when it is concentrated into a small space. For the relief of pain a very mild current is only required, but for the production of uterine contractions a variable strength is necessary.

P.S.—Since writing the above I have used the induced current in forty-one cases. In all there was a diminution of pain, which was well marked in most. With one exception the uterine contractions were increased. In the exceptional case ergot likewise failed, and forceps were necessary on account of uterine inertia. Two women had sickness; one of whom suffered from bronchitis, and retching was induced by her cough. In the rest vomiting and nausea, when present, were almost instantly relieved. In every case the mother and child did well. The after-pains were in no way altered. In one case the current was applied for the relief of false pains ten days previous to her confinement, but was ineffectual.

Ladbroke-grove-road, W.

TWO CASES OF ANGIOMA.

By EDWARD LAWRIE, M.B. EDIN.,
PROFESSOR OF SURGERY, LAHORE.

IN April, 18—, a well-built, powerful Hindoo presented himself at the Calcutta Medical College Dispensary with a small fibrous tumour over the superior border of the right scapula. It was not attached to the bone, but was not freely movable. On this account I hesitated to operate on it, as the patient wished, in the dispensary; but as there was a crucial cicatrix over the swelling, left by a previous attempt on the part of a barber to excise it, I thought this might be the cause of its want of mobility, and proceeded to perform the operation.

Nothing unusual occurred at first, but with the final sweep of the knife to sever the last connexions of the tumour the most violent hæmorrhage took place I have ever seen. We were quite powerless to stop it till, in a few seconds, the patient fainted. I then managed to apply sufficient pressure to prevent its recurrence until I had held a consultation with my friend Dr. Bovill, who agreed to ligature of the subclavian inside the thyroid axis. When this had been done, with an antiseptic catgut ligature, the pressure was removed. Bleeding recurred, but was at once stopped by crucial transfixion and ligature of the vessels *en masse*. This was an extremely difficult procedure, because of the close and deep relation of the vessels to the mobile scapula. The same cause precluded the application of ligatures in any other way, as well as permanent pressure.

The patient rallied badly after the operation, and died on the third day.

On examination of the tumour and the wound, it was found that an angiomatous mass connected, as it were, the tumour with the soft parts about the upper border of the scapula. The growth itself was solid and fibrous, except at its base, which was occupied by a mass of tortuous dilated bloodvessels. No further post-mortem examination was allowed, and we were unable to satisfy ourselves as to the exact anastomosis which kept up the bleeding after the first part of the subclavian was tied.

This case, though disastrous, was sufficiently interesting, the more so as, within a short period, I had an opportunity of seeing a similar one, in the practice of the late Professor of Surgery in Calcutta, Dr. Gayer. In this instance the tumour occupied the lower and inner part of the thigh, and there was nothing whatever to indicate its angiomatous nature except, as in the first case, a deficiency of mobility. Dr. Gayer attempted its removal. From the commencement of the operation there was free bleeding, notwithstanding the use of Esmarch's appliances; but while the incisions at the base of the tumour were in progress it became so uncontrollable that Dr. Gayer promptly amputated the thigh, as the only possible means of arresting it. The limb was examined, and a large network of immense tortuous vessels was found occupying the base of the tumour, which was otherwise solid.

The extraordinary difficulty of controlling the circulation, which necessitated amputation, was explained by the state of the femoral artery. This vessel was dilated, atheromatous, and extensively ossified, so that not only was there no pulsation in the tumour in the first place, but the pressure of the elastic cord produced no effect on the calibre of the artery and the flow of blood through it during the operation.

Lahore.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium

UNIVERSITY COLLEGE HOSPITAL.
[THROAT DEPARTMENT.]
PARALYSIS OF THE CRICO-ARYTENOIDEI POSTICI OR DILATORS OF THE GLOTTIS.
(Under the care of Dr. POORE.)

G. S——, aged thirty-three, a carpenter, complained that for the last twelve months he had had a feeling "as if he breathed through muslin," and further stated that when he ran or exerted himself the breathing became stertorous. The voice was unaffected. On laryngoscopic examination the laryngeal mucous membrane had a normal appearance. During phonation the cords approximated thoroughly; during inspiration there was no abduction of the cords; the glottis remained a mere chink, and no effort of forced inspiration served to increase the distance between them. During expiration the distance between the cords was much greater than during inspiration. The arytenoid cartilages presented the appearance of being tilted backwards. He stated that sixteen years ago he had "a lump as big as his fist" on the front of his throat, and that one of his sisters had the same thing. This was probably an enlargement of the thyroid body. There was no lump or enlargement of any kind when seen; could swallow without difficulty. When pressure was made upon the posterior margin of the alæ of the thyroid cartilage there appeared to be some undue tenderness. There was no evidence of any intra-thoracic tumour; no paralysis of the tongue or palate; no want of laryngeal sensibility. There was a doubtful history of syphilis ten years ago. Patient said he had got thin lately, and looked depressed; suffers from pain under the eyes, and says that for the past three months he has occasionally, when at work, "felt shaky all over, especially in the head and eyes." There is no lead line; no tremor of the limbs; no symptoms of ataxy; no muscular wasting.

Remarks.—This patient was evidently suffering from that rare condition, paralysis of the crico-arytenoidei postici or abductors of the cords. All other muscles of the larynx, the adductors, and tensors, seemed to act perfectly. The cause of the peculiar appearance of the arytenoid cartilages was not evident. The cause of the want of power in the abductors was doubtful. The condition of the patient was more suggestive of hysteria than of any organic disease affecting the origin of the pneumogastric nerves. There was no evidence of any injury to the muscles themselves, or of any injury to the recurrent laryngeal nerves in their course. The patient was given iron and iodide of potassium, and was lost sight of when the hospital was closed for alterations during the past autumn.

PARESIS OF THE ADDUCTORS OF THE CORDS.

This condition, which is the one which gives rise to the so-called hysterical aphonia, is perhaps the most common of all the paralytic affections of the larynx. The paralysis is seldom complete, and therefore the term paresis seems preferable. Two cases occurred in girls aged respectively sixteen and eighteen. They were both completely aphonic, and quite unable to speak above a whisper. They were both anæmic, both suffered from globus hystericus, both were much troubled by vomiting after meals; and in both a furred tongue, with enlarged papillæ at the tip and edges, gave evidence of a condition of gastric catarrh. A laryngoscopic examination showed that the larynx was healthy, but that during attempts at phonation there was scarcely any approximation of the vocal cords, and that of a tremulous, hesitating character. The application of faradaism directly to the larynx was tried in both cases. It produced a momentary monosyllabic cry of discomfort, but no permanent benefit, and its use was not persevered with. The treatment was at first directed towards the relief of the gastric condition by the administration of mercurial purgatives, and this was followed by the treatment of the anæmia. A mixture containing perchloride of iron was ordered, combined with sufficient exercise and a nutritious diet. In both cases the aphonia had completely disappeared at the end of a few weeks.

The third case was that of a boy, aged twelve, who was completely aphonic, and had been previously treated for laryngitis. An examination of the larynx showed an extreme degree of paresis of the adductors of the cords, combined with a very marked anæmia of the larynx. The patient was an anæmic, delicate-looking lad, but the pallid condition of the laryngeal mucous membrane was far greater than that of any other part. It was indeed a real case of what has been described as laryngeal anæmia. He was treated by the administration of cod-liver oil and steel wine, and after a few weeks his voice became normally strong.

Remarks.—These patients are always *aphonic* rather than *hoarse*. Hoarseness is characteristic of thickening or roughening of the glottic aperture, which in these cases is never present, and accordingly we find that true hoarseness is very seldom observed. This form of vocal palsy, although often occurring in hysterical women, seems to be due in most cases to anæmia, and is probably caused by an actual want of muscular power in the adductor muscles. When the anæmia disappears, the voice returns, and it is very seldom necessary to have recourse to local treatment of any kind. The throat should not be coddled, but should be rather stimulated in moderation by the use of cold water. Fresh air is always necessary for these patients, and they should be made to take daily exercise out of doors.

OZÆNA.

In several cases of chronic inflammation of the nasal and pharyngeal cavities giving rise to offensive discharge, Dr. Poore has found decided benefit result from the use of a stimulant and antiseptic snuff having the following formula: biborate of soda, nitrate of bismuth, of each one drachm;

disulphate of quinine, ten grains; iodoform, five grains. This snuff has the effect of stopping the fetor and greatly diminishing the amount of discharge from the nostrils. It is liable, as are all snuffs when used for similar conditions, to cake in the nostrils, and it is therefore necessary to thoroughly wash out the nostrils once a day. This may be done by means of a nasal douche, or the patient may easily be taught to snuff a lotion up the nose and allow it to run out of the mouth. A teaspoonful of glycerine of borax dissolved in a wineglass of tepid water forms an excellent wash for the nose, and with a little instruction patients learn how to wash out their nasal and pharyngeal cavities without the aid either of syringe or douche apparatus. In cases where the ozæna is of a simple kind, not due to caries or necrosis of bone, but rather to a sluggish inflammatory action occurring in a scrofulous subject, considerable benefit is often derived from the administration of the sulphide of calcium in doses of half a grain (in pill), taken three times a day. It is often necessary to cleanse the nasal and pharyngeal cavities with a brush inserted through the anterior nares, and also behind the soft palate, so as to reach the summit of the pharynx. The brush may be moistened with glycerine of tannin, and after the cavities have been cleansed a little dry iodoform may be passed into the cavities on the tip of the brush.

NEWCASTLE-UPON-TYNE INFIRMARY.

EPITHELIOMA OF THE UTERUS.

(Under the care of Dr. PHILIPSON.)

FOR the notes of the following case we are indebted to Mr. E. L. Prowde, M.A.

C. B——, aged thirty-one, admitted May 11th, 1880. She admitted to having lived a dissolute life, and to having suffered from syphilis. Four months previous to her admission she suffered from pains in her loins, shooting round her back and down her thighs. Her menstruation was disordered. This was followed by a discharge, "like dirty-coloured water," of a very foul odour. There were also nausea, loss of appetite, and waste of flesh. On vaginal examination a growth was found of about the size of an apple attached to the cervix, fungoid and soft, and easily broken down with the finger. On microscopical examination of the detritus cancer cells were clearly recognised. On June 5th Dr. J. D. Dixon, the senior house-surgeon, with the écraseur removed the mass. The actual cautery was then applied, and ice was subsequently placed in the vagina. On July 4th, upon examination, it was found that the growth had returned. At this time Chian turpentine was administered internally. On July 24th it was noted that the discharge was not so copious nor so sanguineous, and also that it was not of such a foul odour. At the beginning of August, in consequence of the supply of Chian turpentine having been exhausted, the tincture of the perchloride of iron was substituted, but apparently not with the same beneficial influence as the Chian turpentine. The hæmorrhagic discharge again increased, and the pain also became greater. The pain was somewhat relieved by the hypodermic injection of morphia, and also with the morphia and belladonna suppository. Gradually her strength failed, and she died on Sept. 26th.

At the autopsy, the cavity of the peritoneum was found to contain a small quantity of sero-purulent fluid. The liver was firmly adherent to the abdominal walls by old bands. The pelvis was almost entirely filled with a hard white mass, resembling scirrhus, ascending to the pre-vertebral tissue, embracing the vessels and infiltrating the tissues. The same mass extended into the pelvis, matting together the pelvic organs. Attached to and surrounding the cervix uteri was a mass resembling brain tissue, as large as an orange. The body of the uterus was small, but normal. The left ovary was gristly and larger than natural. The liver presented the appearance of lardaceous degeneration. The kidneys were both large and pale, the capsules being adherent, and on section were found to be infiltrated with small nodules, almost like purulent punctures, collected apparently into groups, rather than being dispersed. The interior of the bladder presented raspberry granulations.

Remarks by Dr. PHILIPSON.—The chief interest of this case was the limitation of the disease to the cervix uteri, the fundus of the organ being normal. The cancerous growth had extended by infiltration to the surrounding textures, there being no secondary formations. The Chian turpentine had appeared to have been of service, the hæmorrhagic discharge having lessened during the time of its administration.

LINCOLN COUNTY HOSPITAL.

IDIOPATHIC ANÆMIA TREATED WITH ARSENIC AND DIALYSED IRON.

(Under the care of Dr. MITCHINSON.)

FOR the following notes we are indebted to Mr. W. J. Cant, house-surgeon.

K. J——, aged twenty-four, was admitted on August 16th, 1880, suffering from extreme pallor, having a peculiar yellow tinge, the mucous membranes looking perfectly white and bloodless. She complained of extreme weakness and slight headache, but otherwise no pain anywhere. There was diarrhœa, with occasional vomiting; but these symptoms did not appear until the disease was far advanced. On examining the organs no organic disease could be detected. The urine was free from albumen and bile, and there was no increase in quantity, nor was there any deposit. Specific gravity 1008. The patient took her food fairly well, and there was no pain after it. She was somewhat emaciated, and there was slight œdema of the legs. On auscultation loud anæmic murmurs were heard in the heart and over the cardiac region. No enlarged glands or spleen could be found. The catamenia were regular. The illness dated back for about twelve months, when without any cause the patient gradually lost her colour and became weak.

The blood, drawn with some difficulty, was on examination found to be watery and light in colour. Under the microscope the red corpuscles were seen to be much diminished in number, pale in colour, did not form rouleaux, but collected in heaps; many were irregular, some crenated, and others tailed with variations in size and undergoing movements.

Tested with the hæmoglobinometer the hæmoglobin was found to be only 10 per cent. of the normal. The temperature was raised and the pulse was quick and feeble.

Soon after admission thirty drops of a solution of dialysed iron was ordered to be given three times a day, with a diet of milk, beef-tea, and egg. Under this treatment the patient did not improve and seemed to be getting worse. Indeed, about three weeks afterwards a message was sent in the night that the patient was dying, and when she was visited scarcely any pulsations could be detected at the wrist, and the patient looked as though she could not last till the morning. Two ounces of brandy were given in water, after which her condition slightly improved.

On Sept. 5th three drops of arsenical solution were added to the medicine, and after a few days improvement was seen to have commenced, and the medicine was ordered to be given four times a day. In a few weeks the vomiting ceased, the colour began to appear in the lips and gums and the patient looked much improved. There was no diarrhœa and headache was not complained of. The pulse was fuller and less quick, the hæmoglobin was raised to 30 per cent., and the patient was allowed to sit up in bed.

On Oct. 4th (seven weeks after commencing arsenic) the hæmoglobin was 40 per cent. of the normal, the colour had returned to the cheeks, lips, and gums, and the patient said she felt quite well, and was allowed to leave her bed; and although at first there was marked weakness, she soon walked without difficulty, and in three weeks after the last date recorded she was sufficiently well to leave the hospital and perform her ordinary household duties.

Before leaving the hospital the blood was examined, and found to be of a bright and natural colour, the corpuscles were greatly increased in number, and the hæmoglobin was 75 per cent. of the normal. As regards the family history, the father had some enlarged glands in the neck, which were removed by Mr. Sympson, and there is one sister who is anæmic.

Aug. 16th: Morning temperature 102·0°; pulse 120. Evening temperature 104·4°; pulse 140.—17th: Morning temperature 102·0°; pulse 118. Evening temperature 102·4°; pulse 136.—22nd: Morning temperature 100·0°; pulse 114. Evening temperature 98·8°; pulse 110.—27th: Morning temperature 100·0°; pulse 118. Evening temperature 102·4°; pulse 130.—29th: Morning temperature 105·0°; pulse 140. Evening temperature 105·2°; pulse 144.—30th: Morning temperature 100·0°; pulse 118. Evening temperature 100·2°; pulse 120.—31st: Morning temperature 100·0°. Evening temperature 104·8°; pulse 140.—Sept. 2nd: Morning temperature 100·0°; pulse 120. Evening temperature 103·8°; pulse 138.—4th: Morning temperature 100·0°; pulse 120. Evening temperature, 101·4°; pulse 124.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Long-standing Stone in the Bladder, without Kidney Disease. —The Action and Use of Certain Remedies in Phthisis and Bronchitis.

AT the meeting on Dec. 20th, 1880, F. J. Gant, Esq., President, in the chair,—

Mr. PEARCE GOULD read notes of a case of Long-standing Stone in the Bladder, without Kidney Disease. S. S——, aged seventy-three, was admitted into Westminster Hospital on Aug. 3rd with symptoms of stone in the bladder severely marked. He had to pass urine every ten or fifteen minutes day and night, and had not had a good night's sleep for many years. He was very worn by the constant pain and efforts at micturition. The sound struck a large stone, which was so grasped by the bladder that it was impossible to move the short beak of the sound or open the blades of a lithotrite. Lateral lithotomy was performed next day, Mr. Morrant Baker holding the staff, and five stones removed. The patient at once experienced very great relief, slept soundly and well, was quite free from pain, and for several days went on well; but on Aug. 16th, without any complication arising, he sank and died. At the autopsy the bladder was found contracted to the size of an orange, with greatly hypertrophied walls, the mucous lining showing signs of old chronic inflammation. The ureters were not dilated, and the kidneys were healthy. The stones were about equal in size, facetted, weighing in all two drachms and a half, and were composed of a nucleus of uric acid, with a thick outer zone of phosphates. The points commented on by Mr. Gould were as follows:—1. The impossibility of performing any crushing operation in a bladder so contracted around a stone or stones. In such cases lithotomy must always be the only practicable operation. 2. The justification of lithotomy in a man so worn out. It lay in the entire relief of pain and comfort granted for the remainder of life, even if that be but short, as the man recovered from the shock of the operation, and lived eleven days, dying without complication or intercurrent disease; he may fairly be said to have died *after*, but not *from* the operation. 3. The number of the stones. Five large calculi were removed. 4. The immunity of the kidneys from disease in spite of the hypertrophy of the contracted bladder and long-continued cystitis and presence of a foreign body in the bladder. It was shown that this was probably to be explained by the mouths of the ureters not being obstructed by a band of thickened muscular tissue, as is commonly the case. A probe passed along the ureter slipped at once into the bladder under a fold of mucous membrane. The theories to account for the production of so-called "surgical kidney" were mentioned, and the bearing of the facts of this case upon them pointed out.—The PRESIDENT remarked upon the absence of renal disease rendering the case somewhat unique. Death was, no doubt, caused by exhaustion, and was not due to shock, which, in a patient of so advanced an age, would probably have followed in lithotrity.—Dr. EWART inquired as to the exact cause of death, and as to the condition of other organs, remarking that the immunity from renal disease might possibly be due to the smooth surface of the stones giving rise to but little mechanical irritation.—Mr. ROYES BELL related a somewhat similar case, in which he had performed lithotomy in preference to lithotrity.—Mr. GOULD, in reply, said that the severe sufferings of the patient determined him to operate, and the relief afforded justified the step. The case was quite unsuitable for lithotrity. There were no very definite signs of failure of any one organ, slight emphysema and atheroma of arteries being the only obvious lesions.

A paper communicated by Dr. LAUDER BRUNTON "On the Actions and Use of Certain Remedies employed in Bronchitis and Phthisis," was then read. (See p. 4.)

Dr. GILBART SMITH remarked upon the great value of the paper, and of its practical suggestions. He had often found simple remedies very useful in the arrest of cough—especially the short, hacking cough of phthisical patients. For some years he had been in the habit of prescribing a linctus of glycerine and milk (equal parts) with much success; it was soothing, demulcent, and harmless. He hesitated to give morphia in out-patient practice, knowing the carelessness of the patients as to the quantity taken; and had seen in one case almost fatal results follow from the too frequent repetition of a linctus.—Dr. JOHN BRUNTON could endorse all that the author had said, and gave an instance of the relief of violent cough by the topical application of morphia.

OBSTETRICAL SOCIETY OF LONDON.

Pygopagi Twins.—Eczema of the Nipple in Pregnancy.—Follicular Hypertrophy of the Cervix.—Induction of Abortion.

AT the meeting of this Society on Dec. 1st, 1880, Dr. W. S. PLAYFAIR, the President, exhibited the Conjoint Twins, Rosalie and Josepha Blazet, born in Bohemia in January, 1878. They belonged to the second of the four classes into which he had divided cases of double monstrosity—namely, "Two nearly separate bodies, united back to back by the sacrum and lower part of the spinal column." There is a broad and firm bony junction at the lower part of the lumbar region, the pelvis being obviously completely fused. There are two labia majora, a common urethral and anal aperture, and a double vaginal orifice, the septum separating the two canals being apparent. Sensation is quite distinct, except where the pelves are joined. Delivery was very easy, the mother not having been more than a quarter of an hour in labour. The head and shoulders of one twin were born first. The midwife now used strong traction, and thus delivered the feet of both children, the head and shoulders of the second twin passing last. This was the usual mechanism of delivery in such cases. Delivery is probably easier in this class of monstrosity; and hence, although this class is comparatively rare, a large proportion of the living monsters have been of this type—as, for example, the Hungarian twins, Judith and Helen; and the so-called two-headed nightingale, Millie Christine, exhibited some years ago in this country, and still living.

Dr. THOMAS CHAMBERS exhibited a drawing from a case of Eczema of the Nipple in both Breasts in a woman aged twenty-one, married six months, and five months advanced in her first pregnancy. The disease commenced when she was two months pregnant. After confinement it began to disappear, and no trace remained after six weeks. In two cases of long standing, apart from pregnancy, under his care, the eczema had been cured by treatment directed to the uterus, uterine symptoms having also existed.

Dr. HERMAN showed a specimen of Pedunculated Growth from the Cervix Uteri, removed by the écraseur at the fifth month of pregnancy; no ill result followed the operation, and the patient went to full term. When she came for treatment, she had been suffering from hæmorrhage for three or four months, and for about a week the tumour had been outside the vulva. The tumour measured $1\frac{2}{8}$ by $1\frac{3}{8}$ by $\frac{2}{8}$ in. It consisted of the normal tissues of the cervix, and contained glandular cavities from the size of a marble downwards, lined with cylindrical ciliated epithelium.

Dr. PRIESTLEY read a paper on the Induction of Abortion as a Therapeutic Measure. The author considered that the indications for the induction of abortion, as distinct from the induction of premature labour, had never been laid down with sufficient precision in this country. It was usual to say that each case must be judged on its merits, and this lack of rules might unfortunately lead to serious abuse. Examples had repeatedly come within his knowledge where abortion had been provoked for reasons which seemed to him quite inadequate. Though the medical man was, no doubt, acting in entire good faith in these cases, it would have been very difficult to sustain his action in a court of law. For instance, in one case abortion was induced at the fourth or fifth month on account of a bad rupture of the perineum at the last confinement. In a succeeding pregnancy a sound was introduced, with a similar object, at the end of a month. This, however, had no effect, and she went to full term, and had an easy and natural labour. In a second instance an attempt was made to induce abortion at the second month, because the patient had aborted not long before, and it was feared that pregnancy had recurred too speedily, while a much desired journey would have to be postponed if miscarriage recurred at the same period as before. Fortunately, the attempt failed, and the patient went to her full term. It was often necessary to remind wives and mothers that even spontaneous abortion is often more damaging to health than natural parturition, more frequently lays the foundation of disease, and, if repeated, abridges the period of youth and comeliness. These risks were necessarily greater if abortion was induced. The reasons which may be adduced as justifying the induction of abortion are the following:—(1) Pelvic deformity so great as to preclude the birth of a viable child. (2) Narrowing of genital canal by tumours, cicatrices, or cancer, so as to prevent the passage of a viable child. Great care was here necessary not to overestimate the amount of obstruction. If a series of cases of Cæsarean section, with fair success, should occur, the reasons for inducing abortion in such instances would be undermined. In cases of cancer there was fair ground for Cæsarean section, since the woman had but a short time to live in any case. (3) In obstinate vomiting of pregnancy, when all other expedients are fruitless, and a fatal result is anticipated, if relief cannot be afforded. (4) In eclampsia abortion should only be induced as a last resort, to save life. (5) In irreducible retroversion or retroflexion of the gravid uterus, but only when life is seriously threatened, not merely because the displacement is irreducible. (6) In severe hæmorrhage. (7) In certain other diseases where the complication of pregnancy is undoubtedly endangering life. The responsibility of inducing abortion should never be undertaken without a consultation of two or more medical men, and M. Tarnier had even suggested that a legal declaration should be made to the public prosecutor in every case. He would lay it down that the induction of abortion is only legitimate *when the life of the mother is so imperilled by the continuance of pregnancy that emytying the uterus presents itself as the only alternative to save the mother.* In insanity, chorea, and the like, the proper treatment was probably to treat the morbid condition, and leave the pregnancy to take care of itself.—The PRESIDENT said that it was somewhat curious that this important subject had not previously been brought under the notice of the Society. In one respect we could congratulate ourselves—namely, that so far as his experience went, the induction of criminal abortion was by no means so prevalent as in other countries.—Drs. Barnes, Hickinbotham, Murray, Graily Hewitt, Roper, Edis, Cleveland, and Hayes took part in the discussion, and Dr. Priestley briefly replied.

CAMBRIDGE MEDICAL SOCIETY.

Thrombosis of Pulmonary Artery.—Ruptured Tendon of Biceps Humeri.—The Colourless Corpuscles in Leucœmia.—Malformations in a Fœtus.

AT the meeting of this Society on Dec. 3rd, 1880, Professor Humphry, M.D., F.R.S., vice-president, in the chair—

Dr. ANNINGSON showed the Lungs and Heart from a case of sudden death with extensive thrombosis of the pulmonary arteries and an ante-mortem clot in the right ventricle. The patient, a woman aged about sixty, the subject of chronic bronchitis, was in the hospital for a slight injury to the ankle; she had raised herself in bed, and fell back in a faint, from which she could not be brought round. The branches of the pulmonary artery in both lungs were occupied by tightly-fitting clots of dark purple colour, mottled with greyish-white, granular on the surface, and with the proximal ends rounded or conical. A thin clot in the right ventricle had also the appearance of having formed ante mortem. Death had been from syncope, brought on by the abrupt and severe strain of raising herself in bed. During the syncope the blood had coagulated in the pulmonary arteries, and had made recovery from the faint impossible; an attempt at recovery would only serve to drive the clots farther into the branches of the artery. Referring to the part which the white corpuscles ordinarily play in coagulation, he thought it possible that the tendency to coagulation during life in the puerperal state, and in pneumonia, erysipelas, &c., was due to the excess of white corpuscles in those conditions.—Dr. HUMPHRY had had unusual opportunities of studying the process of thrombosis. When he first had occasion to observe it (in himself) he came to the conclusion that the clotting was dependent, not on the bloodvessels (veins of the lower extremity), but on something in the blood, although the medical attendant, according to the teaching of those days, called it pyæmia, and gave an unfavourable prognosis. Thrombosis is apt to occur at the end of a large number of maladies, the swelling of the limbs that one often sees on the post-mortem table being nearly always dependent on clotting in the veins. It occurs most commonly at the junction of the profunda and saphena veins with the femoral. The presence of valves at the meeting point of two or more veins helps to bring about the coagulation there; the stream of blood may be hardly strong enough to open the valve thoroughly, and it is not unusual to find a small piece of clot as if sheltering itself under the valve. Inflammation of the walls of the vein might follow the clotting, but was not the cause of it. The large proportion of colourless corpuscles in the blood did not appear to him to be a sufficient explanation of the tendency to thrombosis. The latter often occurred when there was no excess of leucocytes, and, for the cases where the leucocytes were in excess, the theory would rather require that the leucocytes should be more than ordinarily ready to part with that ferment to whose agency the coagulation was attributed. It was a remarkable circumstance, that although the veins may be choke-full of these clots, yet they will clear away entirely and leave the vessels as sound as before, and this may happen repeatedly in the same veins. The clot becomes reduced to a thin thread, and the last trace of the thrombosis is a slight staining of the wall of the vein. In the pulmonary artery, the clots are most commonly found at the point where it breaks up into its branches. He related the case of a lady who, having recovered from an easy confinement three weeks before, was sitting at the tea-table and fell dead without any warning. The pulmonary vessels were plugged with ante-mortem clots, which must have been formed for some little time, although there were no symptoms. He had before him a specimen which he had placed in the museum, the only specimen of the kind that he knew of, showing a dissection of thrombosis of the pulmonary artery which had been recovered from. The clots were reduced to firm cords blended with the walls of the vessels. The patient died of erysipelas, with fresh thrombosis of the popliteal and femoral veins, and with these traces of old thrombosis of the pulmonary artery. The woman whose case had been brought forward by Dr. Anningson had been under his (Dr. Humphry's) care in the hospital for about ten days with a slight injury to the ankle. He found her one morning breathing with difficulty, and he was told that she frequently had such attacks, called asthmatic; on the same day she sat up on the bed-pan, and fell back dead. The clots were mostly in the smaller branches of the pulmonary artery, as if there had been simultaneous clotting in the small vessels. As regards the veins of the extremities, he had observed the thrombosis in one attack to begin at the groin and extend down the thigh, and, on another occasion, to begin about the knee and extend upwards. Patients with that condition were usually advised to avoid movements, but he questioned whether the accident of the loosening of a large piece of the clot was at all more liable to occur when the patient went about as usual.

Dr. HUMPHRY showed a specimen from a female subject in the dissecting-room of Ruptured Long Tendon of the Biceps Humeri. The injury is one that can often be recognised during life (by the weakness of the limb, and the muscle drawing itself up into a lump), but he had not seen a dissected specimen of it before. By far the larger number of cases are due to rheumatism, the tendon having become fixed in the bicipital groove. In this case it had been ruptured where it was most liable to rupture—in the part which passes over the head of the humerus. The preparation shows the lower end drawn down and adherent to the belly of the muscle, coiled upon it in the form of the letter S; it looks as if it had been ruptured a long time. In the upper fragment no changes whatever have taken place; it lies within the joint, and its frayed-out end has the appearance of being newly broken.

Mr. SHANN exhibited a patient from the hospital, with well-marked Splenic Leucæmia, and gave an account of observations that he had made on the blood. There was an enormous increase in the number of white corpuscles, the ratio of white to red being about one to five or six. The total number of blood corpuscles was much below the normal standard. On admission there were 70 per cent. of the normal number, but a further reduction subsequently occurred. Among the white corpuscles were a large number of extraordinary size, and often filled with highly-refracting large granules. He had taken the opportunity of verifying in this case the statements recently made by Dr. Cavafy as to the loss of amœboid movements in the colourless corpuscles in leucæmia. He had made several observations, the most reliable of which (at a temperature of 98° to 100°) gave 10 per cent. of the colourless corpuscles as amœboid, while many more retained the power to a slight degree. He considered that the observed absence of amœboid movements would help to distinguish true leucæmia from the merely physiological leucocytosis.

Dr. ANNINGSON showed and gave an account of a case of Ectopia Viscerum, and other malformations in a fœtus. The abdominal wall was open in front, and the whole of the small intestine, the liver, and other organs, formed a bulging mass outside the cavity. The chief point of interest was the absence of the greater part of the large intestine; the ascending, the transverse, and the descending colon were as if omitted, and all that represented the large intestine was a piece of gut in the position of the cæcum, but open in front. This was really a uro-genital sinus, or cloaca, the two ureters opening upon its skin-like surface a little farther down.

Reviews and Notices of Books.

Clinical Lectures, and Cases with Commentaries. By HENRY THOMPSON, M.D., M.A. Cantab., F.R.C.P. Lond., Consulting Physician to the Middlesex Hospital. London: J. and A. Churchill. 1880.

IT is seldom—very seldom—that medical books are produced by the veterans of the profession for the first time embodying facts from their store of experience in pages to be transmitted to their successors. Less frequent still is it to meet with such contributions full of the zeal and freshness which might be expected at an earlier period of life, when experience has yet to come. Nor is this to be wondered at, for after many years spent in the service of the sick, it may well happen that the energy requisite for such a work should be lacking, whilst in view of the constant additions to pathological knowledge, an author might properly pause before venturing to stereotype his "views." These might, it is to be feared, meet with but a scanty recognition. The tide of seekers after some "new thing" flows past his standpoint, and he will be left alone, unheeded, his words of wisdom and fruits of long experience being but impatiently listened to, if he gain a hearing at all. Far otherwise, however, is it with the volume before us, which we venture to think will be widely read, and thoroughly appreciated, even in these days of keen thirst after novelty. It may be said to comprise the chief results of the author's experience during the last eight or nine years of his long term of office as a hospital physician. For this reason alone the book should be valued; but it has other merits. The chief of these are the originality, terseness, and vigour that mark the lectures; which, added to the polished and clear style in which they are composed, must have made them very attractive to the hearers, whilst they cannot fail to charm the reader. They are models of careful clinical analysis; point after point being discussed with precision and a rare freedom from dogmatism. Compared with the lectures of Trousseau or of Graves, they certainly appear brief, but they are, in their way, quite as effective and characteristic as the widely known works of these masters in clinical literature. In a word, they are finished *studies* of cases occurring in hospital practice.

This is high praise. To those who are unacquainted with Dr. Thompson or his work it may sound exaggerated, but it is not more than is deserved. Many of the lectures are reprinted from the journals or Transactions in which they first appeared, but some have never before been published. To enumerate all the subjects which come under discussion would not be possible within the limits of a brief notice like this. It may be imagined that they are of great variety. "Cerebral" rheumatism occupies a prominent place, and the prodromal relation borne by nerve-symptoms (of one kind or another) to the frequently-occurring hyperpyrexia in these cases is dwelt on and emphatically urged as of prime importance. Dr. Thompson does well to enforce this lesson strongly, for upon it depends sometimes a question of life or death. The occurrence of "nerve-symptoms" in the course of acute rheumatism should give the signal for a careful and minute record of the thermometric curve, lest a sudden and rapid rise in temperature place the patient in a condition of peril from which even the most energetic antipyretic measures cannot restore him. The cases recorded by Dr. Thompson fully justify his insistance upon this line of action.

Another subject, discussed in more than one lecture, is heart disease, and particularly pericarditis, great stress being laid by the author upon the tripartite cantering rhythm of the cardiac sounds, which invariably precedes or accompanies the friction sound; and an interpretation of this sign is given which differs from that of Johnson and Hyde Salter. Pneumothorax, intestinal obstruction, various forms of abdominal cancer, abscess of the brain in relation to ear disease and pyæmia, male hysteria, thrombosis of the vena cava, form the basis of other lectures and commentaries, the text of each in turn being a case, of which in the majority of instances the clinical observation has been supplemented by the post-mortem record. The author has done wisely in thus selecting completed cases for his dissertations, for clinical work is only half done when confined to the limits of the ward. There is room for this book and many like it. In this instance the interest and importance of the subjects are heightened by the scholarly manner in which they are treated by their esteemed author, who in his preface characteristically says, "Although I have ventured to lay this book before the profession at large, my main purpose is to leave it as a legacy to the Middlesex Hospital—*in memoriam.*" We trust that some day he may think fit to add further to our obligations, by the issue of more lectures of this stamp.

The Cæsarean Section, &c. By THOMAS RADFORD, M.D. Second Edition. London: J. and A. Churchill. 1880.

THE first edition of this work was published fifteen years ago, and three years subsequently a supplement. In the present edition considerable additions have been made, in which the statistics of the Cæsarean section and craniotomy, and other subjects, are discussed. Brief notes are also given of the modifications of the Cæsarean section proposed by Blundell and Porro, and of the operation—gastro-elytrotomy. Dr. Radford has long been known as an able advocate of the Cæsarean section as opposed to craniotomy; not that he would abolish the latter operation entirely, but he would restrict its field in a very great degree. He writes: "I have been asked by an eminent obstetricist if I dispute that craniotomy may not be resorted to 'to save the mother's life.' In answer to this question I beg most emphatically to say 'Yes.' When her life is jeopardised by some temporary existing cause, and other circumstances, I would conditionally make craniotomy no operation of election." Again: "Two cases, in one of which there is only a limited degree of contraction of the pelvic brim, and in the other an extreme degree of diminution in the aperture, are not analogous. In one—'the first'—craniotomy will only be required to be performed *once*, as, in the event of subsequent pregnancies occurring, *premature labour* may be induced and the *infant thereby saved;* whereas in the other case craniotomy would have to be performed time after time. In such cases my conscience tells me such horrible destruction of life cannot be defended on any ground whatever." Besides the moral argument in favour of the view he adopts, the author brings forward others of considerable weight, such as the loss of maternal and infant life in craniotomy, though statistics with regard to the former are very deficient. Again, he attempts to show, and with great reason, that the high mortality after Cæsarean section is not really the result of the operation, but is in great part due to other causes, some of which may be eliminated. The operation has been often done as a last desperate attempt to save life after craniotomy had been already performed in vain, or after the patient had been in labour for days; when, in fact, there was not the least reason for expecting a favourable issue. It is quite possible that with proper precautions the mortality of the Cæsarean section may be considerably reduced, and that in consequence the operation may be placed in a different position from that which it now occupies. The general opinion and practice of the profession at present are against the views advocated by Dr. Radford; but it is not impossible that with greater care and better methods of operating a more favourable opinion of Cæsarean section may become general.

A Clinical Note-book for Hospital and Private Practice. By F. Royston Fairbank, M.D. Fourth Edition. London: John Smith & Co.

We are strangely poor in convenient forms of clinical note-books. This is a good attempt to supply the lack. It is not quite perfect in form; it has no index, and the pages are not numbered. Besides, it lacks a few notes and tables, physiological and pathological, that such a book should have. But it is one of the best published, and we advise all our readers to begin the year with some such easy means of recording cases.

THE MEDICINE OF THE ANCIENT JEWS.

Our knowledge of medical theory and practice among the ancient Jews is far behind our information with regard to other nations, and it is very small when we consider the large amount of Hebrew literature which has come down to us. The code of Jewish laws contained in the early books of the Bible presents us only with an elaborate system of preventive medicine. On many points, however, on which these books are silent, we may gain some knowledge from the pages of the Talmud, and M. Israel Rabbinowicz has lately collected and republished all the passages relating to medicine which are to be found in the twenty-one books which make up that venerable work. These collected passages have furnished the subject of an interesting series of articles which have appeared in our Paris contemporary *L'Union Médicale.*

As might be expected, the ideas of the Jewish doctors of the law, the chief practitioners of medicine, were of the crudest character. They possessed, however, some vague knowledge of anatomy, and allusions are made to two dissections of bodies, in which the remarkable fact was ascertained that a woman has four bones more than a man—the former being found to have 252, the latter 248. However mysterious the conclusion may be, its definiteness affords proof that the dissection must have been at least thorough. In a curious story is narrated a discussion regarding the position of the lower extremity of the spinal cord. Many of their notions betray, however, very imperfect observation. For instance, they believed that the urethra presented throughout its length a fine septum which divides it into a spermatic and a urinary canal. They believed that by long retention of urine this septum might be rent, and a fistulous opening between the two canals result—a "spermatico-urinary fistula,"—which would render a man sterile. Hence they drew the useful lesson that there should be no avoidable delay in micturition.

The physiology of the Talmud is grotesque enough in some particulars. "The kidneys give advice, the heart understands, the tongue produces articulate sounds, the mouth completes them, the œsophagus receives and rejects food, the trachea produces the voice, the lungs absorb liquids, the liver is the seat of rage, and the gall-bladder throws bile upon it and calms it, while the spleen is the seat of laughter." Amongst other duties of the learned doctors was the superintendence of the slaughtering of animals. Arguing from their physiological knowledge that the trachea and œsophagus are the structures most essential to life, they ordered that all animals should be slaughtered by the division of these only. A certain Rabbi, having observed that this was not a very speedy mode of death, suggested the division of the bloodvessels of the neck, but his advice was overruled.

Pathological descriptions are so vague that it is difficult to identify the diseases indicated. In one case, for example, it is difficult to know whether blenorrhagia or spermatorrhœa is indicated. Venereal diseases appear to have been very frequent among the Jews, for a whole treatise is devoted to them; but the accounts are so loose that we cannot now say what diseases are indicated. Much discussion is devoted to the subject of the various "swellings," but the conditions are not further described. Etiology is not more definite than symptomatology, for the three causes to which these diseases are ascribed are witchcraft, fornication, and inanition. The familiar tendency in pathology to multiply diseases by making slight variations distinctive is one of great antiquity, and perhaps never attained a higher pitch than among the Jews, for they distinguished (but did not describe) no less than eighty-three different diseases of the gall-bladder.

The practical duties of the professors of physic were in part hygienic, and were curiously mixed. They had to select the parts of slaughtered animals which should be eaten. They had to detect and recognise the signs that an individual had passed puberty, the signs of virginity, of sterility, and of impurity. Surgery seems to have been almost unknown, but in their methods of treating wounds &c., a certain rude ingenuity was displayed. In the case of a urethral fistula, for instance, the first object was to ascertain whether the semen escaped by the orifice. If it did not, the escape of urine apparently was of little moment. But, of all disasters, impotence and sterility seem to have been thought the greatest. If the semen escaped the following operation was to be performed. The part was first to be rubbed with a grain of barley, then with fat, and, lastly, a large ant was to be applied to the opening. It would bite and attach itself there and then; the head of the ant was to be cut off and left in the wound, in the expectation that this would be effectually closed when the head decomposed. In a case of fracture of the skull, an ant not being large enough, the absent fragment of the cranium was replaced by a piece of dry pumpkin. The patient lived all the summer with his cucurbitaceous cranium, but could not support the cold of winter. M. Rabbinowicz believes that the Jews had some knowledge of the use of anæsthetics, since we read of an individual to whom was given a "remedy to cause sleep before the abdomen was opened."

The therapeutics of the Talmud consist almost wholly of hygienic rules, although one sage recommended bleeding every thirty days as a preventive of disease, and he also indicated certain days of the year and week on which venesection was most advantageous. The opinion ascribed to Rabbi Banaah may, perhaps, have been general. He said: "Wine is the best of remedies; it is only where there is no wine that drugs are necessary."

THE LANCET.

LONDON: SATURDAY, JANUARY 1, 1881.

IT is a little startling to find members of the medical profession classed as "Commercial" in the *Post-office Directories*. It requires some moral courage to face the official fact that the "art and mystery" of the physician is publicly considered a "Trade"; but the old dictum—or distich—which designated the "learned professions three; law, physic, and divinity," even though the order adopted by the versifier may be fairly reversed, might have been confidently trusted to preserve us from the social ignominy of being classed as commercial men. There is a "Legal" department in the Post-office Directory, and it would have been a great public convenience, as well as a simple act of justice to the profession, if there had also been a "Medical" department, giving the names and qualifications, and perhaps the principal hospital appointments, of medical men—an improvement which, looking to the omission of names from the "Commercial" and "Trade" sections, could scarcely have added half-a-dozen pages to the bulk of the already large volumes. We commend the suggestion to the commercial instinct of the promoters of the Post-office Directories, in view of their next issue.

Meanwhile it cannot be gainsaid that the medical, like every other profession, *has* a commercial aspect; and if this is to be, somewhat offensively, thrust upon our attention, and upon the notice of the public at the commencement of each new year, it will be only just, and may be prudent, that we should take this phase of our social relations into serious and practical consideration. The time has passed, perhaps for ever, when the professors of physic could claim to practise solely, or even chiefly, for the advantage of the community, and the humane gratification which the relief of suffering always affords. Setting aside the craft of the apothecary, which was from the first a trade, Medicine used to be a calling affected by none save gentlemen and scholars, who "went out," as the phrase was, from their university, "in Medicine" as in Divinity or Law. The doctors of physic who practised as physicians were then something more than graduates in technicology; they were men of general culture. A great change has come over the medical profession in this respect. The progress of technical knowledge has, or is *supposed* to have, led to the neglect of literature and science—in its wide scope—for the specialties that make up what is called a "medical education." Possibly this change has necessitated, certainly it has in some way brought about, the introduction of an order of men and minds into the medical profession which were not in old times attracted to it. A glance down the lists of the working, as distinguished from the more ornamental, bodies that people the world of science, will show that the names of medical men of the present generation are chiefly conspicuous by their absence. The reason is not far to seek. It is not that the physicians and surgeons of to-day are less scientific than those of an older date—we had almost written *age*, so great was the difference. On the contrary, their acquaintance with the technicalities of science is incomparably more precise and practical than that possessed by their predecessors, but they are too much engrossed with the busy—marketable—work of their profession to command the "leisure" which makes learning a pastime and the pursuit of knowledge a pleasure. It is not a pleasure to be hunted from covert to covert with the baying of a pack of examiners at one's heels. The modern system may tend to the development of a devouring greed for intellectual food; but it will be strange if the next generation, in the sequence of heredity, finds that the "culture" so accomplished has actually proved ennobling. In short, there is an ever-present danger of the sort of *education* this system fosters suddenly degenerating into a process of "cramming" instead of culture. The safeguard—though a sorry and ignoble protection at the best—against this evil may be the recognition of that "commercial" aspect of medical work which is now forced upon us. Already it is beginning to be whispered in the nooks and corners of the medical academia that the test of practical—that is, "commercial" or market—value must be applied to the details of the professional curriculum.

Again, in the active part the medical profession plays in the world, it is beginning—and not too soon—to perceive, and in some sort to assert, its commercial character and claims. If, indeed, we are men of commerce, it is nothing more than just that we should claim a fair recompense for the pains we expend in the service of the public. As yet, it is to be feared, this logical consequence of the commercial status attributed to us is not clearly recognised. We are to be classed and treated as commercial men, but we are not, forsooth, to consider our commercial interests. The practitioner of every other craft except the medical may make gain an object, but the medical man must ever adopt his scale of fees to the convenience of those who should be in need of his services! Why, in the name of common sense, should this be expected of *us?* The baker does not bestow any great wealth of benevolent consideration on the need of his customers, although he deals in "the staff of life," without which they would probably die of starvation. Why should the medical man be asked to accept a nominally inadequate requital for his services on the parallel ground that without the assistance he could render the sick may die of disease? The humanitarian aspect of medicine as a calling has been strained to suit the false sentiment of a maudlin age until it has become ridiculous. The money value of the work done gratuitously for society by medical men in connexion with hospitals, dispensaries, and in their private capacity is enormous. No other profession or trade contributes anything even comparable with the service freely given by the medical, looking solely to its money value! And this will continue to be the case so long as we forbear to read the lesson of prudence pointedly inculcated by the place assigned to us in the Post Office Medical Directories.

We are quite prepared to accept the onus of taking the lead in a strong recommendation that the medical profession should signalise the year on which we are entering by a more politic regard for its own interests. Those interests are not incompatible with the good of society, and it is high time the practitioners of medicine began to think of themselves and the families depending upon them. It is a morbid sentiment that makes us cling to the traditions of the past, now that those traditions have been ruthlessly uprooted. As regards hospital work, the popular delusion that physicians and surgeons are recouped for their labours by the opportunities of gaining experience, should be shown to be a myth. As a matter of fact, the great bulk of the profession has nothing whatever to do with hospitals, and never had, except while *in statu pupillari.* It is also apparent that the public do not set a very high estimate on the value of hospital appointments, seeing that some of the most successful and most widely known practitioners are not connected with public institutions. It has been the fashion for the most enterprising men in the several branches of medical work to seek and to hold hospital appointments; but this does not prove that these men are in any fair degree recompensed for their exertions, and as a matter of experience, we believe, it will be found that the services thus rendered are not even acknowledged. The sacrifice of time, strength, and, in too many instances, of health and life itself, is final. Meanwhile, the great bulk of gratuitous practice, whether in connexion with hospitals and dispensaries or in private, is chiefly noticeable for the pecuniary loss and injury it entails on the general body of the profession. We want a little plain speaking on this subject, and as a word peculiarly in season just now, let us say the profession would not be less truly "humane" or "public-spirited," if it thought a little more of its own interests and those of its most hard-worked and humbler members, and if the exercise of the gracious gift of charity were a little less demonstrative, and began at home.

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THE movements of plants have attracted attention from a very early period; and although at one time the absence of the power of locomotion was regarded as one of the characters by which plants could be distinguished from animals, the partial movements of such organs as the leaves and flowers were familiar to all, and probably constituted the basis of the ancient legend of the metamorphosis of animals into plants. In the great majority of instances the movements observed were referred, as in the case of climbing plants, to the act of growth directed in a singular and exceptional manner, or to variations in the hydrostatic conditions present, or merely to the action of heat or light, without any attempt being made to explain them further. There were some instances, however, in which it was seen that they were of a more complex and remarkable character, and that no such explanation was admissible. The movement of the leaves of the sensitive plant, of the singular leguminous plant Desmodium gyrans, of the Dionæa, and others, were too sudden and too obviously produced or affected by stimuli to allow them to be referred to growth, or changes of temperature, or of light; and it became requisite to admit the possession by plants of a certain degree of irritability analogous to that of animal tissues. Various observers (as SACHS, DE VRIES, VINES, and FRANK) have of late years turned their attention to this interesting subject, but none with greater ability and success than Mr. DARWIN. In 1875 he published an essay on the "Habits and Movements of Climbing Plants," in which work he demonstrated that the climbing power was the consequence of the exaggeration of a form of movement common to many plants. He observed that the tip of every climbing plant is constantly performing gyratory movements, to which he applied the term "circumnutation"; for if minute spiculæ of glass or a bristle be attached to the tip, and a tracing taken by allowing the spiculum to rest against a plate of smoked glass, indisputable evidence of the direction and rapidity of the movement can be obtained; the tracing forming, not indeed, as it should do, considering the plant is growing, a circular spiral, but irregular elliptical or oval figures. Now, these movements are partially due to the increased growth of the side which for a time becomes convex, and this is preceded by a state of increased turgescence of the cells on the convex side, and, as Mr. DARWIN believes, by a certain degree of increased extensibility of the cell wall. His more recent researches, which have just been published under the title of "The Power of Movement in Plants,"[1] have led him to the conclusion that circumnutation is not limited to tendrils and the tips of climbing plants alone, but is far more widely distributed through the vegetable kingdom—in fact, that it is a power possessed and actively exerted in every growing part of every plant, though often only on a small scale. Even the stems of seedlings, before they have broken through the ground, as well as their buried radicles, circumnutate as far as the pressure of the surrounding earth permits. In the volume to which we have just referred, Mr. DARWIN gives the tracings, magnified, of the movements performed by the radicle of a seed of Brassica oleracea, and others of the radicles of Githago, Oxalis, Citrus, and many familiar plants. In all instances these tracings form irregular zigzag but more or less elliptical figures, indicating a gyratory or circumnutatory movement of the tip of the radicle. Similar tracings obtained from the epicotyl or plumule of a growing seed gave the same indications of movement. It is remarkable that in all instances examined —and they were many—the plumule of a growing seed breaks through the ground, not by its tip, but in the form of an arch, and thus, as HABERLANDT has shown, the tender apex is saved from abrasion and pressure whilst breaking through the ground. Mr. DARWIN adds that increased force is gained, since the crown of the arch is pushed up with just twice the force that would otherwise be exerted. In the case of the common bean the epicotyl after the apex had freed itself from the seed coats, grew upwards with a force sufficient to lift a thin plate of zinc loaded with twelve ounces.

The irregularity of the ellipses formed by the growing radicles of plants naturally suggests that causes are in operation to modify what would otherwise be uniform and regular, and Mr. DARWIN'S observations have shown this to be the case. The radicles of plants may be said to be primarily affected by gravity which leads them in their growth to penetrate the earth; or, to express the fact shortly, they are geotropic. In the next place they circumnutate, the importance of which is that it enables them to take advantage of crevices and spaces, such as worm burrows, existing in the soil. But in addition, a special kind of sensibility, or rather of irritability, appears to exist in the tip, and yet another in that part of the radicle which is a little above the tip. The tip is sensitive to any steady and continuous pressure on contact, and conducts an impression, which leads the part above the tip to bend away from hard or irritating objects, and enables the tip, in conjunction with the circumnutatory movements, to pursue the lines of least resistance in the soil. The part above the tip, on the other hand, so reacts to direct pressure or irritation as to cause the apex of the radicle to bend, not away from, but, like a tendril, towards the object touched. The radicles of the bean and pea exhibit these peculiarities in a very marked manner. Then, again, the tip is very sensitive to moisture, and possesses a strong tendency to bend towards the source of the moisture; and, lastly, the roots of plants are excited by light, and bend in some instances to, but usually from it. Their course through the soil is thus governed by extraordinarily complex and diverse agencies. The sleep or nyctitropic movements of plants are full of interest. These movements are due partly to turgescence of cells, especially of those forming a pulvinus at the base of the leaf or leaflet, and partly to alternately increased growth on opposite sides, and they beautifully illustrate the theory of evolution; for whilst they are primarily only circumnutatory movements, by undergoing special modification they come to be of particular service to plants, effecting the protection of the upper surfaces of their leaves from radiation into the open sky, and also protecting them from cold by approximation. No exception was found to the rule that leaves which sleep continue to move through the whole twenty-four hours, though always more vigorously on going to sleep and on awaking. Light appears to act especially on the young and growing parts of plants. Mr. DARWIN finds that there are thirty-seven genera, in which the leaves or leaflets rise, often moving at the same time towards the apex or towards the base of the leaf, and thirty-two genera in which they sink in sleep. In his observations on leaves and stems, Mr. DARWIN finds that, on exposure to light, they almost uniformly bend towards it, or are heliotropic, and this he believes to be due to augmented turgescence taking place along one side. It does not seem clear, however, nor does Mr. DARWIN attempt any explanation, why this turgescence should occur on the side away from the light. Other leaves are apheliotropic. Increased turgescence is commonly followed by increased growth, so that a plant which has bent itself towards the light during the day would be fixed in this position were it not for apogeotropism acting during the night. During the day most leaves and cotyledons dispose themselves transversely to the direction of the light—a movement to which he applies "diaheliotropism," and which he again considers to be due to modified "circumnutation." Some seedling plants exhibit extraordinary sensitiveness to light; the cotyledons of Phalaris, for example, become curved towards a distant lamp which emitted so little light as to throw, at the distance at which the plants were, no shadow from a pencil upon a white card. Other seedlings kept in a dark place were laterally illuminated by a small wax taper for only two or three minutes, at intervals of about three-quarters of an hour, and were all found to bow towards the point whence the taper had been held. Most, if not all, of the movements of plants due to the action of light appear to be a modification of circumnutation. Another interesting fact in some seedling plants is that the uppermost part alone is sensitive to light, and transmits an influence to the lower part, causing it to bend. Hence, if the upper part be wholly protected from light, the lower part may be exposed to it for hours, and yet does not become in the least bent, although this would have occurred quickly if the upper part had been excited by light. The discovery of the general fact of the movement of the growing parts of all plants must have been a matter of special self-gratulation to Mr. DARWIN, for it removes one of the difficulties—and by no means a trivial one—in the way of the theory of evolution; for it might, as he observes, well be asked, How did all the diversified movements of plants, for the most different purposes, first arise? As the case stands now, movement has been ascertained to be always in progress, and its amplitude or direction, or both, simply undergo modification for the good of the plant in relation with internal or external stimuli.

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[1] London: John Murray, Albemarle-street.

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THE last three meetings of the Pathological Society have been almost exclusively occupied with a discussion on Rickets, and we may fairly presume that those who have been specially working at this subject have availed themselves of this opportunity of publishing their results and elaborating their views. The debate has been very fully reported in our columns, and we must therefore refer our readers to those reports for the expressed opinions of individuals, while here we draw attention to one or two of the points raised. But first of all we must warn those who read this debate that they will find but little of the nature of fact or recorded observation, while there is abundance of theory and opinion, more or less valuable. Nor is this because the disease is one of which the facts are already well and fully known, or difficult to arrive at. If there is one malady which thrusts itself before the gaze of hospital surgeons and physicians, almost *ad nauseam*, it is rickets, and possibly it is in this abundance of the material at hand that one reason of its apparent unattractiveness lies. It was only in the closing speech that a word was said as to the condition of the blood in rickets, and not one speaker made any reference to the chemistry of rickety urine, if we exclude a remark—a query — of Dr. HILTON FAGGE'S, which was at once replied to by Sir WILLIAM JENNER. Nor was the composition of rickety bones more satisfactorily dealt with; the only observation on this point that could lay any possible claim to the name of fact was to the effect that the proportions of animal and earthy matter were the same in rickety and healthy bones, as shown by rough analyses of two specimens of each. So little interest was evinced in the matter that no one of the subsequent speakers ever alluded to this result, so diametrically opposed to commonly received notions, and the evidence of our unaided senses. The histology of rickets was also but slightly touched upon, and certainly no light was thrown upon its difficulties. Indeed, with few exceptions, the speakers were at greater pains to ask than answer questions, and appeared to labour under the pleasing delusion that there was an omniscient spirit—the Society—to whom they might propound their theories and state their problems, and await patiently, but confidently, for final criticism and answer.

There is certainly agreement among all English authorities that in no just sense can rickets be called a local disease; like other general maladies, its local effects may often be obscure to a careless and superficial observer, the general systemic derangement, while again in other cases this is very marked, without or previous to striking local deformities. In all this there is nothing novel. To many it has appeared strange that the suggestion should ever be made that the parent of rickets is syphilis, and the present discussion contains more than one weighty opinion and observation to refute this suggestion. Sir WILLIAM JENNER evidently thought it hardly worthy of serious discussion, as the facts by which it can be set aside are known to all practitioners. But far otherwise is it with the other question, as to whether syphilis plays any part in the production of rickets. Both diseases are so common, and common among the same class, and in the same conditions of poverty, dirt, and neglect, that to prove a negative must be difficult. Yet we may fairly say that no evidence was brought forward to show that there exists any close relationship between these two affections; while, on the other hand, there are no facts known to lead us to suppose that there is any antagonism between them, and that one protects from the other. Indeed, he would be a bold man who would refuse to think that the debility induced by congenital syphilis may not render the child particularly liable to become rickety if under suitable conditions. A good deal of attention was directed to the subject of cranio-tabes, introduced into the discussion by Drs. BARLOW and LEES. We have already pointed out that, valuable as are their researches and results, they cannot be held to be decisive on the essentially syphilitic nature of this change. The delay in the ossification of the bones, evidenced by the widely open fontanelles, is so characteristic of rickets that, even if the softened condition of the posterior inferior angle of the parietal bones be demonstrated to be due to the influence of inherited syphilis, it will still remain a question whether that influence be not solely exerted in localising, perhaps also specialising, a really rickety affection. The frequent occurrence of Wormian bones just at this spot in the lambdoidal suture suggests the inquiry whether they are in any way connected with the tabetic change.

A very valuable contribution to the etiology of rickets was made by Dr. BAXTER, who has carefully studied the life history of about 120 consecutive cases of rickets. He is of opinion that the disease is the result not only of general bad hygiene, but particularly of a too early administration of starch to children unable to digest and assimilate it. This is a view that has been long held by many others, but Dr. BAXTER has done good service in making an effort to define exactly the part starch feeding plays in causing the disease. His figures will be found in our report. They show that while the place in the family, previous ill-health, heredity, and other circumstances, appeared to have but small, if any, influence, starch feeding was practised in an overwhelming majority of his cases. How the starch acts is a far different question to determine, and, indeed, before we can accept the starch theory at all, there are some apparent difficulties that require to be removed. One of these is the rarity of rickets in country districts in England, where it appears to be limited almost, if not quite, exclusively to towns; another is the rarity of rickets in America, and its absence in certain parts of India. Very probably information on these points may show that they support rather than confute the starch theory, which has, beyond direct evidence, much *à priori* reason in its favour. The absence of starch in milk, which so completely nourishes the infants of all mammalia, not only shows that it is an unnecessary article of diet at that age, but suggests, if no more, that it would be actually harmful. But even if we grant that starch feeding be the most common cause of rickets, need we refer all cases to it? Is it such a special disease that it has for its cause only one improper food element? There are strong reasons for doubting this. The first is that starch feeding is the greatest, most constant, error in the diet of infants; another is the frequency with which acute diseases—sometimes also chronic—are followed by the first appearance of rickets; and a third is the occurrence of rickets at and about puberty. No heed was paid to either of these points at the Pathological Society, but there is evidence that can hardly be controverted or set aside that rickets may commence later than in infancy, and as a sequel to other diseases.

In any inquiry into the true pathology of rickets we cannot afford to lose sight of the fact that the physiological processes of infancy are special in many ways. But of all the points in which they differ from the adult, none are more prominent than the inability to digest starch, and the rapid development of the bony skeleton. In the former lies the chief danger in artificial feeding by the uninformed, while it is on the latter that any cause of malnutrition, any change in the proper composition of the blood, will most tell. It is not at all necessary to search for any other reason why the bones are most and most often affected in rickets. They are the tissue which is most influenced, and is most permanently influenced by irregularity in nutrition—for they, as it were, fix any such change. And here we are brought face to face with the question which we asked some weeks ago, whether rickets is clearly specialised at all? Is there evidence of its being the result of a particular nutritive change, such, for example, as has been shown in connexion with scurvy? Is it not a condition of general debility producible by many different causes, but producing its main effects upon the bones which are the parts most influenced by the nutrition of the infant? Mr. HUTCHINSON threw out a suggestion consonant with this view that there may be a close relation between many different forms of disease of bones. It may well be the case, and it is a point to be carefully kept in view in the investigation of the subject. Meanwhile the debate on rickets has been of use, in showing that there are some points of general agreement, we had almost writen some points settled, and of still more use in showing how little of our knowledge is certain, how much is still mere conjecture, and that, common though the disease be, it has not yet lost the interest attached to all unsolved problems.

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THE chief event that has occurred during the year 1880 to interest ophthalmologists is the establishment, under the able presidency of Mr. BOWMAN, of the Ophthalmological Society of Great Britain—an event to which we referred last week. The International Congress of Ophthalmology met at Milan in September, and was attended by a very large number of ophthalmic surgeons. The president was M. QUAGLINO. M. JAVAL exhibited a new ophthalmometer, LORING an instrument for measuring the curvatures of the cornea, and PFLUEGER one for estimating the sensibility of the retina for homogeneous light. Many papers were read; amongst others, one by M. MEYER on Opto-ciliary Neurotomy, which he recommends in some cases in place of enucleation; others were by SECONDI on Detachment of the Retina, by DOR and LANDOLT on Daltonism. The Ophthalmological Section of the British Medical Association met at Cambridge under the presidentship of Mr. BOWMAN, and was well attended. Interesting papers or discourses were delivered by Professor DONDERS, Dr. BRAILEY, and others; whilst the discussions on Glaucoma and the treatment of Cataract were unusually animated and instructive. In regard to ophthalmological literature, a new journal in the French language, devoted to ophthalmology, the *Archives d'Ophthalmologie*, has appeared, under the editorship of MM. PANAS, LANDOLT, and PONCET. The first number contains several good papers, and it may prove a formidable rival to the well-known *Annales d'Oculistiques*. Amongst the more important treatises that have been published, either at home or abroad, may be mentioned a very complete and well worked-up treatise by KLEIN; a translation by Dr. LITTON FORBES of WECKER'S "Ocular Therapeutics"; a work by ROBIN, entitled "Troubles Oculaires"; a treatise on Wounds of the Eye, by M. YVERT; and an instructive series of lectures by Dr. ADOLF ALT of Toronto, on the Normal Anatomy and the Pathology of the Human Eye. Dr. GOWERS has made an important addition to ophthalmic literature in his work on ophthalmoscopy, and v. GRAEFE and SAEMISCH may be congratulated on the completion of their great Handbuch. Lastly, SCHUBERT has published a pamphlet on Syphilitic Affections of the Eye, based upon observations made in the clinic of HERMANN COHN of Breslau, in which the reader will find a good account of the various superficial and deep-seated affections of the eye associated with that disease. REMBOLD has contributed a paper on the condition of the pupil in various diseases of the central nervous system to NAGEL'S *Mittheilungen*. In M. SOUS' "Traité d'Optique" the general relations of optics to the eye and to the ophthalmoscope are given in detail. Several new ophthalmoscopes have been proposed. One by Mr. COUPER, of neat construction, in which the mirror can be shifted to any point of a circle of small lenses, and is at the same time made to swing on an axis, so that the reflection of the lamp can be more easily and fully directed into the fundus of the eye of the patient. His case contains two such instruments, one fitted with convex, the other with concave lenses. M. PARENT has constructed another very complete instrument, consisting of a small obliquely-set mirror of four- or five-inch focus, a set of convex and a set of concave lenses arranged concentrically, a set of astigmatic glasses, and a small sector having a stenopæic slit, and an optometer of Scheiner. The only disadvantage of this very serviceable instrument is the thickness of the successive discs through which the observer has to look. Various papers have been written on the anatomy and physiology of the eye. The most recent, and in some points of view most remarkable, statement is that just made by DENISSENKO of St. Petersburg, to the effect that the fovea centralis of the human eye, contrary to the opinion of most histologists, is traversed by many bloodvessels. These are situated in the molecular layer, but are not found at the exact central spot. The number of the nerve-fibres contained in the optic nerve, and of the rods and cones in the outer layer of the retina, has been the subject of laborious examination by SALZER, who finds that the absolute number of nerve-fibres contained in each optic nerve to be in round numbers 438,000. The number of elements contained in the rod and cone layer, which is much more difficult to determine accurately, varied from three to more than three and a half millions. From a comparison of the maxima and minima he arrived at the conclusion that each optic nerve-fibre gives origin to at least three, and probably to seven or eight, retinal elements. The structure of the retina has been made the subject of careful comparative study by DENISSENKO, the subjects of his observations being fish, birds, and mammals. SCHUELLER demonstrates that the retina is nourished by two sets of capillaries. The proper retinal vessels, which are branches of the arteria centralis retinæ, supply the fibrous and ganglionic layers of the retina and the anterior or internal granular layer. The posterior or outer half of the retina is nourished by the choroidal vessels. SAMELSOHN, from a careful microscopical examination of the optic nerves of a patient whose case he had followed in life, shows that the fibres which supply the macula lutea occupy the centre of the optic nerve at the foramen opticum, and as they pass forwards to the bulb become more laterally and externally situated. GUDDEN has described with great minuteness the decussation of the nerve-fibres in the chiasma. AYRES has examined the vision purple, and obtains it readily by immersing the retina in a 10 per cent. solution of common salt, and then a 2·5 per cent. of a solution of bile. Vision purple strongly resists putrefaction. HEISRATH finds that no such canal as that named "Fontana's" exists. The so-called space is really situated in the angle of the anterior chamber between the iris and the cornea, and is filled with connective tissue. Schlemm's canal, on the other hand, is really a canal, and is a part of the plexus ciliaris. Its inner wall is loose, and permits a free passage to the fluid of the aqueous humour. SCZELKOW has instituted certain experiments which have extended over eight years, to determine whether the curvature of the cornea undergoes any alteration with age, and has arrived at a negative conclusion. The presbyopia of advanced years, therefore, is essentially due to the well-known changes in the form of the lens. BEAUREGARD has studied the histology of the vitreous, but his results, whilst negativing those of former observers, establish but little that is new. PESCHEL describes a new entoptical phenomenon which may be observed when a gas flame is looked at through a deep red glass. A rounded heap of bright irregularly confluent points may then be sometimes seen which undergo certain changes, which he attributes to the action of light on the protoplasm, and which suggests that similar changes in the protoplasm accompany every act of vision. The rapidity of accommodation in the human eye has been determined by SCHMIDT-RIMPLER, who finds that with the same convergence of the visual axes the maximum degree of accommodation occupies 1·64 seconds. The value of the myotic agent, eserine, is becoming daily more and more recognised. The small gelatine discs, now in common use, are extremely valuable in various affections of the eyes. In the first place, in cases of wounds of the cornea near the sclero-corneal junction by contracting the pupil, eserine proves very effective in preventing prolapse, and it is not improbable that it may lead to the reintroduction of the old method of operating for cataract without iridectomy by lessening the danger of prolapse of the iris. In the subacute forms of glaucoma it is often of the greatest service in effecting diminution of the intraocular pressure, with relief of all the symptoms, within the space of a few minutes. It acts essentially on the peripheral branches of the third nerve, but apparently in part as a vaso-motor stimulant, causing contraction of the blood-vessels, and hence a diminution of the fluids in the eye; in part by contracting the pupil, and thus allowing a larger surface of the iris to be applied to the capsule of the lens, practically shutting off the posterior from the anterior chamber; and in part also by opening out the angle of the anterior chamber, and thus permitting a more free drainage of the aqueous humour. It has been warmly recommended by various authors in cases of keratitis and of ulcers of the cornea, especially of the asthenic form, its good effects being referred in part to a stimulant action on the supposed trophic nerves. It has been also found serviceable in cases of idiopathic and of induced mydriasis, and in asthenopia consequent on debility of the muscular apparatus of accommodation. The subject of Colour-blindness is yearly attracting more and more attention. The works of HOLMGREN, COHN, MAGNUS, and MICHEL in Germany, of JOY JEFFRIES in America, of DONDERS and BOUVIN in Holland, of FAVRE and DOR in France, of LUBINSKI in Russia, WOLFE and others in England—all of which have been published during the last year or two,—have demonstrated incontestably the immense responsibility which rests on those who have to control their actions by signals, and the necessity that exists for proper examination and testing of the vision of such officials. There can be little doubt that many of the apparently unaccountable accidents that from time to time occur result from this natural imperfection, and might be avoided in the future if such men were eliminated from a service for which they are physically unfit. Thoughtful papers have been contributed to the pathology of Glaucoma by Dr. BRAILEY and PRIESTLEY SMITH. Great praise is due to Dr. BRAILEY for having shown by careful sections that the condition of the structures forming the angle between the iris and the cornea exercises a potent influence in many cases in the production of glaucoma, for when from any cause the iris and the cornea become adherent and the loose connective tissue normally occupying the angle is obliterated, the drainage of the eye is interfered with, and owing to continued secretion of the aqueous, increased tension is produced, which may easily pass into glaucoma. It is easy to see how the operation of iridectomy and sclerotomy relieve this condition; PRIESTLEY SMITH, admitting the narrowing or closure of the angle of the anterior chamber, attributes glaucoma essentially to enlargement of the lens. HORSTMANN has made a special study of the ophthalmoscopic appearances and functional activity of 3581 myopic patients, and finds that in 1159 cases no visible change was perceptible, while 1683 presented a posterior staphyloma. The acuteness of vision when properly corrected with glasses was normal in the great majority of cases, but in about one-sixth of these cases it was reduced to one-half. Choroiditis, cataract, and detachment of the retina, strabismus, nystagmus, and, rarely, spasm of accommodation were the affections chiefly noticed. NETTLESHIP has described a series of cases of primary keratitis of a peculiar nature affecting the eyes of elderly persons and resulting in the deposit of a crystalline precipitate beneath the epithelium. This form of the deposit is that of a band running horizontally across, but never quite reaching, the periphery of the cornea. It is not unfrequently associated with glaucoma and iritis, and is incurable. Lastly, NEFTEL, KNAPP, AGNEW, and WEBSTER in America, have all directed attention to the possible cure of Cataract by electricity.

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THE faith in local self-government must, indeed, be robust if it remain unshaken by the recent and continuing experience of our political and social palladium as it affects vaccination and small-pox in the metropolis. The very genius of muddle seems to have possession of the metropolitan local authorities in relation to these subjects. Presumed to have the function of preventing, actually they contrive to foster the loathsome disease from which the public would escape, but, as the law stands, have no chance of escaping, except through them. Scarcely has one epidemic passed than we are threatened with another, and learn that in the short period between the ending of the one and the beginning of the other, and notwithstanding our recent experiences of the disease, the duties of the vaccination authorities, if not egregiously neglected, have been apathetically performed. The sanitary authorities keep the vaccination authorities well in countenance; the veneer of sanitary avocation laid upon the hospital authority being largely repudiated by them, while at the same time it is made use of as an additional argument for evading the duty which the hospital authority was empowered to aid them in doing. So that during the period when we should have been most active and energetic in carrying out measures for obviating epidemics of small-pox, our efforts were relaxed, and the conditions permitted to grow up under which our local epidemics of the disease arise. It is in vain the Local Government Board has appealed to the several authorities (even so recently as last week to the sanitary authorities) to recognise the common ground of action which underlies this multifariousness of authority. The appeal has fallen largely on deaf ears, for is not the action of the Central Authority a fair copy, and at the same time a justification, of the narrowness of action of the local authorities? With the Local Government Board small-pox in the metropolis, whether on the vaccination side or the public health side, is, above all things, a Poor-law question; and it would be a sin against all the proprieties of departmental administration, apparently, to deal with the question of the recurring prevalence of small-pox within the metropolitan limits,—of its relation to the state of vaccination, of the provision for isolation in hospital, and, incidentally, of the part which such isolation may play in the extension of disease in the neighbourhood of hospitals,—as if mere provincial small-pox, or even typhoid, or diphtheria, or scarlet fever, &c., which have no special relations with Poor-law administration, were in question.

And here we come upon confusion worse confounded. If it be desired (as it is by many) that local self-government in this matter should be replaced by central government, it should be obvious that the metropolis would merely be stepping from the frying-pan into the fire. Moreover, while we are tolerably familiar with the conditions found in the frying-pan, it is by no means certain that we can forecast (although the experience of the frying-pan and the grumblings therefrom augur the worst) the conditions of the fire. Even local self-government, miserably as it has muddled and still muddles in the metropolis the subjects under consideration, would be a less evil than a central government, which might be possessed of inexhaustible crotchets, and which regards public health matters in the metropolis after a fashion informed by the habits and traditions of Poor-law administration: in other words, a form of administration which, having in sanitary and public health matters failed disastrously in regulating even a workhouse, is held to be equal to the public health requirements of the whole metropolis.

And so it comes to pass—thanks to the apathy of the vaccination authorities, the shortcomings of the sanitary authorities, the anomalous position of the hospital authority, the perverse administrative lop-sidedness of the Local Government Board, and the general want of coördination of these authorities—that the metropolis is permitted to drift regularly into these epidemic extensions of small-pox. Add to the above considerations the negligence of the public in the intervals of epidemics both of vaccination and revaccination, and we have a picture before us which might daunt the most enthusiastic efforts for the betterment of the metropolitan population in this direction.

How far the state of things here indicated may be amended by improved arrangement of the local government of the metropolis, we do not propose to consider here, although we look to such amendment as a primary measure in getting things into better order. We look also to the merging of the peculiar legislation in public-health matters which governs the metropolis in the general public-health legislation of the kingdom as another important step in this direction—a step which would probably relieve the Local Government Board from the anomalous position in which it certainly stands as Central Health Authority in relation to the metropolis. We have to look to the immediate conditions of the case, and to consider in what manner the proceedings of the vaccination and sanitary authorities may, in existing circumstances, be best excited to a healthier action, and the public brought to a keener sense of their position in the matter. We concede that the Local Government Board (as things are) is, perhaps, doing all that can be reasonably required of it in this direction, with one glaring exception. The exception refers to "animal vaccination," so-called.

It is now four months ago since the President of the Local Government Board promised, in the House of Commons, that his department should make arrangements for the cultivation and issue, subject to certain restrictions, of animal lymph. There is good ground for the belief that such issue would overcome much friction in carrying out the vaccination law, and conduce to the greater freedom of revaccination, a consideration of hardly less importance than primary vaccination in the present state of vaccination among the population, and in view of an impending epidemic of small-pox. What has become of Mr. DODSON'S promise? Certainly it has not, to the present time, been performed, and for all that is known to the contrary outside Whitehall it might have been forgotten. It was contemplated, in the first instance, we believe, to start the English supply and cultivation of animal lymph from an original case of cow-pox, a determination much to be approved at the time the promise was given, but which necessarily postponed the carrying out of the promise indefinitely. Original cases of cow-pox appear to be of the rarest in England at present, and if any case had been discovered it is unlikely that the knowledge would not have reached the public ear. But the increase of small-pox in London and the threatening of an epidemic materially alter the state of the case, and lead us to ask whether Mr. DODSON can properly any longer delay the performance of his promise to an indefinite future. Surely in the face of an epidemic, and having regard to the importance attached by many to the use of animal lymph, it is time to forego, at least for the moment, the intention of starting from a new source, and to avail ourselves of the sources of lymph already in existence. We trust that Mr. DODSON, when Parliament meets, will be able to make a satisfactory statement on this matter; not only as to the delay which has taken place, but also as to his Department having been fully alive to the importance, in view of a threatened epidemic, of the early fulfilment of his promise to issue animal lymph.

Annotations.

"Ne quid nimis."

THE NAVAL MEDICAL SERVICE.

WE would gladly have had it in our power in our annual summary to congratulate the Naval Service on a more favourable progress of its medical affairs through the past year than that which we presented. It would certainly seem no difficult matter to have equalised its position before now with that of the Army Medical Department. With that view a committee sat through April and May, and although it dragged its slow length along, yet after a time it did send in its report, which has, we understand, with similar tardiness been adopted. It is said that a new Warrant is now actually in print, and that it comes up in most respects to the late Army Warrant, being in some particulars even more liberal, as it gives 11*s.* a day to its students at Netley, while those of the Army have but 8*s.* a day; it gives permission to retire after twenty years' service, and a better scale of retired pay to fleet surgeons of twenty-five years' service, who have attained fifty years of age, when they will be compulsorily retired on 30*s.* a day, the same as is awarded to Brigade-Surgeons of the Army of thirty years' service. It will be at least pleasing to many junior members of the profession to learn this, and further that, according to the latest rumours, these conditions will be made known previous to the ensuing examination in February.

LODGINGS AT THE UNIVERSITIES.

WE have to express our sincere sympathy with Mr. Haynes Walton in the great trouble that has befallen him in the bereavement of son and daughter from diphtheria; the former from the disease contracted in lodgings at Oxford, the latter falling a victim to her devotedness in nursing her brother during his fatal illness. Mr. Walton has stated the facts connected with the origin of his son's illness in a letter published last week; and the Rev. G. S. Ward, delegate for licensing lodgings, has replied to the charges urged in this letter with frankness and courtesy. Mr. Ward's letter, however, makes one thing plain, that the system of supervising the sanitary arrangements of the lodging-houses at Oxford is very far from perfect, and the University authorities have undoubtedly incurred a very grave responsibility in the neglect of adequate sanitary precautions in the present instance. It appears from Mr. Ward's letter that after the lodgings had been put thoroughly in order under the supervision of the sanitary officer of the City of Oxford, three years were allowed to elapse before any further inspection was made, and during that time no complaints were offered by the occupants—that is to say, the inspector of lodging-houses apparently waits till the sanitary arrangements again break down, and complaints are made, before instituting another inspection. Surely it ought to be a recognised duty to see that the sanitary arrangements of each licensed lodging are in thorough repair and working order before the commencement of each term. In saying this we do not wish to bear hardly on Mr. Ward; doubtless the means at his disposal are quite inadequate to insure a periodical sanitary inspection of each licensed lodging in the City of Oxford, and we are ready to admit, judging from his letter, that he has really endeavoured to do his duty in the position in which he has been placed. The whole blame rests with the University authorities who have established such a sham and inefficient system of sanitary inspection, and it is to be hoped that the present catastrophe will not be without salutary effect in inducing them to appoint a staff of efficient and specially trained officers to undertake a systematic supervision of all licensed lodgings. The sanitary officer of the city should be requested to make a thorough inspection of each lodging once a year, whilst an inspector of nuisances ought to visit it just before the commencement of each term to endorse the licence, supposing he found everything in working order. No student should be permitted to take lodgings unless the licence had been so endorsed. During term time the inspector should be directed to pay frequent visits to the lodging-houses, in order to ascertain that no obstruction had occurred in the house-drainage, and that the ventilating-pipes, traps, &c., were all in working order. Some such scheme is imperatively demanded, and it is quite certain that the present perfunctory system can be no longer tolerated in this age of sanitary light and science. These remarks apply with equal, if not greater, force to the same system at the sister university, Cambridge.

“GEORGE ELIOT.”

“GEORGE ELIOT” is dead. To her intimate friends she was a prophet; to the public she was one of the most remarkable women of her generation; and looking at her large and varied knowledge, at her great intellectual powers, at the breadth and depth of her sympathies with human life and character, at the strength of her imagination, and the whole scope of her genius, it is perhaps not too much to say that she was one of the most remarkable women of all the generations that have gone before. “George Eliot” is dead; and as there will be on the part of our readers a natural, and, indeed, pardonable curiosity to know something of the illness which ended in her death, we subjoin a brief narrative of the facts as they have come to our knowledge.

On Dec. 18th “George Eliot” was present at an afternoon concert, which she much enjoyed. In the course of it her husband, Mr. John Cross, noticing that the place in which they sat was somewhat draughty, proposed to throw her shawl over her shoulders, but she declined the attention with the remark that it was very hot. On Sunday afternoon she felt a little chilly, but was yet well enough to receive and entertain Mr. Herbert Spencer and the other friends who visited her on that day. On Monday morning she was ill, and Mr. George Welland Mackenzie, summoned to see her, found her in a somewhat feverish condition, with symptoms of laryngeal catarrh. On Tuesday morning the laryngeal trouble had almost disappeared, but she was still a little feverish and complained of pain in the right lumbar and iliac regions, but not so severely as she had often felt it before. On Tuesday evening, although both laryngeal catarrh and lumbar pain were almost gone, the patient was not so well. Her breathing was frequent and she was restless and uneasy. The temperature, however, was not above 100°, and a careful examination revealed no signs of fresh local mischief. On Wednesday morning the patient was still worse. There was considerable prostration, the breathing was hurried, the face was grey and anxious, and there was general but indescribable uneasiness. Again Mr. Mackenzie made a careful examination without discovering any fresh local complication, which he was anticipating from the increasing gravity of the symptoms. At this time Mr. Mackenzie explained to Mr. Cross the perilous condition of the patient, and his fears for the issue of it. It had been arranged beforehand that Dr. Andrew Clark should visit Mrs. Cross on that evening at six o'clock, and when he arrived Mr. Mackenzie communicated to him the state of affairs as they existed in the morning. They then visited the patient together, and found that a somewhat sudden and still more serious change had occurred in the course of the afternoon. The patient lay on her back, with the shoulders raised. The eyes were closed; the face was of an ashen grey colour; the lips were slightly livid; the arms lay extended on the coverlet; the breathing was extremely hurried, but quiet, and on feeling the pulse, which was frequent, small, and irregular, the hand was found to be cold and clammy. Plainly now the heart was at fault, and on placing the stethoscope upon the chest, a loud to-and-fro friction was heard throughout the whole cardiac region. The patient was too ill to be further disturbed. Attempts were made to give food and brandy, but they were in vain. Death was evidently near at hand, and the heart rapidly failing; there was complete unconsciousness, and she ceased to live about ten o'clock.

Although the death of this illustrious woman appears to have been thus so painfully sudden, it was not so in reality; for, so to speak, preparation was being made for it during the last eight years. In 1873, on account of the cessation of a uric-acid deposit, and of attacks of pain in the right side and groin, Dr. Clark inferred the presence of a uric-acid calculus in the kidney. In 1874 there were two or three attacks of renal colic, with hæmaturia. In 1876 Mrs. Cross had an attack of cystitis, and was seen by Sir James Paget and Dr. Andrew Clark together. From that time until near the close of life there had been several attacks of pain, sometimes with and sometimes without hæmaturia. In the course of the year 1880 the urine had steadily fallen in density, and contained sometimes albumen, sometimes pus. In October last, Dr. Andrew Clark saw Mrs. Cross at Witley, in consultation with Mr. Parsons, when she was found to be suffering from symptoms of slight calculous pyelitis.

During the last few years, therefore, “George Eliot's” general health had been visibly failing. She was less capable of sustained work, more easily deranged, and liable to sudden illnesses from small causes. The organism, well enough for the ordinary round of a quiet life, was unequal to any extra demand that might be made upon its powers of resistance and repair, and thus it was that a sudden chill brought it, unhappily, to a speedy end.

INFECTED MILK.

WE have been favoured by Surgeon-Major Jameson with the following particulars relating to the outbreak of typhoid fever at Portsmouth Barracks. Instances of the spread of disease by infected milk are becoming numerous, and the account of an outbreak of enteric fever in the Cambridge Barracks may prove interesting.

From Sept. 30th to Oct. 10th, 1880, seven cases of enteric fever appeared. An officer's wife, two children, and a nurse, living in the officers' quarters, the wife of a colour-sergeant, and two children of a private soldier, living in the married quarters of the regiment, were attacked. The sanitary condition of the barracks is good, and on careful examination by the Royal Engineer Department no defects could be discovered. The fact was elicited that all the people affected received their milk-supply from a certain dairy on the Gosport side of the harbour. A specimen of the suspected milk was analysed, and pronounced a fair sample. It was, however, deemed advisable to discontinue the use of the milk in barracks. No more cases occurred.

On October 14th Major R—— visited the milkman's house, and ascertained that his son had been suffering from some kind of fever for several weeks, and was then recovering. The medical man in attendance said he was not prepared to say it was a genuine case of typhoid fever, but admitted there were typhoid symptoms. The house in which this patient lived was one in a row. He lay in a room upstairs. Everything, such as stools, &c., had necessarily to be carried through a back kitchen, which was used as a sort of dairy; for at the time of his visit Major R—— saw milk standing there. There was no properly-constructed dairy whatever, and no other room was used for the purpose. The house had no watercloset, but a privy at the further end of a small garden, in a very offensive condition. The water from the Gosport Water Company was laid on. The water tap was placed above the opening of a drain, which, leading to the privy, was carried on to the cowshed. The typhoid infection may have been absorbed by milk standing in the same apartment as that through which stools were conveyed, or perhaps temporarily deposited. The act of milking also may be highly dangerous in a person in attendance upon a typhoid patient. In the officer's family all the people attacked were in the habit of taking a glass of milk at night before going to bed. The officer himself and two children took milk in tea very sparingly, and escaped. The symptoms of the disease in range of temperature, eruption, &c., were typical, with this exception, that diarrhœa occurred in one case only. In all the other cases constipation constantly required relief by mild enemata. Whether this constipation was accidental or influenced by milk infection is a subject which further investigation may elucidate.

WHOLE-MEAL.

THE problem of a truly economic supply of fully-nutritious bread is not to be solved by platform oratory, or made the subject of a new development of "woman's mission." It is simply a question of manufacturing ingenuity and trade-enterprise. The only difficulty is to grind the meal. We do not want chopped husks, but a finely pulverised flour, comprising the elements of the grain in their natural proportions. We do not believe that artificial combinations of the supposed elements of a normal "whole-meal" in arbitrary relations can compare with the natural food of man. There should not be any persistent obstacle to the supply of the complete flour required for making economic bread. The clumsy mills in use will not, probably, do the work required of them; but it cannot be impossible to devise a crushing apparatus that shall answer the purpose. In fact, there are many such employed in the trituration of other substances. It would be a regrettable circumstance if this matter, which is simply one of supply and demand, should be taken out of the category of everyday affairs, and placed on a sentimental footing under the hackneyed name of "reform"—a term much too freely employed nowadays, and seemingly the ready instrument of every agitator. The public do not stand in need of any special enlightenment on the subject. It has been over and over again demonstrated that the whole-meal contains elements of nutrition which are not to be found in common flour, and which are necessary to insure that the bread shall be easily digestible, and thoroughly good for food. The chemical and physical facts have been repeatedly stated, and are well recognised. The people will be only too glad to get whole-meal bread, when they can be furnished with an article which does not offend the sight by its needlessly dirty colour, and the stomach by its mechanically irritating constituents.

RAIN AND FOG.

THE relations between fog and rain ought to be better made out than they are if, as most persons seem to suppose, fog is simply vapour laden or charged with particles of soot. Is it a fact that fogs follow rain with anything like the constancy which should obtain if the conditions were as it is the fashion to state them? Mists are common enough, and everybody is familiar with the dense damp cloud, miscalled a fog, which every now and again floats in over the sea and enshrouds the channel in darkness. Vapours of similar constitution are common enough on land; but strangely, if we are to accept the popularised hypothesis of fog-production, they do not arise from, or in any marked degree associate themselves with, the most smoky districts! Nor are fogs shown to increase with the prevalence of coal-fires in any particular locality. "London fogs" have lost their distinctly yellow character since the Thames has been embanked, although the smoke nuisance has been developed superabundantly since the completion of this great metropolitan improvement. Those who are well advanced in the forties cannot fail to remember the genuine old-fashioned fog, which was considered to be one of the peculiar sights of London. When the visitor woke in the morning he found the panes of glass in his bedroom window apparently coated on the outside with a dense layer of yellow distemper, something like what is now seen in the developing-room of a photographer's studio. The glass was rendered so opaque that not even the sill outside could be recognised. This was a common phenomenon some forty years ago. Even in the worst fogs of recent date there has been nothing to compare with the genuine "London fog" for colour or substance. How should this change have come to pass if coal-fires were the cause of these visitations? The number of chimneys pouring soot into the atmosphere of London must have multiplied nearly 50 per cent., area for area, during the last half century. Many of the known facts about fogs point to a connexion between the surface-drainage and their production. Yet, if that seeming connexion actually existed, there should be some constant sequence of rain and fog. There *is* an obvious and easily-recognised relation between rain and mists, but not between rain and fogs properly so-called. The change of colour which is noticed in the fogs of recent, as compared with previous, times is probably, to some extent, due to the covering up of the yellow London clay by the extension of buildings. This points to the inference that it is with matters derived from the earth itself rather than from the atmosphere, fogs are laden. Before any hasty conclusions are adopted with regard to the mode and source of fog-production, it would be well if a few common-sense inquiries were instituted by practical geologists. It is vastly easy to charge the evil on the consumption of coal, but, so far as we can see, the ascertained facts do not warrant this line of inference. The question must be more carefully and scientifically investigated before it reaches a practical and safe settlement.

MEDICAL COLLEGES IN THE UNITED STATES.

ONE of the great evils of the medical system of America is the multiplication of medical colleges. Anybody can get up a medical college, with the terrible power of granting medical diplomas. No medical theory is too wild to justify the creation of a special college for its teaching. But unfortunately the evil does not end here. A letter in the *Missouri Republican*, published at St. Louis, divulges another bearing of the host of medical colleges in the cities of the Union. This letter is written by Mr. Charles W. Francis, the Health Commissioner, to Dr. D. V. Dean, superintendent of the City Hospital, and has reference to the privileges of the Medical Colleges as regards the *right of admission to the hospital*. Every Medical College, it seems, complying with the law, has the right of admission to the hospital for purposes of teaching, so that the unfortunate patients, after having been duly studied by a regular teacher and his class, are liable to be put through the same ordeal by the homœopathic teacher, to be again followed by the eclectic teacher, &c. The Health Commissioner points out that this privilege of medical colleges has become a huge nuisance alike to the officers of the hospital and to the patients, and he intends to propose to the city authorities a modification of the laws regulating this matter. We should say the sooner the better for the sake of medical science and of humanity. St. Louis has, we presume, fewer inhabitants than Leeds, and it has the following medical colleges:—The Missouri Medical College, the St. Louis College of Physicians and Surgeons, the St. Louis Medical College, American Medical College, Homœopathic Medical College of Missouri, St. Louis College of Homœopathic Physicians and Surgeons, and the St. Louis Eclectic Medical College. "We have not yet," says Commissioner Francis somewhat pathetically, "settled the matter as to Dr. Field's College being admitted to the privileges of the hospital, but if the college complies with the law, I will, under the city counsellor's opinion, have to let them in." We heartily wish Commissioner Francis quick success with his new regulations.

MR. JOSEPH COWEN ON VACCINATION.

MR. COWEN, the able though somewhat eccentric member for Newcastle, was lately asked by a deputation to support a Bill to be brought in by Mr. Peter Taylor, to abolish the compulsory clauses of the Vaccination Act. Mr. Cowen declined at present to go so far, but agreed to oppose the estimates for successful and efficient vaccination, and to support Mr. Dodson's Bill, if it should be reintroduced. Mr. Cowen added an argument and a statement which, we confess, surprise us from a man withal so sensible. The hon. member said he looked upon the practice of vaccination as unnatural, and that none of his children were vaccinated. So much the worse for his children we should say; and probably they will have to say so one day. But that is a private matter, and they are now beyond the reach of the law. His argument is a matter of public interest—that vaccination is unnatural. Does Mr. Cowen really mean by his legislative measures to take us back to a state of nature? Is this the end of civilisation? When he comes up from Newcastle by the Scotch Express in six hours, does he not do something far removed from the actions of his ancestors in a state of nature? When he puts on his clothes, is he not doing something which people in a state of nature do not bother themselves to do? In a state of nature an unvaccinated community takes small-pox in a proportion of 90 per cent., and of these 40 or 50 per cent. die in a most horrible state, which deters neighbours from humane and neighbourly attentions to them. Are we to be blind worshippers of a state of nature? If so, why the arts? or the sciences? or the Legislature? or any effort at all at improvement? Mr. Cowen is surely too honest and too sensible a man to adhere to such an argument. It is to be regretted that he has used it. He owes it to his own reputation either to justify it or to withdraw it. The most beneficent discovery of medicine deserves a more intelligent and grateful recognition from Mr. Cowen.

THE USE OF ALCOHOL IN HOSPITALS.

THE tendency to be ostentatious as to the use or non-use of alcohol in hospitals is to be discouraged. The therapeutical value of alcohol is a question not to be disposed of, one way or the other, by letters to the newspapers, or by a limited group of vague statistics, but by a very careful study of its use or non-use in individual cases. The most rigid teetotaller may well be satisfied with the growing tendency in physicians to use it strictly and to be satisfied only with distinct proofs of its utility; and the most generous believer in the medicinal virtues of alcohol must know that the public and individual patients are taking a keener interest in this question than they ever did before, and are making very shrewd personal experiments on the subject. Our own opinion concerning it has been freely expressed, and we have not concealed our conviction that good health is most consistent with very little alcohol or with none; that he who uses alcohol freely or frequently, or by itself and apart from food, is surely laying up disease and degeneration for himself, and probably for his descendants. But we may leave the use of alcohol in hospitals to physicians, who are under every inducement to do that which will show the best curative results. It is but very lately that we received from one of the London hospitals, in no way committed to extreme views, a wonderful revelation of the habits of many of the patients as regards the excessive use of alcohol. We may confidently believe that such revelations are studied by none more carefully than by the physicians and surgeons whose duty it is to treat disease with such antecedents.

SOME POINTS IN THE ANATOMY OF THE EAR.

IN a paper which has just appeared in the *Archiv für Anatomie*, by Professor Retzius, he states that as the great work of the anatomy of the ear on which he is engaged will take a long time to complete, on account of the trouble and expense of the engravings which are to accompany it, he desires to publish provisionally some of the new facts which he has discovered. In the first place, he some years ago found in the auditory labyrinth of teleostean fishes two small plates on the floor of the utriculus, near the canalis communicans, on which two branches of the cochlear nerve terminate. He considered this structure to be the first indication of the "pars basilaris cochleæ." Hasse acknowledged its existence in fishes, and thought it to be the rudiment or "pars initialis cochleæ." Further researches satisfied Retzius that it was present in the plagiostome fishes, and still more recent researches have enabled him to trace it through the amphibia, through many reptilia, in which it is less developed than in amphibia, and through the birds, where it is still smaller and more rudimentary than in reptilia, appearing only as a small spot with a few nerve fibres distributed to it, situated on the floor of the ampulla frontalis. No trace of it can be found in the rabbit, cat, or dog amongst mammals. He has, therefore, changed his opinion, and no longer regards it as the rudiment of the cochlea, but has named it the "macula acoustica neglecta," and the branch of nerve supplying it the "ramulus neglectus." How, then, he asks, does it stand with the true pars basilaris cochleæ—the most important part of the organ of hearing? Since this nerve termination does not represent it, it may be stated that in fishes there is no pars basilaris; they only possess the lagena cochleæ. The first traces of the true pars basilaris occur in amphibia.

A second point to which Retzius has directed his attention is the mode of division of the acoustic nerve. He quotes the descriptions given by Henle, Hyrtl, Luschka, Krause, Quain, and Turner. In the works of all these authors the auditory nerve is stated to divide into two chief branches —a ramus vestibularis and a ramus cochlearis. Some authors admit that the vestibular nerve divides into four branches, which supply the sacculus hemiellipticus and the three ampullæ; whilst the cochlear branch divides into two branches, which supply the sacculus hemisphericus and the cochlea. Others consider that the cochlear nerve only supplies the cochlea, and that the vestibular nerve gives off five branches. Neither of these statements is correct. The anterior of the two main divisions of the auditory nerve—that is to say, the vestibular nerve—which, by the twisting of the parts really lies posteriorly to the other, divides into three branches, which supply respectively the recessus utriculi, the ampulla sagittalis, and the ampulla horizontalis. The posterior main branch—i. e., the cochlear nerve—divides into three branches, which supply the ampulla frontalis, the sacculus, and the cochlea.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE pressure on our space last week prevented us noticing the very satisfactory meeting of the constituency of the Hospital Sunday Fund, at the Mansion House, under the presidency of the Lord Mayor. Though the day was very unfavourable the attendance was good, and the audience and the platform alike showed the hold which this movement has on the churches of London. The first resolution was moved by the Bishop of London, and seconded by Professor Marks, and similarly with most of the others. The utmost conciliation and consideration were shown in discussing the most suitable day for the purpose, and Sunday the 19th of June was agreed upon. Apart from the needs of the hospitals, which are very great, this institution is a positive blessing to the community by supplying an object at which men of all creeds can work together.

SUBSTITUTES FOR ALCOHOL.

MR. FRANCIS VACHER of Birkenhead publishes an experience of 243 cases of typhus observed in hospital, in which he thinks he obtained great advantages in treating patients requiring stimulants with such stimulating drugs as ammonia, compound spirit of ether, and camphor, with or without chinchona (using at times the tincture in small doses), as if he had used wine or spirits. In convalescence, moreover, he gave the preference to ripe fruit and malt extract to beer or porter. Mr. Vacher abstains from alcohol, and thinks that it would probably be all the better if the sick and the healthy would alike abstain. The question he deals with is a complicated one; but there are imported into it certain social and moral matters, which must necessarily affect the conclusions of the observer. Of the value of alcoholic stimulants in the treatment of typhus, *if a stimulant is required*, we imagine no question can well be raised. Is a medical man right, when treating a case requiring stimulants, to substitute for an agent of determined value agents which appear hitherto to have been shown to be of less value? In other words, are we justified in putting aside from a view of some possible prospective social gain a form of stimulant of approved value under certain circumstances for stimulants commonly had recourse to under other circumstances? Is the medical man warranted, in a question of life and death, in leaving unused, on grounds having no connexion with the welfare of his patient, one of the most potent items in his armament? We think not. Experiences like those given to the world by Mr. Vacher and his co-thinkers have their value, particularly in teaching that the use of alcoholic liquors in the treatment of disease ought to be as carefully regulated as the administration of drugs.

NETLEY HOSPITAL.

ATTENTION has been called, by a letter in *The Times*, to the neglect of the military authorities in not having the damage repaired which was done by the fire at Netley Hospital, in March last, to the rooms set apart for the treatment of sick and wounded officers returning from foreign service. It appears that of six rooms appropriated to this purpose, only one is now available. On the 15th December Major Godson, of the Madras Staff Corps, arrived at Southampton by the P. and O. steamer, very ill, suffering from abscess of the liver, brought on by service in Afghanistan. On application being made by his brother-in-law—an officer of the Indian Medical Service—to have him admitted as a patient into Netley Hospital, he was informed that this was impossible, as the only quarter available since the fire was occupied. The establishment of sick quarters for a limited number of officers was a well considered and kind measure, adopted in accordance with the recommendation of Lord Herbert's Commission, and it has proved a great boon to many sick and wounded officers who have arrived in England so ill as to be unequal to the fatigue of a land journey to their homes. It is much to be regretted that a delay of nine months should have occurred before any steps have been taken to put these quarters again in habitable condition, and to secure the boon of skilful treatment and careful nursing to officers returning home in the state in which Major Godson is described to have been. We trust that Mr. Childers will exert his power as War Minister, and order the necessary repairs to be done at once upon his own authority, without waiting for that period to which in the Army so many necessary works and repairs are postponed, and which is described in official language as "to be included in the next year's estimates."

THE TENT-HOSPITAL CASE.

WE regret to say that judgment has been given against the plaintiff in the case of Eaton *v.* Barker and others, heard before Mr. Justice Stephens in the Court of Exchequer. The plaintiff, it will be remembered, is a medical man, who undertook the charge of the tent-hospital erected lately at Grantham, to meet an outbreak of scarlet fever. He charged himself with the duty under an agreement made with a committee of the local authorities then concerned, through their medical officer, Dr. Ashby. When the outbreak was over, and his duty at the hospital ended, he presented an account, according to his agreement as to fees, for £97 7*s.* 9*d.* Meanwhile the authorities originally concerned in the agreement had amalgamated and been formed into a Corporation; and when the account came before the newly organised body, the necessity of the case being over, the sum total was objected to. Mr. Eaton declined to accept a less sum, and sued the Corporation. The Corporation then took advantage of a technical objection, to wit, that under section 174 of the Public Health Act agreements involving sums of over £50 must be entered into by the agreeing authority in a particular manner, and this manner had not been followed in this case. The objection was held by Mr. Justice Stephens to be good, but its bearing upon the case is best expressed in his own words :—

> "It appeared clear to him that the Board resisted a moderate demand for payment earned by a man who discharged a public duty at the risk of his health and practice. They founded their defence on a ground of the most technical character, and which had nothing to do with the merits of the case. He did not, however, feel himself at liberty on that account to deprive them of the costs to which in the order of things they were entitled. If the defence was legal, it was not for him—he did not say that in any other circumstances the facts might be considered—but speaking for himself, it was not for him to say that the mere fact that in his opinion the defence ought not to have been set up, ought to lead him to deprive the successful party of their costs. Judgment would therefore be given for the defendants with costs."

The condemnation of the course taken by the Corporation could not well be expressed in stronger terms. It remains to be seen whether the people of Grantham will allow Mr. Eaton to be thus deprived of his legitimate fees, and mulcted also of the costs of the proceedings. If they do, it will be incumbent upon the profession to interfere in his relief. Medical men in future will, if they are wise, refuse, under the pressure of an epidemic and the alarm of a community, to make any terms with a local authority involving money considerations, except through a solicitor.

THE LATE AFGHAN WAR.

THE Army Medical Officers who have taken part in the recent Afghan war have, we understand, expressed a desire to commemorate the services of the Medical Department in the various expeditions in Afghanistan by some permanent memorial. It has been decided that this is to take the shape of a piece of plate for the Officers' Mess, Army Medical Department, Aldershot. Surgeon-Major G. C. Markey has undertaken the duties of honorary secretary and is collecting subscriptions from officers in India. We hail with satisfaction this evidence of *esprit de corps* amongst medical officers, and as the Indian Government have treated the troops employed in Afghanistan with liberality in the way of allowances and batta, subscriptions and donations will not be felt a heavy tax. The Medical Department played no inconsiderable part in the Afghan war; many officers returned with health more or less shattered; many succumbed to exposure, climate, and disease; one and all did their duty fearlessly and conscientiously in the face of innumerable difficulties. It is fitting therefore that there should be a lasting tribute to their services, and the medical officers at Aldershot will justly prize the honour of having the memorial committed to their keeping.

PATHOLOGICAL SOCIETY OF LONDON.

THE annual meeting of the Pathological Society will be held on January 4th. In addition to the regular business of the Society, the officers and Council for the ensuing year will be elected, and the annual report and statement of accounts read. The following is the list of nominations by the Council :—President: Dr. Wilks. Vice-Presidents: Drs. George Buchanan, Thomas Buzzard, Andrew Clark, James E. Pollock; Messrs. Christopher Heath, Jonathan Hutchinson, S. James A. Salter, Septimus William Sibley. Treasurer: Dr. George Johnson. Honorary Secretaries: Dr. Joseph Frank Payne, Mr. Henry Morris. Council: Drs. Thomas Barlow, E. B. Baxter, J. Cavafy, S. Coupland, Sir Joseph Fayrer, Wm. Ord, Douglas Powell, G. H. Savage, F. Taylor, T. Whipham, W. B. Kesteven; Messrs. W. Morrant Baker, J. N. C. Davies-Colley, Warrington Haward, H. Howse, Joseph Lister, R. W. Parker, W. J. Smith, Waren Tay, W. J. Walsham.

THE MEDICO-SANITARY SERVICE OF THE PANAMA CANAL.

DR. LOUIS CAMPANYO, who was at the head of the medico-sanitary service of the Suez Canal during its construction, has prepared for M. le Comte de Lesseps a scheme for the organisation of a medico-sanitary service of the Panama Canal. This scheme, which is published in a separate work by Baillière & Son of Paris, will be read with much interest. After a general account of the topography, geology, meteorology, &c., of the isthmus at the point where it is proposed to cut it through, the auther describes in detail the organisation of a health-staff, but rather for the medical and surgical requirements of the case than from the strictly *sanitary*, as we should use the phrase here. The projected organisation for the feeding and the sickness of the labourers is discussed at considerable length, and much is said about ambulances and sick attendants. Vaccination is not forgotten; pharmacy and the surgical armament are duly considered; fire-extinction has a place with reference to the ambulances; cemeteries and sepulture are not overlooked; even prostitution and its consequences are regarded. In addition, a veterinary service is considered. But the condition of habitations of the healthy men, and the arrangements for the disposal of liquid and dry refuse about the habitations, have but the briefest consideration. In this respect the project of organisation differs remarkably from that which an English medical-sanitary authority would probably have prepared. Nevertheless, Dr. Campanyo's scheme contains very much that is instructive, and is accompanied by many suggestions that may be turned to good account, irrespective of the gigantic enterprises—one completed, the other now in a fair way to be completed—out of which they have arisen.

A JUST DECISION BY A COUNTY COURT JUDGE.

AN important case (Bell *v.* Parkinson), and one which has excited considerable interest, was concluded in the Bradford Count Court on Dec. 18th, before W. T. S. Daniel, Esq. (judge), and a jury.

Early in 1879 Dr. Bell attended Mrs. Parkinson in confinement, and, being a delicate woman, her recovery was somewhat protracted. In course of time Dr. Bell sent his account of £8 7*s.* 6*d.* for professional services, and when defendant was pressed for payment of the same he brought in a counter-claim of £50 against plaintiff for negligence. It was alleged by nurse Willis (a trained nurse) that a portion of the placenta had been left behind, which she removed. However, in cross-examination, she said she had thrown it away, whereupon the judge observed that an important link was wanting in the evidence. Ultimately, after an admirable summing up by the judge, the jury returned a verdict for Dr. Bell, and condemned the defendant in costs for both actions.

MEDICAL PRETENDERS IN NEW ZEALAND.

THE *Rangitikei Advocate* and the *Manawater Herald* contain reports of the trial of two persons for the false use of medical titles, named respectively Frederick Lyster and John Frederick Rockstraw. Both were found guilty, and both were fined—Lyster £50, and Rockstraw £25. Our contemporaries, in commenting on these verdicts, approve them, but object to the heavy fines imposed, especially on the ground that the Medical Act of the colony had in these parts been allowed to remain a dead letter. This is a point of detail on which we have no wish to differ from our contemporaries; but we can imagine nothing more necessary in a colony like New Zealand than for the authorities to be careful, and even severe, in punishing false pretences. In old societies there is less difficulty in distinguishing the regular doctor from the pretender, though even in such communities Medical Acts are very essential. But in a colony, if the authorities are careless, any useless impostor, or incapable druggist, may set up as a doctor, and in a critical emergency, by a false title, fatally mistreat a citizen. The offence is a very serious one, and ought to be most severely punished.

THE Marquis of Bute has intimated his intention of presenting a valuable new site for the Cardiff Infirmary, four acres in extent, and estimated to be worth from £10,000 to £12,000, which site his lordship has to purchase from the executors of the late Lord Bute's will. In addition to this noble gift his lordship is a donor of £1000 towards the Building Fund. The architect of the new buildings is Mr. A. P. Bell of Manchester. It is designed, in the first instance, to accommodate 100 patients, with administrative department sufficient to allow of a future extension to 200 beds. The site is admirably selected, and, when completed, the new buildings will add one more to the noble institutions which are springing up in this rapidly-growing town and neighbourhood. The estimated cost is £21,000, towards which nearly £13,000 has already been promised.

H.R.H. PRINCE LEOPOLD honoured the wedding of Mr. Arnold Royle, M.R.C.S., Surgeon-in-Ordinary to His Royal Highness, and late Assistant-Surgeon Royal Artillery, by his presence at the marriage ceremony in St. James's, Piccadilly, on Dec. 20th, 1880. The bride is the second daughter of Thomas Snow, Esq., Barrister-at-Law, Liverpool. Wedding gifts were presented by their Royal Highnesses the Prince and Princess of Wales, Princess Louise, the Duke and Duchess of Connaught, and Prince Leopold, to the happy couple.

DR. GEE, Physician to St. Bartholomew's Hospital, has recently had under his care in the wards a girl, seventeen years of age, with chorea, for which chloral hydrate in frequently-repeated doses was prescribed. During the third week of its administration, a papular eruption of a dusky hue, surrounded by much cutaneous redness, was produced on the forehead, face, chest, and extremities, in arrangement partly crescentic, and partly confluent. The eruption consisted essentially of a combination of lichen and erythema papulatum, and was attended with some increase of temperature.

WE may expect to hear of the Nursing question giving trouble in our Transatlantic dependencies. The authorities of the Toronto hospital are, it is stated, about to establish a scheme for training nurses, their instruction to be undertaken by a lady graduate of one of the schools of England. We hope the experience so dearly bought in the mother country will not be lost on the promoters of the enterprise in the far west.

THE School of Medicine and Surgery of Montreal has caused a protest to be served on the authorities of the Laval University at Quebec, calling upon them to cease their branch in the former city, and threatening legal proceedings if the protest is disregarded.

DR. J. J. LUCE, of Stratford-on-Avon, has, we regret to learn, met with an accident of a serious nature. Whilst out driving on Tuesday last the horse took fright, and the gig coming in violent collision with a building, Dr. Luce was thrown out and sustained severe injuries of the head and various parts of the body.

AT a public meeting held at Dundee last week, Dr. John Boyd Baxter intimated that he intended giving £125,000 for the establishment in Dundee of a college similar to Owens College, Manchester. Later information attributes the bulk of this gift to the generosity of a lady of the same name. An effort is to be made to raise a similar sum by public subscription for the endowment of the College.

MR. CÆSAR HAWKINS will preside at a meeting, to be held in the Board-room of St. George's Hospital on Jan. 11th, having for its object the promotion of a testimonial to Mr. G. D. Pollock, on the occasion of his retirement from the post of senior surgeon to the hospital.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF THE MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Diphtheria in the Hospital for Sick Children, Great Ormond-street.—This report appears to have been issued by the Medical Department of the Local Government Board as an illustration of their failures (to use Beau Nash's "gentleman's" phrase). In March of the present year the patients in the Hospital for Sick Children suffered from an unusual outbreak of diphtheria. Diligent search at the moment failed to elicit a sufficient explanation of the outbreak, which was pretty general throughout the hospital, and aid for help in prosecuting further inquiry was asked from the Local Government Board. Mr. W. H. Power, whose acumen in pursuing researches of this task is well known, and who has already distinguished himself by unravelling obscure outbreaks of diphtheria, was instructed to give the required help, and his report of the course he pursued in carrying out the directions of his Board and the wishes of the hospital authorities is now before us. The report is simply exhaustive so far as our present knowledge of the habits and conditions of prevalence of the disease extends; but he has to confess that it not only gives no explanation of the outbreak, but also furnishes no clue which promises an explanation. Failing such explanation or the clue to one, the report is of special value as showing the state of our present knowledge of the conditions under which diphtheria is likely to prevail, and brings out in a clear sharp light that there are still other conditions of the prevalence of the disease of which we have as yet no knowledge, and of which we have to construct a reasonable hypothesis before we can hope to obtain the knowledge. As an incentive to the construction of such hypothesis Mr. Power's report is invaluable, and we commend it to those members of the profession interested in etiological inquiry who have yet to win their spurs.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Lambeth.—Dr. Archer Farr reports for 1879 a birth-rate of 34·6, and a death-rate (strangers included) of 21·6 per 1000 population. The year was happily not characterised by any special occurrence in the history of the prevalence of disease in the district, and the sanitary administration appears to have pursued a tolerably even course. Dr. Farr advocates the adoption of more stringent rules for preventing the spread of scarlet fever from public schools, and he suggests the observation of the following rules:—"1st. That parents shall not only give notice of the child's illness, but shall specify the *nature* of the illness causing it to absent itself from school. 2nd. A form of certificate should be supplied by the School Board for this purpose, to be filled in by the medical attendant, with the object of verifying the parent's statement. 3rd. A second form of medical certificate should also be supplied, producing evidence of the complete disinfection, not only of the bedding and wearing apparel, but of the body of the patient also, and fixing a date from the period of convalescence at which the child could be allowed to return. In the case of scarlet fever, I should recommend certainly not less than a month after all evidence of peeling had ceased. 4th. That all absentees during the prevalence of scarlet fever, suffering from sore-throat, or a *slight rash*, should not be readmitted to school without a certificate from a medical man showing that these had no connexion with scarlet fever."

Birkenhead.—Dr. Francis Vacher's report for 1879 comes to hand when we might reasonably begin to expect his report for 1880. It is a pity that these reports cannot be published earlier in the year, for, to have to study at the end of one year the events that occurred in the course of the preceding, when those events have been overlapped by later events, is, to say the least, somewhat tantalising. The health history of Birkenhead for 1879 was, fortunately for the place, uneventful, and Dr. Vacher's report contains little more than the bare record of occurrences. The borough, including the Union Hospital and Workhouse, had a birth-rate of 36·69, and death-rate of 19·23 per 1000 living. The infant death-rate compared favourably with the great centres of population, and with the whole country. Birkenhead, as other places, has been studying the methods adopted in Leeds for the destruction and carbonisation of house and town refuse. Dr. Vacher appears to be well satisfied with the results of the processes. But is he accurate when writing of the contents of "compound middens"—i.e., as we understand it, middens receiving *excrement* as well as ashes and dry house-refuse—being subjected to the destructive process?

Port of London.—Dr. Collingridge sends us his first report. It refers to the year ending June 30th, 1880, the first half of this period not having been reported upon in consequence of the illness and death of the late lamented Mr. Harry Leach. Dr. Collingridge, unwilling that a break should occur in the series of health-reports for the port, has, with the assistance of Mr. Johnson Smith, who acted as medical officer for the port from the death of Mr. Harry Leach to the date of election of Dr. Collingridge, contrived to fill up the necessary details for the missing half year, and thus maintained the continuity of the reports. Dr. Collingridge in the part of the report for which he is personally responsible has followed strictly the lines of reporting laid down by Mr. Harry Leach. He shows that not less than 7601 vessels, 3898 lying in the river and 3703 in docks, were inspected in the half-year ending June 30th, 1880, and the work of inspection may be expected to increase, or at least to become more arduous, when the extension of the Victoria Docks, now in progress, to a reach lower down the Thames is completed. Dr. Collingridge gives some curious particulars relating to the sewage pollution of the Thames which will demand his continued attention, and he shows that the Customs questioning of vessels entering the port by no means answers the requirements of the sanitary authority.

SMALL-POX IN THE EAST OF LONDON.

We elsewhere print a letter from a clergyman in the East of London which shows some of the defects of sanitary administration there in its relation to the present increase of small-pox. The following, relating to the defective administration of the vaccination law in one of the eastern districts of the metropolis, is from a letter addressed by Dr. Stevens, of the Local Government Board, to the Bethnal-green Guardians, Dr. Stevens having the general superintendence of vaccination matters at the Board since Dr. E. C. Seaton's death:—"In Bethnal-green, more than any other district, the increased prevalence of this preventable disease [small-pox] has been most marked. I find from the Registrar-General's Weekly Return for the four weeks ended last Saturday, that 56 deaths by small-pox had occurred in that month. Of these 56 deaths, 39 had occurred in the eastern districts, and of these 39 Bethnal-green contributed 22. From the same source of information I also learn that from Bethnal-green parish alone there were sent to the small-pox hospital no less than 27 cases of the disease in the ten days ended 21st ult. The great majority of these cases have been specifically certified as unvaccinated, while in one-fourth of their number a certified practitioner left the question of vaccination in doubt. Moreover, the returns for three of the weeks—for the other week the statistics are incomplete—show that more than half of the whole mortality occurred in persons under twenty years of age, and that of the fifteen unvaccinated persons who died in the week ended 27th November, twelve were of persons aged between one and twenty years. You will find here, in addition to the direct record of small-pox mortality—what might have been predicted—a very grave condition of unprotectedness. These conditions, I think, demand of the guardians of the parish of Bethnal-green exceptional activity, and I think some aid to the vaccination officer, for the purpose of making a complete visitation of infected districts, for the purpose of discovering all unvaccinated persons. I think it very unfortunate that, as I ascertained on the occasion of a visit I made to the parish on the 8th ult., the vaccination officer, instead of devoting all his time and energies to so increasing a spread of the malady he is specially appointed to guard against, was occupied a portion of the day in one of the parochial dispensaries." It appears that this vaccination officer is also a dispenser to the guardians, and, further, that he keeps a shop! It is calculated that his vocations as a dispenser occupy four hours daily (the shop being attended to by his wife). He is stated to be an excellent officer, but it is evident that the guardians simply require him to expend the balance of his time—his spare time, so to speak—in vaccination work. Need we wonder at the imperfection of vaccination in Bethnal-green, or the difficulty experienced in dealing with an advancing epidemic of small-pox? Truly the disease is there cultivated! Dr. Stevens, in the letter referred to, adverted to the need for a better understanding than appears to exist between the officers of the vaccination authority and the officers of the sanitary authority, and since then the Local Government Board has addressed a circular letter to the sanitary authorities urging them to instruct their officers to give all possible assistance to the officers of the vaccination authority in the discovery of small-pox.

THE HOMERTON SMALL-POX HOSPITAL.

Dr. Tripe's observations on extension of small-pox from the Homerton Small-pox Hospital to neighbouring houses were brought before a recent meeting of the Metropolitan Asylums Board. It was suggested that the Board should investigate the question; but a member took exception to this course on the ground that inquiry would or might imply that the Board did its duties inefficiently! Another member thought it was a subject for the Local Government Board if the Hackney vestry thought proper to move in the matter; then the subject *dropped!* Could anything more surely condemn the anomalous position in which the Board stands in a matter of this kind? We learn that the Local Government Board has taken up the subject, whether on the motion of Hackney vestry or not is not known, and that Dr. Bridges, the medical inspector of the Board for the metropolis, has been instructed to investigate it.

SUPERANNUATION.

The Local Government Board, in a circular letter calling attention to the diversity of practice by the different boards of guardians with respect to superannuation, expresses the opinion that the amount to be awarded to an officer who has served with efficiency for ten years or more, and for less than eleven years, should be an annual sum equal to ten-sixtieths of his salary and emoluments at the time of his ceasing to hold office, with an addition of one-sixtieth in respect of each additional year of service, until a maximum of forty-sixtieths, or two-thirds, be reached. In certain special cases a number of years, not exceeding ten, might be added to those of actual service.

Dr. Owen Coleman, the medical officer of health for Surbiton, in a report recently laid before his sanitary authority, writing of the recent cases of diphtheria which have occurred in that suburb due to infected milk, states that the inculpated dairy used water from two sources—one the town's supply, the other from a foul well on the premises. The town's water had been "laid on" because the well-water had been condemned as impure several months ago; but the well does not appear to have been then closed, and we infer that, as the foul water from it was "occasionally used," it was reserved for dairy purposes! The well, it may be added, is now closed. The cases to which we now especially refer appear to have occurred as an incident in a wider scattering of the disease due to more general causes.

The Lower Thames Sewerage Board are about to attempt to induce the Metropolitan Board of Works to give them an outlet for their sewage through the metropolitan main sewers south of the Thames.

At a late meeting of the Bridgwater guardians a letter was read from the Local Government Board with reference to the repeated prosecution of parents for the non-vaccination of children. The central board expressed the opinion that where there had been one prosecution the guardians might withhold directions to the vaccination officer if there should be good reason to suppose that the continuance of the proceedings would not ensure the vaccination of the child, or would prejudice the due observance of the law in the union generally. In this case surely the Vaccination Amendment Bill, which was introduced by Mr. Dodson last year, and withdrawn on account of the remonstrances of the profession, was superfluous.

A committee of the Halsted Guardians Authority have recommended the establishment of three cottage hospitals for the isolation of cases of infectious disease—one for the district containing the four parishes of Earl's Colne, Colne Engaine, White Colne, and Pebmarsh; another for the parishes of Castle Hedingham, Sible Hedingham, and Great Maplestead; a third for the parishes of Great Geldham, Little Geldham, Toppesfild, Tilbury, Stambourne, and Ridgwell. The recommendation has been referred to the Rural Sanitary Authority.

Dr. Wallace, the medical officer of health for Dundee, reports that for the four weeks ending the 18th Nov., and the five weeks ending 8th Dec., the death-rates of the town were respectively 22·8 and 28·6 per 1000 population. Three deaths from typhus took place in the first period, and 11 in the second period.

The Local Government Board has been impressing upon the Hackney Guardians the desirability that vaccination stations for populous urban or metropolitan districts should be of as public and permanent a character as possible, so that the people would become familiarised with them.

The Keighley Guardians have asked, or are about to ask, the Local Government Board for leave to suspend vaccination in the union during the winter months. It would be curious to know on what reasons this request is grounded.

The Metropolitan Asylums Board has refused to take or rent the new Poplar infectious disease hospital at Plaistow, regarding the terms asked by the Poplar District Board as unreasonable.

A complaint has been made to the Local Government Board by two justices of the peace that the fever hospital at Chesham has been prematurely closed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The continuance of unseasonably mild weather, combined with the effect of the Christmas holidays upon registration, caused a further decline in the English urban rate of registered mortality. In twenty of the largest English towns, estimated to contain in the middle of this year a population of nearly one-third of the entire population of England and Wales, 4214 births and 2668 deaths were registered last week. The births were 971, and the deaths 607, below the average weekly numbers during 1879. The deaths showed a further decline of 125 from recent weekly numbers; and the annual death-rate, which had steadily declined from 22·1 to 19·4 in the five preceding weeks, did not exceed 18·6 last week. The lowest death-rates in the twenty towns last week were 15·6 in Brighton, 16·3 in Portsmouth, 16·3 in Sheffield, 16·5 in Wolverhampton, and 16·5 in Birmingham. The rates in the other towns ranged upwards to 21·9 in Sunderland, 21·2 in Liverpool, 25·5 in Norwich, and 26·4 in Nottingham. Both the two last-mentioned towns showed excessive zymotic death-rates. During the first twelve weeks of the past quarter the death-rate in the twenty towns averaged only 21·4 per 1000, against 23·4 in the corresponding periods of the four years 1876–79.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 370 and 375 in the two preceding weeks, declined to 342 last week; they included 101 from scarlet fever, 80 from whooping-cough, 56 from measles, and 39 from fever, principally enteric. The annual death-rate from these seven diseases averaged 2·4 per 1000 in the twenty towns; it ranged from 0·5 and 0·7 in Brighton and Birmingham, to 4·3 in Norwich, 4·5 in Sunderland, and 5·4 in Nottingham. The fatal cases of scarlet fever in the twenty towns, which had been 140 and 129 in the two previous weeks, further declined to 101 last week; the largest proportional fatality occurred in Norwich, Sunderland, and Nottingham. The fatality of whooping-cough showed an increase, and was largest in Sunderland, Leeds, and Nottingham. The highest death-rates from fever, principally enteric, were recorded in Nottingham, Wolverhampton, and Portsmouth. Of the 23 deaths from diphtheria in the twenty towns, no less than 16 were recorded in London. The deaths from small-pox in London, which had been 12 and 33 in the two preceding weeks, declined again to 15 last week; while no fatal case of this disease was returned in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 373 in the eight preceding weeks, further rose to 380 on Saturday last. The number of new cases of small-pox admitted to these hospitals, which had been 132 and 76 in the two previous weeks, further declined to 65 last week. The number of patients in the Highgate Small-pox Hospital were 28 on Saturday last, against 30 and 26 at the end of the two previous weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 295 and 307 in the two preceding weeks, declined again to 290 last week, and were no less than 273 below the corrected average number in the corresponding week of the last ten years; 175 resulted from bronchitis, and 71 from pneumonia. The annual death-rate from lung diseases last week was equal to 5·0 per 1000 in London, and 5·7 in Liverpool.

In the twenty towns last week 75 uncertified causes of death were registered, equal to 2·8 per cent. of the total deaths. The proportion of uncertified deaths was equal to 1·8 per cent. in London, whereas it averaged 3·7 per cent. in the nineteen provincial towns. No uncertified deaths were registered in Brighton, Portsmouth, Plymouth, or Newcastle-upon-Tyne; whereas their proportion was largest in Wolverhampton, Leicester, Bradford, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 20·8 per 1000, against 21·7 and 19·9 in the two preceding weeks; this rate exceeded by 2·2 per 1000 the average rate in the twenty large English towns. The rates in the eight Scotch towns last week ranged from 19·1 and 19·5 in Glasgow and Dundee, to 25·8 and 28·7 in Leith and Paisley. The deaths referred to the seven principal zymotic diseases in the eight towns, which had steadily declined from 112 to 80 in the four preceding weeks, rose again to 92 last week; they were equal to an annual rate of 3·7 per 1000, against 2·4, the average rate in the twenty English towns. In the eight Scotch towns the zymotic death-rate last week ranged from 2·7 in Edinburgh and Dundee, to 4·1 and 4·2 in Glasgow and Paisley. The fatal cases of scarlet fever, which had declined steadily from 53 to 17, in the six preceding weeks, rose again to 29 last week; they included 15 in Glasgow, 6 in Edinburgh, and 6 in Leith. The 21 deaths referred to diphtheria showed a further increase upon recent weekly numbers; 12 occurred in Glasgow, 3 in Edinburgh, and 2 both in Leith and Paisley. The 19 deaths from whooping-cough were also more numerous than in recent weeks, and included 9 in Glasgow, 4 in Dundee, and 3 in Edinburgh. Only 4 deaths were referred to fever in the eight towns, of which 3 occurred in Glasgow, and one in Aberdeen. The annual death-rate from acute lung diseases (bronchitis, pneumonia, and pleurisy) was equal to 5·0 per 1000 last week in the eight Scotch towns, against 3·6 in London; the highest death-rates from these diseases in the eight Scotch towns occurred last week in Dundee, Leith, and Perth.

HEALTH OF DUBLIN.

The death-rate in Dublin showed an increase again last week. The annual rate of mortality from all causes in the city, which had steadily decreased in the six preceding weeks from 39·6 to 25·9, rose again last week to 27·0. During the twelve weeks ending last Saturday the death-rate in the city averaged no less than 32·4 per 1000, against 20·7 in London, and 22·0 in Edinburgh. The 163 deaths in

Dublin last week showed an increase of 7 upon those returned in the previous week, and included 21, or 13 per cent., which were referred to the seven principal zymotic diseases, or 3 less than the number in the previous week; 8 resulted from fever (including typhus, enteric, and simple), 7 from scarlet fever, 2 from whooping-cough, 2 from diarrhœa, 1 from small-pox, 1 from measles, and not one from diphtheria. The annual death-rate from those zymotic diseases was equal to 3·5 per 1000 in Dublin last week, against 2·5 in London, and 2·7 in Edinburgh. The deaths referred to fever in Dublin, which had been 8 and 7 in the two previous weeks, rose again to 8 last week, and were equal to an annual death-rate more than five times as high as the average rate from the same cause in the twenty large English towns last week. The 7 deaths from scarlet fever in Dublin showed a decline of 4 from the number in the previous week; and the fatal cases of whooping-cough were also less numerous. The deaths both of infants and of elderly persons exceeded the numbers returned in recent weeks.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

NOTIFICATION OF INFECTIOUS DISEASES IN DUBLIN.

The Council of the Irish Medical Association have recently forwarded a circular to the profession in Dublin for the purpose of obtaining their opinion as to the best method of notification in infectious diseases. It is admitted that great benefits to the public may be expected from an efficient system of notification of infectious disease, but it has been urged that the duty should not be carried out by the medical attendant, as it would involve a breach of professional confidence, be irksome, and prejudicial to him in his private practice. There is little doubt, however, that if the measure is intended to be successfully carried out, the duty of notifying that infectious disease exists in any household must not be left to the householder. The Society of Metropolitan Officers of Health (Dublin), at a meeting held on the 8th of last December, passed a resolution to the effect that it was desirable that both the physician and the head of the family should notify. This plan Dr. Cameron approves, as he found that in November, 1880, out of a total number of 875 deaths, registered within the Dublin registration area, the cause of death was uncertified in 163 instances, and in 157 others there was no medical attendant. It is evident, therefore, that the compulsory notification of contagious diseases (measles, for example, which is easily recognised) by the head of the family is necessary, as in many cases there is evidently no medical attendant. Dr. Cameron in a recent report refers to this subject, and remarks that if the notification of cases of infectious disease were a duty devolving on the head of the family, he is quite sure that the middle and upper classes would not neglect it. But he is confident that great unwillingness to give such notice would be manifested by the majority of the denizens of the tenemental dwellings, though it is in the cases of such dwellings that a prompt notice would alone be really useful.

THE DRAINAGE OF THINLY-POPULATED DISTRICTS.

The medical officer of health for Honiton, Dr. Stephenson, has published some thoughtful remarks on the drainage of suburban and thinly-populated districts by means of small pipes and flushing tanks. He thinks that the flush-tank may be applied to the *complete* drainage of the house, and that, combined with a small-pipe system of drainage, such as was used at Memphis, it offers a solution (particularly on the score of expense) of much of the difficulty of dealing with questions of drainage in thinly-populated districts. We shall be glad to learn that his suggestions have been submitted to the test of experience.

A case has just been heard in the Chancery Division of the High Court of Justice (May *v.* Verity) which is important to householders. The defendant agreed to take an assignment of the lease of a house, and after he had possession he discovered not only that the drainage was in a bad state, but that the drains of other houses ran beneath the house he had agreed to take. Thereupon he declined to carry out his agreement, and proceedings were taken against him to compel specific performance. Among other points urged by the defendant against this, the unwholesome state of the building was advanced, and testified to by Professor Corfield and the sanitary inspector for Paddington, Mr. Clifford; but this would probably have gone for nothing in the mind of the court, and had it not been that the lease specified that the neighbouring houses had a use of the drain beneath the house for "water," and did not specify its use for "sewage," which nevertheless was poured into it, the defendant would probably have been compelled to carry out his agreement.

Yellow fever is reported as being prevalent in St. Louis, Senegal. A quarantine of four days has been ordered for vessels arriving in the Gambier from Goree.

THE SERVICES.

THE WAR AT THE CAPE.

The following list comprises the medical officers at present employed in the Cape command:—Deputy Surgeon-General J. Holloway, C.B., Principal Medical Officer; Surgeon-Majors Wm. Skeen, P. W. Stafford, Wm. Elgee, T. Babington, J. N. Stock, H. Comerford, W. A. Jenings, R. C. Parkinson, J. Fraser, J. H. Asher, Wm. Geogheghan, A. L. Brown, C. B. Jennings, and A. H. Stokes; Surgeons G. Ryan, W. E. Saunders, G. D. N. Leake, J. W. O. Martin, E. C. R. Ward, J. Ring, J. Magann, A. J. Landon, J. L. Ritchie, K. Wallis, O. E. P. Lloyd, A. Harding, J. Falvey, and J. F. Dowman. A considerable augmentation to the above staff will be despatched with the reinforcements ordered out to Natal as soon as transport can be provided. The War Office authorities are also sending out large quantities of medical and surgical stores, ambulances, medical comforts, &c., for the use of the hospitals in the Transvaal.

In a telegram from the General Officer commanding at Natal to the Secretary of State for War, dated Pietermaritzburg, Dec. 28th, occurs the following passage:—"Dr. Ward, only unwounded officer, remains with wounded. Ambulances and medical attendance sent out from Pretoria."

Surgeon Wolseley embarked for China on the 29th ult., in medical charge of a draft of 500 men on board the transport *Scotland*.

Brigade-Surgeon Alfred M. Tippetts has been appointed to the charge of the Station Hospital, York, on return from Afghanistan.

Surgeon J. F. Roberts, Bengal Medical Service, has been permitted by the Secretary of State for India to resign his commission.

Correspondence.

"Audi alteram partem."

RETARDED SIGNS IN PNEUMONIA.

To the Editor of THE LANCET.

SIR,—In a valuable paper, read at the Clinical Society by Mr. Tyson of Folkestone, and reported in THE LANCET, Dec. 18th, 1880, it is stated that a late development of the physical signs of pneumonia is an occurrence not generally recognised among the phenomena of that disease. I would venture to assert, on the contrary, that while it may be quite true that the significance of the fact has been little considered, yet that the fact itself has been known from the earliest times, and, indeed, long before the real nature of pneumonia was understood as an affection of limited duration, tending to spontaneous recovery.

For proof of this assertion I might go back more than a hundred years, to the middle of the last century, and Dr. Huxham, who looked upon the local inflammation of "pneumonic fever" as a subordinate part of it. It is more to the point, however, to come to the time when, with the first employment of auscultation, physical signs were most implicitly and entirely trusted both to discover pneumonia and to trace its progress. More than fifty years ago, when physical signs went for everything, Andral admitted, very unwillingly we may be sure, that there were instances in which the local inflammation appeared to be no more than the consequence of the fever. He reports at length a case in which six days at least intervened between the first onset of fever and the earliest physical signs. "All the organs," he writes, "seemed to be simultaneously the seat of a strong excitement, without there being in any part real inflammation. No organ was really inflamed, but all seemed on the verge of it."

As regards the explanation put forward at this meeting that in such cases the inflammation is really present all the while, but out of the ear's reach, there are, as I think, several reasons against accepting it. To mention but one: how is it that the physical signs of pneumonia which are not really new but, according to the hypothesis, first come within hearing on the fifth or sixth day, should yet present all the signs of a new pneumonia undergoing its transitions and reaching its time of crisis accordingly?

My present object, however, is not to discuss a controverted point, but to maintain that the fact of pneumonic pyrexia preceding its local signs, far from being a new observation, is amongst the oldest and most familiar. The real question is, whether such is not the rule of the disease; so that if we happened to be by at the very time when, with such remarkable suddenness, the first rigor of pneumonia interrupts the course of health, we should be unable in the majority of cases, although perfectly assured from many signs of the nature of the seizure, to detect for some hours the first physical indications of inflamed lung.

Yours obediently,
OCTAVIUS STURGES.
Wimpole-street, Dec. 20th, 1880.

"LISTERIAN" OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—Your suggestion that the Royal Medico-Chirurgical Society should appoint a committee to investigate this subject is a good one, though I greatly fear they could not come to any very definite conclusions, unless they were prepared to watch a series of cases in the practice of the same operators, half of which should be done without the Listerian details, and half with them. In such an investigation the method of recovery alone could give any trustworthy indication of the value of the methods employed. The mere death-rate is of scarcely any value at all, for with one exception the deaths I have had since I gave up the clamp have arisen from causes over which neither the use nor the absence of the Listerian details could have exercised the slightest influence. The exception is that of a patient poisoned by the use of thymol.

I have tried a long and careful experiment, the results of which have been most satisfactory, and they are briefly, that as the quantity of carbolic acid used for the operation is diminished so does the patient recover more easily, with less fever, distension, and sickness.

This experiment has been tried with the ligature exclusively, and I am now on the point of repeating it with the cautery, but I have already revived the high temperatures, distension, and consequent anxiety, which for more than a year I had been quite free from.

I cannot reconcile the statements of my friends, who tell me such marvellous things about their experience of Listerism in general surgery, with my own experience in abdominal surgery, and as my practice is entirely limited to this special field, and as I have no grounds for doubting the statements of my friends, I can only feel that an explanation will be found in the peculiarities of the peritoneum. This, I think, has been fully sustained by Dr. Bantock's paper.

I am, Sir, yours, &c.,
LAWSON TAIT.

OVARIAN DYSMENORRHŒA, WITH RETROFLEXION OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—I am indebted to Dr. Wynn Williams for his criticisms on the case under my care, published in your "Mirror" of Dec. 4th. Will you permit me to say in reply—

1. I regard it as certain that flexion of the uterus, unaccompanied by other morbid changes, produces no symptoms. But, as distinguished gynæcologists have put forward reasons for thinking that bending of the womb may cause congestion of that organ and ovaritis, I judged it proper to endeavour to straighten the uterus in the case reported. It was demonstrated, by the result of treatment, that the symptoms did not depend upon the shape of the uterus, and this, the main point of the case, and the reason of its publication, is not affected by Dr. Williams's criticisms.

2. I did not deplete the uterus, because menstruation was already too frequent and profuse. If intra-uterine stems are only safe when morbid conditions of the uterus have been first removed—in other words, when the uterus is healthy—I fail to see why they are used.

3. The explanation Dr. Wynn Williams gives as to why the patient was not sterile I admit to be a possible one, but the proof is wanting. Dr. Williams will confer a favour upon the profession if he will tell us how many cases of sterility he has treated with his stem, how long each of them had been sterile, and how many of them subsequently became pregnant.

I am, Sir, yours, &c.,
G. ERNEST HERMAN.
West-street, Finsbury-circus, Dec. 27th, 1880.

"A CHEMICAL LUNG."

To the Editor of THE LANCET.

SIR,—In August last you mentioned with approbation my scheme for a "chemical lung" designed to purify the air of the tunnels of the underground railway, and deemed it worthy of a trial. After long delay the directors lately granted me an interview to explain my scheme in detail. The objections urged, and which they considered fatal to carrying out the scheme, were, first, that the traction powers of their engines were already taxed to the utmost, and that therefore another carriage added would stop the train. To this, my reply that on boat-race days, for example, the overcrowding of the carriages did not arrest their progress, elicited no satisfactory answer. Secondly, I was asked by the practical chemist of the board what I meant to do with the carbonic acid evolved from the hundred tons of coal daily consumed; but my reply that I had only to deal with a limited portion of that gas—viz., so much as was contained in the tunnels from King's Cross to Edgware-road—seemed to excite that gentleman's pity for my want of chemical knowledge. The result of the interview was that the directors declined attempting to purify the tunnel atmosphere by the means proposed. Yours truly,

RICHARD NEALE, M.D. Lond.
Boundary-road, South Hampstead, Dec. 17th, 1880.

PARIS.

(*From our own Correspondent.*)

ANOTHER patient suffering from locomotor ataxia has been submitted by MM. Debove and Gillette to the operation of nerve-stretching, and with a most satisfactory result. The following account of the case is taken from the *Progrès Médical*:—"On the 16th of December M. Debove, with the assistance of M. Gillette, made another trial upon an ataxic patient, who, encouraged by the relief of his comrade, himself desired the operation. In this case there were incessant darting pains, sometimes paroxysmal, in the upper extremities. The median and radial nerves on the right side were stretched. The operation, very simple in itself, was as follows. An incision, about seven centimetres in length, was made along the course of the bundle of nerves which was thus exposed; a director was then passed under the nerves in question, with its convex side towards them, and being held by its extremities, a sufficient traction was made to raise them five or six centimetres. It may be observed that such a strain can be borne without any fear of rupture. Experiments made upon the dead subject have shown that a force of forty-two kilogrammes is necessary to tear the radial, and this is considerably above that which was exerted on this occasion. A few sutures in the skin and a carbolic-acid dressing completed the operation. Healing took place by first intention. In this case, as in the former one (see THE LANCET, Dec. 18th, 1880), there was a considerable decrease in the intensity of the pains in the right, and a complete cessation of them in the left upper extremity, as well as in the lower limbs. The plantar anæsthesia is less on the left side, motor incoördination is decreased, and it is now possible for the patient to walk without support. Regular sleep has returned and morphia is no longer required, as "the pains are as nothing to what they were before." A definite judgment as to the value of this treatment is not yet possible. Although the immediate result is most surprisingly satisfactory, it is difficult to say what will be the ultimate effect upon the spinal cord, and the merits of the operation can only be weighed by more extended experience. There is no doubt, however, that this experience will soon be forthcoming, for locomotor ataxia is one of the commonest of the medullary affections admitted into the hospitals of Paris, and Dr. Debove's success is sure to lead others to follow in this path.

It seems likely that the Hôpital St. Antoine will shortly undergo considerable improvements. A few years since a sum of £40,000 was left to the town of Paris by a wealthy citizen for the construction and maintenance of a hospital, which, according to the terms of the will, was to bear the founder's name, and to be mainly devoted to the relief of poor and sick women. No steps having been taken to carry out the testator's wishes, the other heirs lately requested the "administration" to give them effect, and in consequence a *projet* has been presented to the competent authorities by the prefect. It is proposed to enlarge the Hôpital St. Antoine, and to construct a new building in its vicinity, which shall be called after its founder, the "Pavillon Moïana," and contain eighty beds.

A scheme for the enlargement of the Ecole Pratique has come before the Municipal Council, and if put into execution Paris will be able to rival even Vienna in this respect. All the buildings which are now situated between the new Hôpital des Cliniques and the Boulvard St. Michel in one direction, and the rues de l'Ecole de Médecine, Monsieur-le-Prince, and Racine in the other direction, would be removed, and the new school rebuilt on this site. It would contain lecture-theatres for the *professeurs libres*, who correspond to the German *privat-docenten*, debating-rooms for different learned societies, and a number of laboratories and museums.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 23rd:—

Daniell, Charles Henry, Derby.
Gleeson, John Gerald, Cromwell-street, Belgravia.
Long, Richard Patrick, Essex House, Bow.
Verdon, Michael John, Craven-street, Charing-cross.
Wood, Edward Archer, Marlborough.
Wordley, Alfred William, Green-street, Suffolk-street.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Frank Allwork, Westminster Hospital; John Fredk. Williams, John Lyndsay Rodwell, and William Edgar Sicard, Charing-cross Hospital; Hy. Nelson Holberton, St. Thomas's Hospital; Walter A. W. Potts, St. Mary's Hospital; Wilfred Murch, St. Bartholomew's Hospital; Francis Hy. Vivian Voss, London Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on the 10th ult. and following days the undermentioned were admitted Licentiates of the College:—

Herbert Joseph Bermingham, Francis George Bonynge, Shepland M'Cormick Boyd, Francis Foster Brady, Louis John Patrick Carroll, Arthur Gerard Chance, Francis Philip Colgan, Patrick Arthur Daly, Valentine Plunkett Dillon, Charles James Douglas, Thomas James Dowse, Frederick William Exham, Michael Edward Fitzgerald, Thomas M'Craith Foley, William Gern, Michael Hayes, Patrick Hoey, William Gardiner Jacob, William Wall Jacobs, Sidney Geo. Jennings, Denis Patrick Kenna, John Keenan, Arthur William M'Math, Henry Strickland M'Gill, Francis John Mulock, Daniel Moon, Arthur Hill Murray, Reginald Lawson Morley, John Patrick Nicolls, Daniel Butler Reardon, Wm. Smyth, John Joseph Stack, Henry James Wyatt.

UNIVERSITY OF DUBLIN.—The undermentioned gentleman has obtained the diploma in State Medicine of the University:—

Polden, Robert J., M.B., B.Ch.

A DEATH from trichinosis, in a butcher who was in the habit of eating raw pork, is reported as having occurred at Bellevue Hospital, New York.

INTERNATIONAL EXHIBITION OF HYGIENE.—O Wednesday, Dec. 29th, at a meeting of the Committee the Parkes Museum of Hygiene, Mr. George Godwin, F.R.S in the chair, a proposal was made to hold an Internationa Exhibition in 1881. After a long discussion, in which D G. V. Poore, Professor Corfield, Mr. E. C. Robins, M Rogers Field, Dr. Gowers, and Mr. Mark H. Judge too part, the following resolution was unanimously passed:— "That Her Majesty's Commissioners of 1851 having expressed to the Committee of the Parkes Museum of Hygien their willingness to provide space at South Kensington fo an exhibition of Sanitary Appliances, and other industrie connected with Medicine, on the occasion of the International Medical Congress in 1881, it is desirable that th Committee should organise such an exhibition, provide that a sufficient guarantee fund be obtained." Those desirous of assisting the Committee in the work they hav thus entered upon, are requested to send their names to th treasurer of the Museum, Professor Berkeley Hill.

ASSOCIATION OF SURGEONS PRACTISING DENTA SURGERY.—The following is a list of the names of gentleme proposed by the Council as officers of the Association for the year 1881:—President: Mr. T. Edgelow. Vice-Presidents Messrs. T. A. Baker, Samuel Cartwright, W. A. N. Cattlin, Francis B. Imlach, S. T. A. Salter, F.R.S., and John Smith, M.D., F.R.S. Ed. Treasurer: Mr. S. H. Cartwright. Hon. Sec.: Mr. J. Hamilton Craigie. Council: Messrs. E. Bartlett, J. Fairbank, F. Fox, C. Gaine (Bath), W. A. Hunt (Yeovil), W. D. Napier, W. G. Ranger, and Augustus Winterbottom. The annual meeting for the election o officers &c. will be held on Wednesday, Jan. 25th, at 8 P.M., when an address will be given by Mr. W. A. N. Cattlin, F.R.C.S., "On the Imperfections of the Dentists Act, with suggestions as to the alterations required to protect the interests of Qualified Surgeons."

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Dr. Geo. R. Barnes of Ewell, Surrey (fourth time). Mr. J. R. Clouting, Thetford Union (second time). Dr. Sealy of Weybridge (fourth time). Mr. R. Istance, Risca district (fourth time). Dr. Mayou of Monmouth (fifth time). Also Mr. Frederick Morgan of Wellington, Somerset.

DR. F. OGSTON, sen., of Aberdeen, who has held the office of police surgeon for nearly half a century, has placed his resignation of the post, together with that of medical officer of health, in the hands of the Town Council of Aberdeen, undertaking to do the duties of both offices until his successor shall be appointed.

THE University of Durham Medical Society held a *soirée* in the Wood Memorial Hall on Dec. 21st. The meeting was a most enjoyable one, being enlivened by good music, and furnished with numerous specimens of microscopical research.

DR. THOMAS WOOD, of Cincinnati, has died from blood-poisoning caused by attending with chapped hands to the wounded in the recent railway accident on the Cincinnati, Hamilton, and Dayton line.

A MEMBER of the Newcastle Board of Guardians was last week fined 5*s.* for neglecting to have his child vaccinated. The defendant declined to pay the fine.

MR. W. K. WAIT has contributed £500 to the building fund of University College, Bristol, in addition to £250 previously given by him.

UNIVERSITY COLLEGE HOSPITAL.—Prince Leopold has consented to preside at the annual festival dinner in aid of the funds of this charity on May 20th, at Willis's rooms.

MOST of the Dublin hospitals and charitable institutions provided a special dinner for their inmates on Christmas Day, and gifts were largely distributed.

DR. GRIMSHAW, Registrar-General for Ireland, has been appointed one of the Commissioners for taking the Census in Ireland in 1881.

MR. R. E. GAGE, medical officer of the Workhouse, Paddington, has received a gratuity of £50 in consideration of extra services rendered by him during the past year.

DR. PETER EADE has been elected Sheriff of Norwich for the year 1880-81.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BAILEY, H. B., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Brownlow Lodge (Great Gonerby) of the Independent Order of United Brothers.

BURROWS, W. S., L.D.S., R.C.S., has been appointed Dental Surgeon to the North-West London Hospital.

CEELY, J. H., F.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Workhouse and the Aylesbury District of the Aylesbury Union, vice R. Ceely, deceased.

DAVISON, R. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Castleward Rural Sanitary District, Northumberland, vice Marr, whose appointment has expired.

DONOVAN, R. E., M.D., has been appointed Medical Officer to the Galbally Dispensary, Limerick, vice O'Connor, deceased.

GREENSILL, J. N., M.R.C.S.E., has been appointed Honorary Assistant-Surgeon to the Darlington Hospital, vice Lowes, resigned.

HINE, J. E., M.B., has been appointed Junior Resident Medical Officer to the Radcliffe Infirmary, Oxford, vice A. R. Oxley, resigned.

HORSFALL, H., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Masham Urban Sanitary District.

KAYE, J., M.B., C.M., has been appointed House-Surgeon to the Huntingdon County Hospital.

KIDD, P., M.B., has been appointed Casualty Physician to St. Bartholomew's Hospital, vice Harris, resigned.

MACARTNEY, T. L., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Surgeon to the Roman Gravels, and Wotherton Mines.

MASSIAH, B. J., M.D., M.R.C.S.E., has been appointed Physician to the General Hospital and Dispensary for Sick Children, Pendlebury, and Gartside-street, Manchester, vice Borchardt, resigned.

MORGAN, J., F.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Medical Officer of Health for the Langport Rural Sanitary District, Somersetshire, vice Tims, resigned.

MURRELL, W., M.D., M.R.C.P., has been appointed Extra Physician to the North-West London Hospital.

NETTLESHIP, E., F.R.C.S.E., has been appointed Ophthalmic Surgeon to the Hospital for Sick Children, Great Ormond-street.

SCHREIBER, Dr. A., of Augsburg, has been appointed one of the Resident Medical Officers to the German Hospital, Dalston, vice Dr. G. Ludwig, M.R.C.P., resigned.

SHEILD, A. M., L.R.C.P., M.R.C.S.E., late House-Physician to St. George's Hospital, has been appointed House-Surgeon to Addenbrooke's Hospital, Cambridge, vice Ground, resigned.

STEDMAN, A., M.R.C.S.E., L.S.A.L., L.M., has been appointed Medical Officer to St. John's Foundation School, Leatherhead.

VACHELL, E. S., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Radcliffe Infirmary.

YOUNG, Mr. W. C., has been appointed Public Analyst for the Whitechapel District.

Births, Marriages, and Deaths.

BIRTHS.

KENDALL.—On the 28th ult., the wife of Surgeon-General Henry Kendall, M.D., Poor-law Medical Officer, Chatham District, of a son, who survived his birth only a few minutes.

PALEY.—At East London, South Africa, the wife of J. Hewitt Paley, M.R.C.S.E. &c., of a daughter.

ROWORTH.—On the 26th ult., at Grays, Essex, the wife of Alfred T. Roworth, M.R.C.S.E., of a son.

MARRIAGES.

GODFRAY—BERTRAM.—On the 9th ult., at Grouville Parish Church, by the Rev. Isaac W. Tapper, M.A., Alfred Charles Godfray, M.B., L.R.C.P., of La Motte, St. Helier's, to Edith Elsie, daughter of Mr. H. C. Bertram, of Grouville, Jersey.

HUTTON—DAVIES.—On the 28th ult., at Tyndale Chapel, White-ladies-road, Bristol, Mamie Hutton, second daughter of the late William Hutton, of Glasgow, to D. Arthur Davies, M.B., of Swansea.

DEATHS.

FRANKLIN.—On the 26th ult., suddenly, while presiding at a public examination of the Manchester Jews School, Isaac A. Franklin, M.R.C.S.E., of Park Villa, Fallowfield, near Manchester, aged 68.

GOODMAN.—On the 23rd ult., at his residence, Eastbourne House, Gloucester-road, Birkdale, Southport, Charles Rowland Goodman, M.D., late of Manchester, aged 43.

KER.—On the 23rd ult., at Hadley House, Cheltenham, Isabella, wife of C. B. Ker, M.D., aged 47.

PARKINSON.—On the 23rd ult., at Tiptree Rectory, Essex, Alice Frances, wife of Mr. Edmund Wollaston Parkinson, M.R.C.S.E., L.R.C.P.Ed., of Melbourn, Cambs.

TOULMIN.—On the 22nd ult., suddenly, Abraham Toulmin, M.D., of Russell-road, Kensington, W. (for 19 years Surgeon to the Tower Hamlets Dispensary), in his 86th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

ASSELIN ET CIE., Paris.
Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris. Tome 16me. 1879. pp. 326–134. With Illustrations.

BAILLIÈRE, TINDALL, & COX, London.
Consumption as a Contagious Disease, with its Treatment according to the New Views. By D. H. Cullimore, M.K.Q.C.P. &c. pp. 124. With Appendix.

BOGUE, DAVID, London.
Conscious Matter, or the Physical and the Psychical universally in Causal Connexion. By W. S. Duncan. pp. 128.

BRINTON, D. G., Philadelphia.
Yellow Fever, its Ship Origin and Prevention. By Dr. R. B. S. Hargis. pp. 76.

CHURCHILL, J. & A., London.
Lectures on the Surgical Diseases of the Urinary Organs. By Reginald Harrison, F.R.C.S. Second Edition, considerably enlarged. pp. 399. With Illustrations.
Atlas of Pathological Anatomy. By Dr. Lancereaux and M. Lackerbauer, Artist. Translated by Dr. W. S. Greenfield. Seventy highly-finished Plates.
Handbook of Midwifery for Midwives. By J. E. Burton, L.R.C.P. Lond. pp. 306. With 9 Woodcuts.
Relapse of Typhoid Fever, especially with reference to the Temperature. By J. Pearson Irvine, M.D., F.R.C.P. pp. 144. With Temperature Charts.

FISCHER, TH., Cassel.
Dr. Paul Börner's Reichs-Medicinal-Kalender für Deutschland auf das Jahr 1881. Theil II.

GRIFFITH & FARRAN, London.
Lectures on Domestic Hygiene and Home Nursing. By Dr. L. A. Weatherley. pp. 84. 1s.

LEWIS, H. K., London.
Questions on Magnetism and Electricity. By F. W. Levander, F.R.A.S. pp. 94.
Elements of Practical Medicine. By Alfred H. Carter, M.D. Lond. pp. 374.
A German-English Dictionary of Words and Terms Used in Medicine and its Cognate Sciences. By Fancourt Barnes, M.D., M.R.C.P. pp. 300.

LONGMANS, GREEN, & CO., London.
Experimental Chemistry for Junior Students. By J. E. Reynolds, M.D., F.R.S. Part I., Introductory. pp. 144. With Illustrations.

MACMILLAN & CO., London.
Food for the Invalid, the Convalescent, the Dyspeptic, and the Gouty. By J. M. Fothergill, M.D. Edin. pp. 157.

PAUL, KEGAN, & CO.
The Natural Conditions of Existence as they affect Animal Life. By Prof. Karl Semper. pp. 472. With 2 Maps and 106 Woodcuts.

SAMPSON LOW, MARSTON, & CO., London.
Hernia, Strangulated and Reducible. By J. H. Warren, M.D. pp. 280. With Illustrations.

STOCK, ELLIOT.
Abridged Therapeutics founded upon Histology and Cellular Pathology. With an Appendix. By Dr. W. H. Schussler. Translated by M. D. Walker. pp. 91.

The Popular Science Monthly, December. (Appleton, New York.)—The Contemporary Review, December. (Strahan & Co.)—Cassell's Cookery, Part I.—Cassell's Popular Educator, Part I.—Higher Education of Medical Men. By Dr. F. D. Lente. (Bermingham, New York.)—The "Abdominal Method" of Singing and Breathing as a cause of Female Weakness. By Dr. C. E. Wing, Boston.—The History and Therapeutic Value of Arsenic in Skin Diseases. By Malcolm Morris, F.R.C.S.E.—The Influence and Use of the Will in the Treatment of many Spinal Deformities. By Dr. Roth. (Baillière, Tindall, & Cox.)—The Land Question in Ireland. No. II.—Archives of Medicine. (Putnam's Sons, New York.)—Sunday Magazine, January, 1881.—Record of Christian Labour connected with Prison Mission, &c.—Revista especial de Oftalmología, Sifilografia, Dermatologia y Afecciones Urinarias, No. XL.—An Account of Seventy-six Consecutive Cases of Abdominal Section; Case of Cholecystotomy; Treatment of Pelvic Suppuration by Abdominal Section and Drainage; The Antiseptic Theory Tested by the Statistics of One Hundred Cases of Successful Ovariotomy. By Lawson Tait, F.R.C.S.—The Opium Question. By Deputy Surgeon-General W. J. Moore.—Ward and Lock's Universal Instructor, Part III.—Sick Nursing essentially a Woman's Mission. By Dr. Dyce Duckworth. (Longmans.)—Sunday Magazine, January, 1881.—Fraser's Magazine, January, 1881.—The Victorian Review.—Journal of Mental Science, January, 1881.—The Professional Pocket-book, or Daily and Hourly Engagement Diary for 1881. (Rudall, Carte, & Co., Berners-street.)—The Cosmopolitan Masonic Calendar, Diary, and Pocket-book for 1881. (Kenning, Fleet-street.)—The British Almanac for 1881. (Greenhill, Stationers' Hall.)—Archives of Ophthalmology, Vol. IX., No. IV. (Putnam's Sons, New York.)—Report on the Cholera Epidemic of 1879 in Northern India. By Surgeon-General J. M. Cuningham, M.D., Sanitary Commissioner with the Government of India.—The Leisure Hour, January, 1881. (Tract Society.)—How to Avoid Disease. By Edward Sergeant, L.R.C.P.L.—Adulteration. By J. Clark, Ph.D.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, December 30th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 24	29·17	W.	48	47	..	58	46	..	Raining
„ 25	29·49	W.	34	33	..	41	29	..	Bright
„ 26	29·79	W.	40	35	..	45	30	..	Bright
„ 27	29·39	S.W.	50	48	..	52	39	..	Raining
„ 28	29·61	S.W.	52	51	..	54	41	·40	Overcast
„ 29	29·49	S.W.	51	49	..	52	48	·03	Cloudy
„ 30	29·37	W.	36	36	..	42	31	0·40	Raining.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

OPIUM-TAKING IN AMERICA.

DR. EARLE, physician of the Washingtonian Home, Chicago, has published the result of some observations made by him on the subject of opium-taking. During the last five years, he believes, the practice has increased, fostered, probably, by the ease with which the drug seems to be procurable. Thus fifty druggists of whom inquiries were made acknowledged to having 235 customers amongst them. Of these the great majority (169) were females; the age of the larger number of the victims of this pernicious habit was between thirty and forty years, and they were mostly of the middle class. Various reasons are given for taking the drug—e.g., its stimulative and happy effect, previous addiction to drink, unhappy marriage, rheumatism, neuralgia, "female complaints," previous sickness, wounds received during the war, loss of property, and so on. But the great majority confess it was prescribed during some disease in which pain was a prominent symptom. Women generally use morphia, men of the lower class gum opium, a few of both sexes use the tincture, while occasionally one is found taking large doses of paregoric. A widow, aged fifty, buys of one druggist half a gallon every week. A large number of ladies take one-third to one grain of morphia daily. The great bulk of the drug consumed is by the mouth. Some take a dose two or three times a day, while some of the oldest opium-eaters prefer a large dose at intervals of from one to three days.

A Constant Subscriber.—The second question is an arithmetical one, and not calling for any special answer from us. As to the duties of a consulting physician, strictly speaking they consist in seeing only medical cases, and those only in consultation with the ordinary attendant of the patient. But, practically, we consider this condition would be observed by Dr. A. seeing no patient at his own house at less than a fee of one guinea, and, of course, observing the conditions of area stated in the contract.

THE LATE MR. JAMES CASKIE, OF LARGS.

WE regret that the notice of Mr. Caskie's death did not reach us sooner. A mason of fifty years' standing, and long holder of various public medical offices, cannot die even at a ripe old age without deserving the tributes which were freely bestowed on him by his brother masons, but also by the various public bodies, whose complimentary resolutions well testify their regard. One of the most efficient compliments a public body can pay to an old and meritorious servant is to give his appointments to his son, and we are glad to notice that the respect of the Parochial Board of Largs has taken this form.

"HOSPITAL ADMINISTRATION IN INDIA."

To the Editor of THE LANCET.

SIR,—I trust you will allow me, as a friend of Dr. D. B. Smith, who is not at liberty to speak for himself while in the service of Government, to say a few words in reference to an article which appeared in your issue of the 20th November; and, in the first place, I would remark that it appears to me, as to others, that but for the observations which you made on the 21st August, pointing out that in fairness to Dr. Smith his reply to the Government of the Bengal Resolution should be published, it would most probably not yet have been so, and, as it is, the concession has been made in a grudging, ungracious manner, and Dr. Smith's letter has been sent to the newspapers only, but has not been printed in his official gazette in which the Resolution to which it was a reply appeared. You call the letter long and wordy, and consider that it would have been better for Dr. Smith if it had not been published. It was as a matter of necessity long, seeing that it had to answer so many charges, and to indicate so many mistakes regarding himself, which appeared in the report of the committee that inquired into hospital management in Calcutta. With your permission I shall call attention to one or two points which I think will show that Dr. Smith has done himself good by obtaining the publication of his reply. Take the case of the diets of the Medical College Hospital to which you allude. In the year 1870, when food was much cheaper in Calcutta than it is now, a committee, of which Dr. Payne, the present surgeon-general, was a member, recommended that the rates should be raised from 1*s.* 1½*d.* to 1*s.* 6*d.* for each European, and from 6*d.* to 9*d.* for each native diet. This committee of 1870 stated that the rate of 6*d.* for natives was too low to secure the stimulants and extras required for the numerous cases admitted in the last stages of exhaustion, and that, though the European rate had not been exceeded, it was, in their opinion, not sufficient to procure meat and milk good enough for the sick. They further reported that the average rate for Europeans of 1*s.* 6*d.* a day has long been "an average rate of charge in the European Lunatic Asylum, where all are on full diet, but none require the costly stimulants and extras that are largely used in the Medical College Hospital." But Sir A. Eden's Committee, of which Dr. Payne, who is also superintendent of the European Lunatic Asylum, was a member, recommended two years ago that the rates for Europeans should again be reduced to 1*s.* a day, and 5½*d.* for each native.

Dr. Smith in his letter further shows that, according to the analysis of Professor C. H. Wood, the milk supplied under the contract rates in the early part of 1879 consisted of milk 56 and water 44 parts. In estimating the sufficiency of the present rates, it is very necessary to take into consideration that the patients to a large extent obtain food for themselves by purchase, or by having it sent in by their friends. A short time ago it was ascertained that on an average thirty patients daily, or upwards of 10,000 a year, thus supplemented the hospital allowance. I am aware that the practice is said to be "contrary to orders," but if there are such orders they are never enforced. From the report of Sir A. Eden's Committee the public were led to infer that patients in the Medical College Hospital were freely regaled on champagne, jellies, fruit, and cigars! such entries having been detected among the articles of extra diet. Dr. Smith, however, has shown that the expenditure on account of champagne from 1871 to 1872 was £26, or £3 5*s.* a year, while the largest expenditure was incurred by a single surgeon in one of the years, and amounted to £22 7*s.* 6*d.* He has also shown that the cost of cigars for the three years 1872, 1873, and 1876, when he was in charge, was 1*s.* 7½*d.*, the cigars having been allowed to asthmatic patients who found relief by smoking. The expenditure on account of jellies during the above three years was £22 5*s.* 6*d.*, and on account of pomegranates for native patients £7 8*s.* 3*d.* In conclusion, let me ask your attention to another part of Dr. Smith's reply. The Government of Bengal, in reviewing the reports of the hospitals of Calcutta for the year 1877, mentions Dr. Smith, along with other medical officers, as having the "satisfaction of knowing that their labours to render the hospitals under their charge worthy of the confidence of the public have been eminently successful." Yet, in face of this resolution, a committee subsequently appointed has laboured to create an impression that the management of the Medical College Hospital, as well as others, was anything but "eminently successful."

The Government of Bengal has very recently been forced to admit that an appalling mortality in the gaols of that province for the year 1879, amounting to 94·8 per mille, was chiefly due to insufficient diet. I happen to know something of the statistics of the hospitals of Calcutta published as well as unpublished for the year 1879, and am rather curious to compare results with those of the current year. There has now been time to test the new rates, but so long as so many patients who can manage it are allowed to supplement their hospital food it must be impossible to arrive at a definite conclusion. My own idea is that economy is looked on as more important than the interests of the sick.

Yours faithfully,

JAS. IRVING, M.D.,
Late Surgeon-General to the Bengal Government.

Edinburgh, Dec. 7th, 1880.

⁂ We publish Dr. Irving's letter solely on the plea advanced in the first paragraph, that Dr. D. B. Smith "is not at liberty to speak for himself while in the service of Government." But we feel bound to say that it does not in the slightest degree modify the opinions expressed in our leader of the 20th November, which were formed after a very careful perusal of all the published documents, including Dr Smith's own letter.—ED. L.

A VETERAN HUNTER.

DR. GRESHAM, of Louisville, is (says an American contemporary) ninety-seven years of age, and has just started for the mountains on his "last hunt." He is the only living fort-born native of Kentucky. When he came into the world his parents were dodging arrows and tomahawks, and his youth was spent with the rifle in his hand. He says he cannot die in peace until he shall once more have eaten venison of his own killing and cooking.

ERYTHEMA.

To the Editor of THE LANCET.

SIR,—The remarkable case which you reported as having been lately brought before the Clinical Society by Dr. T. C. Fox had been for a long time under my care, as was then stated by Dr. Carrington. I also saw the patient's sister, and agree with Dr. Fox that both are suffering from the same affection of the skin; but I cannot think that we gain anything by naming it "persistent gyrate erythema." If by the term erythema we mean any common superficial inflammation of the skin which does not go beyond the stage of papules, it will include the rashes of measles, scarlatina, and syphilis, the early stage of eczema, and the symptomatic eruptions caused by shell fish, and other gastric irritants. If to this anatomical definition we add the characters usually ascribed to "erythemata" of preference for the upper extremities, acute course, and "accidental" origin, the term is still less applicable to the case in question. Poril has lasted nearly a lifetime, it occurs in the members of the same family, and it is characterised not by the branny desquamation which follows an erythematous inflammation, but by the presence of slowly-formed, persistent, and adherent scales.

I exhibited the patient at the Hunterian Society in 1878 to several experienced dermatologists, but none of us could recognise it as coming fairly under any recognised term. I satisfied myself, as Dr. Fox has done, that the disease is neither parasitic nor syphilitic, and entered it in my notebook as an anomalous form of chronic serpiginous dermatitis.

Is it not better to be content with describing such cases as we meet with them, and recording them when we can collect two or three of the same kind, rather than to add to the already overgrown crop of dermatological nomenclature by inventing a new name for each new comer?

In this case the question seems to me to lie between regarding the affection as a very mild and irregular form of lupus, or a very chronic and aberrant case of psoriasis. The want of proof of implication of the sebaceous glands and the probability from the absence of scars that the dermatitis did not go deeper than the papillary layer of the skin, appear to negative the former supposition. On the other hand, the early appearance of the affection, its chronic course with frequent exacerbations, the distribution of the eruption chiefly, though not at all exclusively, on the extremities and on the extensor surfaces, its dry and scaly form, its serpiginous progress and consequent gyrate pattern, all seem to point to a relationship with psoriasis. When to this we add that the disease appears in a brother and sister, and that my patient improved decidedly under full doses of arsenic, many other modes of treatment having produced no change, the evidence is certainly strengthened, but I do not pretend that it is conclusive.

I had drawings taken at the time, which I should be happy to show Dr. Fox, and a fuller account of both cases when under my care will appear in the forthcoming volume of the Guy's Hospital Reports.

I am, Sir, yours, &c.,
Harley-street, Dec. 3rd, 1880. P. H. PYE-SMITH.

NIGHT MEDICAL SERVICE IN NEW YORK.

BETWEEN the 5th of September, when the night medical service was put into operation in New York, and the 30th of the month, twenty-five visits were (says an American contemporary) made by fifteen physicians of the service, and of the patients visited, three paid fees. The majority of these were cases of sudden illness or emergencies occurring in the night-time among the poor, and there appears to have been no attempt on the part of anyone to take undue advantage of the charity.

T. Johnson.—We do not indicate particular physicians or surgeons.

Hygiene should write to the registrar of the university for a prospectus of the course of study.

Senex has not enclosed his card.

GLACIALINE.

To the Editor of THE LANCET.

SIR,—A food preservative termed "glacialine" has recently been introduced to public notice, and has already acquired a deservedly wide reputation. It possesses the remarkable property of preventing putrefaction and obviating fermentative change in liquid and solid foods. These qualities, together with its perfect harmlessness when taken into the stomach, or when topically applied to the skin or mucous membranes, induced us to think that in suitable cases it might be used as a medical agent. Having had occasion within the last few months to treat a large number of cases of diarrhœa, especially in children, and finding some of these cases very intractable, we determined to try the effect of glacialine, and the results have been highly satisfactory, and have far exceeded our expectations.

It has been demonstrated that sour milk irritates the whole alimentary canal; it will therefore be easily understood that such milk taken into the stomach of a delicate child will produce diarrhœa, and often cause death. Now, we argued, since glacialine prevents milk from turning sour, it will prevent diarrhœa. But we had two points definitely to solve. Firstly, whether glacialine possessed any physiological action on the system of children which would prove deleterious. Secondly, whether it would prevent or change the normal action of the gastric juice on the milk in a child's stomach. In order to settle these points we carefully watched its action in a large number of cases, and found that so far from being injurious in any way, the health of each child was considerably improved by the addition of glacialine to its food. And we have used considerably more of this substance than is necessary to keep the food sweet. With regard to the action of the gastric juice, we find it in no way interfered with. Our experience has been that although glacialine prevents the milk from decomposing when exposed to the air, the normal process of digestion in the stomach goes on as well with as without glacialine. We therefore believe an enormous amount of sickness and death among children would be prevented by simply using a small quantity of this perfectly harmless glacialine in their food.

Where diarrhœa actually exists, either from sour milk or unripe fruit, we recommend two to four grains of the glacialine powder with a little sugar of milk, three or four times daily, before food, or, with greater efficacy, dissolved in the child's milk in the proportion of three or four grains to the half pint. In this, as in other varieties of diarrhœa, it is unwise to attempt to check the discharge until all the materials in the stomach and bowels of an irritating character are got rid of. It is, therefore, a good practice to begin the treatment by giving a dose of olive or castor-oil.

An ointment made by thoroughly mixing a drachm of glacialine with an ounce of unguentum cetacei forms an excellent dressing for unhealthy sores. We have found it of the greatest benefit in indolent ulcers and slowly healing sores after burns. Under its influence the flabby granulations soon give way to those of a florid red colour so characteristic of the healthy healing process.

A lotion consisting of a saturated watery solution of glacialine, sweetened with a little glycerine, is useful as a gargle in aphthous conditions of the mouth, tongue, and throat. The lotion also allays the tingling, itching, and burning sensation so common in certain stages of eczema; and used as an injection it is advantageously employed in irritable conditions of the vulva and vagina, and in some cases checks the amount of secretion in leucorrhœa. This valuable substance is supplied retail by chemists, and wholesale by the Glasgow Antitropic Company in neat cylindrical tins, and in a dry place will keep any length of time. Trusting you will find room for this communication,

We remain, Sir, yours, &c.,
J. STUART, M.D.,
Dowlais, Dec. 17th, 1880. E. DAVIES, L.R.C.P. Edin.

H. J. F. should apply by letter to the College. He would require a knowledge of inorganic and organic chemistry, for which Roscoe's work might be recommended.

Mr. G. P. Field.—Soon.

Juvenal.—We are unable to answer the various questions. The course to take is to write to the secretaries of the several companies.

Rickets.—This point is discussed in an article in our present number.

R. W. will find some information on the subject in a letter published in our present issue.

A Victim has not stated what part of Australia, concerning the climate of which he desires information.

SMALL-POX.

To the Editor of THE LANCET.

SIR,—In reference to the recent small-pox returns I cannot think but that much might be done against small-pox by more stringent isolation and disinfection. May I call your attention to two recent cases in this parish?

H. W——, twenty-six years of age, died on Nov. 2nd, 1880, and was buried on Nov. 5th, after a week's illness from small-pox. The house is a four-roomed one; there are five adults in it and a boy of ten years. Some disinfecting fluid was sprinkled about the house, and sulphur was burnt in the room in which the woman died. This was the only disinfection to which the bedding was subjected, and the flock mattress was not unpicked. The disinfector said his ovens were out of order.

The boy was attacked on the 14th, and I urged isolation, but the parents provided themselves with a certificate from the medical man in charge of the case, stating that this was not a case of necessary removal. Our medical officer of health was powerless to act without a certificate from the medical man to the effect that the boy could be removed without danger. I obtained this certificate on the 16th, and on the next day the ambulance was sent, but the parents took their stand on the first certificate, and revoked the verbal permission for removal which I had obtained from them.

I visited the house on the 26th, and found the boy convalescent, and his mother pursuing her business of dressmaking. There had not been any second disinfection up to this time.

In another case a boy of two years was attacked. The grandmother went to the medical officer of health to get him removed, but he was unable to interfere, as Highgate refuses to admit a child under six years, so he referred her to the relieving officer. The relieving officer refused to remove the case because they were not paupers. After two days through the influence of a guardian, the case was removed by the parish There were six other children in the house in this case, one of three rooms.

I am, Sir, yours obediently,
JAMES MAHOMED,
Dec. 17th, 1880. Curate of St. Philip's, Stepney.

DRINKING TROUGHS.

DR. BREWER has been making everybody who possesses a horse in the metropolis uncomfortable by urging the very probable occasional spread of glanders through the medium of public drinking troughs. The Special Purposes and Sanitary Committee of the Metropolitan Board of Works has had this subject under consideration, and has submitted the following recommendation to the Board:—"That it be suggested to the Metropolitan Drinking Fountain and Cattle Trough Association, and other bodies and persons who provide public drinking troughs in the metropolis, that such drinking troughs should be so constructed and used as to have a constant flow of water passing through them and running off by means of a tumbling bay, direct to a gully; and that measures should be taken to ensure the troughs being thoroughly cleansed every morning." This recommendation has been adopted.

Mr. Wm. Hunter, M.B. and C.M.—Our correspondent is right. The qualifications he mentions do not legally carry the title of physician and surgeon, but surgeon and apothecary.

A Trained Nurse's letter is too long for insertion.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Brunton, London; Mr. Whipple; Dr. Taylor, Ulverstone; Mrs. Napton; Dr. De H. Hall, London; Dr. Hollis, Brighton; Mr. J. Cæsar, London; Dr. Amidon, New York; Dr. Lewins, London; Dr. Savage, Birmingham; Abow Ben Adham; Dr. Murphy, Sunderland; Captain Blount; Dr. Roedl, Frangensbad; Mr. Craigie, London; Dr. Herman, London; Surgeon-Major S. Smith; Mr. Mayer, New York; Dr. Finch, Salisbury; Dr. Ormsby, Leeds; Messrs. Richardson, Leicester; Dr. Rorke, Wigan; Dr. Jordan, Birmingham; Dr. Gerrish, Portland, U.S.A.; Dr. Day, Japore; Dr. Eastwood, Darlington; Dr. Finch, Salisbury; Mr. Learn; Dr. Smith, Dumbarton; Mr. Davey, Lincoln; Dr. Jones; Mr. Head, Plymouth; Mr. Grant, Kirk Micheal; Dr. Fenn, Richmond; Dr. Rasch, London; Dr. De Bartolomé, Sheffield; Professor Brown-Séquard, Paris; Mr. Hosking, Penzance; Mr. Wiseman; Mr. F. C. Hewett; Mr. G. W. Parker, Madagascar; Mr. Austin; Mr. Whittaker, Glasgow; Dr. G. Budd, Clifton; Mr. Sergeant, Bolton; Mr. Chestnut, Tralee; Mr. Boon, St. Kitts; Mr. Fuller, Winchester; Dr. Philipson, Newcastle-on-Tyne; Mr. H. C. Meyer, New York; Mrs. Naylor; Dr. Goodhart, London; Dr. Hawkes, St. Faiths; Dr. Sheen, Cardiff; Mr. Feldman, London; Mr. D. A. Flinn, Brownhills; Mr. W. Blyth, London; Dr. Gossett, Abingdon; Dr. G. Y. Hunter, Bombay; Dr. Davies, Marstey; Dr. Gill, Canterbury; Messrs. Oliver and Boyd, Edinburgh; A. C., Riscar; Alpha, Bedford; K. W. J.; Medicus, Halifax; M.D.; Læsus; Rickets; S. J.; A Young Practitioner; R.; R. W.; Hygiene; A Graduate of Medicine; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Fennell, Washington; Mr. Donaldson, Burt; Mr. Turner; W. Davison; Mr. Fitzgerald; Mr. Carter; S. Byers, Belfast; Mr. Allsop; Dr. Rudyard, Watford; Messrs. Strain, Belfast; Dr. Von Ruck, Norwalk, Ohio; Mr. Watkins, Worcester; Mr. Wilson, Eastbourne; Mr. Elliott, Reddish; Mr. Dickson, Brixton; Mr. Ryan, Gympie, Queensland; Professor Vanzetti, Padua; Mr. Finch, Colchester; Messrs. Fox & Co.; Dr. Squire, London; Messrs. Bragg and Son, Taunton; Permanens; F.R.S.; E. J. D., Hastings; Unqualified Assistant; H. C., Bangor; Medicus, Bradford; M. Y., Brighton; D. G. A.; Alpha, Reading; Fidies; R. B., Preston; Melancthon; R. G., Carmarthen; J. R. P., Leicester; M.A.; E. J.; Delta, Lydd; A. B., Manchester; Fides, J. P.; &c., &c.

Grantham Journal, Egyptian Gazette, Anti-Vivisectionist, Night and Day, Sanitary Engineer, Science, Detroit Lancet, Dental Jairus, The American, &c., have been received.

Medical Diary for the ensuing Week.

Monday, Jan. 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Jan. 4.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Atoms."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M.—Annual General Meeting. The following Specimens will be shown:—Rheumatism and Gout in the same subject; Diseased Kidneys from a Pig; On the Pathological Histology of Molluscum Contagiosum; Molluscum Contagiosum; Obstruction of Mesenteric Artery and Vein; Case of Strangulated Hernia; Recurrent Multiple Sarcoma; Enlargement of the Median Nerve (living specimen); Calcareous Aorta (card); Acute Inflammation of Muscle.—Annual Report of the Council. Election of Officers.

Wednesday, Jan. 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

EPIDEMIOLOGICAL SOCIETY. — 7 P.M. Council Meeting. 8 P.M. Surgeon-Major Charles Oldham, "On the Nature and Origin of Climatic Fevers." Dr. J. Wm. Mackenna, "On the Cause and Origin of Fever."

OBSTETRICAL SOCIETY OF LONDON.—Meeting postponed from January 5th to January 12th.

Thursday, Jan. 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Atoms."

HARVEIAN SOCIETY.—8½ P.M. Annual Meeting and President's Address.

Friday, Jan. 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Jan. 8.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Atoms."

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom.

The postal arrangements relating to the distribution of THE LANCET will be considered from time to time in the interests of subscribers.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

A Lecture
ON
THE DIFFERENTIAL DIAGNOSIS OF CARDIAC MURMURS.

Delivered in the Extra-Academical School of Medicine, Edinburgh,

BY BYROM BRAMWELL, M.D., F.R.C.P. EDIN.,
LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE, AND ON PRACTICAL MEDICINE AND MEDICAL DIAGNOSIS IN THE EXTRA-ACADEMICAL SCHOOL OF MEDICINE, EDINBURGH; LATE PHYSICIAN AND PATHOLOGIST TO THE NEWCASTLE-ON-TYNE INFIRMARY.

GIVEN the presence of a murmur in the præcordial region, we have to determine:—

A. Whether it is *exo*cardial or *endo*cardial.

B. If exocardial, whether it is a pleural, pericardial, or pericardial-pleural murmur.

C. If endocardial:

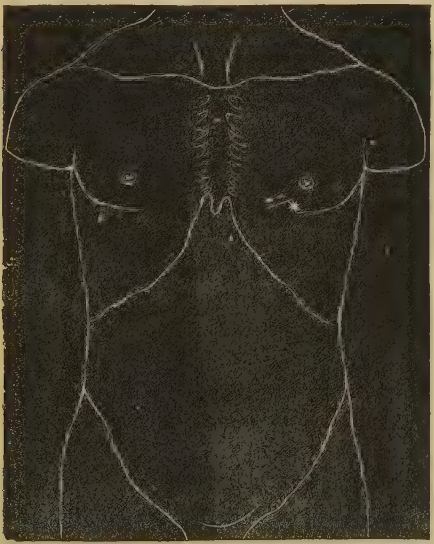
1. The valve at which it is produced, and whether it is direct or regurgitant.
2. Whether it is organic or functional.
3. If organic, the extent and gravity of the lesion.

The differential diagnosis of exocardial and endocardial murmurs is, as a rule, easily made by attention to the following points:

1. *The rhythm of the murmur.*—Pleural friction sounds are, of course, at once distinguished from cardiac murmurs by the fact that they correspond in frequency to inspiration and expiration, and that they do not correspond with the pulsations of the heart.

Exocardial murmurs (pericardial friction and pericardial-pleural friction murmurs) do correspond in frequency with the pulsations of the heart, but their synchronism is, as a rule, much less perfect (they do not correspond so exactly with the heart sounds) than the synchronism of endocardial murmurs.

FIG. 1.

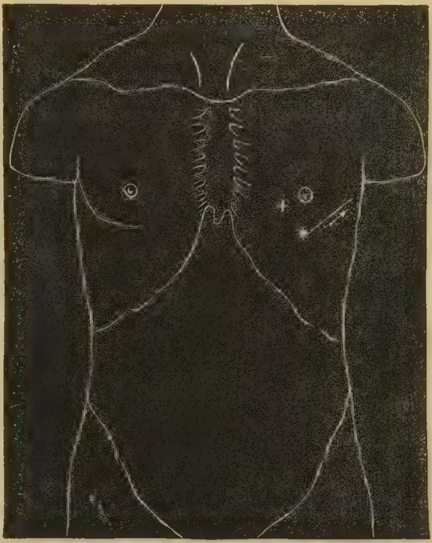


Outline figure showing the point of differential maximum intensity (*) of the presystolic mitral murmur (mitral stenosis), and the direction in which it is propagated.

Pericardial murmurs, when typical, are double (the to-and-fro friction murmur of pericarditis), but the murmur of combined aortic stenosis and incompetence is also double; hence in the majority of cases the problem resolves itself into the differential diagnosis of these two conditions (pericarditis and double aortic disease).

The *rhythm* of exocardiac murmurs is often *variable*, is apt to change from day to day, from hour to hour, or even during the actual examination of the patient. Alterations in the relative position of the two opposed surfaces of the pericardium, such as may be produced by alterations in the position of the patient, by the application of pressure to the præcordia through the stethoscope, frequently modify the character (rhythm and position) of pericardial murmurs.

FIG. 2.

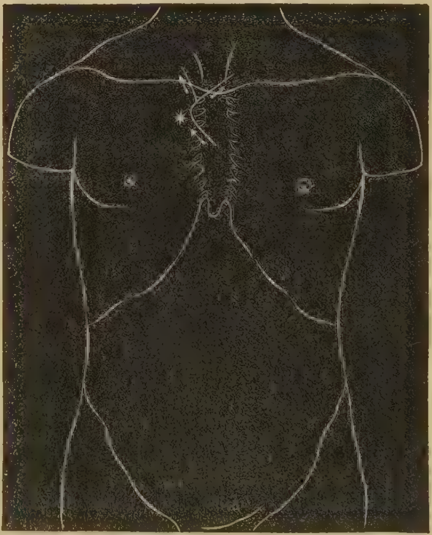


Outline figure showing the point of differential maximum intensity (*) of the systolic mitral murmur (mitral regurgitant), and the direction in which it is propagated. + indicating the normal position of the nipple, is perhaps a shade too high.

Endocardial murmurs are not variable, but fixed.[1]

Endocardial murmurs, with the exception of the presystolic murmurs, replace more or less completely the cardiac sounds. (See below, Rhythm of Endocardial Murmurs.) Pericardial murmurs accompany and may obscure the cardiac sounds, but do not replace them.

FIG. 3.



Outline figure showing the point of differential maximum intensity (*) of the systolic aortic murmur (aortic stenosis), and the direction in which it is propagated.

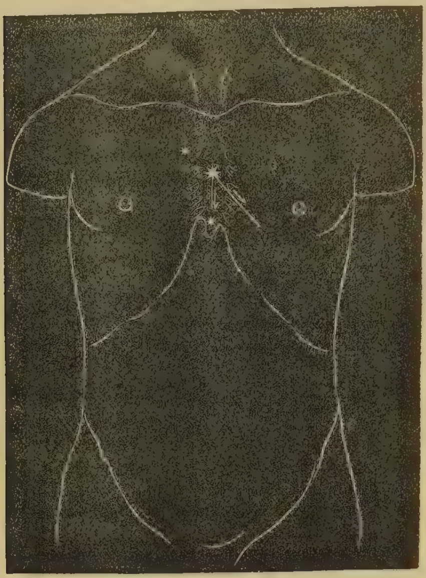
It is sometimes difficult to say whether a cardiac sound is replaced or only obscured by the murmur. In such cases the sound may sometimes be distinguished by removing the ear a short distance from the end of the stethoscope, or by so placing the stethoscope that the ear-piece only partly covers the external auditory meatus.

---

[1] In some cases of mitral stenosis the murmur disappears when the position of the patient is altered, when he gets up, but the rhythm of the murmur does not change: it always remains presystolic.

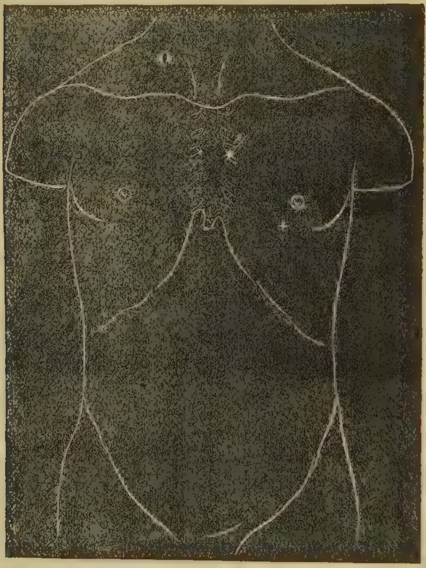
2. *The sound characters of the murmur.*—Exocardial murmurs are friction murmurs, and, as a rule, have a harsh, grating character. In some cases where the heart is acting feebly, and the lymph between the two opposed surfaces of pericardium is yielding—i.e., recent—the pericardial murmur is soft, closely resembling the sound characters of many double aortic murmurs. An exocardial murmur appears to be superficial. This is not a point of much importance, for many endocardial murmurs have the same character.

FIG. 4.



Outline figure showing the point of differential maximum intensity (*) of the diastolic aortic murmur (aortic regurgitation), and the direction in which it is propagated.

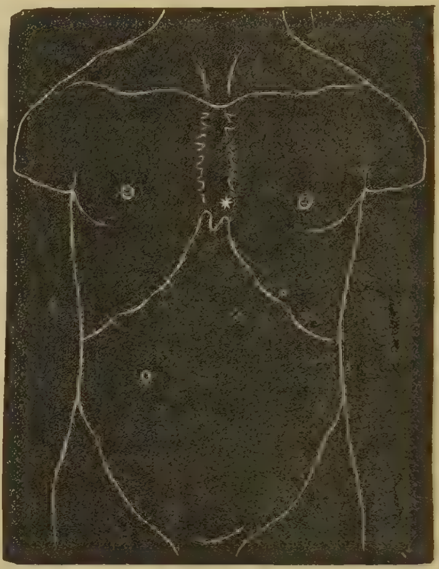
FIG. 5.



Outline figure showing the point of differential maximum intensity (*) of the systolic pulmonary murmur, and the direction in which it is propagated.

3. *The point of maximum intensity of the murmur, and the direction in which it is propagated.*—Exocardial murmurs are, as a rule, best heard over the borders of the heart, but have no special point of maximum intensity. Endocardial murmurs are, on the contrary, generally heard loudest at certain definite points. Mitral murmurs, for example, have their point of maximum intensity over the apex. (See Figs. 1 and 2.) Exocardial murmurs are usually heard over a limited, sometimes a remarkably limited, area, and are not propagated in the course of any particular blood-current, as endocardial murmurs are. (See Figs. 1, 2, 3, and 4.) The regurgitant aortic murmur, for example, is propagated downwards, the direct aortic murmur upwards over the course of the aorta, and into the vessels of the neck. (See below, Propagation of Endocardial Murmurs.)

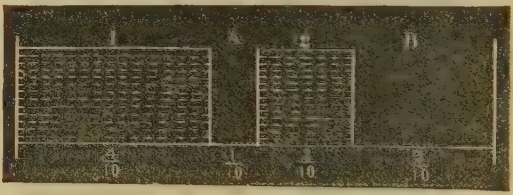
FIG. 6.



Outline figure showing the point of differential maximum intensity (*) of the systolic tricuspid murmur (tricuspid regurgitation).

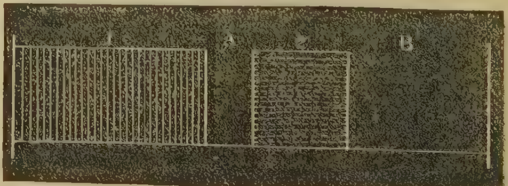
GRAPHIC REPRESENTATION OF CARDIAC MURMURS.

FIG. 7.



Graphic representation of one complete (normal) cardiac revolution. The sounds are represented by shaded (horizontally dotted) spaces, the pauses by blank spaces. 1=the first sound, 4-10ths; 2=the second sound, 1-10th. A=the short pause, 2-10ths; B=the long pause, 3-10ths.

FIG. 8.



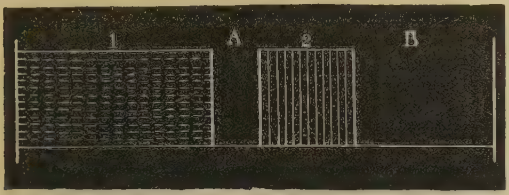
Systolic murmur replacing the whole of the first sound. The murmur in this and the succeeding figures is represented by continuous vertical lines, the normal sound by dotted horizontal lines.

4. Exocardial murmurs (pericardial and pericardial-pleural) appear abruptly (acutely, so to speak), and, as a rule, occur in the course of some general affection, rheumatic fever for example. Endocardial murmurs may appear abruptly, and in the course of rheumatic fever, &c., but in many cases it is impossible to fix the date of their occurrences (see foot-

note). The absence of constitutional disturbance, and the fact that the murmur is an old one, point strongly, therefore, to its being endocardial.[2]

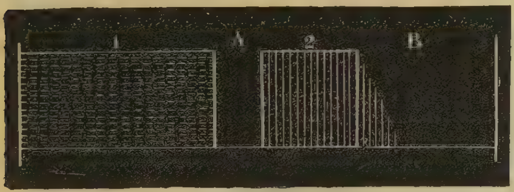
5. In the case of the double aortic murmur, which is the endocardial murmur, which is most liable to be mistaken for a pericardial friction murmur, the jerking, collapsing character of the pulse is a valuable diagnostic guide. The pulse in aortic cases is, as a rule, normal, or only slightly increased in frequency. In pericarditis it is usually accelerated. The symptoms may afford some corroborative evidence. In pericarditis there is, as a rule, some pain and tenderness on pressure. In cases of valvular disease there is seldom pain and tenderness, unless in aortic cases, in which the pain is usually angina-like in character.

FIG. 9.



Diastolic murmur replacing the second sound.

FIG. 10.



Diastolic murmur replacing the second sound, and extending into the long pause.

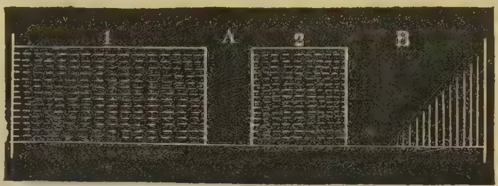
The murmur is exocardial. We have now to determine whether it is a pleural, pericardial, or pericardial-pleural murmur.

Ordinary pleural friction is at once distinguished by its rhythm corresponding to the respiratory movements.

It is sometimes extremely difficult to distinguish pericardial friction and pericardial-pleural friction.

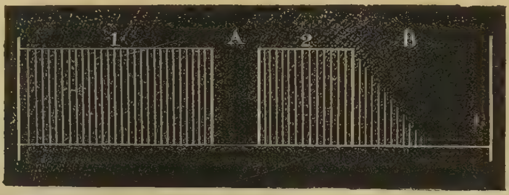
Pericardial-pleural friction is rare. It occurs when that portion of the pleura which is reflected over the pericardium is inflamed, and is produced by the movements of the heart rubbing this rough and inflamed portion of pleura against the chest-wall, or against the visceral pleura which is in contact with it. (The visceral pleura is usually inflamed, too.)

FIG. 11



Presystolic murmur occurring during the long pause, and ending abruptly with the commencement of the first sound. In this case the first and second sounds are represented as normal.

FIG. 12

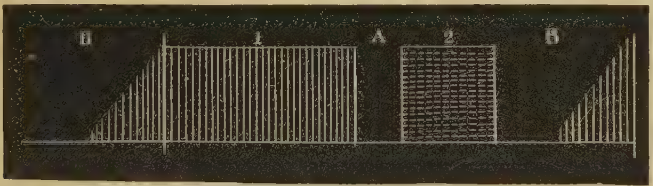


Systolic murmur replacing and limited to the period of the first sound; diastolic murmur replacing the second sound, and extending into the long pause.

1. Pericardial-pleural friction is generally best heard over the borders of the heart—i.e., where the visceral and parietal portions of the pleura are in contact.

2. Pericardial-pleural friction is, as a rule, more affected by the respiratory movements than ordinary pericardial friction. I have twice observed it decidedly increased during inspiration—i.e., when a larger surface of the two opposed and inflamed portions of pleura came in contact.

FIG. 1



Presystolic and systolic murmurs.

Walshe states that it is usually increased during expiration. Where this is the case, the murmur is probably produced by friction between the outside of the pericardium and the chest-wall, but not between the outside of the pericardium and the visceral pleura.

3. The pericardial pleural friction murmur is even more variable than pericardial friction, and may cease with certain pulsations of the heart.

4. On full and rapid inspiration it may disappear and be merged into ordinary pleural friction. This is not, however, pathognomonic, for ordinary pericarditis is frequently accompanied by pleurisy, and in such cases the pericardial friction may be *masked* (it does not disappear) by the pleural friction sound.

The murmur is endocardial. At which valve is it produced, and is it direct or regurgitant?

We determine these points by regarding:

(a) *The point of maximum intensity of the murmur*—or rather the point of *differential* maximum intensity for all valvular murmurs—may sometimes be heard with great intensity immediately over the valves. According to Walshe, "a superficial area of half an inch square will include a portion of all four sets of valves *in situ*: an area of about one-quarter of an inch, a portion of all except the tricuspid."[3] The points of differential maximum intensity for the different valves are as follows:

Mitral = the apex (see Figs. 1 and 2), *wherever it may be*; not necessarily in the fifth left interspace, an inch and a half below and slightly internal to the left nipple.

Aortic = second right costal cartilage (aortic cartilage)—i.e., that point where the aorta is most superficial. (See Figs. 3 and 4.) The aortic diastolic murmur is often heard loudest at the lower end of the sternum. (See below, Direction of Propagation of Murmurs.)

Pulmonary = third left costal cartilage (pulmonary cartilage), at its junction with the sternum. (See Fig. 5.)

Tricuspid = lower end of the sternum, or rather the junction of the lower left cartilages with the sternum.

A systolic murmur is sometimes heard equally loud both at the base and the apex, and it comes to be a question whether there are two or whether there is only one murmur.

In such cases (1) the murmur must be carefully traced from one point to the other (from the apex to the aortic cartilage, for example). If the intensity of the murmur be diminished at a point between the two positions there are probably two murmurs.

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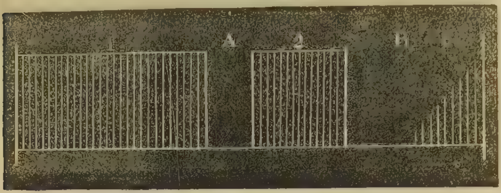
[2] If the murmur is present at the first examination, and if the patient has not been previously under observation, it may be impossible to say whether it is *recent* or not.

[3] Walshe, Diseases of the Heart p. 6.

(2) The tone of the murmur at the two points must be carefully noted. If the tone differs there are two murmurs.

(3) The direction of propagation must be observed. If the murmur is propagated both upwards towards the axilla and upwards over the aorta and into the vessels of the neck there are two murmurs.

FIG. 14.



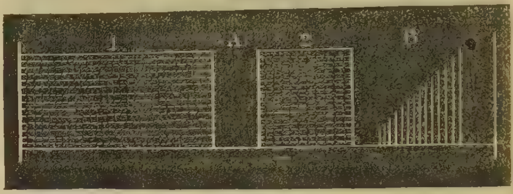
Presystolic, systolic, and diastolic murmurs.

(*b*) *The rhythm of the murmur.*—Endocardial murmurs are either systolic, diastolic, or presystolic.

Systolic and diastolic murmurs replace more or less completely the first and second sounds respectively, and may extend more or less into the first and second silences. (See Figs. 8, 9, and 10.) Presystolic murmurs do *not* replace either sound, but occur solely during the long silence, towards its end, immediately before the ventricular systole. (See Fig. 11.)

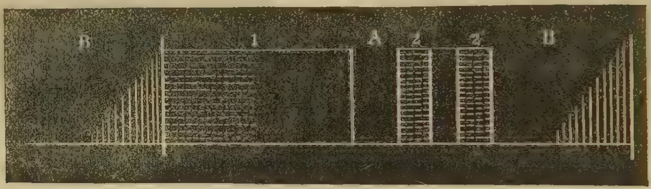
When the heart is acting quickly it may be very difficult or impossible to "time" the murmur correctly. The difficulty of determining the exact rhythm of the murmur is also increased where there is a combination of murmurs such as I have represented in Figs. 12, 13, and 14. This is more especially the case where a presystolic and systolic mitral are combined, as in Fig. 13. The difficulty is less in the combined aortic murmurs. In the latter case there is nearly always an appreciable interval between the systolic and diastolic portions of the murmurs, as seen in Fig. 12.

FIG. 15.



Post-diastolic murmur, which occurs in some rare cases of mitral stenosis. It is separated from the commencement of the first sound by an appreciable interval. Compare with Fig. 11, which represents the usual typical presystolic murmur of mitral stenosis.

FIG. 16.



Graphic representation of the cardiac cycle in a typical case of mitral stenosis—viz., presystolic murmur, short valvular first sound, reduplicated second sound.

Figs. 8 to 14 are intended to be graphic representations of the various cardiac murmurs. Fig. 7 represents the normal cardiac cycle, showing the relation of the sounds and silences. In the succeeding figures the interrupted horizontal lines represent the normal cardiac sounds; the continuous vertical lines the new sounds or murmurs. These diagrams are, I think, superior to the usual graphic representations of cardiac murmurs, inasmuch as the time relations of the cardiac sounds and silences are accurately preserved.

SYSTOLIC MURMURS.

A systolic mitral murmur=mitral regurgitation.

A systolic aortic murmur=aortic stenosis, roughening, or (?) anæmia.

A systolic pulmonary murmur = pulmonary stenosis, roughening or (?) anæmia.

A systolic tricuspid murmur=tricuspid regurgitation.

DIASTOLIC MURMURS.

An aortic diastolic murmur=aortic regurgitation. *A pulmonary diastolic murmur*=pulmonary regurgitation (infinitely rare).

PRESYSTOLIC MURMURS.

A mitral presystolic murmur=stenosis or roughness of the mitral orifice.[4] *A tricuspid presystolic murmur*=stenosis or roughness of the tricuspid orifice (infinitely rare).

(*c*) *The direction in which the murmur is propagated.*—Murmurs are propagated either by (1) *diffusion*—i. e., in all directions through the structures within the thorax, a method which is of little value or importance, or—

(2) *Conduction* through solid structures.

(3) *Convection* carried by fluid *in the direction in which it is flowing.* A most important mode of propagation for our present purpose.

The following are the directions in which the chief endocardial murmurs are propagated by convection :—

Mitral regurgitant murmurs, upwards and towards the left axilla (see Fig. 2); often well heard at the inferior angle of the left scapula. According to George Balfour and others, the chlorotic murmur heard in the pulmonary area is a mitral regurgitant murmur (see below), and propagated to this situation through a dilated auricle.

Mitral direct murmurs, forwards and downwards, usually only to a very limited extent. (See Fig. 1.)

Aortic regurgitant murmurs, downwards in the direction of the cavity of the ventricle; but since the sternum is such a good sound conductor of sound the murmur of aortic regurgitation is well propagated along and often best heard at the lower end of that bone. (See Fig. 4.)

Aortic direct murmurs, upwards along the course of the aorta and into the great arteries of the neck. (See Fig. 3.)

Pulmonary regurgitant murmurs (infinitely rare), downwards towards the lower end of the sternum.

Pulmonary direct (very rare), deeply into the chest; and hence their direction cannot, as a rule, be traced for any distance on the surface of the chest. (See Fig. 5.)

Tricuspid regurgitant, backwards and upwards towards the right axilla, but not over the course of the aorta, nor into the vessels of the neck.

Tricuspid direct (infinitely rare?), forwards and downwards and to the left, but only to a very limited extent.

(*d*) *The sound characters of the murmur* are of comparatively little importance, except in the case of the presystolic murmur, which presents peculiar and characteristic features.

Direct murmurs are usually louder and harsher than indirect murmurs. Much, however, depends upon the force of the blood-current (i.e., the force of the heart) which produces the murmur.

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[4] The murmur of mitral stenosis is sometimes rather post-diastolic than presystolic—i. e., it occurs during the first period of the long pause, and is separated from the first sound by an appreciable interval. (See Fig. 15.) In such cases there is probably something which prevents the final forcible and complete contraction of the auricle, which is the active agent in the production of the ordinary typical presystolic murmur.

The mitral presystolic murmur commences gradually, increases in intensity, and ends abruptly with the occurrence of the first sound. It is rough. The first sound which follows it is altered in character, has lost its normal dull tone and has become shorter and sharper, more like a second sound, for which it is often mistaken. The second pulmonary sound is accentuated and often reduplicated. (See Fig. 16.)

The alteration in the character of the first sound, which is observed in cases of mitral stenosis, is due to the small amount of blood which gets into the left ventricle. The first sound as heard over the right ventricle is of normal tone.

The chief characters of the murmurs which are observed in connexion with the different valvular lesions are shown in the table to be given in the concluding part of the lecture.

(*e*) *The effect of the lesion on the heart and circulation.*—In the case of organic murmurs this is of great importance, and in doubtful cases affords most valuable evidence as to the nature of the lesion. It will, however, be more convenient to consider this point when speaking of the character of the lesion. (See below.)

(*f*) The relative frequency of the different valvular lesions may be of value in some cases—as, for example, in deciding whether a murmur is aortic or pulmonary. It must always be remembered that organic lesions in the adult (i.e., primary organic lesions) are in the vast majority of cases left-sided.

(To be concluded.)

IVORY EXOSTOSIS IN BOTH EARS SUCCESSFULLY REMOVED BY OPERATION.

BY GEORGE P. FIELD, M.R.C.S.,
AURAL SURGEON TO ST. MARY'S HOSPITAL.

TWO years ago I published in THE LANCET a case of ivory exostosis in both ears, in which I had successfully operated with the American dental engine. This instrument is, I believe, the only one which will penetrate with any certainty such pre-eminently hard and unyielding growths of the petrous bone. For this mode of treatment we are indebted to Dr. Arthur Mathewson of Brooklyn, New York, who kindly sent me his paper on the subject.[1] I operated in my former case seven times on large ivory growths, completely filling up both ears. The patient was seven hours in all under chloroform and ether. No one can imagine, unless he has actually drilled into these dense tumours, their adamant-like consistency, and the great difficulty there is in making any impression on them.

Toynbee and others consider that these growths are invariably found in gouty and rheumatic subjects; whilst other authors, such as Triquet, think they are only seen in syphilitic patients; and Gruber believes such diseases may influence their production. In the cases I have seen there has, in no single instance, been discovered any trace of gout or syphilis. I rather believe they are more often due to a chronic inflammation of the walls of the external meatus, such as I think might be produced from sea-bathing. It is a remarkable fact that in both my cases of double ivory exostosis the patients were in the habit of bathing constantly day after day in the sea, and they both attributed their ear mischief to this cause alone. The aquatic habits of the Hawaiian islanders are well known;[2] and Dr. C. T. Blake (quoting Professor Wyman) has pointed out the frequent presence of exostoses in the external auditory meatus observed in the crania of these people. As it has been well put, "A mechanical irritation continued for a long time, on any part whatever of the osseous auditory meatus, can give rise at that place to an osseous tumour."[3]

Von Tröltsch is of opinion that considerable pain is always felt in bony tumours of the meatus when touched; in the case (Miss H——), which I shall relate further on, there was certainly great pain produced from the slightest touch by a probe. On the other hand, I have remarked that the true ivory exostosis may be examined with instruments without causing the slightest pain. The true ivory exostosis is usually bilateral, covered with white, smooth skin and hairless; it is of ivory consistency, and arises near the orifice of the meatus. Such growths, as I have before pointed out, in other parts of the body would be called hyperostoses. Their development is insidious, and they occur in apparently healthy organs. Their very existence is not suspected until the patient discovers that his hearing is rapidly failing him, while the absence of pain might lead him to regard it at first as a trivial matter. "The ivory exostosis has been observed to be much more common in men than in women. It arises from a broad base in the posterior wall of the external meatus, either as a long bony ridge or as a normal tumour or tumours. This form is acquired, and not congenital. Its growth is not rapid, nor have we often any signs of inflammation, until the patient becomes suddenly deaf from the complete occlusion of the meatus and consequent irritation set up thereby." The pedunculated form of exostosis, on the other hand, is rapid in growth and the suppuration is plentiful and very offensive.

When ivory exostoses are multiple they do not, as a rule, cause a great amount of deafness. They are smaller in size, and are not confined to the posterior wall. Three of them are often found growing from opposite sides; they become so wedged into one another that they cannot close up altogether, and a triangular space is therefore left between their apices.

These smaller multiple exostoses are usually found nearer to the membrana tympani. A gentleman, Mr. R—— of Cambridge, lately consulted me for slight deafness, who had three exostoses in the right ear, and two in the left. In the right ear there was a triangular aperture left, and it is a remarkable fact that these multiple excrescences do not entirely fill up the canal, for there is always sufficient space left between them for the passage of sound. But the opening left is necessarily small, and the patients are often very deaf, for any slight obstruction caused by cerumen, or even water, will effectually shut out sound. To remove the obstruction in such a narrow passage is not an easy matter. Some time ago a clergyman, the Rev. Dr. M——, consulted me for extreme deafness in both ears, of long standing, caused by a filling up by cerumen of the spaces left between multiple exostoses, three in each ear, and who afterwards heard very fairly when I had cleared the stricture. In September, 1880, I saw Dr. G—— of Limerick, who came to show me his multiple exostoses, and who had entirely regained his hearing after a long period of deafness, under the skilful hands of Dr. Macnaughton Jones of Cork.

Professor Gruber has found obliteration of the Eustachian tube from osseous tissue developed in its walls. In most cases of aural exostoses this is not my experience, as I have never seen an example of the kind. Cases have been recorded, called ivory exostoses, in which, by drilling here and drilling there and then using the bone forceps, the tumour has been removed, the whole operation lasting no longer than twenty minutes. The following is, I believe, a case in point, and a good illustration of the same operation. Miss H——, aged twenty-four, in good health, with no history ot any kind of deafness in her family, was sent to consult me on June 1st, 1880, by Dr. Gibson of Hull. She had a hard bony growth, which looked something like a small snail-shell, and almost filled up the orifice of the right external auditory meatus. She could hear the watch one inch, and the tuning-fork much better, in the deaf ear. She would not allow a thorough examination to be made, as she complained of great pain when the bone was touched. The growth had been gradually increasing in size, and she had been slowly getting very deaf. On June 2nd, having placed the patient under chloroform, I proceeded to make a thorough examination. With the aid of a probe I found that the tumour arose from the anterior wall (said to be very rare), and near the orifice of the meatus, which it all but filled up. I then proceeded to use the dental engine, making a small hole in the base of the tumour, close up to the anterior wall. I then seized it with a strong pair of dressing forceps, and with little difficulty took it completely away. The whole operation lasted about fifteen minutes. In ten days' time the patient returned home, hearing perfectly well. This was soft bone, and very easily treated. Let anyone try to saw through the hardest part of the temporal bone, and the resistance offered in that case would give some idea of the difficulty of an operation on an ivory exostosis. The ivory exostosis is less vascular, and therefore harder even than other portions of the bone. Under the microscope the softer bone tumour from Miss H——'s ear, with a thin section under a low power, 75 diameters, shows that the growth is made up of material similar in structure to newly-formed bone. The free surface is bounded by fibrous membrane raised into small papillæ, and covered by squamous epithelium. In the substance of the tumour trabeculæ of bone form a sort of spongy tissue, in the meshes of which a vascular medullary tissue is contained. Magnified 350 diameters, the fibrous membrane shows no nerves or glands, and only a few small vessels. The layer of bone immediately beneath it is more condensed and thicker than the central portions. Its lamellæ are parallel to the surface, and contain but few bone corpuscles. In the central portion of the growth the trabeculæ are thinner and limit irregular oval spaces. These are filled in some parts with a richly nucleated fibrous tissue containing numerous spindle and round cells. In other parts there is but little fibrous tissue scattered in the midst of round cells. No giant-cells are seen anywhere. The vessels consist chiefly of very large thin-walled tubes, resembling dilated capillaries. They are well filled with blood. Here and there a few arterioles are visible.

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[1] Transactions of the International Otological Congress, 1876.

[2] "The natives here are almost amphibious."—"A Voyage in the *Sunbeam*," by Mr. Brassey.

[3] See Medical Press and Circular, July 9th, 79, paper by Dr. Delstanche, translated by Dr. Cassels.

The tumour differs from a true ivory exostosis in containing cavities filled with medullary tissue, and hence it may be termed "a spongy osteoma," as defined by Cornil and Ranvier. Some exostoses of pedunculated form may be removed by wire; in these suppuration is generally plentiful, and occasionally a polypus arising from the exostosis precedes its appearance, as in a case I published.[4] Kramer has described an interesting instance of a polypus in the form of a stalactite, so hard that a knife could not cut it. Clark of Bristol has removed by electricity an exostosis, which followed the growth of a mucous polypus, from the right ear of a girl nineteen years of age. But Bonnafont, I believe, was the first surgeon who dealt successfully with an ivory exostosis causing complete closure of the meatus. This was accomplished by means of graduated styles, and by the use subsequently of nitrate of silver. I have found this method of treatment almost unbearable, from the intense pain to which it gives rise. Tröltsch has successfully used laminaria to enlarge the opening between the growth and the wall of the auditory canal. Miot adopted another plan; he trephined the tumour with a very fine instrument in two or three places, set up suppuration, and dead bone afterwards came away in sufficient quantity to allow the membrana tympani to be seen. *(To be concluded.)*

ON SOME POINTS IN THE

PATHOLOGY AND TREATMENT OF ACUTE RHEUMATISM AND DIABETES.[1]

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I PROPOSE to consider four questions :—

1. What is the starting-point of the morbid process in acute rheumatism?
2. Is there any pathological relationship between it and diabetes mellitus?
3. Will any remedy cure acute rheumatism; and
4. If so, how does the remedy act?

I think it will be conceded that these are questions of considerable interest, and well worth attention. The solution I am about to offer of the problems may not be altogether complete; but if there is no unreasonable improbability about the theory, it may at least be suggestive, and perhaps lead to further investigation.

1. What is the starting-point then of the morbid process? Let us turn our attention to the muscular tissue and consider for a moment the physiological changes which take place in that tissue in a state of health. The hæmoglobin of the venous blood as it passes through the lungs becomes wholly, or almost wholly, oxyhæmoglobin. Hurried to the tissues, the oxygen of the arterial blood passes from the blood into the muscular tissue; immediately it has passed it is then fixed in some way at present unknown to us; the tissue packs away at every moment each molecule of oxygen which it receives from the blood so as no longer to be removable by diminished tension. Out of the body the tension of oxygen in the muscle is *nil*, none can be obtained from it from the air-pump. The oxidation takes place in the muscle itself, oxygen passes into the tissue, but we cannot trace its sojourn there. On the other hand, the muscle is always producing and discharging carbonic acid, and when it contracts there is a sudden and extensive increase of the normal production of that gas. With much but not all of its oxyhæmoglobin reduced, the blood passes on as venous blood, and with its carbonic acid tension increased it arrives in the lungs, where the gas is discharged.[2]

This change now in the muscular tissue, the fixing of oxygen and exhalation of carbonic acid, must be regulated by some nervous mechanism, in the same way, for instance, as the blood is prevented from coagulating in its vessels or the stomach from digesting itself; and this power must originate in some nervous centre, which we may call the "inhibitory chemical centre," or, using a more applicable term, the "coördinating chemical centre"—the centre which restrains chemical action and regulates the production of heat. "And, indeed, we have some positive evidence of the existence of such a mechanism."[3]

Suppose this "coördinating chemical centre" has undergone functional or organic change, and that this regulating action is consequently weakened or removed, what would be the result? Instead of the muscle absorbing and fixing oxygen and giving out carbonic acid, some intermediate changes in the tissue would show themselves; the tissue would be disintegrated and oxidised more vigorously, and those changes would take place, in some degree at least, which in the laboratory are seen to result from decomposition or the action of oxygen or ozone. And what are those changes? One of the first is that the reaction of the tissue becomes acid. "Whilst muscle is alive and in a physiological condition it possesses a neutral reaction to test-paper; so soon as it dies this reaction becomes acid, and this takes place so rapidly in warm-blooded animals, as to render it almost impossible to ascertain the normal reaction."[4] The acid produced is lactic acid. Whence is it derived? Muscle we know contains a small amount of glycogen, which by hydration may be converted first into glucose and then into lactic acid.

$$\underset{\text{Glycogen.}}{C_6H_{10}O_5} + \underset{\text{Water.}}{H_2O} = \underset{\text{Glucose.}}{C_6H_{12}O_6} = \underset{\text{Lactic acid.}}{2C_3H_6O_3} \text{ or } \underset{\text{Acetic acid.}}{3C_2H_4O_2}$$

$$\underset{\text{Lactic acid.}}{2C_3H_6O_3} + \underset{\text{Oxygen.}}{6O_2} = \underset{\substack{\text{Carbonic}\\ \text{anhydride.}}}{6CO_2} + \underset{\text{Water.}}{6H_2O}$$

Again, lactic acid may be derived from alanine, a substance metameric with urethane and sarcosine, $C_3H_7NO_2$.

$$\left\{\underset{\text{Urethane.}}{CO(NH_2)OC_2H_5} \text{ or } \underset{\text{Alanine.}}{C_2H_4(NH_2)CHO_2}\right\} + \underset{\text{Water.}}{H_2O} = \underset{\text{Lactic acid.}}{C_3H_6O_3} + \underset{\text{Ammonia.}}{NH_3}$$

Sarcosine, though not found in a free state in the body, is obtained in the laboratory from dead muscle. Nor is it inconceivable that under the action of chemical and *vital* forces acting upon the muscle, urethane or alanine, or it may be some other compound metameric with sarcosine, may be formed in the muscle as it passes from a state of health and activity to one of disintegration and death. At any rate, whatever be the source of lactic acid, whether from glycogen or other compounds in the muscle, we know that it appears in the muscle as the result of disconnexion with the nervous centre, and I therefore suggest that if the "inhibitory" or "coördinating chemical centre" be weakened, as in acute rheumatism, by the effect of cold or other cause, lactic acid instead of being oxidised in the muscle will pass from the tissue into the blood; and independently of its own conversion into carbonic acid and water in the blood, there produce its effect on the smaller arteries, and, by determining a larger amount of blood and oxygen to the part, cause more rapid oxidation of tissue, and develop considerable heat or pyrexia.

That the presence of lactic acid in the blood will determine a larger amount of oxyhæmoglobin to the tissue and cause more rapid transformation of tissue than normal, is a natural inference from the researches of Dr. W. H. Gaskell, who found that the injection of a solution of lactic acid (1 to 1000) into the circulation caused dilatation of the smaller arteries.[5]

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[4] Brit. Med. Jour., Feb. 2nd, 1878.

[1] The substance of two papers read before the Cambridge Medical Society, Nov. 5th, and the Cambridge Philosophical Society, Nov. 22nd, 1880.

[2] Text-book of Physiology by Dr. Michael Foster. 2nd edit., pp. 384-7.

[3] Foster, loc. cit., p. 376.

[4] Gamgee: Physiological Chemistry, vol. i., p. 359.

But if lactic acid is derived from some variety of $C_3H_7NO_2$, or from glycogen, whence comes the glycogen, or that other substance? Again, in acute rheumatism there is a large elimination of lithates—whence are they?

Let us turn our attention to the constituents of dead muscle. Creatine in dead muscle by hydration may be resolved into sarcosine and urea; and four molecules of sarcosine, together with nine atoms of oxygen, contain the elements of uric acid, glycogen, carbonic anhydride, and water.

$$\underset{\text{Creatine.}}{C_4H_9N_3O_2} + \underset{\text{Water.}}{H_2O} = \underset{\text{Sarcosine.}}{C_3H_7NO_2} + \underset{\text{Urea.}}{CH_4N_2O}$$

$$4C_3H_7NO_2 + O_9 = \underset{\text{Uric acid.}}{C_5H_4N_4O_3} + \underset{\text{Glycogen.}}{C_6H_{10}O_5} + \underset{\substack{\text{Carbonic}\\\text{anhydride.}}}{CO_2} + \underset{\text{Water.}}{7H_2O}$$

But as sarcosine is not found in living tissue, if urea, uric acid, &c., are products of living tissue, then there must be some undetermined compound of $4C_4H_9N_3O_2$ from which in living muscle these substances are produced, and from which in the process of dying sarcosine results.

Now, $C_3H_7NO_2$ represents sarcosine, urethane, and alanine, to which I will add a fourth, an entirely hypothetical compound—cyanic ether $+H_2O$.

$$\begin{aligned} C_3H_7NO_2 &= \underset{\text{Urethane.}}{CO,(NH_2),OC_2H_5} \\ &= \underset{\text{Alanine.}}{C_2H_4(NH_2)CHO_2} \\ &= \underset{\text{Sarcosine.}}{C_2H_4(CH_3)NO_2} \\ &= \underset{\text{Hypothetical compound.}}{CN,C_2H_5O,H_2O} \end{aligned}$$

To form the representative of sarcosine in the living tissue I want a very unstable compound, and one that is clear and fluid. Cyanic ether is a transparent, colourless, very mobile liquid, and is decomposed by water.

$$2\left\{\underset{\text{Cyanic ether.}}{CN,C_2H_5O}\right\} + H_2O = \underset{\substack{\text{Carbonic}\\\text{anhydride.}}}{CO_2} + \underset{\text{Diethyl carbamide.}}{N_2CO(C_2H_5)_2H_2}$$

And taking the other ether which the formula represents—viz., urethane—I have

$$\begin{aligned} 4C_3H_7NO_2 &= 2\left[\left\{\underset{\text{Urethane.}}{CO(NH_2)C_2H_5O}\right\}\left\{\underset{\text{Hypothet. compd.}}{CN,C_2H_5O,H_2O}\right\}\right] \\ 4C_3H_7NO_2 + O_9 &= \rule{9cm}{0.4pt} + O_9 \\ &= (NH_2)_2(CN)_2(CO)_3 + (C_2H_5O)_2C_2O_3 + CO_2 + 7H_2O \\ &= \underset{\text{Uric acid.}}{C_5H_4N_4O_3} + \underset{\text{Glycogen.}}{C_6H_{10}O_5} + \underset{\substack{\text{Carbonic}\\\text{anhydride.}}}{CO_2} + \underset{\text{Water.}}{7H_2O} \end{aligned}$$

By taking this as the living representative of $4C_3H_7NO_2$ we have a formula which, when oxidised, can theoretically be split up into uric ucid, glycogen, &c., and gives a molecular formula for them, and which, if there was a change in the constitution of the molecules, could produce sarcosine. The chief difficulty in accepting such an antecedent for sarcosine is that it involves the conversion of (NH_2) compounds into those of NO; and yet, from the researches of Dr. Bence Jones,[6] such a change does take place in the system, acetate of ammonia, when given internally, being eliminated as nitrates.

By combining cyanic ether with urethane we should probably have a compound somewhat like living muscle, which, as was shown by the observations of Kühne and Eberth,[7] who had the good fortune to see a living nematode freely moving about in it, is semifluid. Cyanic ether also combines with urea, forming a crystalline substance, which does not possess the characters of an ordinary ammonium compound.

It is not improbable that $4C_3H_7NO_2$ may exist in the tissue before hydration, as,

$$2\left[\left\{\underset{\text{Urethane.}}{CO\,(NH_2)\,C_2H_5O}\right\}\left\{\underset{\text{Cyanic ether.}}{CN,C_2H_5O}\right\}\right]$$

and so resembles uric acid in requiring hydration and oxidation to convert it into recognised substances. In order to convert uric acid into urea it must be combined with water and oxygen, the results differing according as an alkali or an acid is employed for the conversion. If hydration in the living body is performed in the liver, and oxidation in the muscular tissue, the following intermediate compounds between uric acid and urea would be developed. If hydrated in the liver—

$$\underset{\text{Uric acid.}}{(NH_2)_2(CN)_2(CO)_3} + \underset{\text{Water.}}{H_2O} = \underset{\text{Pseudo-uric acid.}}{(NH_4)(CNO)(NH_2)(CN)(CO)_3}$$

In alkaline fluid this substance would be oxidised in the tissue into allantoin $(NH_4)(CNO)(NH_2)(CN)(CO)_2 + CO_2$, and the allantoin would then be hydrated in the liver into urea $(NH_4)(CNO)$, and allanturic acid $(NH_4)(CNO)(CO)_2$ to be again oxidised in the tissue into urea and $2CO_2$.

If the blood had a different reaction uric acid after hydration in the liver would be split up into urea $(NH_4)(CNO)$ and $(NH_2)(CN)(CO)_3$, the urea passing off to the kidney, the other substance being oxidised in the tissue into alloxan $(NH_2)(CN)(C_3O_4)$, to be further hydrated in the liver, and split up into urea and mesoxalic acid $(H_2O)(C_3O_4)$.

It these substances, however, are formed by oxidation in the tissue, and by hydration in the liver, how is it that in health they appear only to a comparatively small extent in the blood? I will illustrate this by reference to electrolysis. In the decomposition of water by electrolysis oxygen appears at one pole, hydrogen at the other, and though the fluid between them appears to be at rest, we know there is a molecular change all along the line. In the transmission, likewise, of the current along the telegraph or telephone wire, there is a molecular change through the whole length of the wire, but the result is seen or heard only at the end. So it probably is in these transformations of the tissues. The blood acts as the conducting medium. It contains substances differing in their properties, but closely allied in chemical composition to those contained in muscle. Creatine, then, we may assume, is hydrated in the liver into urea and the representative of living sarcosine; these products are not set free, or only to a very small extent, in the blood, but there is an interchange of molecules in the blood between the liver and kidney on the one hand, and the liver and the tissue on the other. The change effected in the liver in this way shows itself only in the kidney and the tissue; the urea is eliminated, the living sarcosine appears in the tissue to be immediately oxidised, and to show itself in the liver as uric acid, glycogen, and carbonic acid gas, the last being liberated in the blood, and passing in the stream to be exhaled by the lungs. The uric acid and glycogen are now hydrated in the liver, the results showing themselves in the tissue and in the kidneys.[8] According as the blood is alkaline or otherwise will uric acid pass through the changes I have above referred to.

Now, a very interesting point arises. In considering the changes of uric acid above described we see that urea is formed both in the muscle and in the liver, and we may assume that when it is formed it passes at once by intermolecular change direct to the kidneys. So also we may assume that carbonic acid, whether formed in the muscle or in the liver, directly it is formed passes at once into the blood, to be eliminated by the lungs. Glycogen $(C_2H_5O)_2C_2O_3$ by hydration is transformed into glucose $(C_2H_6O)_2(CO_2)_2$, and, like uric acid, may, under different circumstances, undergo different transformations. If the blood is normal and alkaline by hydration in the liver it may become $(C_2H_6O)_2 + 2CO_2$, the carbonic acid at once entering the blood, the alcohol $(C_2H_6O)_2$ appearing in the tissue, to be oxidised into $4CO_2 + 6H_2O$; passing, perhaps, through the stage of $(C_2H_4O_2)_2$ acetic acid, and $2H_2O$.

But if the blood is in an abnormal condition the interchange of the molecular elements may be modified (and the alkaline reaction of blood becomes, like muscle, changed when the power of the coördinating centre is removed, as shown in the process of coagulation), the glycogen $(C_2H_5O)_2C_2O_3$ may then be hydrated in the liver and, as the result of the variation in the molecular interchange in the blood, appear in the tissue either as glucose $2(C_2H_6O)CO_2$, or as lactic acid $2C_3H_6O_3$, which last we know does appear in muscle when the power of the coördinating centre is removed.

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[5] Journal of Physiology, vol. iii., p. 18.

[6] Philosophical Transactions, London, 1851.

[7] Gamgee, op. cit., p. 320.

[8] Assuming such an interchange of molecular particles, does not this offer a simple explanation of one mode of nutrition and disintegration of the tissues?

The following substances, with others, would exist in the liver and tissue (urea and carbonic acid being eliminated as formed), according as the blood had a normal alkaline or abnormal reaction :—

IN LIVER.		IN TISSUE.		
$4C_4H_9N_3O_2$	hydrated into	Urea + $[\{CO(NH_2)C_2H_5O\}\{CN,C_2H_5O,H_2O\}]$	oxidised into	Uric acid, glycogen, carbonic acid, and water.

TABLE I. — *Blood Normal.*

$(NH_2)_2(CN)_2(CO)_3$ Uric acid.	into		$(NH_4)(CNO)(NH_2)(CN)(CO)_3$ Pseudo-uric acid.	into	Allantoin and CO_2
$(C_2H_5O)_2(C_2O_3)$ Glycogen.	into		$2C_2H_6O$ Alcohol.	into	$4CO_2+6H_2O$ or $2(C_2H_4O_2)+2H_2O$ Acetic acid.
$(NH_4)(CNO)(NH_2)(CN)(CO)_2$ Allantoin.	into	Urea +	$(NH_4)(CNO)(CO)_2$ Allanturic acid.	into	Urea + $2CO_2$

TABLE II. — *Blood Abnormal.*

$(NH_2)_2(CN)_2(CO)_3$ Uric acid.	into	Urea +	$NH_2(CN)(CO)_3$	into	$(NH_2)(CN)(C_3O_4)$ Alloxan.
$(C_2H_5O)_2(C_2O_3)$ Glycogen.	into		$2(C_2H_6O)(CO_2)$ or $2C_3H_6O_3$ Glucose. Lactic acid.	into	$6CO_2+6H_2O$
$(NH_2)(CN)C_3O_4$ Alloxan.	into	Urea +	$(H_2O)(C_3O_4)$ Mesoxalic acid.	into	$3CO_2+H_2O$ or $(H_2O)(C_2O_3)+CO_2$ Oxalic acid.

Consequently, if the power of the coördinating centre is removed or impaired, we should have, as shown in Table 2, simultaneously in the liver, and as the last stage in the process, glycogen about to be transformed, and appear in the tissue as lactic acid or as glucose, and alloxan about to be split up into urea and mesoxalic acid; and to this point I shall refer when dealing with the action of remedies.

It would seem from these hypotheses that in a state of health glycogen and glucose are abnormal constituents of muscle, the liver glycogen appearing in the tissue as $2C_2H_6O$, to be at once transformed into CO_2 and H_2O. But, if the controlling power is weakened, glycogen is transformed, and appears in the tissue as lactic acid or glucose, according to the extent to which that power is weakened, and according to the variation in the molecular change along the blood line; and these substances may also, from the same causes, appear in the blood itself. If lactic acid produces the same effect on the smaller arteries of the kidney as was seen in the experiments of Dr. Gaskell to be the effect on those of muscular tissue, and so (under certain conditions of the red blood-corpuscles to be presently referred to) act as a diuretic, the experiments of Claude Bernard seem to support very strongly the view I have here advanced as to the common origin of glucose and of lactic acid. "When we prick the mesial line in the floor of the fourth ventricle, in the centre of the space between the origins of the auditory and pneumogastric nerves we at the same time produce an exaggeration of the hepatic (saccharine) and of the renal secretions; if the puncture be effected a little higher, we very often only produce an augmentation in the quantity of the urine, which then frequently becomes charged with albuminous matters; while if the puncture be below the indicated point, the discharge of sugar alone is observed, and the urine remains turbid and scanty. . . . As these two points are very near one another, it often happens that if the instrument enters obliquely they are simultaneously wounded, and the animal's urine not only becomes superabundant but saccharine."[9]

Lastly, though it is most probable that in health the various substances are oxidised in the tissues and not in the blood, yet where there are morbid changes and abnormal products appearing in the blood, if the energy of the red blood-corpuscles as carriers of oxygen from the lungs is not lessened it seems hardly possible that oxidation of oxidisable substances should not take place there. How else can the conversion of vegetable acids be explained, which, when administered internally, are eliminated as carbonates? In acute rheumatism it would seem probable, therefore, that there is increased heat or pyrexia, partly by increased oxidation in the tissue from the smaller arteries dilating, owing to the presence of lactic acid in the blood, and partly also by the oxidation of the lactic acid in the blood itself; and that from the increased oxidation in the tissue an excessive amount of uric acid is formed, which the liver is unable to act upon; it escapes into the blood unchanged, and is eliminated by the kidneys.

If the energy of the red blood-corpuscles was in any way diminished or inhibited, and there was no increased oxidation going on from lactic acid being present in the blood, but merely dilatation of the minute arteries, then if the vessels of the kidney were affected in the same way we should have simply increased flow of urine—diabetes insipidus. Again, in diabetes mellitus as there is no rise of temperature, and the glucose is not oxidised in the blood, is the energy or number of the red blood-corpuscles inhibited or modified?—and if the energy were unrestrained, would this give rise to hyperpyrexia? We know that during the progress of disease intercurrent with diabetes the sugar does sometimes disappear from the urine, but this may be only from the introduction of some zymotic element into the blood.

Is it possible, then, that altered intensity of the "coördinating chemical centre" presiding over the changes in the tissue and in the liver, and a variable energy in the action of the red blood-corpuscles, may express the pathological relationship between hyperpyrexia, diabetes mellitus, acute rheumatism, and diabetes insipidus?

(*To be concluded.*)

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[9] Med. Chirur. Review, Jan. 1857, p. 42.

ON RICKETS.

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AT the discussion on Rickets at the Pathological Society it was necessary to compress what I had to say into the last five minutes of an unusually long sitting, and to this was added the knowledge that the opener of the debate had still to occupy more time with his reply. Such conditions were conducive more to vigour than to precision of statement; some things that I wished to say had to be omitted, and others were too shortly put to make my full meaning intelligible. But though obscurely stated, the points themselves are not unimportant, and considering that so few facts have been added to our knowledge, I venture to put on paper in a more detailed manner what I should have said elsewhere had time permitted me, and while attention is still directed to the subject.

My text is visceral rickets, if there is such a thing. Three propositions concerning this branch of the subject have been put forward at one time or another.

1. That the spleen and liver are not enlarged in rickets—the seeming increase is due to displacement.
2. That the enlargement of the spleen and liver is as much a part of the disease as the changes in the bones—an opinion advanced by Sir Wm. Jenner and supported by Dr. Dickinson.
3. That the viscera are enlarged, but present no distinc-

tive features, and that the increase in size is due to some cause antecedent to it, and the skeletal changes—an opinion attributed to Dr. Gee and reaffirmed by Dr. Hilton Fagge.

I shall confine myself mostly to the question of splenic enlargement, because I think the facts at hand concerning the liver are hardly sufficient to enable us to form a positive opinion whether it is or is not diseased in rickets. To take the three statements in order—

1. Is the spleen enlarged, or is it not?

It is certainly enlarged in some cases of rickets—(*a*) by the unanswerable proof afforded by post-mortem examinations; (*b*) I have notes of cases in which the spleen has occupied a third at least of the abdominal cavity during life, an amount of enlargement which puts the possibility of a mere displacement in such quite out of the question; and (*c*) it is possible to separate during life those cases of rickets with splenic enlargement from those without it, almost without physical examination, by means of the peculiar pallor which the splenic cases present.

No further evidence is wanting to demonstrate that an actual increase in the size of the spleen is, at any rate, an occasional fact in the history of rickets.

Having stated that there is post-portem proof of splenic enlargement in rickets, I will next state what is the change which, I conceive, such spleens to have undergone—a point upon which there has been some difference of opinion, even in the late discussion. I have examined four cases; and, to judge from them, the spleen is large and firm, with some slight thickenings of its capsule; its section is homogeneous in appearance, from the paucity of the Malpighian corpuscles and the want of contrast which is usually afforded between them and the splenic pulp. Under the microscope the change is one of hyaline fibroid thickening of the septa and stroma at the expense of the pulp and Malpighian sheaths. I have described and figured this condition elsewhere,[1] so that it is unnecessary to say more of it here.

From this it will be seen that I am quite in accord with Dr. Dickinson, so far as the spleen is concerned, that the change is one of interstitial splenitis, if it be desirable to call it so, but perhaps better, of interstitial fibrosis, the new material being of a hyaline kind, and not necessarily, by any means, the outcome of an inflammatory state. I have not been able to detect any similar change in the liver; or, perhaps, to put this statement more guardedly, I have not been able to satisfy myself that this material exists in the rachitic liver in an abnormal quantity.

Sir Wm. Jenner alluded to some observations of his own, in which the spleen and liver in thin sections were found to be glue-like from the presence of a peculiar morbid deposit, appearances which he considered denoted something of an unusual kind, and he therefore takes exception to Dr. Dickinson's description of the change as one of interstitial fibrosis. But, if I may be allowed to say so, the observations of Sir Wm. Jenner are by no means irreconcilable with those of Dr. Dickinson. It will be allowed that the glue-like change must have been exceptionally extreme, and it is well known that this fibrous material, or hyaline fibroid, when it rises to an extreme degree, presents just such a gristly, cartilaginous, and in thin slices, glue-like appearance, as was noticed by Sir Wm. Jenner; and so far from any antagonism, we have, indeed, some remarkable facts in corroboration of the assertion that the disease is one of thickening of the stroma of certain organs. The orginal term—albuminoid—applied to this material is not by any means a bad one as applied to the morbid material itself; it is objectionable chiefly in that it has been taken to indicate something peculiar to the morbid deposit of rickets—a something not found in other diseases—whereas the material does not differ from that found in several other states, or, to speak more precisely, from the morbid material found in the spleen in chronic enlargement, from ague, and many other conditions.

When I come to the next question, What is the relation between splenic enlargement and rickets? I am no longer able to keep company with Dr. Dickinson, as I am unable to support his contention that the visceral enlargement is as much a part of the disease as are the skeletal changes. I am mostly influenced in thinking otherwise by finding that the splenic enlargement, in my experience, occurs in but a small proportion of cases of rachitis, and that when it does occur it is by no means in the worst cases. I am unable to say what number of cases of rickets have come under my notice, but, as is patent, they form a staple commodity in out-patient practice, and it is certainly a very moderate computation to say that in the last seven years I have seen 800 to 1000 cases, and it has always been my habit to examine for splenic enlargement, and all such cases have been carefully recorded. Referring to these notes I find fifty-three cases of splenic enlargement of all sorts. They are grouped as follows:—

Leucæmic	3
Rachitic (certainly)	16
Rachitic (doubtfully)	7
Cause unascertainable	14
From congenital syphilis	9
Tubercular...	5—54

One of these cases being both syphilitic and rachitic has been included under both heads, explaining the fifty-*four* total. Now, considering the difficulty which exists in distinguishing slight degrees of rickets, we may include the doubtfully rickety enlargements as rickets, and we have then twenty-three cases; we might even do more, and include those cases in which the enlargement was due to no very obvious cause—a matter of fourteen more, or thirty-seven all told. And they would still—although rachitic enlargements form the greater part of all the splenic cases—form so small a proportion of all the cases of rickets, as can hardly be said to indicate that the enlargement is as much a part of the disease as the changes in the bones. I have called no spleen enlarged which was not certainly palpable below the ribs, or if the chest was sufficiently distorted to explain its altered position.

It does not seem, therefore, that the swelling of the spleen can be in any sense essential to rickets, since it occurs so seldom; and I am disposed to agree with Dr. Gee and Dr. Hilton Fagge that when it occurs it is due to some cause which antedates both it and the bone enlargement.

It may, however, be said that this argument is much weakened by the fact of congenital syphilis, as shown in my own table. Congenital syphilis is very common in the out-patient room; and if we were to enumerate all the cases and estimate the proportion in which enlargement of the spleen occurs, it would be but a small one—smaller, I think, than that of enlargement of the spleen to rickets. I have notes of nine cases only. But though such a small percentage of all the cases, it is not contested that the splenic enlargement of syphilis is an integral part of the disease, as much as the other signs of the malady. This is all true; but then, on the other hand, there is this difference—the spleen in congenital syphilis, and the liver also, are known to present certain definite cell proliferations, which are similar to those in other parts, and similar to those of syphilis in the adult. This is not so in rickets. The change in the one may be said to be specific, in the other "indifferent."

The liver of rickets appears to be, from my notes, but seldom enlarged, and when it is the increase is, as Dr. Dickinson has already stated, inconsiderable.

Passing now to the blood and its condition in rickets, I have wondered that no one has hitherto drawn attention to it in this discussion until our President alluded to the absence of observations on the subject. I know not whether Mr. Hutchinson had in his mind a chemical or microscopical examination, or both. Both would be instructive, but a chemical examination of rachitic blood presents difficulties of achievement which I have not surmounted, and I can only speak of microscopical work. Some years ago I examined the blood of many rachitic children; the notes of these were scattered, and have unfortunately been mislaid, but I well remember that in many of them its condition was a very peculiar one, though it was not always the same. In some there was simple deficiency of corpuscles, in others deficiency of colouring matter; but in most these points were not so noticeable as the remarkable variety which the size of the red corpuscles exhibited. There were three, four, and five different sizes of red corpuscles, these going with a quantity of free granules; beaded strings and dumb-bell aggregations, such as have always been held to be morbid, but the exact significance of which is still doubtful. I have lately, for the purposes of this discussion, turned my attention again to this subject, and verified my former observations, though only in a few cases.

Whatever the significance of such changes may be it cannot be disputed that they may be of considerable importance, and they are in accord, I think, with the view expressed so clearly by Mr. Hutchinson, that rickets is a diet disease. I am quite in accord with such an hypothesis. Nor can I see any difficulties in the way of accepting it provisionally, except that it appears to be difficult to prove its truth. Children are either fed badly or assimilate badly; bad blood is formed, and bad bone follows. The microscopical appearances of the blood are such as to suggest both immaturity and poverty. These are conditions, no doubt, which might in part, according to present physiological doctrine, be due to an abnormal bone development. But, on the other hand, there is a certain amount of evidence, perhaps I ought to say a consensus of opinion rather than evidence, in favour of rickets being produced by bad feeding. Bad feeding or faulty assimilation must act primarily upon the blood, but not necessarily by producing always a constant deficiency of one particular element or excess of others. A general lack all round would, it seems to me, be the alteration which would best supply the conditions which I conceive to be necessary for the production of rickets. But this brings me to a departure from facts, to which I have hitherto attempted to keep myself, to enter upon a somewhat speculative subject—the relation between the cartilaginous changes and the spanæmia. And, first of all, I would dwell especially upon this, that the histology of rickets points to improper development more than to disease. Clinically, of course, rickets is a disease, but pathologically it is not so much disease as arrest or perversion of the developmental process, and I would venture to make this criticism upon the suggestion that has been made, that rickets mollities ossium and senile fragilitas ossium are similar processes, differing only in the age of the patient; that whereas rickets is a perverted development, those other states are degenerations of formed material, and one of them, senile fragilitas ossium, and perhaps the fragilitas ossium of mental incapacity, has some ill-defined relationship to cancer which we as yet know little of. Though all of these have certain striking features of resemblance, such as distortion of the bones, yet in their essence they are far asunder, and there is nothing in the softening bone of old age, that I can see, at all like the growth of cartilage that occurs in childhood in place of the normal growth of bone. It is a hazardous thing to attempt to say why or how any process takes place in the animal economy; but I cannot help suggesting that instead of considering rickets to be a disease we should look upon it as more a product of cultivation—a process allied to that which takes place when a gardener by particular soil essays to cultivate special parts of plants at the expense of the rest of the organism. Supposing we attempt to cultivate some flower or fern under conditions foreign to its habit, one of two things happens—unless it be so hardy that its range of accommodation is a wide one—in the process of acclimatisation it becomes starved, and dwindles, and dies; or certain abnormalities crop up which it may or may not be to our interest to try and perpetuate. And should we replace the dwarfed organism under natural conditions it speedily reverts to the old type. Is it not thus with the infant? An attempt is made to acclimatise it to conditions unnatural to its development; its juices suffer in the process, and in most cases the result is slow starvation and death. But in still a large number of cases this extreme is averted, and some of the parts become, as it were, naturalised. The lower, or least specialised, tissues stand the ordeal best; the highly specialised waste. Hence fat and connective tissue and cartilage seem to have it all their own way; muscle and bone languish. Put the child again under natural conditions, and in the great majority of cases the tissues revert to their normal habit, and the rachitis disappears completely. I take this to be proved by the fact that anything approaching to acute rickets, or, indeed, rickets of any sort, save its effects, is very uncommon after the age of six or eight. Have we any parallel case of a disease so severe as rickets, to judge from its distribution in the body, and affecting structures so important to young life as the bones, invariably getting well, if treated properly? I think not.

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[1] New Sydenham Society: Atlas of Pathology, Fasciculus 2.

I would further remark that in cartilage we have to do with a peculiar tissue. It lives mostly by imbibition, and in one sense it is a coarse feeder, not very particular about quality so long as it is supplied with the requisite quantity. Witness the madder staining which can be practised upon it; the urate of soda it will tolerate with comparatively little reaction. It would seem to be more important for its well-being that it should have fluid than solids, as may readily be seen by the rapidity with which it shrinks to a mere relic when exposed to the atmosphere, and will regain its natural appearance by simply soaking in water. I can readily understand that material such as this will tolerate grave alterations in the fluids, and yet continue to thrive in some sense, nay, even to overgrow in the dropsical manner of the rachitic overgrowth, while the muscles are pale and tender from the badness of the supplies, and while all other parts are stunted and poor.

The changes in the viscera are not inconsistent with this view. An altered blood means for the tissues altered blood pressure, and this again implies considerable disturbance to the circulation in various localities with consequent changes in the tissues outside—congestion, œdema, &c., are the natural consequences. And, if we further remember the close relationship which exists between blood changes and splenic, perhaps also hepatic, enlargement, there is no lack of material to explain the occasional occurrence of swelling of these viscera in rickets.

Nor do I think that such experiments as those given to us by Dr. Baxter tell against what I have here put forward. For although conducted, as they would certainly be by so shrewd and cautious an observer, with the greatest precision attainable, they are, they cannot be otherwise than, rough handed, when compared with the slow process of modification which goes on in the fluids of the infant under the many modes of artificial feeding adopted in this country, and protected as the system is in a measure by the obvious fact that what does not please—that is, is not suitable to, an infant's stomach—will be rejected. I do not doubt that an infant's stomach has, so to speak, a blind eye, but I do doubt whether many of the harmful compounds administered to it find this out, and enter the circulating fluids. And for this reason, because I believe it to be almost, if not quite, impossible so to direct the means sufficiently insidiously and persistently to the end aimed at—to be impossible, in fact, to perform any experiment which shall fulfil the required conditions—I dissent altogether from the doctrine of my colleague Mr. Lucas, that rickets can be induced with certainty by artificial feeding. The experiment is performed for us unconsciously in hundreds of cases by mothers with their children, and with a like result to that of Dr. Baxter with his puppies, the botanist with his ferns, of starvation, wasting, and death. But rickets can only be produced by a very slow process of careful cultivation, and provided that the gastric apparatus can be made to work subserviently to such an end. I see no reason with regard to animals why we should expect to produce rickets at all. Is not the rickets of animals expressed in the light porous periostitis-like bone which is to be found in most museums as a common disease of the lower animals.

I can only allude to other points very shortly. And, first, as to fœtal rickets. It appears to be assumed that if once fœtal rickets is proved to have an existence the diet disease hypothesis is no longer tenable. But does this follow? Why should the fœtus be exempted altogether from diet diseases? It obtains its food, it is true, already assimilated as blood; but if a carefully adjusted and gradually adapted badness of blood be the cause of rickets, such a cause must surely operate sometimes in the fœtus. I would rather hold to the opposite opinion—that, if it can be shown that fœtal rickets has not even an occasional existence, a strong blow is thereby given to the diet disease hypothesis.

The next question I would ask is this, Is rickets only to be produced by one cause or set of conditions? I ask this because it seems again to be assumed that if the condition can be shown to be associated with cretinism it is no longer rickets. I am not prepared to admit this. I have elsewhere attempted to show[2] that arrested development of the brain is a condition which favours excessive growth of the least specialised tissues, connective tissue (subcutaneous) and fat more particularly, but possibly cartilage also. From what I have seen of the cretin condition, particularly in a specimen lately presented to the College of Surgeons by Dr. Hermann, it seems to be an exaggerated rickets. The bones are all ends. The cartilaginous ends are exceedingly large; the shafts unusually small. Is it not possible that this may prove to be a similar condition to that which we call rickets, though owning an entirely distinct origin?

The strongest argument against the view here taken of the nature of rickets may, I think, be derived from the fact that the disease is so little prevalent in other countries that it has received the name of the English disease; yet I find it difficult to suppose, as does Dr. Baxter, that artificial feeding is so very different, in the United States for example, from what it is here. I am not prepared to combat fully an objection of this kind at the present time, but I may just remind the reader that it has been one of my objects in the present paper to show that artificial feeding can only produce rickets under certain conditions, which may well be absent either in whole or part in other countries.

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[2] On Sporadic Cretinism and Myxœdema (Med. Times and Gaz., 1880).

Weymouth-street, W.

THE SIMULATION OF SOMNAMBULISM.

By CHARLES RICHET, M.D. PARIS.

(Concluded from p. 9.)

ANALGESIA and anæsthesia are very often exhibited by somnambulists. These two phenomena are constant, or nearly so. It is now the fashion to say that the anæsthesia is due to simulation. Certainly, in considering the matter in a general way, insensibility may be feigned. But how many persons are there who would have the courage to bear without serious reason pricks on the face, on the nostrils, or hands; to allow their hair to be plucked out, and the conjunctiva, the nose, and the ears to be tickled; to have pins thrust into the arms; to drink nauseous liquids; to breathe with delight ammonia or sulphurous acid? Such are the tortures they would endure for the sole pleasure of duping the simple physician, who looks curiously on and takes notes. Nearly all somnambulists behave thus. They oppose no resistance to every test; they do not push them away, nor tremble, remaining impassive and vacant, braving without moving a muscle tests as disinterested as they are painful. Must we suppose that they exhibit heroism (and a very misplaced heroism) or anæsthesia?

I could multiply examples to prove how absurd is the hypothesis of simulation. Thus, nothing but the fact of being able to vomit at will indicates, indeed, that there is a psychical state different from the normal. Who is there who could vomit because one said to him, "What a bad smell!" It is, however, a constant phenomenon with the somnambulised; and to provoke the vomiting there is no need of a more complicated method. A somnambulist weeps when told to weep, sheds a flood of tears, and loudly sobs. Can we believe that it is easy to weep at will? Make the experiment on oneself, and see how impossible it is. *Amicus noster quidem quem ad somnitationem facile suscitamamus, si de libidinosis rebus loquor, statim it erectionem. Si jubemus ut mingat, mingit; et restem fœdat.*

I recently witnessed an accident which might have been very grave, but which fortunately had no serious consequence. It was in the case of a young woman who will be frequently referred to in the course of this article, and who is an excellent magnetic subject. Wishing to excite fright in her. I said to her, "See, I take your arm, and I cut it. Look at the blood flowing." Immediately, without a cry or a gesture, she fell flat down on the ground, as if dead. In fact, life had ceased temporarily. The heart no longer beat, there was no respiratory movement; this state lasted for about half a minute—a century of anguish for me—then a deep respiration told of the return of vital phenomena. Perhaps it will be said, this syncope was only a clever piece of acting? However, at the risk of being thought to be very simple, I should not wish to try this experiment again at any price.

We may then, it seems, if not find an absolute or irrefutable proof, at least accumulate very convincing proofs to demonstrate that there is a somnambulistic condition. Let us now examine the objections opposed to it. The following are, if I am not mistaken, the chief :—

First objection.—The phenomena of somnambulism are incompatible with the facts of science. It is impossible to admit the "pass" can produce sleep, that a fluid escapes from the body at the will of the magnetiser, that thought is transmitted without an external manifestation, that vision is performed by the epigastrium, audition by the palm of the hand, and perception of taste by the forehead. It is easy to make answer: Somnambulism—this neurosis, whose causes and nature are still so mysterious—has nothing to do with the explanations attempted to account for it by charlatans. It is not a question of declining to refute their more or less interested vagaries, but of studying and verifying what has been seen by serious *savants* worthy of respect. All those who, instead of applying themselves to prove the inanity of the miracles performed by the somnambulised, have tried to see for themselves, have soon been convinced that by the influence of "passes," or by the "fixed gaze," there is produced a special neurosis, with well determined characteristics. It is easy to deny such or such grotesque tales, but what will they prove except that there are dupes and rogues mixed up in this problem of pathological physiology? It would seem, in view of so many widespread errors, that a number of truths must be found mingled with them. If it were all phantasmagory or simulation not only would magnetism not have been established, but it would not have been promulgated, and would have disappeared without leaving a trace behind. Error can only triumph by reason of the truth it enshrines.

Besides, we have not such perfect and precise notions on the nature and functions of the nervous system that we can deny the possibility of such or such a phenomenon. The experimental method should always guide us, and *à priori* denials ought, like *à priori* affirmations, to be banished from scientific discussions. In truth, as regards somnambulism, the denials have always been *à priori.* I do not believe that an experimenter, supported by a sufficient number of facts, has come to the conclusion that somnambulism is not a fact. The denial has to be supported by reasoning, and not by experiment. No one yet, to my knowledge, has been able to say, "I have tried to hypnotise four persons, at different times, by employing the usual procedure, and I have obtained no result." So far, people have been contented to smile, and to say, "It is impossible." Such a refutation seems to me insufficient.

Second objection.—Everything observed is inconstant, irregular, mobile.[1] No fixed rule, the phenomena observed varying with every observer, and with each subject. What is predicted is not produced, and what is not predicted is produced. This objection is based on a real fact. Indeed, the first time that an individual is hypnotised, she finds herself in a special condition, which requires a real education. According as the experimenter desires to provoke this or that phenomenon, he will be able to direct the attention of the subject to it, and to act so that this phenomenon is produced. That simply means that will, habit, and education play an important part in the manifestations of the somnambulic neurosis. But this vague and unconscious influence cannot be regarded as simulation. When a lunatic reasons, reflects, meditates, he often shows evidence of much logic. Will it be said that he is not mad? Only people who know nothing of medicine would think so. In fact, a lunatic and a somnambulist reason, reflect, meditate, and it would be absurd therefore to conclude that they are simulating.

There are often seen certain strange psychological phenomena which it is necessary to know. Some hypnotised subjects regard their hallucinations as fictions, and say that what they see before them, with forms apparently real, is not reality. This is observed in dreaming, and also in insanity. We often dream of monsters so strange and visions so absurd that we cannot believe them. There occurs also a sort of doubling of consciousness; we dream and we know that we are dealing with a dream, and we make great efforts to drive away the vision which oppresses us. So do those who have hallucinations hear voices which they very well know to be subjective. So also certain somnambulists are conscious of their state, and thus a curious antagonism is set up in them. Their imagination shows them the real form of things, and their intelligence understands their absurdity. That is why they often exhibit contradictions, which, to a superficial observer, would seem to reveal simulation. The fact was very striking with a patient at Beaujon, quite a young girl, whom I hypnotised on several occasions with the greatest facility. I told her that I was going to perform a painful operation on her—amputation of the arm, for example. She cried out with pain, wept abundantly, and thought she saw the blood flow; but almost at the same moment she understood it was a fiction, and laughed through her tears. Often also, when one makes imaginary voyages with hypnotised subjects, they know full well they are on their own couch or in their bed, and yet they see the regions where we have had the fancy to lead them; just as in ordinary sleep, we find ourselves transported into far off countries, without forgetting, however, that we are tranquilly asleep in our own room.

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[1] In an article in *The Times*, where a paper I contributed to the *Revue des Deux Mondes*, on "Demoniacs, Past and Present," is analysed, I am thus laid open to reproach, it being objected that it is impossible to describe the changing and fugitive phenomena of hysteria. As much, said the critic, might one try to fix on a photographic plate the mobile surface of the ocean. Now, this observation, which appears to me to be of slight foundation, and little justified by fact, is joined by another reproach quite as singular; it is that things are spoken of which we ought to be silent about; that we provoke, by the description of hysteria, attacks of this disease; that we contribute, in a word, not to the knowledge, but to the extension of the disease. Surely this is scientific prudery!

However seldom one may have been present with some case at the gymnastic performances which the professed magnetisers present to the public, one is convinced, on the one hand, that the *subjects* are, indeed, hypnotised; on the other hand, that they also practise trickeries. There are somnambulists who simulate. These two terms are not contradictory, as might be wrongly supposed. In fact, a hypnotised woman does not so far differ from the condition of her waking state that she cannot understand her situation, reflect, and simulate. She is hypnotised, as all the physiological phenomena she presents show (catalepsy, contraction, anæsthesia, fibrillar movement of the eyelids, movements of the eyes, suppression of movements of deglutition). But whilst being indeed asleep she plays her part—tries to divine the future; to read distinctly in the body of the patients who consult her; to divine, by a lock of hair, the age, the character, or the health of anybody. These divinations form part of her trade. She knows it, and conforms to it. She is, however, really asleep, and it is, indeed, owing to somnambulism that she can perform all these practices. If she were awakened she would be forced to expend prodigious mental activity, and to support unbearable muscular fatigue. We have seen *imbeciles* simulate madness, just as there are somnambulists (really hypnotised) who simulate lucid sleep. It would require prodigies of dexterity, and the muscular force of an athlete, to go through half the astonishing exercises which a somnambulist can easily perform, thanks to the cataleptic state of her muscles. The famous Lucile, whom everyone saw at Paris, two or three years ago was really hypnotised. But, although hypnotised, she well knew that she was on the stage playing her part before the public, and succeeded in her tricks with the regularity of an actress who plies her profession honestly.

All these characters—diversity, inconstancy, irregularity—are perfectly explained by the prodigious complexity of the phenomena of that mystery—the mind. The brain is a mechanism a thousand times more complex than a flute, and yet an ignorant person could not play on this instrument if he had not previously learnt how to handle it. "You would play upon me," says Hamlet to the emissary of the king, his uncle—"you would seem to know my stops; you would pluck out the heart of my mystery; you would sound me from my lowest note to the top of my compass; and there is much music, excellent voice, in this little organ; yet cannot you make it speak? 'Sblood, do you think I am easier to be played on than a pipe?"

These words of Hamlet may be addressed to those who find the psychical phenomena of somnambulism too inconstant to be scientific. Suppose fifty inexperienced individuals attempting to play the same air on the same flute; they only elicit discordant and rude sounds in fifty different times. Why, then, be astonished that physicians or observers, all very ignorant of the intimate nature of the nervous system, only obtain contradictory results? To my thinking it is more surprising that, in spite of our profound ignorance, in spite of the almost infinite diversity of the experimental conditions, there is yet so much analogy between the phenomena observed. We ought to be really struck by the resemblances rather than the differences, for the latter are of small account relatively to what they might be. For my part, proceeding always in the same manner, I have invariably obtained sufficiently concordant results, in spite of the enormous differences in the subjects submitted to experiment.

The differing aspects of the same disease are sometimes more marked than the different aspects of somnambulism. Besides, why not compare it to a disease? It has a period of onset, a stationary period, and a critical period, constant fundamental symptoms, and accessory or inconstant symptoms. It always resembles itself.

To sum up, it can be proved that somnambulism is a real fact, if not by an absolute proof, at least by the whole of the proofs which plainly demonstrate that the hypothesis of simulation is absurd. Scientific scepticism is an excellent method, but it must not be pushed to the point that everything is either illusion or deception. To admit that hundreds of observers, ordinarily sagacious and reserved, have allowed themselves to be deceived by mystifications, that these mystifications are being incessantly practised, bringing no gain but unbearable vexation to those who play with them, and to suppose that this pleasantry may be repeated, without modification, for a century, in most diverse countries, is to fall into an excess of prudence. For every man who has examined the question it is as absurd to doubt the reality of somnambulism as the reality of epilepsy. After all, if there are still people who hesitate, let them see for themselves, let them study, let them experiment, they will soon be convinced that their doubt is not justified, so clear and striking are the facts, so much do they overcome all hesitation by their greater force.

CASE OF STRYCHNINE POISONING TREATED SUCCESSFULLY WITH BROMIDE OF POTASSIUM AND CHLORAL.

By ENGLEDUE PRIDEAUX, L.R.C.P. LOND., M.R.C.S. ENG.

THE following case occurred some years ago, but for obvious reasons I have been unable to send it for publication until the present time. The facts of the case are as follows:—

At an institution with which I was connected there was a stock mixture kept, containing bicarbonate of soda 10 grs., carbonate of ammonia 3 grs., ammonio-citrate of iron 5 grs., and solution of strychnia 5 minims, in an ounce of water. This mixture was frequently ordered for out-patients in cases of atonic dyspepsia.

One morning, after seeing the out-patients, I happened to walk into the dispensary and sat down at the dispenser's desk, he having gone out; whilst writing some memoranda my eye was caught by a pencil statement on the blotting paper of a calculation of the contents of the stock bottle containing the mixture of citrate of iron and strychnia, and I noticed that in jotting down the whole amount of each constituent the dispenser had substituted ounces for drachms of the solution of strychnia. I sent for the dispenser at once, and on tasting the contents of the stock bottle it was evident that the mistake had been made, and three lots of about half a pint each had been given out. The dispenser explained that whilst giving out the medicines the stock bottle ran short, and he proceeded to refill it, making it up whilst a number of patients were waiting, and in his hurry the mistake occurred. After taxing our memories as to which patients were taking the mixture, we were able to find out the new ones, but not all those to whom it had been repeated. We went to the addresses of all we could find, and under some pretext got the medicine back, but after all it was evident that one, perhaps two, still remained, and these we were unable to trace.

Finding there was no help for it I set to work, so as to be prepared, and remained in-doors all day. After much consideration and consulting the books I had, I resolved to rely upon bromide of potassium and chloral, as being the drugs which in their action were most antagonistic to strychnia. I therefore prepared some strong solutions and waited events.

About ten o'clock a message came to ask me to go and see Mrs. C——, who was having very bad fits. I at once put the remedies in my pocket, with a bottle of chloroform, and, accompanied by a medical friend to whom I had related the circumstances, started off to the address of Mrs. C——, whom I at once recollected as a patient who had been taking the citrate of iron and strychnia mixture.

From the person who came (a half-witted woman, the sister of the patient) I learnt that Mrs. C—— had been out at work in the open air all day, and coming home between five and six had her tea, and some time after tea took a good dose of medicine; in the evening, while standing at the door of the place she lived in, she fell down in a fit and had had them ever since, and was then said to be dying. The messenger had been to a doctor in her neighbourhood, who had refused to go. She was much excited when she came for me, and declared her sister had been poisoned. As far as I could gather, some two or three hours or more had elapsed from the time her sister had taken the medicine to the time she was taken ill, and the fits had been increasing in frequency and strength during the past hour.

On arriving at the house I found the patient, a woman of about fifty years of age, lying on a mattress upon the floor, unable to speak and perfectly rigid, and in a condition of constantly recurring opisthotonos, the convulsions succeeding one another with great rapidity, with all the appearances of acute strychnia poisoning. The pulse was slightly quickened, but otherwise fair. As soon as the jaws were relaxed, I administered half an ounce of bromide of potassium in solution with one drachm of chloral. After a quarter of an hour the spasms began to materially abate, and the muscles relaxed in a marked degree. I then administered another half ounce of bromide in solution, and in half an hour there was almost perfect relaxation, with slight spasms recurring at much longer intervals. After remaining with the patient for some time, and finding the spasms did not recur in their intensity, but were becoming much slighter, and only occasional, we left, leaving another ounce of bromide to be given in divided doses of two drachms every four hours during the night. We were shown also an old wineglass, with the foot broken off, and told that she had poured out the medicine into this without measuring it, taking nearly or about a full glass, as she said to them "To make up for not taking any during the day." I took away the glass, and afterwards found it contained a full two ounces and a half.

The next day I visited the patient early in the morning, anxious to know the progress of the case. I found her in a very feeble state, and to my surprise quite unable to raise herself, and able hardly to move a muscle; indeed, she seemed like a sheet of wet blotting-paper, and was almost completely paralysed; her water had run away in great excess, and a large quantity of liquid fæces. Her pulse was slow and markedly feeble. She had taken half of the quantity of bromide left. I stopped its administration, and ordered strong beef-tea and milk with a little brandy at frequent intervals. On the evening of the same day there was little alteration.

From this time she progressed towards convalescence very slowly and gradually, her recovery being much retarded owing to the inability of her friends to obtain sufficient and proper nourishment. After three days she was able to raise herself, and had regained power over the sphincters, and on the fifth day was able to sit up. She was then removed to the union house, where she rapidly recovered.

The woman must have taken, from the size of the glass she used, fully two ounces of the wrong mixture, each ounce containing forty minims of liq. strychniæ, P.B.—that is, eighty minims in all, nearly three-quarters of a grain of strychnia. I have not been able to find any record of the administration of so large a dose of bromide of potassium, but it appeared to me necessary to give as large a dose as possible, inasmuch as the poison had been in the stomach for a considerable time, and it had all, or nearly all, been absorbed. The symptoms had been increasing in severity, and from their intensity were evidently attaining their maximum, and must have soon produced death by interference with the function of respiration, so that to give smaller divided doses would have been useless. The effect of the first dose was remarkably complete, temporary muscular relaxation occurring in about twenty minutes, and the succeeding convulsions becoming rapidly altered in character.

I believe that the complete muscular paralysis which occurred, and was so slowly recovered from, was owing to the partial abolition of the functions of the spinal cord, caused by the exhibition of the remedy, and was not due to nerve or muscular exhaustion consequent upon the extreme excitation and activity induced by the poison.

Wellington, Somerset.

LIFEBOAT SERVICES IN 1880.—A list of the services rendered to shipwrecked crews by the lifeboats of the National Institution during the storms of the year which has just closed, shows a total of 577 lives and 27 vessels saved from destruction. In the same period the Lifeboat Institution granted rewards for saving 120 lives by fishing and other boats, making a total of 697 lives saved. Since its formation the society has contributed to the rescue of 27,600 shipwrecked persons.

CASE OF RECURRENT PEMPHIGUS PRURIGINOSUS FOLLOWING CHECKING OF THE MENSES.

BY W. A. DUNCAN, M.D.

MISS B——, aged twenty-five, has always had good health. First began to menstruate when fourteen and a half years old; since then "the periods" have appeared regularly every month.

On July 28th, whilst out walking, was caught in a storm and got wet through; the same night she felt chilly and languid.

Next morning (29th) patient noticed that the menses, which had commenced the previous day, were stopped. She now complained of headache, nausea, and general malaise, together with a peculiar tingling sensation in both hands. These symptoms continued till August 1st, when I perceived numerous small round papules on the palmar aspects of both hands, and also on the sides of all the fingers. The hands were somewhat swollen and slightly œdematous, but the skin was not inflamed. The sensation of pricking and tension was so great that the patient could obtain no sleep without the aid of a morphia draught. A saline mixture was ordered every three hours, and a lead lotion (1 in 20) to be kept constantly applied to the affected parts.

On Aug. 2nd the papules had developed into vesicles, which, in irregular groups, were situated most accurately over the course of the median and ulnar nerves on the palms and fingers; even the small palmar cutaneous branches of both these nerves over the anterior annular ligaments had their appropriate vesicles. The swelling and œdema were more marked, and there was intense irritation and pricking.

Next day (Aug. 3rd) the vesicles along the sides of the fingers had developed into round bullæ, from a quarter of an inch to half an inch in diameter, and from their size they caused the fingers to become widely separated. On pricking these bullæ decided relief was obtained, and a perfectly clear, colourless fluid escaped; in some, however, the contents, though perfectly transparent, were of more consistence, as only a slight amount of fluid followed the puncture. On the palms the bullæ were much less developed, the largest being about the size of a pea, and the patient complained of great pain in them. "As if the palms would burst," she said. The lead lotion was therefore discontinued, and both hands were ordered to be enveloped in large bread poultices, and the morphia draught to be repeated if necessary.

Aug. 4.—Patient passed a better night; did not require the draught. The feeling of tension is much relieved, doubtless due to the poultices softening the epidermis. The bullæ on palms more developed, and several were punctured to allow the fluid (which was in each one colourless) to escape. The swelling and œdema still considerable. To continue poultices.

8th.—Patient expresses herself as altogether better, though there is still great irritation of the hands. Ordered to take a mixture containing bromide of potassium and liquid extract of bark thrice daily, to discontinue poultices, and apply constantly a lead and belladonna lotion; daily carriage exercise was also enjoined. Under this treatment the irritation and swelling gradually subsided, and on the 14th the hands and fingers were of natural size, and the skin was peeling off.

18th.—Palmar surface of both hands and fingers now denuded of old skin, exposing the new epidermis of a reddish colour, which itches excessively. The parts were ordered to be painted with a lotion consisting of equal parts of glycerole of lead and vaseline.

23rd.—Patient altogether better. Very little irritation.

25th.—Menstruating.

27th.—Although every possible care was taken to avoid catching cold, "the period" again stopped suddenly last evening; and on my visit to-day the patient (after passing a restless night) is not so well. Several papules appear on the sides of the fingers, and a few on the palms. The swelling and irritation are not so severe as on the first attack. Ordered an effervescing saline mixture, and the lead and belladonna lotion.

The further progress of this case is briefly as follows:—

Bullæ again developed, but not so large nor so numerous, and they gradually dried up under the use of the lotion.

On Sept. 1st I advised patient to go to the seaside in order to recruit her health before the next period.

Sept. 20th.—Just returned from Boulogne, where she has been since the 3rd. Feels quite strong. Hands are much better, but still continue to itch a good deal.

Oct. 18th.—Continues well, with the exception of some irritation of the hands, the skin of which is harsh and dry. No bullæ appeared at the last period, but the hands became hot and painful. Has been taking a citrate of iron mixture, with phosphorus and zinc pills, for several weeks.

This case is very interesting from several points: 1st, etiology; 2nd, character and recurrence of the eruption; 3rd, treatment adopted.

(*a*) With regard to pemphigus, Tilbury Fox, in his work on Skin Diseases, says its causation is involved in obscurity. In this case, however, the chill, which resulted in checking the menses, evidently was the cause; but how this acted I am not quite prepared to say, unless by causing general disturbance of the nervous system, and especially the terminal distribution of the median and ulnar nerves, thus producing localised changes in the vaso-motor supply to the affected parts.

(*b*) The symmetrical character of the eruption was well marked, and at first the case seemed to me to be a rare one of symmetrical herpes. However, the formation of bullæ on the second day showed I was mistaken. Tilbury Fox mentions two cases[1] he had seen in which the eruption was more or less symmetrical, and which he described as partly herpetic and partly pemphigoid. That the eruption recurred when the menses were again suddenly checked shows that the two stand in relation to one another as cause and effect.

(*c*) With regard to treatment, constitutionally it has been of a tonic nature. Unfortunately my patient is one of those individuals whose idiosyncrasy prevents them taking either quinine or arsenic. Locally, the greatest relief was obtained by the application of poultices, and afterwards of the lotion of glycerole of lead and vaseline. However, I am bound to say that, although much diminished, the irritation still continues to cause a good deal of annoyance, but this will most probably disappear after some further treatment.

Nov. 15th.—Since writing the above remarks the patient has continued to improve, and is now perfectly well. Under the use of the vaseline ointment all irritation of the hands has disappeared; the skin is of its natural appearance, and her monthly "period," which has just passed, was quite normal.

Croydon.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Procœmium

KING'S COLLEGE HOSPITAL.

FRACTURE OF THE INTERNAL CONDYLE OF THE HUMERUS; DISEASE OF THE JOINT; EXCISION.

(Under the care of Mr. Henry Smith.)

For the following notes we are indebted to Mr. S. Farmer, house-surgeon.

George K——, aged eighteen, was admitted into Fisk ward on November 11th, 1880. Ten days before admission he struck his left elbow against a piece of wood. This blow was followed by severe pain, which soon abated somewhat, so that he was able to follow his occupation for one day after the accident. He was, however, never free from pain, and in consequence of its increasing severity he was obliged to cease working. On November 4th (three days after the accident), linseed-meal poultices were applied and continued up to the time of admission.

On admission the patient was an ill-developed boy, and on inquiry it was ascertained that he was a seven months' child. He had always been unhealthy, and he had a scrofulous abscess in the left submaxillary region. The right upper limb was found to be swollen from the middle of the arm to the middle of the forearm. It was likewise hot, œdematous, painful, and very tender, the tenderness being most marked over the internal condyle. No fluctuation could be detected, nor was there pain on pressing the joint surfaces together. Temperature 101°; pulse 100. An angular splint was put on and ice was applied over the elbow, and a draught of ten drops of tincture of opium was given. A quinine and iron mixture and cod-liver oil were also ordered.

On the 12th the arm was still extremely painful, the ice having failed to give any relief. Hot fomentations were applied and the pain was relieved. In the morning the temperature was 99·3°; evening temperature 101·1°. On the 13th the pain and tenderness were less and the swelling had decreased. Morning temperature 98·2°; evening temperature 98·4°. On the 10th the pain was entirely gone, but the swelling still remained. He could move the joint slightly, but extreme movements gave great pain. Morning temperature 99·1°; evening temperature 100·2°. On the 19th the pain had again returned. The arm remained in nearly the same condition until Dec. 10th: there was no pain except on pressing over the joint. The swelling never disappeared. The general symptoms during this time were of a hectic character, with evening rises of temperature of from 1° to 2°; morning temperature varied from 98° to 98·3°; evening temperature varied from 99·2° to 100·4°. A fluctuating swelling could be felt on the posterior surface of the arm, two inches above the joint; and on the 11th the abscess was opened antiseptically; about half an ounce of pus escaped; dead bone could be felt at the posterior surface of the internal condyle. A large drainage-tube, two inches in length, was introduced. Morning temperature 99°; evening temperature 98·3°.

On the 16th the arm was very painful; morning temperature 100°; evening temperature 102°. And on the following day, though the arm was less painful, there was very free discharge. Morning temperature 100°; evening temperature 102·4°. It was decided to excise the joint. Accordingly, on the 18th, ether was given, and Mr. Henry Smith excised the joint in the usual manner. On opening into the joint the cartilages were found to be healthy. The internal condyle was diseased, and had been fractured. A sequestrum of bone the size of an almond was found above the trochlear surface of the humerus. The cartilage over the trochlear surface was detached, but was not diseased. The whole of the synovial membrane was thickened and diseased. All the articular surfaces were removed. There was free hæmorrhage, owing to the vascularity of the parts. A drainage-tube five inches long was passed between the ends of the bones. The operation was done antiseptically. The arm was laid on a cushion after the operation, and no splint was applied. Morning temperature 101·2°; evening temperature 98·2°. He passed a good night, but next morning the face was flushed, and the skin was hot and dry. The arm was dressed, and there was very free discharge. There was some tension. Morning temperature 103°; pulse 100. Evening temperature 103·1°; pulse 104. On the 20th the arm was dressed. The wound had healed by first intention, except at entrance and exit of drainage-tube. Morning temperature 99·2°; evening temperature 99·1°. On the 21st the discharge was much less. Morning temperature 98·1°; evening temperature 98·2°.

The boy has continued to improve. He has no pain; the temperature remains normal. He still remains under observation in the hospital, and has every prospect of recovering a useful arm.

ST. MARY'S HOSPITAL, MANCHESTER.

CASE OF PARALYSIS OF RIGHT LOWER EXTREMITY, FOLLOWING AN INJURY TO THE SACRAL PLEXUS DURING A DIFFICULT LABOUR.

(Under the care of Dr. Lloyd Roberts.)

For the following notes we are indebted to Dr. Walter.

A woman, aged twenty-eight, was admitted on Dec. 15th, 1879, suffering from wasting and loss of power of the right lower extremity. Her ailment dated back to her second confinement, which took place seven weeks previous to her coming into hospital. It was stated by the medical attendant that the labour lasted twelve hours, and that during the last three hours the pains, though very strong and frequent, were quite ineffectual in producing any advance of the presenting part, the head remaining during that time engaged in the pelvic brim. The forceps were then applied, and delivery accomplished with much difficulty. The child was large and stillborn. No anæsthetic was used, and the patient complained during delivery of violent pain and cramp in her right thigh, which continued without intermission until the child was born.

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[1] Skin Diseases, rd ed., p. 221.

Next morning her leg and foot were "cold" and "numb," and there was complete loss of motion throughout the whole limb. This condition remained unaltered until the seventh day, when the patient again experienced the most intense pain along the course of the sciatic nerve; two days later slight swelling of the ankle and dorsum of the foot took place, the numbness and loss of sensation disappearing almost simultaneously, though the loss of motion continued complete.

During the seven weeks that elapsed before the patient was admitted into the hospital, she was unable to leave her bed, and at the time of admission the condition of the limb was as follows:—Well-marked wasting of the entire leg and thigh, the muscles of the calf being most atrophied, then those of the hamstring muscles, and, to a lesser degree, the gluteus maximus. There was slight œdema of the ankle, and the foot hung loosely, with the toes pointing forwards and downwards. Abduction and adduction of the foot were impossible, and flexion on the ankle-joint was very imperfectly accomplished. No movement of the leg could be performed. Cutaneous sensibility of the limb was normal, excepting over a small area in front of the ankle, where the œdema existed, and where also the patient complained of much pain. The muscles of the limb responded to the electric current less readily than those of the opposite side. Reflex movements were impaired, but there was no paralysis of bladder or rectum. The patient remained in the hospital a month, and had then recovered so far as to be able to walk across the ward, with assistance.

The treatment adopted was friction and shampooing of the limb, with the daily application of the electric current.

After she was made an out-patient she attended the hospital three days a week to be faradised. At the end of six months the paralysis had completely disappeared, and the patient was in excellent health.

Remarks.—The completeness of the paralysis that existed in this case warrants the supposition that considerable damage to the nerve trunk had taken place; fortunately these changes were not permanent, and as soon as the inflammatory products were absorbed the functions of the nerve returned, and the recovery was no doubt accelerated by the prolonged and steady use of the electric current.

The clinical history affords a well-marked example of paralysis from compression, and illustrates forcibly how hopeful prognosis may be in those forms of paralysis where the lesion is peripheral.

GENERAL HOSPITAL, SHANGHAI.

MULTIPLE LIVER ABSCESS IN CONNEXION WITH DYSENTERY; DEATH; REMARKS.

(Under the care of Dr. EDWARD HENDERSON.)

C. B——, a German, aged twenty-four, resident for several years in Hongkong and Shanghai, was admitted on the 24th of September, having been ill for two weeks, and suffering from "dysentery." He was thin, having, he said, lost flesh greatly since the beginning of his illness. He was very anæmic. He had had no rigors at any time during his illness, and had not experienced any well-marked pain in the region of the liver. There were slight jaundice and great prostration, with a peculiar odour of body and breath suggestive of general blood-poisoning. The pulse was 94, weak; the temperature on admission (afternoon) 101° Fahr. There was flatulent distension of the bowels, with general abdominal tenderness, the right hypochondrium and right iliac region being especially sensitive and resistant. The liver was apparently enlarged; in the right nipple-line comparative dulness began on the fifth rib and extended to a point half an inch below the costal margin, measuring in all six and a quarter inches. There was absolute dulness on the sixth rib, an inch and a quarter lower down. No friction sounds were audible in or near this area. The splenic dulness was normal; the urine was slightly albuminous. During the six days which followed admission the condition was briefly as follows:—General weakness progressively increasing; pulse weak, varying between 94 and 120; temperature very irregular, varying between 98·4° and 102°; no rigors; sweating at times profuse. No cough or vomiting. Motions averaging six in twenty-four hours, of the consistence of gruel, yellow-ochre in colour, slimy, not specially offensive, and not apparently containing blood. By the 30th of September the area of dulness in the right nipple-line had increased by at least half an inch, but the intercostal hollows remained unaltered; no distended vein had appeared on the surface, and no friction sounds were to be heard. At this time it was thought proper to aspirate the liver, though the symptoms rather indicated the multiple abscesses of pyæmia than the presence of a single (tropical) abscess. Three punctures were made—viz., in the right nipple-line between the sixth and seventh ribs; in the anterior axillary line between the seventh and eighth ribs; below the costal margin (in an upward direction) near the anterior extremity of the ninth rib. No pus flowed into the receiver by any of these punctures while the needle remained imbedded in the tissues, but about half a teaspoonful of thick pus mixed with blood was sucked into the bottle when air entered the instrument as the needle was withdrawn; the point of the needle did not at any time feel free as if lying in a cavity. The patient's general condition seemed to be somewhat improved on the following day, but after that he sank gradually, and died on the fourth, expressing himself to the last as free from localised or special pain. The diagnosis was dysenteric ulceration of the bowel, with multiple hepatic abscess, the post-mortem examination confirming this. The liver was moderately and uniformly enlarged, and its substance studded with abscesses in all stages of development, and varying in size from the dimensions of a pea to that of a large walnut. No abscess was found elsewhere in the body. The under surface of the liver, especially along its anterior margin, was firmly adherent to the peritoneal investments of the viscera in its neighbourhood, but only a few apparently recent adhesions had formed between the lower surface and the parietes; these last were in the axillary region. The great gut was deeply and extensively ulcerated, but only one small superficial (catarrhal) ulcer was found in the small intestine.

Remarks by Dr. HENDERSON. — Cases of this kind are rare in Shanghai, the usual liver lesion in connexion with bowel ulceration being the single, so-called tropical, abscess. It is of importance to note the significance of the "typhoid state" in connexion with diarrhœa and dysentery in the East. Should this condition be developed early in the history of a case, my observations lead me to suspect either sloughing of a large tract of the mucous membrane or the coexistence of liver abscess. Such cases have more than once been mistaken for cases of enteric fever, their real nature being only recognised when the liver enlargement had passed beyond the limit of any ordinary typhoid swelling. A case of the kind occurred in my own practice in January, 1874, and I failed to recognise its true nature until within three or four days of my patient's death; he died on the twenty-second day of his illness. The temperature trace in this case during the first week closely resembled the trace of enteric fever; there was meteorism, and spots resembling those seen in typhoid fever appeared and disappeared on the surface of the abdomen; there were no rigors, and but little sweating till near the end; the patient only once complained of pain in the hepatic region, and called it "spasm." Yet the post-mortem examination showed the bowel lesion to be that of dysentery, and the right lobe was occupied by a single large recent abscess (with adhesions), which should have been emptied during the patient's life, had its presence been recognised sufficiently early. In the case at present under discussion, such an error in diagnosis was precluded by the temperature trace, the absence of splenic enlargement, and the presence of those other symptoms which indicated from the first a condition of general blood-poisoning. The diagnosis of multiple abscess was strengthened by the use of the aspirator, a medium-sized needle, feeling as if always fixed in the tissues, and withdrawing only a small quantity of pus from three punctures made sufficiently far apart from one another. In Shanghai, where the usual liver lesion in connexion with bowel disease is a single abscess, the patient, even in such a case as the one just recorded, should always have the benefit of the doubt; and if pus flows at all freely by the aspirator, its use should, as a rule, be immediately followed by antiseptic incision and drainage, with the precautions which, I believe, Dr. Macleod (Shanghai) and I were the first to apply to the surgical treatment of liver abscess in January of 1878. Our first case (a successful one) is recorded in THE LANCET of June 22nd, 1878.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Enlargement of Median Nerve.—Fracture of Olecranon.—Diastasis of Lower end of Humerus.—Molluscum Contagiosum.—Obstruction of Mesenteric Vessels.

THE annual meeting of the Pathological Society of London was held on Tuesday last, Jan. 4th, J. Hutchinson, Esq., in the chair. The first hour was devoted to the usual business of the Society, and the closing half hour to the adoption of the annual report, election of officers for the ensuing year, and thanking the retiring officers. Dr. Horrocks and Mr. Barker acted as scrutineers of the ballot.

Dr. ORMEROD showed a woman, twenty-three years of age, with Enlargement of the Median Nerve. She was the subject of inherited syphilis, but had enjoyed good health till five years ago, when she suffered from an attack of pain in the left arm, worse at night, which passed off under simple treatment. Two and a half years later the pain recurred, and was felt shooting down into the fingers, and was gradually followed by paralysis and wasting. The median nerve is felt about the middle of the arm enlarged to the size of a big quill, firm, tender on pressure, which causes numbness in the thumb and outer fingers. There is wasting of the superficial flexor muscles of the forearm, and the ball of the thumb, with loss of normal response to the faradaic current; there is also anæsthesia in parts of the thumb and two adjacent fingers. When first seen the skin of these digits was glossy, thin, and slightly ulcerated, but is now healthy in appearance. In support of the view that this condition is syphilitic Dr. Ormerod referred to—(1) Absence of other cause, such as injury and cold; (2) the ulcers healed under the administration of iodide of potassium; he thought the swelling of the nerve was also less; (3) deafness due to affection of the inner ear or auditory nerve began or was aggravated in the year preceding the attack of pain.—The PRESIDENT believed the case to be unique; the fusiform enlargement of the nerve resembled that seen in leprosy, of which there was no trace here. Although he had never demonstrated neuritis in single nerves of the limbs in inherited syphilis, he had suspected it in some cases of numbness and great pain in the fingers; and similar affection of the optic and the cranial nerves was met with, so that he was disposed to think Dr. Ormerod's explanation correct.—Dr. ORMEROD stated that there was no optic neuritis or atrophy of the disc, only a little cloudiness of the media.

The PRESIDENT exhibited two living specimens. One was a man who fell back on to his elbow ten years ago, and fractured his olecranon transversely. He was treated with the arm in the flexed position, the fragment is fixed almost immovably to the back of the humerus, with a wide gap between it and the ulna, in which there appears to be not any uniting medium. The man has power in his triceps, and can partially extend the elbow; he also has partial paralysis of the ulnar nerve, with contraction of the ring and little fingers, numbness, and wasting of the muscles between the thumb and forefinger. On the other hand, he shows the signs of intra-uterine amputation of all the fingers. The second case was a little girl who had had separation of the lower epiphysis of the humerus, with displacement backwards, and anchylosis in that position. The Transactions of the Society contain a larger number of cases of diastasis than can be found elsewhere, and this induced him to show this case, which was the best marked he had ever seen.

Dr. THIN had examined a large number of sections prepared under his direction from upwards of fifteen Molluscum Contagiosum Tumours. With a single exception no hairs or sebaceous tumours were found in all these sections. It is evident, therefore, that the development of these tumours is attended by falling out of the hairs, and disappearance of the sebaceous glands. The molluscum formation has no duct, a breaking down of the central cells having been mistaken for a duct by some observers; and there is no sebaceous secretion in the cells. The tumour is composed of rounded epidermic masses, and not glandular elements. A molluscum tumour is formed by a small number of independent growths, beginning on the free surface of the epidermis, close to each other. These coalesce as they grow to form one tumour. In a favourable instance the primary point of origin was traced to a hair-follicle; and basing his opinion on appearances formed in one of the tumours, Dr. Thin, with Virchow, assigns the first abnormal action to the cells of the internal root-sheath. The hair drops out of the distended follicle, the sebaceous glands atrophy, and the follicle becomes enormously widened. New growths bulge out from the epidermic root-sheaths of the hair. The small group of independent points of development, whose coalescence goes to form the tumour, probably originated in inoculation by the discharge of molluscum cells from the follicle. As the morbid process can develop from the free surface of the epidermis, its origin in a follicle may prove to be not invariable. The development of the molluscum body from an epidermic cell takes place by the cell becoming first filled with granules, in the midst of which clear spaces (vacuoles) are seen. These granules enlarge, and finally coalesce into a homogeneous mass, the nucleus being pushed aside, and finally disintegrating and disappearing. In the full development an epidermic shell or wall contains a mass of homogeneous substance, which has special physical and chemical properties, and which is in reality a new product. It may fall out of the epidermic shell, and retain its shape and consistence. A molluscous body is an epidermic, and not a gland cell, whose natural evolution has been modified by the interference of an unknown cause. Everything tends to show that this cause comes from without, lodges first in the follicle, and there develops and multiplies, and infects the immediate neighbourhood of the follicle. The imperfectly-formed fibrous tissue that surrounds the tumour testifies to a certain amount of reaction set up by a substance which is foreign to the healthy tissues.

Dr. RADCLIFFE CROCKER showed specimens of Molluscum Contagiosum in a very early stage. The earliest showed the molluscous bodies in the rete mucosum, occupying the upper layers of the inter-papillary processes, together with those cells of the corneous layer which stained with carmine, while the external cells which took the picric acid stain were free from these molluscous cells. This change could also be traced in a minor degree into the deeper cells of the rete, as far as the palisade cells. In these specimens no alteration in the position of the palisade cells had yet occurred. In a tumour fully formed, but very small, a section through the centre of the tumour showed the wall of the duct-like orifice continuous with the epidermic layers of the skin, and within a plug of yellow cells, which did not stain with logwood or carmine, and which were in an advanced stage of the molluscous change. The evacuation of such a plug would give rise to the appearance of an open hair-follicle as commonly seen. Near this tumour transverse and vertical sections of hair-follicles could be seen with the molluscous change in the cells nearest the hair-shaft—i.e., in the internal root-sheath—so that the process evidently began in hair-follicles in some instances, though it seemed probable that it might also begin in the upper layers of the rete independently of the hairs. These observations were in accordance with the view that Virchow, followed by other Continental authorities, had put forward, and which Dr. Alfred Sangster had demonstrated two years ago in this country.—Dr. MORRISON had examined some specimens and was of opinion that the change began in the rete mucosum around the sebaceous gland, with great increase of the periplast; the gland itself is enlarged and softened in the centre; there was close similarity between these changes and those in the tissue of a wart from the scalp he had recently examined. He had failed to demonstrate the growth in connexion with a hair-follicle.

Dr. TAYLOR exhibited a specimen removed from a child aged five years, who was suddenly seized with vomiting and severe pain in the belly one afternoon; collapse ensued and the child died next morning. Dr. Taylor made the autopsy sixty hours after death. The peritoneal cavity contained about ten ounces of blood; the upper eight inches of the jejunum were turned up to the right and passed under a soft filamentous band reaching from the hepatic flexure of the colon to the mesentery; it was unaltered in appearance. All the small intestine below this was in its proper situation, but intensely congested and of a purple colour, which was obviously not due to constriction. The superior mesenteric artery was healthy for about an inch of its course, and was then completely obliterated for three-quarters of an inch by a firm semi-cartilaginous and fibrous mass; the branches coming off below this plug were not examined. At the same spot the mesenteric vein was filled with a soft thrombus. The congested intestine contained a few ounces of blood; the mesentery was thickened, as if from chronic inflammation, and the mesenteric glands were enlarged, but not caseous; other viscera healthy. During life the symptoms were attributed to eating strawberries. Dr. Fagge had recorded in the Transactions the case of an adult seized with severe abdominal pain who died in twelve hours; a thrombus was found in the superior mesenteric vein, and the small intestine had all the appearance of strangulation. In this case the obstruction of the artery was evidently not recent, and the question arose whether it had been suddenly completed by some twist of the gut, or whether the effects were produced entirely by the venous thrombosis.—Dr. D. POWELL asked what was the nature of the growth in which the vessels were imbedded.—Dr. TAYLOR had not examined it microscopically, but considered it to be merely the result of chronic inflammation of the mesentery.

The following card specimens were shown:—1. Calcareous Aorta, by Dr. R. W. Burnet. 2. Mucous Tumour of the Heart, possibly syphilitic, by Mr. Shattock. 3. Epulis, containing masses of hyaline cartilage, by the President for Dr. Lediard. 4. Diseased Kidneys from a young boar, by the President. 5. Specimens showing Gouty and Chronic Rheumatoid Arthritic Changes in the same individual, by the President.

The special business of the annual meeting was then despatched, and the meeting adjourned.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

On Maxillary Abscess and Necrosis in Childhood.

AT the meeting of this Society, on Dec. 15th, 1880, W. A. N. Cattlin, Esq., F.R.C.S., President, in the chair—

Mr. EDMUND OWEN read a paper on Maxillary Abscess and Necrosis in Childhood, and stated that the question he desired to suggest for discussion was this: Is it right to refuse to extract a carious and aching tooth on account of the acuteness of the periosteal and maxillary inflammation which its presence has excited? Mr. Owen felt that the knowledge of general surgeons on this point was by no means definite, involving, as it does, pathological and surgical principles of great importance, and he was anxious to get an opinion from those present, since he held that no surgeon should ever refuse to remove a tooth which is the cause of acute inflammation for the simple reason that the local disturbance is excessive. He would narrate three cases by way of analogy.—Case 1, that of a little boy in a most miserable condition, with a large bright red or dusky swelling at the end of his thumb. He can neither eat nor sleep, on account of the inflammation of the bed of the nail. The nail is evidently doomed, discoloured, and loose, and imbedded in a bleeding groove of vascular granulations. The nail is removed, water-dressings applied, cod-liver oil and iron prescribed, and the boy from that time recovers health and strength. *No* treatment which did not include the removal of the nail would have been of avail.—Case 2 is that of a child with acute periostitis and inflammation of the bone itself, with probably some periosteal suppuration, caused by exposure to cold and wet. A bold and free incision is made, which at once relieves the vascular tension, and the little patient recovers.—Case 3, that of a boy with the lower part of his face bound up, and his external ear plugged with cotton-wool. On removing the comforter, and with it a decomposing mass of moist linseed-meal, one finds the cheek red and swollen. He can only slightly separate the jaws, and one notices that one of the molars is slightly decayed. On pressure a small quantity of pus wells up between the tooth and gum, and near the angle of the jaw is a small opening, from which matter is discharging. The boy had been previously taken to a dentist, who refused to extract the tooth "until the inflammation had gone down," and advised the mother to keep on poulticing the cheek. Mr. Owen then drew attention to the course that the inflammation followed in the last case, the local disturbance having caused paralysis of the vaso-motor nerves, the Haversian arteries became crowded, and blocked with the red corpuscles. The colourless corpuscles effect their escape, together with some of the liquor sanguinis, and the protoplasmic contents of the lacunæ and canaliculi take on energetic proliferation. The bone becoming flooded with sanguineous effusion, and healthy nutrition being impossible, a portion of the jaw perishes, and frees itself by linear ulceration, and remains as a sequestrum. In operating, the less the wounding of the skin and the less the disturbance of the young teeth the better. In his experience necrosis of the superior maxilla was rare, whilst that of the inferior was not uncommon. In the case of the boy with the acutely inflamed tibia, we find that the result of those firm incisions has afforded complete relief to the vascular and nervous tension, and also a vent to the effused products, thus saving the compact bony tissue from a fatal flooding. And these same conditions are obtained in the case of the child with the maxillary distress, and prompt extraction would doubtless have spared the sufferer much subsequent trouble. In conclusion, Mr. Owen would venture to affirm that whenever a child is brought for assistance the more firmly fixed the jaws, and the greater the inflammation, the more imperative it is that the irritating cause and the vascular tension of the adjacent bone be simultaneously removed. The tissues will then settle down in quiet, as happily as did that red and swollen finger-tip when the removal of the piece of damaged nail was effected.—The PRESIDENT remarked that it was the practice of some to wait until inflammation had subsided, and he was a strong advocate for an early removal of the offending cause, as delay often greatly increased human suffering, and was, in many instances, injurious to the patient in after-life.—Mr. CATTLIN then narrated a case in which all the apparent symptoms of blood-poisoning were present. The water and drainage of the patient's house were good, and he had never been to sea. The breath was fetid, and the gums presented a warty appearance. The upper and lower extremities were studded with patches like ecchymosis, but no symptoms of purpura were seen in the mucous membrane of the mouth and elsewhere. The treatment consisted in a generous diet, with full doses of chlorate of potash and decoction of bark, which was afterwards changed for mineral acids and sulphate of iron and quinine. Under this treatment the patient slowly recovered, and in all probability the case was one of scurvy, brought on by other than the usual causes.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE second meeting of the present session was held at the Royal Kent Dispensary, Greenwich, on November 5th, 1880, Mr. H. W. Jackson in the chair, when W. Rivington, Esq., F.R.C.S.E., Surgeon to the London Hospital, read a paper on "A Wound in the Knee-joint treated Antiseptically." Mr. Rivington first gave a detailed account of the case and treatment, which went to show that it was a severe wound of the joint making a perfect recovery under the Listerian treatment. Mr. Rivington then said that it was unlikely the case would have gone on so well under the old treatment, and compared the issue of cases treated in former years under the old system and cases now treated under the protection of carbolic acid and carbolic gauze. Admitting that excellent results were obtained in the perfectly pure atmosphere of the country with a modified antiseptic procedure, and even without antiseptic precautions, Mr. Rivington said that the comparison must only be between cases which were treated in the loaded atmosphere of great cities and hospitals.

THE members of the staff of the Earlswood Asylum last week presented Dr. J. B. Spence with a gold watch on the occasion of his departure for his new post of medical superintendent of the South Stafford Asylum. The four night-nurses also presented Dr. Spence with a handsome biscuit-box.

Reviews and Notices of Books.

A Treatise on the Practice of Medicine. For the Use of Students and Practitioners. By ROBERTS BARTHOLOW, M.A., M.D., LL.D. London: H. K. Lewis. 1880.

A Text-book of Practical Medicine, with particular reference to Physiology and Pathological Anatomy. By Dr. FELIX VON NIEMEYER. Translated from the Eighth German Edition by GEO. H. HUMPHREYS, M.D., and CHAS. E. HACKLEY, M.D. Revised Edition. Two Volumes. London: H. K. Lewis. 1880.

A Treatise on the Theory and Practice of Medicine. By JOHN SYER BRISTOWE, M.D. Third Edition. London: Smith and Elder. 1880.

The Science and Practice of Medicine. By WILLIAM AITKEN, M.D., F.R.S. Seven Edition. Two Volumes. London: C. Griffin and Co. 1880.

TOWARDS the end of the year that has just passed there appeared almost simultaneously the four text-books on medicine which are named above. Three of them are already well-established favourites, and have run through several editions, but one is a new addition to the already rather numerous works from which the student has to make a choice; on this account we may give it the first place in this notice.

Its author is already well and favourably known in medical literature by his "Text-book of Materia Medica and Therapeutics." He indicates that his endeavour and aim have been to redeem medicine from the therapeutic nihilism that seems to be stealing over it; but, after all, the perusal of his pages does not lead us much farther in the direction of treatment than either of the other works we have named. Still there are many points of merit in Dr. Bartholow's book. It is concise, but is thoroughly up to date, and his references to recent pathological and therapeutical work are numerous. As an indication of the care with which he has followed the progress of events may be cited those passages on the treatment of acute rheumatism where he gives the conclusions arrived at by Dr. Greenhow in his recent papers upon the value of the salicylates. On another subject—namely, gastric ulcer—he advocates rectal alimentation by defibrinated blood—a method upon the good effects of which the Therapeutical Society of New York reported about a year ago, and which has been lately discussed at one of our London societies by Dr. Sansom. We may note here his recommendation of irrigation of the stomach in this disease, for diluting the gastric fluids and aiding the healing of an ulcer. Although he is careful to add that this should only be cautiously employed, it would, in our opinion, have been almost better not to have advised it at all, considering the obvious risks run by the procedure. For choleraic diarrhœa he alludes to the striking effects produced by the hypodermic injections of morphia and atropia. Considerable prominence is given to duodenal catarrh, an affection which, apart from its frequent concomitant, catarrh of the bile duct, is less easy to be differentiated from gastric catarrh than the author would have us believe. In speaking of the changes set up in the liver by occlusion of the bile-ducts, he mentions the researches of Charcot and Fagge—the latter name should have been Legg, to whom, indeed, belongs the credit of first drawing attention to these dangers, since termed by Hanot hypertrophic cirrhosis, and in another section he correctly mentions Dr. Legg's name in this connexion. There are good accounts of membranous arteritis and of dysentery, the former largely culled from Da Costa's memoir. In the chapter on intussusception we note an error, which, however, is very frequent—namely, that the most common of all forms of intussusception is that of the ileum through the ileo-cæcal valve. On the contrary, this is almost the least common, the ordinary variety being of the cæcum into the colon, the invagination commencing at the valve, and the cæcum, as it passes down, dragging the ileum after it. We are glad to find Dr. Bartholow gives the term "cirrhosis" the cold shoulder; but although, as he says, it is a "very inappropriate designation," it is, we fear, too firmly rooted in medical nomenclature to be ever set aside. Upon abscess of the liver he holds the dualistic doctrine of origin—viz., from portal pyæmia set up by dysenteric ulceration, and from a primary hepatitis. The treatment of hydatids of the liver is too brief, mention only being made of simple puncture and electrolysis, and no reference to the frequent supervention of suppuration and the indications for the free and complete evacuation of the cysts when so inflamed. The chapters on cardiac disease are fairly well up to date, and in the section on aneurism Sibson's statistics are quoted. Upon the treatment of aneurism, Tufnell's plan is advocated, especially when aided by iodide of potassium. Langenbeck's employment of ergotin, and Boehm's advocacy of barium on physiological grounds, are noticed; and it is pointed out that electrolysis has not been so successful as some of the above methods. The remarks upon the treatment of pleurisy open with these words: "The author wishes to protest against that revival in the belief of the aplastic power of mercury, and the return to its use in the treatment of serous inflammation, which is taking place in Germany." He himself advises the administration of quinine and morphia at the onset, with digitalis if there be much fever; local bloodletting in plethoric subjects, and strong counter-irritation. He recommends jaborandi, or the hypodermic injection of pilocarpin, and, so far as can be gathered, is rather an advocate of delay in paracentesis, unless the effusion be purulent. Phthisis is treated of under the three divisions—caseous, tubercular, and fibroid—a separate section being devoted to cartarrhal pneumonia. Croupous laryngitis is dealt with apart from diphtheria, and the local measures advised are chiefly in the way of solvents of the membrane, the need for tracheotomy not being referred to under the former head, and mentioned only to be mildly discountenanced (because there appears to be a "growing disinclination" for it) under the latter. In the other text-books before us a far more just and favourable view of the value of this important operation is taken. Space will not permit of further analysis of this latest text-book on medicine, which has many good features, not the least of which is the lack of pretentiousness about it, and the general accuracy of its statements; but it is capable of improvement, and its author will doubtless have opportunities for its revision as further editions are called for.

"Niemeyer's Medicine" hardly needs any special notice. The appearance of the translated edition some years ago was so well received, the book itself being so thoroughly scientific, that it at once became a favourite with English students. The present edition contains much, however, that its gifted author never wrote. There is hardly a chapter to which new matter has not been added by the editors, either in the form of short appendices at the close of the chapters, or incorporated in the text. A few subjects have been introduced not touched on by Niemeyer at all, and although this has been quite unavoidable in view of the increasing knowledge of the past decade, yet it is with mixed feelings that we observe this intermingling of matter from different pens with the original work of the author. It is some compensation, however, to find that the editors have refrained from presenting us with a transcript of the Seitz edition, where so much new matter was introduced that the original writing of Niemeyer had to be either condensed or mutilated. They have, on the contrary, restored much of the original text, and as far as possible kept it apart from the additions. Whilst confessing a preference for the original work, it would be wrong for us to maintain that as a text-book of medicine this work does not still rank highest.

Dr. Bristowe deserves great credit for the painstaking manner in which he sets to work to improve his treatise. Although it has run through two editions in four years, he has yet been able to give so careful and extensive a revision to the third edition that it is as much better than the second as this was than the first. The chief feature of the present edition is the introduction of an article on insanity, extending over nearly fifty pages. It is right and proper that this subject should be treated of in works of general medicine. The subject is one which, though of vast importance, is almost entirely neglected by the ordinary student. The excuse that it concerns him not, for his text-books are silent on the subject, can no longer hold; and if, taking Dr. Bristowe's summary as a guide, he seeks practical acquaintance with mental disease by studying its phases in an asylum, he will qualify himself for practice in a far more thorough manner than is the fashion. Now that attention is being once more called to the medical curriculum, it would be well for those who seek to restrict rather than expand its limits to consider the very great and obvious need there is for compulsory education in mental disease. Another feature of this edition is the introduction of many additional woodcuts, and, although these might be almost indefinitely extended, the number already given add greatly to the utility of the work, which, as it stands, is thoroughly representative of modern medicine. If the next edition could be brought out, even more profusely illustrated, especially with pathological drawings, and if at the same time the work could be conveniently divided into two volumes, it would leave nothing to be desired.

But if Dr. Bristowe's work might well be distributed over two volumes, what should be said of the ponderous tomes of which Dr. Aitken's older and well-established treatise now consists? It contains matter sufficient to fill four volumes, and these of considerable size. The author has certainly aimed at making his book encyclopædic. Whether it has become more readable by the process is matter for doubt; but its value as a standard work of reference has been *pro tanto* enhanced. A great part of the book has been rewritten, especially that which required most rewriting—viz., the nervous system; and here free use is made of the writings of Jackson, Gowers, Charcot, and others. Dr. Aitken is most careful and candid in giving authorities for all his statements—the text fairly bristles with their names. There is so much that is excellent in these volumes that it is with regret we feel compelled to admit that the work is less suitable for the student than any of the others we have above noticed. To the physician, however, Dr. Aitken's work is most valuable; and it is a book which should be on the shelves of every medical library. Besides, it contains much information not usually met with in works of this class.

Health Lectures. Delivered in Manchester, 1878–79–80. Printed by the authority of the Manchester and Salford Sanitary Association. Manchester and London: John Heywood. 1880.

THE Association under whose auspices were delivered the lectures collected in this little volume has for its objects—1. "To promote attention to personal and domestic cleanliness, and to the laws of health generally. 2. To aid the constituted authorities in the promotion of sanitary improvements." The first of these objects is worthily fulfilled by these lectures, which are all written in plain and simple language, and enforce the vital truths of hygiene. Reproduced in a cheap form (each separate lecture can be obtained for one penny), they should have a wide circulation among the classes most in need of such instruction. The subjects are well-chosen—water, drainage, alcohol, food, ventilation, nursing—these and other topics are dealt with in a practical manner, and mostly with arguments appropriate to the audiences before which they were delivered; and when it is added that the lecturers include Drs. Dreschfeld, Ransome, Simpson, Holgate Owen, Irwin, Humphreys, Tatham, Ashby, and Sutton, it will be seen that the medical profession of Manchester have taken a great part in this good work of preaching the gospel of health.

NOTE ON THE DIAGNOSIS OF CAVITY IN THE LUNG.

To the Editor of THE LANCET.

SIR,—Would you permit me to refer briefly to the physical sign alluded to in your issue of Dec. 18th by Mr. Solomon Charles Smith of Halifax, under the title of "Note on the Diagnosis of Cavity in the Lung." Mr. Smith describes a sign which he has found present in cases of lung cavity—viz., a blowing sound audible in the trachea synchronous with the first sound of the heart. This tracheal bruit—which is evidently an expiratory sound—was described and demonstrated by me as occurring in cases of thoracic aneurism, before the Northumberland and Durham Medical Society early in October, and was noticed by some of the medical journals—viz., *Medical Press and Circular*, Oct. 27th, p. 359, and the *Dublin Journal of Medical Science*, November, p. 464.

Since first observing this sign, now about eight months ago, I have carefully looked out for it, and have only found it to be well marked in cases of aneurism of the thoracic aorta. I first discovered it in healthy individuals after violent exercise, and subsequently noted its existence in aneurism when the patient lay quietly in the recumbent position. It is best developed by making the patient inspire deeply, and then closing the mouth to expire slowly through the nasal passages.

In aneurism—for I do not deny its existence in lung cavity, though I have not found it myself—I think it is to be explained by the sudden systolic expansion of the sac pressing upon the lung or air-tubes, and expelling air from the chest cavity, thus causing a puffing sound synchronous with the systole, and audible in the larger tubes and trachea.

In healthy people the sound is produced by the sudden "over-distended" arch pressing in a similar way as the result of exercise.

I think Mr. Smith's explanation of the sign, even supposing it to exist in cases of pulmonary cavity, is scarcely tenable. He says, "obviously produced by the impact of the contracting ventricle against a neighbouring cavity." For surely the impact is directed forwards and away from the site of lung cavities; and, again, systolic contraction of the ventricle means a diminution in the size (bulk) of the heart, thus inducing occasionally, as is well known, a short inspiratory puff, the result of the rushing in of air to the parts of the lung adjacent to the heart.

I remain, Sir, your obedient servant,
DAVID DRUMMOND, M.A., M.D.,
Physician to the Newcastle-on-Tyne Infirmary,
Lecturer on Physiology, Durham University.

Newcastle-on-Tyne, Dec. 21st, 1880.

COLLEGIATE PRIZES.—It is stated that only two essays have been sent in for the Jacksonian Prize of the Royal College of Surgeons on "The History, Principles, Practice, and Results of Antiseptic Surgery;" the time for sending in essays having expired on the 31st ult. For the present year the subject for this prize is, "The Pathology and Surgical Treatment of Diseases of the Hip-joint." The subject for the Collegial-triennial prize, to be awarded in 1883, is "The Relations between the Radicles of the Lymphatic System and Capillary Vessels." The prize consists of the John Hunter Medal, executed in gold to the value of fifty guineas, or at the option of the successful author of the Dissertation of the said medal executed in bronze, with an harmonium of £50. The competitions for both are confined to members of the College.

THE LANCET.

LONDON: SATURDAY, JANUARY 8, 1881.

THE defects of medical education and examination become more conspicuous every year. There is now no disagreement as to the fact. Judged by every standard the existing systems of medical education are faulty. Compulsory examinations have had a long, and, upon the whole, fair trial, but they have failed to react, as it was thought they would, in a wholesome manner upon education. From the educationist's standpoint the principal outcome of compulsory examinations is "cram." Training and culture have not only not become better, but they have deteriorated. A point has been now reached from which many sagacious men profess to see disappointment and ultimate disaster if precisely the same lines are followed as heretofore. How to avert these? and how to attain success? these are the questions.

It is always easier to detect an evil than to find an appropriate remedy. The letters which have appeared and are appearing in our columns testify to the difficulties that beset the path of the reformer. Various suggestions have been made for the improvement of medical education—namely, a stricter preliminary examination, the institution of a compulsory preliminary scientific examination, the revival of the system of apprenticeship, elimination of some subjects from the medical curriculum and limitation of others, and, finally, an extension of the time devoted to medical studies. It is curious to find that almost every writer has been content to propose a single specific. Mr. SAVORY, for instance, advocates an extension of the medical curriculum to seven years, while Mr. HEATH proposes a sort of modified extension of time by requiring that two clear years should elapse between passing the primary and presentation at the final professional examinations. Mr. BUTLIN would eliminate some of the subjects at present included in the list of professional studies and would limit others, while Mr. BRUCE CLARKE would be satisfied to see the standard of preliminary education raised. Dr. STRANGE deals more thoroughly with the matter, and recommends not only an extension of time given to professional study, but a revival of the system of apprenticeship, and elimination from the strictly medical curriculum of chemistry, botany, materia medica, as well as physics and zoology; all of which should be mastered before the purely medical studies are begun. Dr. STRANGE would further make the curriculum to extend over five years, two of which should be spent in pupilage at a hospital or dispensary, or with a general practitioner in large practice.

There is too much reason to fear that no single remedy will correct all the faults of medical education. The regulations and requirements need to be entirely reconsidered. One thing is certain; any change must necessarily increase the cost of the medical education both as regards time and money. It is, perhaps, not of much importance at what period the greater portion of the increased cost is borne, whether during school-life or later on during the medical curriculum. That an improvement in the general education of the bulk of medical students is desirable, few who have had any experience as teachers will deny. While the standard of general education throughout the community has been raised during the past fifteen years, few of the bodies who conduct the preliminary examinations for the medical profession have made their scrutiny more strict. Indeed, in some instances the test has been actually lowered. The time has now come when a better general education should be insisted on. It may be true that some good practitioners of the present day as well as of the past may not have been men of much general education but they have succeeded, not because they lacked culture, but in spite of this drawback. A good general education may be to some extent a matter of accident or opportunity, but it is at the same time, in no small degree, a criterion of good social and intellectual antecedents. By enlarging the requirements as regards general education much may be done to raise the status and influence of medical men by attracting a better class of candidates into the ranks of the profession. On the other hand, as we endeavoured to show in a recent address to students, the preliminary education should be as far as possible *general;* after this, and before the strictly medical studies are begun, some time, a year or more, might advantageously be given to the study of the natural sciences, as physics, chemistry, botany, zoology, as a sort of introduction to the *technical* part of the student's training. This is already done at the universities. By these means the medical curriculum would be lightened, and more time could then be given to anatomy, physiology, midwifery, medicine, and surgery. This would really be tantamount to extending the time devoted to medical studies. Another suggestion for improving medical education is that of reviving the system of apprenticeship. In the address referred to (see THE LANCET, Sept. 11th, 1880, Students' Number) we called attention to some of the advantages of a short period of pupilage. But granting its advantage, it would be a question whether the term of pupilage should wholly precede study at a medical school, or should wholly follow, or be divided, a portion preceding, and a portion following, the sojourn at a medical school. For the complete education of a medical practitioner there are certain advantages in the latter course. A few months passed, at the beginning of his career, under the supervision of a well-informed practitioner either in general practice or in a small hospital or dispensary, would prepare the student for studies at a medical school. In a very short time some acquaintance with anatomy and materia medica might be formed and a respectable skill acquired in minor surgery and pharmacy. There would then be less risk than at present of the three or four years passed at a medical school being wasted. But those who advocate a return to some form of apprenticeship, do so chiefly on the ground that in no other way can the "mystery" of practice be acquired. The majority of those who now obtain qualifications are ignorant of the nature of general practice. Something might be done to remedy this, by requiring that all who wish to engage in practice should, after passing their examinations, spend six months or a year with a qualified practitioner. Such a regulation was in vogue in the kingdom of Naples six hundred and fifty years ago. Students were then compelled to apply themselves to the study of logic for three years before they commenced the study of medicine, which was itself to be pursued for five years. After this the candidate had to undergo two examinations for his licence and doctorate before the masters of the school of Salerno, and then to spend a year upon trial under an expert physician before he was allowed to practise on his own account.

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THE transmission of diseases supposed to be peculiar to one class of animals, by means of inoculation, to animals of another class, is a matter not alone of theoretical interest, for it has been the means of extending largely the sphere of observation on the pathology of a most important class of maladies. Much interest, therefore, attaches to any attempt to ascertain whether such diseases, hitherto supposed to be limited in their incidence, are or are not so limited by constitutional peculiarities. An important series of researches on this point have been undertaken by M. COLIN of Alfort, who has endeavoured to learn whether glanders can, as was asserted long ago by DUPUY, be transmitted from the solipeds to the rodents, and, in doing so, has brought out prominently some important pathological facts relative to the disease. In some experiments made with this object twelve years ago, M. COLIN discovered that the inoculation of the rabbit with the poison of glanders gives one of four results. Death may occur rapidly without visceral lesions; there may be extensive and deep ulceration at the places at which the inoculation was made; it may cause more or less pronounced tuberculisation in the lungs; no appreciable effects of any kind may follow. In some recent experiments upon this subject, M. COLIN has endeavoured to solve the following problem:—If there are two elements in the products of glanders, the one a virus capable of transmitting the specific disease, the other tending to cause tuberculisation, it is necessary to submit the various morbid products to comparative experiment, because these two elements may be found separate, or capable of dissociation. In many experiments the results have seemed to harmonise with this theory of separable poisons, although in previous observations their dissociation has not been obtained. M. RENAULT, who succeeded in transmitting glanders to the sheep, goat, and dog, found the complete disease was generated; in each species of animal there were both nasal ulcerations and pulmonary tubercles. In each the disease was fatal, and demonstrably virulent, since from each it could be retransmitted to horses in its perfect form. But it had already been noted that in man this was not always the case. In rare cases human glanders presents all its characters and virulence, but more frequently only local lesions are produced, unhealthy wounds, abscesses, ulcerations, fistulæ, &c., without appreciable complications in the lungs, and with no appearance of a contagious character. It is rarely that surgeons acquire glanders from the inoculations to which they are exposed in operations on infected subjects, and in post-mortem examinations on those dead of the disease.

The receptivity of the rabbit for the poison of glanders is considerably less than that of man, and M. COLIN has found that in the rabbit the evolution of the disease seems to become arrested at different periods, causing lesions which vary very much in different cases, and which seem to indicate both the complexity and the separability of the elements of virulence. After the insertion of the virus in the substance of the skin or in the subcutaneous cellular tissue, a conical prominence often presents itself at the seat of the inoculation in the course of twenty-four hours, often surrounded by a zone of erythema, beneath which is a phlegmonous œdema. After the appearance of this prominence pyrexia sets in, and the temperature may rise to 106° F. This state of affairs lasts for four or five days without other alteration than the extension of the redness, and sometimes an enlargement of the nearest lymphatic gland. If death does not occur without further symptoms, the local state undergoes a modification: the swelling lessens, the redness and heat subside, a small adherent crust covers the apex of the prominence, and there is no noticeable process of ulceration or suppuration. At the end of the second week these local changes may have disappeared without other trouble. More frequently, however, the local swelling persists, its base becomes indurated, and an ulcer forms, more or less deep, with irregular borders. This second phase of the local accidents may last two, three, or four weeks, and then gradually lessen, and cicatrisation may take place. From this time the animal either recovers its usual state of nutrition or remains languid, becomes tubercular, and ends by dying with serious lesions in the lungs, kidneys, and other viscera, and even with morbid changes in the muscles and articulations.

It is thus evident that in the rabbit the disease advances by stages, at the end of each of which death or recovery may take place. Even in the most severe cases, the whole series of symptoms observed in the horse are not reproduced. In this respect the course of the disease bears considerable resemblance to the features which it presents in man. It is, therefore, of interest to inquire why these remarkable variations in its course occur. In some cases in which death occurred with great rapidity, M. COLIN attributed it to septicæmia, although only a small quantity of fresh blood had been taken from a horse immediately after it had been slaughtered. Death occurred, however, in just the same way when a drop of liquid was taken from a living animal upon the point of the lancet, and the absence of septicæmia was proved by the fact that the rabbit's blood, taken immediately after death, had no effect when inoculated into another rabbit. When the animal dies only at the end of five or six months, the cause of death is always pulmonary tuberculisation, which is slighter in degree than that which occurs in consequence of tubercular inoculations. Tubercles and caseous foci are scattered through the lungs; the pleuræ and the kidneys show also a considerable number, and some are found in Peyer's patches, and in the mucous membrane of the small intestine. Moreover, many articulations may be invaded by caseous or tubercular disease, especially the scapulo-humeral, the femoro-tibial, and the tibio-tarsal.

Thus, the disease is represented by pulmonary lesions, as in the horse, and by articular lesions, as in man. But the ulcerations of the nose, larynx, trachea, and the lesions of the skin are absent. The disease is incomplete, killing under the form of a tubercular disease. Differences from the effect of the inoculation of tubercle, however, are that in glanders the lymphatic glands swell much less than they do after the inoculation of tubercular material; they become slightly indurated, and undergo caseation either not at all, or only in minute spots after a long period. On the other hand, after the inoculation of tubercle, the glands often attain enormous dimensions. After the inoculation of glanders, the tuberculisation of the lung is slow, and apparently, to judge by the general condition of the patient, may be arrested or suspended, and it is often insignificant; there is never the pronounced phthisical condition which follows the inoculation of tubercle. In a large number of cases the rabbit inoculated with glanders recovers its health after the local troubles, and the disease presents in general the remarkable peculiarity that it appears to be virulent and may kill at an early period, and loses its virulence later, even after having caused a certain amount of pulmonary tuberculisation. M. COLIN took from a rabbit, dead on the sixth day after inoculation with glanders, some serum from the œdema adjacent to the local tumour, and also some pulp from a neighbouring lymphatic gland. These two products were separately inserted into the skin of another rabbit, one into the right flank, the other into the left. At the end of seven hours the skin of the flanks began to redden, and the next day the redness had invaded the whole lumbar region, and there was already fever and loss of appetite. The symptoms increased, and at the end of ten days ulceration commenced. At the end of a month the ulcers were dry, and the animal's general state began to improve. After three months and a half it was killed. All internal glands and organs were healthy, and thus this, so to speak, second generation of glanders had become arrested in mid-development. When the disease has arrived at the stage of pulmonary tuberculisation it is no longer inoculable, either by means of the blood, the serosity, or the tissue of the glands. But tubercle at this stage is just as inoculable as in any other. Hence M. COLIN draws the conclusions—(1) That glanders is not a simple disease which always runs its course, but is constituted by a series of elements which succeed one another, and the links between which may at any point be broken. (2) That virulence is not necessarily and constantly combined with the disease. It exists at the commencement, and may be lost later, even although the disease progresses and tends to become fatal. It is probable that there are many diseases of similar constitution, of common origin and identical nature, which by the different aspect they present in one animal or another, appear to be different affections, the origin of which is not evident. Hence, when an attempt is made to establish the identity of a disease by means of experiment, an animal must not be selected in which the disease does not run a complete course. If, for instance, it is desired to test by inoculation whether a given disease in man or the horse is or is not glanders, the rabbit should not be chosen, since the indications which it gives are not decisive.

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THE needs of society increase as the square of its density. In primitive times, when the population was sparse and the habitations of men were few and far between, it was possible, when persecuted by sickness in one locality, to flee to another; and although, even in the early days of world-history, disease was doubtless disseminated by this policy of migration, the harm was less than would have accrued to that of remaining stationary and running the risk of self-infection. Isolation of the sick was one of the first, because it has ever been the most obvious, of measures for the arrest of contagious or infectious—or let us mask our ignorance, and say "catching"—maladies. The *leper*—who was probably a typical sick-man rather than a person suffering from any particular disease—soon came to be shut out from intercourse with his fellows until he was cured. And then—that is when he *had* recovered—he was required to remain apart until he had undergone some special processes of disinfection applicable both to his person and his clothes, which, like the isolation to which he had been subjected during his illness, were designed as much for the protection of the community as his own benefit. The scientific researches of the last half-century have resulted in the acquisition of a vast amount of knowledge in relation to the genesis and the exodus of disease, and thrown a flood of practical light on the need and efficacy of these precautions.

It cannot be denied that society has — doubtless moved by its fears — evinced considerable alacrity in learning the lesson of "going without the camp" and "standing apart," as sanitary expedients, but this would seem to be all it has learnt; and, even now, with all our nineteenth-century sagacity, we are only just beginning to grasp the notion that mere "quarantine," however rigorously enforced, will not do everything, or even the half, of what is requisite. Segregation is only a remedy for the evils incident to aggregation in so far as it gives time and opportunity for the dying out of the *materies morbi*, which happens to be particularly short-lived if not quickly supplied with a new *nidus*. The robust germ—or sperm, whichever it be—is not killed, it is not even scotched, by being cast off or deposited or allowed to fall into what seems to be a process of atrophy *in situ*. Its animation may be suspended, but vitality remains, and like the desiccated lymph on the vaccine point, or, possibly, the dormant virus of rabies lying fallow in the system of the man who has been bitten by a mad dog, it only sleeps, and may at any moment be infused with new energy. Society, if not the State, is, we say, beginning to recognise these facts, and may, perhaps, before long, be willing to act upon them.

Meanwhile there is an especially self-evident consideration which would scarcely seem to have dawned on the popular intelligence—namely, that very little can be gained by the isolation of fever patients in hospitals and outbuildings, if at the commencement of convalescence they are to be brought straight back into the midst of society, without undergoing a process analogous to that of the purification ordained for the leper. It matters nothing to the general cause of public health whether the patient recovering from a communicable disease is removed to his own home, or placed for a while among strangers. It is a purely selfish policy which prefers to send the convalescent to the seaside, or into some rural village for a few weeks, before he is allowed to re-enter his family. The real danger of infection is not lessened by this device; but the instinct of self-preservation has hit on the sagacious expedient of shifting the peril from self to others. This is where and how well-conceived, but imperfectly executed, measures for the "stamping-out" of disease break down. Human nature is selfish, and if by a simple process of isolation disease can be kept out of a particular household or family circle, its promoters are abundantly satisfied. They care nothing who else may "catch" the disease, so that they escape. Until broader and less selfish views are popularised, there can be no such thing as disease extermination.

The policy of special and limited isolation, or "quarantine," receives its *reductio ad absurdum*—as a pretentiously rational artifice for allowing disease to die out if its germs happen to be peculiarly mortal—when a patient suffering from one of the exanthematous or intestinal fevers is kept apart so long as the pyrexia lasts and the *malaise* continues, and then turned adrift on the community at the particular period when the *materies morbi* is passing off by the desquamation of cuticle, the shedding of epithelium, or the unloading of follicles and open glands. In some maladies—scarlet fever, for example—the period of exfoliation is the time of special danger. It is one of the marvels of modern thought that we do not, will not, work out the logical consequence of the general policy to which we commit ourselves. We seize on an idea suddenly and clumsily, often making believe to "discover" what has been staring us in the face for ages, and impulsively put it in practice; but if any one ventures to suggest that some secondary but necessary notion lying a hand's breadth beyond the range of eager vision is part and parcel of the original idea, he is sure to be looked upon as a pessimist or shunned as a dreamer.

We venture to hope this may not be the fate of those who are now striving to convince the public that "homes" for the reception of patients recovering from scarlet fever, but still in peril themselves and a source of danger to others, are absolutely needed. There can be no doubt of the entire accuracy of the representations which are being made. Indeed they understate the urgency of the requirement. It is not merely that society is now exposed to grave risks from special cases. The periodic "visitations" of this and kindred maladies which invade the community and cut off valued and sometimes useful lives are in great part due to the shortsighted practice of sending patients to the seaside and out-of-the-way places during convalescence. When one individual "catches" a communicable disease in a locality which appears to be free, or almost free, from the malady, this is because some other individual has at a former period left the poison or seed of disease where it is now found. It is difficult, generally impossible, to trace the connexion between the two links in the chain; but they are practically and substantially related, as would be the person who left a tube charged with vaccine lymph in a drawer, and some other person who, months afterwards, rummaging in the same drawer, found, and, accidentally breaking the tube, wounded and inoculated his finger. It is important to remember this, because nothing could be gained, but the sources of mischief would be multiplied, by the mere creation of additional depositories for the *materies morbi* of scarlet fever or any other disease. We do not want a "convalescent home for scarlet fever," as the leading journal curiously puts it, but a house or houses where convalescents from that disease can be purified and the débris of their morbid tissues destroyed. If nothing is to be done with a view to the imprisoning and destruction of the extruded particles of organic poison, no great good will be accomplished. Practical sanitarians would do well to turn their attention seriously to this matter of disease-germicide (another form of vivisection) coincidental with the endeavour to supply the metropolis with homes or refuges for the convalescent from scarlet fever. It must, however, be confessed that a great deal of nonsense has been written and spoken about the efficiency of "disinfectants" and "antiseptics." If it were possible to immerse every particle of diseased organism in a globule of carbolic spray, the virus of disease *might* be devitalised, though even this is doubtful, so tenacious of life are the mischief-working elements and agents of mortality. No more confidence can be reasonably placed in fumigations than in intestinal flatus, which probably do not touch the particles they are meant to influence, or washings that do even detach the clinging fragments of cuticle or fabric pellets of excreted débris, from the meshes of the fabric in which they are entangled. Let anyone who reposes great confidence in the popular methods of "disinfection" try an experiment so crude as that of attempting to slaughter a cloud of gnats with a mitrailleuse-like shower of strong carbolic spray, or set himself to cleanse a square foot of woollen or even linen cloth from the impregnations of sooty smoke. It is easy to theorise on the action of disinfectants, but a vastly different matter to test their application *practically* and thoroughly with apparatus capable of a minute observation of results. We are not seeking to discourage sanitarians, but it is desirable to point out that the need of establishments for the isolation and disinfection of the convalescent from fevers, particularly the exanthematous, is as great as it is urgent, and that mere isolation will not suffice if disease is to be stamped out—as there is scientific reason to believe it might be—if society only deemed it worth the pains and expense to make a serious onslaught.

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THE Guildford Rural Sanitary Authority are about to have the opportunity of considering, on the motion of one of the members, the propriety of reappointing the district medical officers of the union medical officers of health, each in his own poor-relief district. We assume from the terms of the motion that this arrangement has been found as unsatisfactory in its working here, in view of the performance of a medical officer of health's duties, as it has been found elsewhere; and we welcome this indication of rural sanitary authorities themselves, on the instigation of their own members, taking this subject into consideration. Hitherto it has rested with the Local Government Board as a general rule to initiate action in this direction, but this is much less satisfactory than a rural sanitary authority itself raising the question, and considering it in the light of recent experience. It is true that the Central Authority has for some time intimated that they look with disfavour on the appointment of district medical officers as medical officers of health, and no doubt this opinion has been communicated to boards of guardians acting as rural sanitary authorities generally. Nevertheless these officers do so act in not a few districts, but accumulating experience declares more and more against associating the two sets of duties in the same hands

Theoretically considered, there is much to be said for having the medico-sanitary supervision of a district in charge of the individual who has the medical relief of the poor. The nature of his medical duties seems so eminently adapted to facilitate the execution of public health duties, and in a few exceptional cases this may really have been the case. But the general experience of these appointments tells decisively to the contrary. The invidious position in which a practising medical man is placed with regard to his patients in exercising public health duties operates in the most formidable manner with a practitioner whose livelihood depends upon his practice, however conscientious he may be, in deterring him from the strict performance of these duties. Moreover, the exigencies of practice are too commonly inconsistent with the due performance of public health functions, particularly in times of epidemic diseases, when the calls of medical practice and requirements of public health duty both reach a maximum, and one must needs be sacrificed to the other. Of necessity, in these circumstances public health goes to the wall. Then, again, the district medical officer is placed in a peculiar position towards his sanitary authority. Hitherto his pay as medical officer of health has been held as simply a petty addition to his salary as district medical officer. No opportunity has been lost of impressing upon him, in actions if not in words, that medical relief duties are of infinitely greater importance in the eyes of his authority than public health duties. The object of his appointment as medical officer of health is thus very seriously frustrated from the beginning, and the district medical officer perfectly well knows that (the regulations of the Local Government Board notwithstanding) he is not expected to do more—that is to say, not to give greater value to his public health work—*than he is paid for*. What wonder then, these points alone considered, that the appointment of district medical officers as medical officers of health has generally proved fatal to the due performance of the duties of that post.

Let us hope that the Guildford Rural Sanitary Authority will set a wise example, and merge the appointment of their several district medical officers of health into a single appointment, to be held by a medical man not in practice.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE proposal to hold during the International Medical Congress an exhibition of sanitary and medical apparatus is one which we trust will meet with that success which it appears to us to deserve. It is obviously desirable at a time when British and foreign medical practitioners will be assembling in London in unprecedented numbers to discuss the various scientific questions connected with medicine, that an opportunity should be afforded to those who are mainly occupied in aiding and abetting the practice and art of medicine, of displaying before the profession and certain sections of the public all that is best and newest for the prevention, the detection, and the cure of disease, and for the alleviation of those whose sufferings are incurable. It was perhaps impossible for the Congress, as such, to organise an exhibition; and it is fortunate that a representative body like the executive committee of the Parkes Museum, composed of men who are well known as sanitarians, physicians, and surgeons, was found ready and willing to take upon itself the trouble and responsibility of such a task. Although the Congress has relegated the duty of organisation to an independent body, it has nevertheless marked its approval of the scheme by a formal resolution passed at a meeting of the Executive Committee on November 16th; and the president-elect of the Congress in his private capacity seconded the application which was made to the Commissioners of 1851 for space at South Kensington. The application made to the Commissioners has been acceded to, and a certain amount of space in the buildings at South Kensington has been granted for the purposes of the exhibition. Directly the space was granted the executive committee of the Parkes Museum held a meeting and passed a resolution to the effect, as was stated in our issue last week, that they were willing to organise the exhibition, "*provided a sufficient guarantee fund be obtained.*" This is a necessary proviso, for the Parkes Museum has no funds available for such a purpose, and it could not be expected of the members of the executive committee to take the risks of such an undertaking on their own shoulders. We doubt not that a guarantee amply sufficient to cover all risks will be forthcoming, for it would be very short-sighted of those engaged in medical industries to allow the opportunities for an exhibition which the current year will afford, not to be utilised. For the purposes of this exhibition a sub-committee will be formed by the executive committee of the Parkes Museum, and certain persons of eminence connected with the pharmaceutical and other medical and sanitary industries will be invited to join it. It is proposed, we believe, that the exhibition should open about the middle of July, and close with the Congress (on August 9th), and it is also proposed that on the two final days of the exhibition sale of articles should be allowed, in order to afford visitors to the Congress an opportunity of acquiring any object they may desire. The scope of the exhibition is to be wide, and all branches of sanitation will be included. In addition to sanitary apparatus, there will be classes devoted to the exhibition of—1, hospital construction and arrangement; 2, surgical instruments and apparatus; 3, appliances of the ward and sick-room; 4, drugs, disinfectants, and medical dietetic articles; 5, electrical and optical apparatus; 6, microscopes and other apparatus used in the investigation and relief of disease; 7, appliances used for the treatment of sick and wounded in time of war.

PATHOLOGICAL SOCIETY OF LONDON.

AT the annual meeting of the Society, held on Tuesday last, the members nominated by the Council as officers and Council for the ensuing year, published in our last number, were duly elected. The annual report, read by the secretary, showed the Society to be in a very flourishing condition, the number of members is gradually increasing, and now reaches the high total of 635, while the balance in the hands of the treasurer is more than £100 larger than that remaining twelve months ago. Dr. T. S. Dowse moved that the reports of the Council and treasurer be adopted and printed in the next volume of the Transactions; this was seconded by Mr. W. A. Meredith, and carried. Mr. Pollock proposed a vote of thanks to the President, J. Hutchinson, Esq., for the very able manner in which he had filled the office during the last two years, and spoke in high terms of the value of Mr. Hutchinson's services. It was carried by acclamation, and responded to by the President, who expressed his indebtedness to the Council, secretaries, and members of the Society for their co-operation and support. When elected President he was anxious that the meetings of the Society should be as attractive as possible, and, remembering what a useful school they had proved to himself, he was desirous that as many specimens as possible of the rarer pathological changes should be exhibited, and that the Transactions should be enriched with original and, as far as possible, thoroughly trustworthy communications. The difficulty in carrying out such a plan lay in the want of time; he had therefore suggested the plan of showing some specimens by card, without oral description, and, although the plan was still on its trial, he thought it was working well, and would be found to be very useful. He had hoped also to be able to place the Society in connexion with provincial pathological societies, and to exchange the more valuable specimens shown, but hitherto this had not been arranged. He thought it very desirable to encourage the exhibition of living illustrations of pathological changes, and for this purpose some fresh and better arrangements for their display were necessary. He had found regular attendance at the meetings very useful, and was sorry that he should lack the compulsion to attend them in the future. Dr. Longhurst and Dr. D. Powell proposed and seconded a vote of thanks to the retiring vice-presidents and members of council for their services. It was carried, and briefly acknowledged by Mr. J. R. Godlee. A vote of thanks to the retiring secretary, Mr. Morrant Baker, was proposed by Dr. Ord in eulogistic terms, seconded by Mr. McCarthy, and carried by acclamation. Mr. Baker, in acknowledging the compliment, referred to the able and courteous assistance at all times rendered him by Mr. Wheatley.

MIND IN WORK.

IT is set forth on the highest authority that whatever we do should be done with our *might*. This precept being interpreted means that there should be mind in work. The difference between a work of art and the product of machinery lies in the presence of a mark of mind directing the handiwork in the one case, while the other is simply a predetermined result produced by a duly formulated process wherein or whereby physical forces are directed and controlled by other physical forces on a set plan, to perform a defined series of actions, which *must*, in the nature of things, end in the production of the effect foreseen. Mind sets the one process, or series of processes, in operation, and they work out their physical destinies. In the other, mind is the active controlling power throughout. Starting from these premisses, we are now concerned to point out that little or no success can be expected in any calling which does not suit the temper and bias of the mind pursuing it. There cannot be "might" or earnestness—of the best sort—in an uncongenial enterprise. It is not necessary that an occupation should be ardently loved, but it is indispensable that there should be some special fitness for a calling if the powers of mind are to be resolutely and effectually engaged. Medical men see a great deal of life, and nothing strikes the observant family practitioner more than the number of feeble, sauntering, and loitering minds with which he is brought into contact. No inconsiderable proportion of the common and some of the special ailments by which the multitude are affected may be traced to the want of vigour in their way of living. The human organism is a piece of physico-mental machinery which can only be successfully worked at a fairly high pressure. It will almost inevitably get out of gear if the propelling force is allowed to fall below a moderately high standard of pressure or tension, and that degree of tension cannot be maintained without so much interest as will secure that the mind of the worker shall be in his work. It is curious to observe the way in which particular temperaments and types of mental constitution are, so to say, gifted with special affinities, or predilections for particular classes of work. The men who work in hard material are men of iron will, which is equivalent to saying that the men of what is called hard-headed earnestness find a natural vent for their energy in work that requires and consumes active power. On the other hand, the worker in soft materials is commonly either theoretical or dreamy. There is a special type of mental constitution connected with almost every distinct branch of industry, at least with those branches which have existed long enough to exercise a sufficient amount of influence on successive generations of workers. We are all familiar with what are called the racial types of character. It would be well if some attention could be bestowed on the industrial types, both in relation to educational policy and the study of mental and physical habits in health and disease.

EDINBURGH ROYAL INFIRMARY.

DURING the year ending Oct. 1st, 1880, 5013 patients were admitted into the infirmary; of these 2559 were dismissed cured, 1439 relieved, 423 on other grounds, while 436 died; 358 were cases of fever. The daily average number of patients was 469, and the average time of residence in the house was 31·6 days; 15,000 out-door patients were attended to. The ordinary income for the year was £21,540, and the ordinary expenditure £27,818, the excess of expenditure being more than met by the extraordinary income, which for the year amounted to £18,255. During the year the managers had paid £28,691 on account of the cost of the new infirmary, and it was thought that £20,000 would be required. The furnishing of the new building had been completed in a way leaving nothing to be desired.

SHAM DOCTORS IN SOUTH LONDON.

IT is eminently satisfactory, both from a public and professional point of view, to observe that coroners and juries are beginning to justly appreciate the dangers arising from the unchecked practice of sham doctors. Without losing sight of the fact that there is no law compelling the employment of registered medical practitioners in cases of illness, it is of the first importance that the public should be protected from the risk of employing quacks, herbalists, and other pretenders of the healing art, under the misapprehension that such persons are real doctors. Fortunately there is a law which, unsatisfactory as it is, may be used to check an abuse, the extent of which in many localities is little dreamed of by the public and is far too easily acquiesced in by the profession. Although in some sparsely-populated parts of the country medical attendance is not within easy access of the sick, and is on this account frequently not sought, by far the largest proportion of the nearly 25,000 uncertified causes of death annually registered in England and Wales arises from the practice of unqualified medical practitioners. As the law at present stands an inquest provides the only machinery for satisfactorily ascertaining the cause of death in such cases, and also whether the relations of the deceased person intentionally and knowingly called in an unqualified in preference to a qualified medical practitioner. The large proportion of uncertified deaths, and by fair inference of irregular medical practice, in South London, compared with the rest of the metropolis, have frequently been referred to in these columns, and two cases publicly reported during the past week fully and usefully expose the manner in which the sick poor are imposed upon by sham doctors. At the Lambeth Police-court a man, who has been practising in the Walworth-road, Newington, pleaded guilty to three distinct charges in respect of offences under the Births and Deaths Registration Act, 1874, and also under the Medical Act, for giving a certificate as a member of the Royal College of Surgeons and an Associate of the Apothecaries' Society. The aggregate fines in respect of the three summonses amounted to £22. In this case the unqualified practitioner placed himself within easy reach of the law by giving a false certificate. Unfortunately, however, this legal offence is avoided by the larger proportion of sham doctors, and although registrars may report uncertified deaths to coroners, and although coroners may hold inquests, and thus fully expose the mischief of such irregular practice, the evil is scarcely held in check.

WANTON CRUELTY UNDER THE GUISE OF SPORT.

Is there any superfluous energy which is not worked off by associations like those for the Obstruction of Scientific Inquiry by the Suppression of Vivisection? If this is not the formal title of the organisation it expresses the idea. A field admirably adapted for the exercise of pity and effective interference offers itself in connexion with the monstrous pastime of pigeon-shooting. We have again and again called attention to these atrocities, committed under the pretence of "sport," and bringing unmerited contumely on the legitimate enterprise of the true sportsman, who would no more be guilty of pigeon-shooting *à-la-mode*, than he would of chasing cats or flying cockchafers with pieces of cotton attached to their legs. There is a wondrous combination of brutality and imbecility in the slaughter of tame pigeons which makes the "amusement" difficult to describe. It has been asked whether a substitute could not be devised. A flight of toy bomerangs, or feathered tops, of the Lowther Arcade pattern, would afford fully as much diversion as the doomed consignment of pigeons sent to be slaughtered for the afternoon's entertainment of the women in satins and sealskins who frequent the places where this hideous cruelty is practised. The only objection to substituting inanimate objects for the present victims would be that inasmuch as the feathered top and the toy bomerang would move, which the dazed and exhausted pigeons often refuse to do, the gallant sportsmen might find it difficult to make a decent score! There are, doubtless, devices by which a fair proportion of hits could be secured, but this we leave to the initiated. Suffice it, in the interests of humanity, as well of the suppression of cruelty to animals, to enter another protest against a practice which is nothing more or less than a wanton burlesque of sport.

THE EXCRETION OF LIME.

MANY investigations have been directed to the determination of the amount of lime excreted in various pathological states, and many observations exist of changes in the excretion. One of the earliest observations was that of Prout, relating to the phosphatic diathesis, which was recognised by the deposit in the urine. Later an increased excretion of earthy phosphates was assumed to exist in many diseases of the nervous system and kidneys, and a diminished excretion in some other diseases. Beneke studied the mode of formation of oxalate of lime in the organism, and Senator has directed attention to the variations in the amount of lime excreted in various conditions. The last contribution to the subject is contained in an article in the current number of Virchow's *Archiv*, by Dr. Schetelig. The method of estimation which he has employed is the precipitation of the lime by oxalic acid; the precipitate was dried and dissolved in hydrochloric acid, and the lime precipitated by soda. The phosphoric acid was estimated by means of acetate of uranium.

The first question to determine was the amount excreted by normal individuals, since the statement of different authorities on this point differ largely, varying from 100 to 500 milligrammes. Experimenting on himself during eight days, the excretion was found to vary from between 350 and 500 milligrammes. It is greatest, like the other solid constituents, in the morning urine, and, when no breakfast was taken, the minimum was found in the urine passed just before the midday meal. Five hours later the quantity was greater; ten hours after the meal it was greater still. The excretion seems thus to bear relation to the material taken at a meal, and to the process of intestinal digestion. In starvation, accordingly, the excretion of lime almost ceases. On two days the midday meal was omitted, and on a third only an extremely small quantity of solid food was taken; the morning excretion of lime fell to an average of 70 milligrammes, and once only 35 milligrammes were noted.

The long delay after food before the amount of lime is increased in the urine makes it probable that it passes through the organism in some other path than, for example, that taken by the haloid salts, which find their way into the urine in a very short time. From a long series of observations the conclusions were drawn that carbonate of lime, even when given in very small quantities and with much water, is quickly absorbed and appears in the urine. The lime-phosphates of meat are, to a small extent, transformed into chloride or directly absorbed, but for the most part pass with the albumen into the small intestine and into the lymphatic vessels, but need the presence of the hydrochloric acid of the stomach for their preparation for absorption. The ingestion of water assists the passage of the lime into the vascular system in a very striking manner. No pathological increase in the excretion of lime could be demonstrated in chronic diseases of the thoracic organs or of the central nervous system, and seems to be improbable. The amount of phosphates in the urine is apparently regulated by the process of intestinal digestion and absorption, rather than by the conditions of the cell-life of the body. The best means of counteracting the effect of the ingestion of lime is the free administration of water and chloride of sodium, or of hydrochloric acid.

"THE SLEEPING GIRL OF TURVILLE."

WE have been favoured by Mr. Henry Hayman, F.R.C.S., of Stokenchurch, with the sequel of the above case, noticed in the issue of the 12th of last June:—"It may be interesting to your readers to know that a change has taken place in the girl. I was called to see her about three weeks ago, and on the occasion of my visit I took her hand in mine, and said to her: 'Ellen, if you know me, and all around me, and everything that is said, squeeze my hand.' This she did *firmly*. I repeated the same words, and she again squeezed my hand. To-day I have visited her again, and have had a conversation with her. She has opened her eyes, and answers every question put to her. She takes plentifully of nourishment many times a day, and she hopes soon to be able to sit up. Her general health, in every respect, is quite regular."

THE ABUSE OF OPIUM.

ATTENTION is once more attracted to the alleged wide-spread abuse of opiates. Some attempt has been made to discredit the medical profession on the score of this evil by attributing the indiscriminate recourse to narcotics to the frequency of their use for medical purposes. The two things have nothing in common. As well might the lazy practice of lying-in-bed be referred to the fact that medical men recommend rest in a recumbent posture during the persistence of most acute diseases. What may be deemed expedient in sickness is not, also and therefore, to be deemed desirable in health. Those who take opiates or quack and advertised remedies for "sleeplessness" habitually, because they have been directed to take them when suffering from special maladies and while under medical treatment, can find no valid excuse for this abuse in the use they plead. It is ridiculous to blame medical men for the drunkenness of the weak-minded, or their addiction to the consumption of "anodynes" and "sleeping-potions." Medical practice cannot be affected by criticism of this class. It is unprofessional to prescribe remedies which are not public property. We have not a word to say in apology for physicians who employ patent medicines or use private formulæ; but whatever a practitioner of medicine believes to be good for his patient he must use, whether the short-sighted blame his judgment or whether they are obliging enough to credit him with the possession of a scientific intelligence. No advantage to public health and happiness is likely to be gained by the promulgation of strictures such as those which have recently found their way into the public press. We mention this matter only to disclaim the slightest thought of being moved by these feeble outpourings of mistaken and misleading sentiment.

THE UNIVERSITY OF EDINBURGH.

THE Matriculation Returns of the University of Edinburgh for 1880, and published under the head of "University Intelligence" in *The Times* of January 4th, are very remarkable. The aggregate number of students who matriculated during the year was 3172, being 316 more than on the previous register. These were divided among the different Faculties as follows: in the Faculty of Arts 1020 students, in that of Divinity 78, in that of Law 440, and in that of Medicine no less than 1634. The nationality of the medical students is interesting. From Scotland there were 679, from England 558, from Ireland 28, from India 112, from different British colonies 204, and from foreign countries 53. Thus 41 per cent. of the students are Scotch, and 34 per cent. are from England. These facts supply material for much speculation. The Scotch nation has long shown its aptitude for the professions. But it looks as if the profession of Medicine is as much in the ascendant now as that of Divinity used to be. In estimating, however, the small number of Divinity students as compared with those of the other Faculties, it is necessary to remember that Scotland is now theologically a very divided country, and that the various churches have all their own theological schools, with often very able professors. It would be foolish to attribute the growing popularity of the Scotch schools, and notably that of Edinburgh, to anything so much as the growing efficiency of the work they do, of the laboratories and hospital which have been erected and furnished, and the devotion and ability of the professors, who are rewarded for making teaching the main object of their lives. The medical legislation of 1858 has doubtless had something to do with it by introducing reciprocity of practice, and making the degrees of the University valid legal instruments for purposes of practice all over the British dominions. But too much must not be attributed to this circumstance; for, as Professor Turner, in an address lately published in our columns, showed, the fame of one Scotch professor of anatomy (Munro Secundus) attracted a class of no less than 436 a hundred years since, when the population of Scotland was about a third of what it is now. Only a small proportion of those studying in the Scotch Universities take degrees. In the year 1880, of the 1634 medical students (many of course students in the first and second years only), 153 took degrees—viz., 29 that of M.D., 129 the double degree of M.B. and C.M., and 5 that of M.B. only. The present demand on the teaching of the Scotch Universities was not reached in a steady and progressive way. After the new regulations for degrees resulting from the appointment of a Royal Commission in 1858, including amongst other things a preliminary examination in Arts, conducted by Arts professors, a great falling off in students took place, so that in 1868 and 1869 the total number of medical students fell to 403. It has risen since by "leaps and bounds," and must tax all the resources of the University and its teachers.

UNQUALIFIED PRACTITIONERS.

MR. PAYNE, the Southwark coroner, commented lately very properly on the facts connected with the death of Mrs. Martha Lersty, of Southwark Bridge-road, who called in a person who represented himself to be Dr. Harding, of Great Suffolk-street, but who was afterwards discovered to be a chemist named Wardley. Mr. Payne said several cases had come under his notice as coroner in which Wardley had passed for "Dr. Harding," whose name was on his door. He had reprimanded him. In one case the jury had found that Wardley's conduct had accelerated, if not caused, death. The coroner intimated that he had brought the facts under the notice of the General Medical Council, but, of course, "in spite of this the practice was still continued." Is there any other country in which such misrepresentation as this is allowed to go unchecked? Impositions practised on people in health, and with their wits about them, is a crime that commands the attention of police and law courts; but imposture committed on dying people is, it seems, nobody's business. Mr. Payne has at any rate discharged his duty as a coroner in exposing the great scandal, which exists on an enormous scale.

THE ROYAL COLLEGE OF PHYSICIANS, AND SIR WILLIAM GULL AND DR. PAVY.

THE profession naturally looks for some adjudication of the questions of etiquette and procedure which were raised in connexion with the inquest held some months ago on a patient who died in Guy's Hospital. The matter was, it will be remembered, referred to the Censors' Board of the Royal College of Physicians for decision. The statements of Dr. Pavy and Sir William Gull are, we believe, now before the Board, and it will be agreeable to the feelings and interests of all parties that the deliberation shall be brought to a satisfactory issue without needless delay.

GLASGOW ROYAL INFIRMARY.

IN the course of a letter addressed to the public, containing an appeal for more liberal support, Mr. Wm. McEwen states that in the above institution "treatment is much more expensive now than formerly; as looking back to the time when the new surgical hospital was opened I find the expenses then were only about £14,000, as against £24,000 now, owing chiefly to large increase in general and working staff, absolutely necessary, with better wages and more generous diet both to patient and staff, but still at a rate of cost less than in any similar hospital. Against this increased cost, however, may be mentioned that 646 patients died in 1863, 763 in 1864, and 740 in 1865. In 1879 the number who died was 463, and last year 477. It may not be right to associate these as cause and effect, but still it is a remarkable fact, that with the increased care and more expensive treatment every year the mortality seems to come down."

PAYING PATIENTS AT ST. THOMAS'S HOSPITAL.

THE Governors of St. Thomas's Hospital have at length announced that they will be prepared, in the course of the present month, to receive into St. Thomas's Home persons of the upper and middle classes who are able and willing to pay for the benefits of medical attendance and nursing. Two wards in one of the end blocks, away from the rest of the hospital, have been set apart for the reception of these patients, and a resident medical officer has been appointed to take exclusive charge of these patients for their ordinary treatment, though each patient will have the option of employing at his or her expense any legally qualified practitioner in consultation with the resident medical officer. Though the Home, like the Hospital, is controlled by the governors, the medical administration will be wholly distinct from that of the hospital. The honorary medical and surgical officers of the hospital are, as regards the Home, on the same footing as any other legally qualified medical practitioner. The honorary officers were elected to administer the medical charity, and have steadily and persistently stood aloof from the proposal of introducing paying patients into the hospital buildings. As it is, the wards that have been prepared for the reception of paying patients have not been used for many years in consequence of lack of funds, are approached by a separate gate and entrance, and are consequently distinct from the hospital as a charitable institution. On the other hand, the governors, apparently pleased with the idea of receiving paying patients, have resolved to admit into the ordinary wards patients who, though poor, can yet afford to contribute something towards the cost of their maintenance. No difference will be made as regards attendance and nursing between these patients and those who receive purely gratuitous aid.

THE RED CROSS IN THE RUSSO-TURKISH WAR.

A REPORT has been published by the Russian Red Cross Society showing the part played by this Society during the Russo-Turkish War of 1877-78. It appears that the Society established 13,120 beds, and that a total of no less than 24,973 were founded by voluntary agencies in conjunction with the Red Cross Society. The Society, moreover, gave succour to 116,296 patients, among whom were 1238 officers. The deaths of patients under their care amounted to 2863. The Society's staff consisted of 300 medical men, including sub-surgeons, and 1214 attendants.

PUBLIC LAW AND THE PLAGUE OF SMALL-POX.

ONLY those who are behind the scenes know how heavily the first warning notes of a great epidemic of small-pox are falling upon the ear of those who have ears to hear. Meantime, it is pitiable to see how helpless those public bodies are to whom the public naturally look for prompt measures of isolation and revaccination. Dr. Brewer, the President of the Metropolitan Asylums Board, in a letter to *The Times*, shows how he and his colleagues are paralysed in using a great small-pox hospital, for fear of incurring a liability to personal damages to the amount of £20,000. The Local Government Board has, as yet, given no sign in its whole history that it realises the gravity of its responsibility as a sanitary authority.

ZULU WAR MEDAL.

WE understand that the medal for the Zulu war is now in course of distribution. We recommend any medical officers who may be entitled to but have not yet received it, to communicate their present address to the Director-General, A.M.D., with a request that their medal may be forwarded to them.

THE *Publishers' Catalogue* (Messrs. Sampson Low, Searle, and Rivington) contains, in accordance with its usual custom, an Analytical Table of the Books published in the past year. By this table it appears that during 1880, Medical and Surgical literature has been enriched by the addition of 202 volumes, fifty-four being new editions, as compared with 189 (53 new editions) in 1879. It is interesting to note that in point of number of works issued, of the whole fourteen sections into which the subjects of the books are divided, only three—namely, those of "Law, Jurisprudence, &c.," "Poetry and the Drama," and "Belles Lettres, Essays, &c."—fall below that of "Medicine and Surgery." The highest place, numerically, is occupied, as perhaps might have been expected, by the section "Theology and Sermons."

THE following resolutions were passed at the meeting of the Society of Medical Officers of Health held on the 17th of December, 1880, Dr. Bristowe in the chair:—1. "That in the opinion of this Society it is desirable, having regard to the more effectual prevention of the spread of zymotic disease by the agency of milk, that the special sanitary supervision and inspection of cowsheds, dairies, and milk-shops, should be entrusted by the local authorities to the medical officers of health, and the sanitary inspectors of the respective districts. 2. That in the opinion of the Society all cases of uncertified deaths should be reported by the local registrar of births and deaths to the coroner, who should, when there is no *primâ facie* ground for holding an inquest, direct each case to be investigated and reported on to him by a registered medical practitioner. The Society are also of opinion that there is no special reason why such investigation should devolve on the medical officer of health as any necessary part of his ordinary duties."

THE Council of the Faculty of Physicians and Surgeons of Glasgow have agreed at their next meeting in the beginning of February to consider any applications which may have been made for the position of Faculty Lecturer for 1881. The lectureship, which is open to the whole profession, was established several years ago, mainly for the purpose of giving encouragement to original research. The subject may lie in any department of medicine, theoretical or practical. The lectureship has been held in former years by Dr. B. W. Richardson and Professor M'Kendrick.

THE Lettsomian Lectures will be delivered by Sir Joseph Fayrer, at the rooms of the Medical Society of London, Chandos-street, Cavendish-square, on Jan. 10th and 24th, and Feb. 7th, at 8.30 P.M. The subject will be Tropical Dysentery and Diarrhœa.

THE death is announced of Dr. Julius Vogel, from cardiac rupture. The deceased was director of the Medical Clinique and Professor of Special Pathology and Therapeutics at Halle.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF THE MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Faversham (*Rural Sanitary District*).—This inquiry, which was conducted by Mr. W. H. Power, was called for in consequence of an outbreak of diphtheria in the parish of Herne Hill in the autumn and winter of 1878-79. But before the inquiry could be entered upon the outbreak had come to an end, and so long a period had elapsed since the cessation that it was found impracticable to recover such details as would help to a satisfactory elucidation of the circumstances under which the outbreak had occurred. The outbreak, as is so often the case in diphtheria, had been associated with much throat illness, to which various names had been given, extending over a much wider area of country than that in which diphtheria had been observed. The interest of the report rests in the account it gives of the state of sanitary administration in the district, which formed a second subject of inquiry. This district had been previously under the observation of the Local Government Board, and this portion of the inquiry was directed to ascertain what changes had taken place in its sanitary administration since an earlier inspection made by Mr. Power. The more recent inspection showed that a very distinct advance had been made, particularly in privy construction and management. It showed also the curious inconsistencies which attach to our practice of self-government in these matters. The town of Faversham is partly in the rural sanitary authority's district. The rural sanitary authority has adopted excellent by-laws regulating the erection of new buildings; the urban sanitary authority has no by-laws on this subject. It happens, therefore, that the new houses built in the part of the town under the rural sanitary authority's management fulfil, as regards ventilation of drains, position, construction, lighting and ventilation of closets, those requirements which modern enlightenment have demanded, while in the portion of the town under the urban sanitary authority's management, the new houses fall very far short of a proper standard in most, and sometimes in all, of these particulars. In the same town one sanitary authority is doing its best to avoid for the future those evils of house-construction which underlie most of our unwholesome conditions; the other sanitary authority encourages the perpetuation of these very evils, fostering the growth, on the one hand, of the very mischiefs which, on the other, it is presumably endeavouring to suppress.

Enfield (*Urban Sanitary District*).—This is a report of an inquiry, made by Dr. H. F. Parsons, for the Local Government Board, into the prevalence of "fever" at Enfield and the general sanitary condition of the urban district. It furnishes anotheri nstructive and somewhat detailed illustration of the deplorable insanitary conditions under which much of the cottage property has been erected in the populous suburbs outside the metropolitan area and presents a painful example of the slovenliness, negligence, and want of foresight of the local sanitary administration. Enfield has not neglected to expend certain sums on sewerage and water-supply, but that careful supervision of the district which is requisite to ensure that both the sewerage and the water-supply answer their purpose and that the requirements not only of the statutory law, but also of their own by-laws, are carried out is egregiously neglected. Moreover, these by-laws are quite inadequate to deal effectively with the speculative builders who are seizing upon the district to meet the flow into it of residents from the metropolis. The "fever" (enteric) is one of the evils which follow in the track of the infamous construction which too surely marks the work of the speculative builder when his proceedings are not most stringently regulated.

Clitheroe (*Rural Sanitary District*). — This district lies partly in Yorkshire, partly in Lancashire. Prevalence of diphtheria in a part of the district first took Dr. Airy into it, but his visit there resolved itself into an inquiry into the general sanitary state of the district. The bulk of the population, not exceeding 3000 in number, is engaged in the grazing farms which chiefly cover the district, and the villages and hamlets have the usual characteristics of unreformed rural places. The occupants, as a rule, however, are fairly well housed, but exposed to difficulties of water-supply, and imperfections of drainage and of filth disposal, such as are commonly found in such districts where the sanitary authority is a name and little more. The fact that Dr. Airy has been called upon to make a report of this sort is an indication of the mere nominal character of the local sanitary administration.

Millbrook.—Millbrook is a village in the rural sanitary district of St. Germans, Cornwall. It is situated at the head of a tidal creek communicating with the Hamoaze, and is a local health-resort. Hence, probably, its present condition; for the parochial committee of the rural sanitary authority, in public meeting assembled, does not hesitate to imply that it is of more importance to the villagers to retain their seasonal visitors than to amend their village. And the sanitary condition of this is such that if it were noised abroad (as it must be if attempts at improvement are made), "lodgers" would be frightened away. Now, this so-called "health-resort" (!) is about as abominable sanitarily as can readily be conceived; its tidal creek a big, stinking sewer, and its general arrangements for drainage and water-supply as foul as could well be. Enteric fever is endemic there, and if the history of its visitors for several seasons could be obtained, we have little doubt that it would be found that a large proportion of them carried with them when they returned home, disease, not health, obtained from their sojourn. A more than usually serious outbreak of enteric fever last year appears to have been brought to the notice of the Local Government Board, and Dr. Ballard was directed to investigate it. It is highly probable that this outbreak was caused by the dissemination of the infection of the disease in the milk of a dairy, kept under singularly slovenly and unwholesome conditions. In fact, Millbrook instead of being a "health-resort," is simply a "disease-trap," as so many so-called "health-resorts" unfortunately are.

SMALL-POX HOSPITAL ACCOMMODATION IN LONDON.

A deputation of the Metropolitan Asylums District Board, headed by the chairman, Dr. Brewer, had an interview with the President of the Local Government Board, Mr. Dodson, on the 30th ult., on the subject of small-pox hospital accommodation in the metropolis at the present time. The existing accommodation is practically occupied, the Asylums Board could not undertake the responsibility of purchasing new sites for hospitals while the appeal in the Hampstead Hospital case was pending, Hampstead Hospital was closed to them, further accommodation was wanted,—what were they to do? Would the Local Government Board assent to the Asylums Board providing accommodation for seventy additional patients on the site at Deptford? Mr. Dodson demurred to this proposition, observing that already there was a large number of patients at Deptford, and added that the Parliamentary Committee on the Hampstead Hospital had, he believed, expressed an opinion against the congregation of many small-pox patients on one spot. He admitted the difficulty arising from the appeal in the Hampstead Hospital case, and he thought that if the epidemic increased even seventy beds added to the present accommodation would be insufficient. He sympathised with the Asylums Board in their difficulty, saw that whatever was done by them must be done *immediately*, and—would consider the question. In other words, the Asylums Board look to the Local Government Board in their difficulty, as being mainly responsible for its having happened, and in the "emergency," to use Mr. Dodson's word, find the Board unprepared to advise them at the moment, although the question at issue has been agitating people interested in it any time the last six weeks! A more striking confirmation of the observations we ventured to make on the false position the different metropolitan authorities and the Central Authority have to each other on this subject of small-pox could not well be conceived.

Since this deputation Dr. Brewer has communicated to *The Times* of Jan. 5th, at the request of the Asylums Board, the following important statement of the position in which the Board is at present placed:—

"Sir,—At a meeting of the Asylums Board yesterday evening, convened for the purpose of making provision for the daily increasing number of persons afflicted with the epidemic of small-pox which is marching on the metropolis from the south-east, and sporadically present in the south-west and districts apparently unconnected with each other, the managers urged their chairman to communicate to the public, through the Press, that, while they are even increasingly anxious to protect the metropolis by the timely isolation of the infected and the effectual vaccination of those liable still to the worst forms of the disease, they are unable to enter the market for new sites or to appropriate any additional building for the isolation of the infected, because an injunction rendering the managers severally and jointly liable to a penalty of £20,000 is hanging over them if they again avail themselves of the Hampstead site, bought and fitted up by them expressly for the purpose of protecting the north and north-west of the metropolis, and constituting an integral part of the original design for providing protection to the whole of London.

"Until the final Court of Appeal has determined whether the 'public policy' expressed by Gathorne Hardy's Act of 1867 did or did not warrant, through the authority of the Local Government Board, the managers to purchase sites and erect buildings for the isolation of people affected with contagious disease of the humbler classes in such localities in the metropolis as the Government Board deemed best calculated to secure the object contemplated by the Act, it must be obvious to your readers that we are paralysed, so far as prospective action is concerned. It must not hence be conceived that the managers abate one jot of their anxiety to arrest the coming calamity: no men know better what is the liability of the 200,000 unvaccinated persons among a mass of well-nigh four millions, packed within an area of 75,362 acres. The sufferings to which we minister quicken, and not deaden, our sympathies; and while we are using every bed available and every means within our power to ward off or to provide for the needs which are pressing upon us, we feel ourselves bound to state frankly what it is which limits our means and why we are forced to declare that we are not responsible for the suffering and mortality we must perforce anticipate, but cannot adequately provide for or guard against."

ANTI-VACCINATIONISTS' PARLIAMENTARY RETURNS.

Another of the series of Parliamentary returns called for by Mr. Hopwood, M.P., in the interest of anti-vaccinationists, has just been published under the signature of the Registrar-General. It relates to the thirty-two years 1847 to 1878, and is on the whole a valuable contribution to the statistics of small-pox and vaccination, especially as by the addition of information beyond what was asked for, the public is guarded against the erroneous and mischievous conclusions which were drawn from a previous and somewhat similar return. We commend the figures in this return to the attention of Mr. P. A. Taylor, M.P., who, it may be presumed, is preparing his indictment against compulsory vaccination. The proportion of fatal cases of small-pox occurring under one year of age in England and Wales, to the fatal cases at all ages, which averaged 25·5 per cent. in the six years 1847–52, did not exceed 12·9 per cent. in the six years 1873–9. The most marked change of proportion, however, appears at the ages between one and five years; at this group of ages the proportion declined between these two periods from 44·4 per cent. to 12·8 per cent. It is for those who deny the influence of vaccination upon small-pox mortality to assign some other reasonable explanation of the change in the proportions of small-pox mortality occurring at different ages since vaccination was made compulsory. The increase in the proportion of adult fatal cases of small-pox in recent years is a natural consequence of the marked decline of deaths from this disease occurring among children. It should, moreover, not be forgotten that the average annual death-rate from small-pox at all ages in England and Wales since compulsory vaccination was enacted has been less than half that which prevailed during the years of civil registration which preceded the passing of the first Vaccination Act.

The other point on which the present report throws useful light is the asserted increase of infant mortality since vaccination became more general. In a previous return called for by Mr. Hopwood tables showed that the deaths of infants from syphilis, scrofula, tabes mesenterica, skin diseases, erysipelas, phlegmon, bronchitis, diarrhœa, and atrophy and debility, including premature birth, had, in the aggregate, steadily increased during the past forty years. This fact gave rise to the misstatement that vaccination had caused a great increase in the rate of infant mortality. In the present return, in order the more effectually to guard against a repetition of this misapprehension, the Registrar-General has added a column showing the proportion of infant mortality from all other causes, demonstrating conclusively that the increased mortality from bronchitis, diarrhœa, syphilis, and scrofula, from whatever causes it may be due, is more than counterbalanced by the decline of mortality from other diseases. During the six years 1847–52 preceding compulsory vaccination, the proportion of deaths of infants under one year, from all causes, averaged 156 per 1000 births; whereas in the six years 1873–8 (the most recent dealt with in the return) the average annual proportion did not exceed 149 per 1000. How far improved or more precise diagnosis of infantile diseases may be the cause of the increased number of deaths recently attributed to bronchitis, diarrhœa, syphilis, and scrofula, it is needless here to inquire. It is, however, eminently satisfactory to find that the average rate of infant mortality is now five per cent., or one-twentieth, less than it was before vaccination became compulsory.

SCARLET FEVER IN SUNDERLAND.

The Health Department of the Sunderland Corporation have published a report by Dr. Yeld, their medical officer of health, on the epidemic of scarlet fever, now in the fifth year of its duration in the borough. He attributes the propagation and spread of the disease to the following causes:—(1) The non-isolation of the first case appearing in a family; (2) the indiscriminate intercommunication of the healthy with the sick; (3) children being allowed to attend school and public places of resort during the convalescent stage of the disease, and very frequently wearing the same clothes that they wore during the period they were suffering from the disease; (4) children attending school from infected houses; (5) children being allowed to attend funerals, and even to view the bodies, of those who have died from the disease; (6) the transmission of infected clothing and bedding from one house to another; (7) the want of early information of the outbreak of the disease in any house being forwarded to the Local Sanitary Authority, in the vast majority of cases the earliest information received being that from the registrar of deaths. Isolation, of all other means, is regarded by Dr. Yeld as the best for arresting the spread of infectious diseases; and he has some observations on this subject which we have little doubt will prove advantageous to his Health Committee. Sunderland, it appears, has an infectious disease hospital, provided on account of the small-pox epidemic of 1871, but which has not been as much used as it might have been since, particularly in view of arresting the spread of an infectious disease at the beginning. This, Dr. Yeld states, has not been from want of desire on the part of the sanitary authority, but on account of medical men and heads of families not having taken advantage of the boon offered them. "There cannot be a doubt," he adds, "that had even the limited accommodation of the House of Recovery been taken advantage of two or three years ago, the spread of scarlet fever, and its consequent fatality, would have been very materially diminished; neither is there any doubt that had the accommodation for the patients been found too small, the committee should have taken the matter in hand, and dealt with it in a practical, disinterested, and satisfactory manner." Dr. Yeld urges the Health Committee to recommend to the Town Council to obtain powers from Parliament compelling the notification of infectious diseases, such as have been obtained by several other municipalities.

SANITATION IN LEEDS.

The health of Leeds, judged by the monthly reports of Dr. Goldie, its medical officer of health, has recently been unusually satisfactory. According to the last monthly report issued, it appears that the annual death-rate in that borough during the four weeks ending the 27th of November did not exceed 19·9 per 1000, against 25·6 in the corresponding period of 1879. Infant mortality and the death-rate from the principal zymotic diseases were exceptionally low. It is to be regretted that Dr. Goldie persists in giving so-called rates of mortality at different groups of ages per 1000 of persons living at all ages. These rates for comparative purposes are not only useless, but frequently lead to entirely erroneous conclusions, as this method takes no account of the varying age proportions of the populations in different towns or in different parts of the same town. Useful rates of mortality at different groups of ages can alone be calculated with reference to the numbers living at each such group of ages. Leeds, like Salford and other large towns, has had its threatenings of small-pox, and Dr. Goldie seriously calls the attention of his sanitary authority, the Town Council, to the dangerous position of the town in consequence of its being unprovided with special hospital accommodation for the isolation of cases of this disease. It appears that one of the Local Government Board inspectors has recently made a special representation to the Town Council on the subject. The increased prevalence and fatality of small-pox in London adds considerably to the danger of infection incurred by all large towns in intimate railway communication with the metropolis. It is satisfactory to note that the 487 deaths registered in Leeds during the four weeks under notice included but eleven uncertified causes of death; these give a proportion of 2·3 per cent., against 4·0 per cent. in the three months ending September last.

DIARRHŒA IN WIGAN.

An elaborate report has been submitted to the Sanitary Committee of the Corporation of Wigan, by Mr. Barnish, their medical officer of health, on the prevalence of diarrhœa in the borough during the third quarter of the year. In this report Mr. Barnish shows that the disease is mainly confined to a particular season of the year, that it chiefly affects young children, is more especially a disease of crowded towns, and is mostly confined to the poorer inhabitants. High atmospheric temperature holds, he thinks, the first place in conducing to the disease, and after atmospheric temperature, in exercising the most important influence as a concurrent cause, he would place the artificial feeding of infants. He refers to the *dark* surroundings of life in the close courts and streets of Wigan as contributing also to the result. It would appear, however, that since Wigan began to abolish the old-fashioned privy, or midden closet, and its foulness, and has substituted a pail-closet, the mortality from diarrhœa has distinctly decreased in the town and is, Mr. Barnish believes, decreasing; increased cleanliness of the surface of the courts, back-streets, and alleys helping to this result.

Here is a curious instance of the "Imperial Julius dead, and turned to clay," &c., serving to point a poor-law moral at the expense of a medical officer. At a recent meeting of the St. George's-in-the-East Guardians, complaint was made that the medical officer of the schools had of late been irregular in attendance, his place being supplied by substitutes. Whereupon a member observed that he had been reading in the course of the day of the death of "George Eliot," and noted that a regret was expressed that Dr. Andrew Clark had not been first summoned to her bedside, and so, probably, a greater chance of saving her life secured. He applied this to the children in these schools, of whose welfare they were the guardians, and would ask if this irregularity of the medical officer could be permitted to go on indefinitely when his presence or absence might involve the difference of life and death to a sick child. The medical officer should feel highly gratified that his individual services in the schools are ranked so highly.

Mr. Wynter Blyth, the successor of the late Dr. Whitmore as medical officer of health for Marylebone, has issued his first monthly report. It will chiefly attract attention for two suggestions he makes; the first (somewhat prematurely, it is to be feared) for preventing the spread of small-pox and scarlet fever by smearing the patients from head to foot with glycerine, and placing a bottle of ice-cold water a little before the mouth, and, in view of typhoid fever, for heating all milk to at least 212° F. before it is sold. Mr. Blyth states that he has submitted his first suggestion "to the ordeal of exact experiment, so far as the nature of things admits," whatever that may mean, and he uses these words in reference to his second suggestion, "It is time for the public to demand from the milk trade *germ-free* milk," as if the evidence as to the *germs* were as clear as the evidence as to excess of water in milk.

It appears that the Urban Sanitary Authority of Pontypridd is considering a scheme of laying down a system of sewers for slop water only, providing for excremental matters by dry-ash- or earth-closets. The ratepayers, or a section of them, take exception to this; and at a recent public meeting Dr. Hunter, a medical practitioner of twenty years' standing in the town, took objection to any scheme of drainage which did not include provision for the whole of the Rhondda Valley and its increasing population. A resolution was passed at this meeting requesting the Urban Sanitary Authority to defer the consideration of their scheme for three months, and to call for other schemes adapted for the requirements of the district.

An application made by the Sanitary Authority of Warrington for the compulsory removal of a patient to the fever hospital on the ground of imperfect isolation, has been refused by the magistrates. The medical officer of health and the medical man in attendance differed as to the degree of isolation which had been secured to the patient in a seven-roomed house. It was urged that the medical officer of health, having given a certificate to the effect that the patient should be removed, the magistrates had no choice, under the Local Act, but to give the order for removal, but the magistrates held the case was not made out. A case was granted for the Court of Queen's Bench.

The Right Hon. James Stansfeld, M.P., in an address delivered at the recent Poor-law Conference in Leeds, thought it was a mistake that boards of guardians should be under no control, and expressed his opinion that the central authority ought to counsel, inform, enlighten, and guide, and he believed the local authorities would willingly and gratefully respond to such policy. Hitherto it has been a case of the blind leading the blind with a vengeance, and local authorities, Poor-law and others, are beginning dimly to understand this.

Chesham has got into trouble for prematurely closing its infectious disease hospital. The medical officer of health says that the existing hospital is unfit to be occupied by sick persons in cold weather, and the sanitary authority hesitate to make it fit or to provide another and better hospital. Meanwhile the need for a hospital continues.

We understand that W. Meymott Tidy, M.B. Lond., has resigned his post as Public Analyst for the County of Essex.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Mainly owing to delay of registration in the previous week, due to Christmas-day falling on Saturday, the registered mortality in the principal English towns showed an increase last week. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5035 births and 3408 deaths were registered last week. The births were 150 below, while the deaths exceeded by 133 the average weekly numbers during 1879. The deaths, owing mainly to the cause above stated, showed an increase of no less than 739 upon the exceptionally low number in the previous week. The annual death-rate, which had steadily decreased from 22·1 to 18·6, rose last week to 23·7. The lowest death-rate in the twenty towns last week were 15·7 in Newcastle-upon-Tyne, 15·9 in Portsmouth, 18·8 Sheffield, and 19·3 in Bradford. The rates in the other towns ranged upwards to 27·2 in Salford, 28·0 in Oldham, 29·5 in Wolverhampton, 29·8 in Liverpool, and 30·3 in Nottingham. During the thirteen weeks of the quarter just ended the death-rate in the twenty towns averaged only 21·5 per 1000, against 25·0 and 24·2 in the corresponding periods of 1878 and 1879.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 375 and 342 in the two preceding weeks, rose to 398 last week; they included 137 from scarlet fever, 84 from measles, 72 from whooping-cough, and 48 from fever, principally enteric. The annual death-rate from these seven diseases averaged 2·8 per 1000 in the twenty towns; it ranged from 0·7 and 1·0 in Plymouth and Newcastle-upon-Tyne, to 5·5 and 5·8 in Wolverhamptom and Sunderland. Scarlet fever showed the largest proportional fatality in Sunderland, Bristol, Oldham, Wolverhampton, and Norwich; fever, principally enteric, in Wolverhampton, Norwich, and Leicester; and whooping-cough in Leeds, Hull, and Sunderland. Small-pox caused 17 more deaths in London, whereas no fatal case of this disease was recorded in any of the nineteen provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 380 in the nine preceding weeks, further rose to 440 on Saturday; this was a larger number of cases than has been under treatment in these hospitals at any time since the end of June, 1878. The number of new cases of small-pox admitted to these hospitals, which had been 132, 76, and 65 in the three previous weeks, rose to 146 last week. On Saturday last 28 patients were also under treatment in the Highgate Small-pox Hospital, corresponding with the number at the end of the previous week.

The deaths referred to diseases of the respiratory organs in London, which had been 307 and 290 in the two preceding weeks, rose to 353 last week, which were, however, no less than 189 below the corrected average number in the corresponding week of the last ten years; 218 were ascribed to bronchitis, and 82 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·0 per 1000 in London, 6·0 in Liverpool, and 5·9 in Salford.

In the twenty towns last week the causes of 107 deaths were not certified, either by a registered medical practitioner or by a coroner, being equal to 3·1 per cent. of the total deaths. The proportion of uncertified deaths did not exceed 1·7 per cent. in London, whereas it averaged 4·5 per cent. in the nineteen provincial towns. No uncertified deaths were registered either in Bristol or Nottingham; while their proportion was largest in Salford, Oldham, Sheffield, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 22·5 per 1000, against 19·9 and 20·8 in the two preceding weeks; this rate was 1·2 below the average rate in the twenty large English towns. The rates in the eight Scotch towns last week ranged from 19·1 in Paisley, and 19·5 both in Edinburgh and Perth, to 25·2 and 25·8 in Dundee and Leith. The deaths referred to the seven principal zymotic diseases in the eight towns, which had been 80 and 92 in the two preceding weeks, were 92 last week, and equal to an annual rate of 3·7 per 1000, against 2·8 in the twenty large

English towns. In the eight Scotch towns the zymotic death-rate last week ranged from 1·0 in Aberdeen to 4·4 and 4·8 in Leith and Glasgow; no deaths from any of these zymotic diseases were returned in Perth. The fatal cases of scarlet fever, which had been 17 and 29 in the two preceding weeks, were 30 last week, of which 12 were returned in Glasgow, 12 in Edinburgh, and 3 in Leith. Eight of the 12 deaths from diphtheria were returned in Glasgow, as well as 6 of the 7 deaths referred to "fever," which includes typhus, enteric, and simple continued fever. The 23 deaths from whooping-cough included 17 in Glasgow, and showed a further increase upon recent weekly numbers. The annual death-rate from acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) was equal to 5·9 per 1000 last week in the eight Scotch towns, against 4·2 in London; the highest death-rates from these diseases in the eight Scotch towns occurred last week in Aberdeen, Dundee, and Paisley.

HEALTH OF DUBLIN.

The registered mortality in Dublin showed a further increase last week. The annual death-rate from all causes in the city, which had been equal to 25·9 and 27·0 in the two preceding weeks, further rose to 35·8 last week. During the thirteen weeks of the quarter just ended the death-rate in the city averaged no less than 32·6 per 1000, against 20·9 in London, and 21·8 in Edinburgh. The 216 deaths in Dublin last week showed a further increase of 53 upon the numbers returned in the two previous weeks; they included 27, or rather less than 13 per cent., which were referred to the seven principal zymotic diseases, and 6 more than the number in the previous week. Of these 27 zymotic deaths, 10 resulted from fever (typhus, enteric, and simple), 9 from scarlet fever, 6 from whooping-cough, and 2 from measles. The annual death-rate from these zymotic diseases was equal to 4·5 in Dublin, against 2·8 in London, and 4·1 in Edinburgh. The 10 deaths referred to fever in Dublin last week showed an increase upon recent weekly numbers, and were equal to an annual death-rate more than five times as high as the average rate from the same cause in the twenty large English towns last week. The fatal cases, both of scarlet fever and of whooping-cough, also showed an increase in Dublin last week. The deaths both of infants and of elderly persons only slightly exceeded the numbers returned in recent weeks.

THE AMERICAN CENSUS—ST. LOUIS.

Between defective registration of births, deaths, and marriages and doubtful census returns, American vital statistics are not yet held in much repute by statisticians. The rates of mortality which, according to official returns, are reported to prevail in the majority of the large American cities are incredibly low, so low as to forbid their acceptance as being even approximately correct. The rapid aggregation of town populations in America places great difficulties in the way of estimating their numbers in inter-census years, and in America, as in England, a census is only taken once in ten years. In England once in ten years the enumerated numbers, however, supply trustworthy figures as a basis for the calculation of vital and mortal statistics; while in America census numbers are not accepted as trustworthy, even by the local authorities, and when the counted numbers are not large enough to satisfy the general desire for big figures, it is not unusual to hear of clamour for re-enumeration. The city of St. Louis is a notable example of the difficulties which surround the preparation of trustworthy statistics for American towns. We have somewhat recently commented upon the untrustworthy mortality statistics officially published for this city, and the results of this census supplies a useful corroboration of the justice of our remarks. In 1860 the population of the city of St. Louis was estimated at 160,773, which had increased to 310,864, according to the government census, in 1870. In 1878 exaggerated ideas prevailing as to growth of the city in recent years, we were told officially that the estimated population by enumeration was stated to be 503,000. Since 1878 the population of the city has been taken as half a million, upon which all rates of mortality have been calculated. We have before us the summary for the year 1879, which gives the rate of mortality as only 12·3 per 1000; this alone should have suggested that the population was over-estimated, more especially as it appears that no less than 30·2 per cent. of the deaths from all causes were due to zymotic diseases. The first report of the population of the city enumerated at the recent census gave 324,196, but so dissatisfied were the authorities with this number that a re-enumeration has since been completed, which raises the population to 351,275. Even this number very far from satisfies the expectations of the city, although there is considerable rejoicing at this gain of 26,719 in the population. By using this number the death-rate in 1879 becomes 17·5 instead of the 12·3 officially reported, but even this appears to be too low a rate when it is remembered that 30·2 per cent. of the deaths were from zymotic diseases. It is impossible to guess whether we have yet had the last census of St. Louis for 1880, but if the figures given by the latest enumeration be accepted as approximately correct, it still seems more than probable that the death-rate is understated, probably through imperfect registration of the deaths. Vital statistics are now attracting considerable attention in America, and we are entitled to hope that ere long they will be rendered more trustworthy than they are at present. Improved system of registration has already been adopted in some of the States, but it is not so easy to devise safe precautions against the falsification of census returns for the purpose of flattering local aspirations for greatness.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SCIENCE AND SANITATION.

A recent number of the *Journal of Science* contains an article on the "Sanitary Millennium," which betrays a very shallow acquaintance both with its subject and with the true bearing of the statistics discussed. The article professes to be a review of a work by John Parkin, M.D., entitled "Epidemiology, or the Remote Cause of Epidemic Diseases in the Animal and in the Vegetable Creation," but is made the excuse for enunciating a disbelief in the "filth" origin of so-called zymotic diseases, and in the efficacy of vaccination as a protection from small-pox. The *Journal of Science* adjudges Dr. Parkin "perfectly successful in disposing of the two most popular theories—the dirt doctrine of the sanitary reformers and the notion of contagion." The arguments by which vaccination is sought to be discredited are the thread-worn arguments which anti-vaccinationists repeat *ad nauseam*. We are reminded that, notwithstanding the more general adoption of vaccination, the fatality of the three small-pox epidemics in 1857–8–9, 1863–4–5, and 1870–1–2 showed successively a steady increase; no reference is, however, made to the fact that the average death-rate from small-pox since vaccination was made compulsory is just half what it was during those years prior to that legislation of which we have record. The steady proportional increase of the vaccinated among the victims of small-pox during the past half-century is also quoted as difficult to reconcile with the orthodox theory that vaccination is a safeguard against small-pox.

The assertion made by unscientific anti-vaccinationists, to the effect that small-pox is spread and distributed by vaccination, is in a measure adopted, regardless of the well-known fact that vaccination could as soon produce small-pox as measles could be caught from scarlet fever. In ridiculing the theory that the only cause of zymotic disease is dirt, our scientific contemporary asks, with reference to modern attempts at sanitation: "Have we not spent 300,000,000 of money in carrying out these teachings and in paying the fees of our teachers?" As an example of the futility of sanitary expenditure, Manchester is alluded to, and we are asked to believe that the death-rate in that city in 1811 did not exceed 13·5 per 1000, in order to show that, "in spite of all our modern sanitary reforms, the death-rate of the city has increased to more than double its amount in 1811." Manchester should not be quoted as an example of the success or failure of sanitary expenditure, as that city has scarcely kept pace with the other large cities of the United Kingdom in the energetic prosecution of sanitary progress. It is, however, beyond dispute among those acquainted with the history and mortality statistics of Manchester, that the sanitary condition of that city is very different from what it was at the beginning of the century, and that the death-rate as faithfully reflects the improvement which has taken place as that which is still needed. Whatever may be the authority for the statement that the rate of mortality in Manchester, in 1811, did not exceed 13·5 per 1000, we must absolutely decline to accept this figure as correctly representing the average death-rate of that city seventy years ago. If this article had not found place in the columns of a journal which professes to represent science, we should have found it hard to accept, as seriously intended, its shallow attack upon the recent teachings of sanitary science.

CITY FILTH—THE WAR OF CLOSETS.

The poet's aspiration, that we might be given the gift of seeing ourselves as other people see us, is certainly superfluous in these days of a freely flowing press. The other people have not the least hesitation, and do not want the full opportunity of themselves stating what they think of us. M. le Dr. Van Overbeek de Meiges, professor of hygiene in the University of Utrecht, has favoured us with a very frank disclosure of his opinions regarding our position on sewage matters in this country, not very gratifying to our self-esteem, however useful it may be for our instruction ("Les Systèmes d'Evacuation des Eaux." Baillière et Fils, 1880). Dr. de Meiges, condemning us from the mouths of our own engineers and sanitary workers, depicts with an unsparing hand the shortcomings of our watercloset system and system of sewers, as compared with the advantages attaching to the dry-closet systems—such a system, for example, as is now being carried into force in Manchester; and he shows how what we now suffer from has not been peculiar to us, but has been experienced by all places where the "English system" of sewerage has been put in force. He maintains that our system is noxious whether used with or without irrigation, and that it is necessary that all fæcal matters should be kept out of our sewers, if we would escape mischief. It is war to the knife between him and the followers of Rawlinson. His argument has the faults of all one-sided views, but he brings together a very large quantity of material bearing upon the subject he discusses, and hence his work is very instructive and of great interest. He does not bring anything forward that is new to us of the defects of the "English system," but he omits to say much of the advantages which have been claimed. Those defects have prompted the experimental trials of the mixed systems of sewage disposal now in progress at Manchester and Rochdale and elsewhere in England. Those trials are a protest against the "English system," as Dr. de Meiges understands it, and are of a sort he would approve. We are content to wait the results of these trials before we accept so unqualified a condemnation of the water-system as he utters, and believe it will be found that both the dry and wet systems of filth-disposal have their proper place in sanitary administration.

The Rev. Septimus Hansard, the Rector of Bethnal-green, has set an example of citizenship in sanitary work which may be usefully followed. When first he entered upon his rectorship he was informed that neither flowers nor grass would grow on the rectory lawn, so inimical was the local atmosphere to vegetable life. Whereupon he resolved to better the atmosphere by ridding it of some of its smoke and foreign admixtures from neighbouring manufactories. He set himself to take notice of smoky chimneys, and by reporting them to the police, and taking advantage of the law of nuisance anent smoke, he contrived to ameliorate local states of atmosphere, so much that he is now reported to cultivate the choicest flowers readily.

A very foolish statement has been made at Chertsey with reference to a case of small-pox which has recently ended fatally in the Chertsey Union. It is implied that the nature of the disease was first mistaken by the medical practitioner called in at the beginning, and that the patient was improperly treated in the union workhouse. The terms in which the statement found its way into the local press prove that it emanates (thoughtlessly no doubt) from a source wholly unconscious of the foolishness contained in it. But how comes it that Chertsey has not an infectious disease hospital apart from the workhouse?

From Canada the news comes of the prevalence of typhoid fever in Montreal, the Health Office reporting 130 cases, the majority of which have been traced to defective drainage. Also a serious outbreak of diphtheria has occurred in the neighbourhood of Sandwich.

THE SERVICES.

WAR OFFICE.—2nd Life Guards: Surgeon Percy G. R. Young, from the Army Medical Department, to be Surgeon, *vice* H. P. Hensman, promoted into the 1st Life Guards.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major C. G. Irwin, M.B., to be Brigade-Surgeon, *vice* W. C. Roe, granted retired pay; Surgeon-Major R. O. Hayden, from half-pay, to be Surgeon-Major.

Surgeon Albert Baird Seaman has been notified that he is to receive a medal and a gratuity of £100 in consideration of his services in the Khyber Pass.

Deputy Surgeon-General J. O'Nial, Army Medical Department, late Principal Medical Officer of the Candahar Force, has arrived in England, and has been appointed to the Administrative Charge of the North British District, Edinburgh.

In compliance with instructions received at Aldershot from the Adjutant-General, Horse Guards, the undermentioned officers of the Army Medical Department have proceeded from the Camp to Dublin for temporary duty in Ireland—viz., Surgeons-Major A. Macrobin and F. Waghorn, and Surgeon B. Connolly. These officers, on arrival at Dublin, have been directed to report themselves to the general officer commanding the troops and the principal medical officer. In consequence of the departure from Aldershot of the above-named officers, the following medical arrangements have been made at the Camp—viz., Surgeon-Major Leask to take medical charge of the troops of the Royal Engineers, Army Hospital Corps, and Army Service Corps, *vice* Surgeon-Major Waghorn; Surgeon-Major T. Hession to take medical charge of officers, women, and children, South Camp, *vice* Surgeon Connolly; and Surgeon Crofts to take medical charge of the troops of the 1st Infantry Brigade, *vice* Surgeon-Major Macrobin.

THE TRANSVAAL WAR.

A strong reinforcement of medical officers has been warned for service at the Cape, and the following are under orders to embark at Portsmouth with the troops in the transports *Queen*, *Hankow*, and *Ararat*. Brigade-Surgeon Sampson Roch, Surgeon-Majors David Leslie, W. P. Smith, J. Leask, Scanlan, Heather, Malley, A. Thompson, L. H. Giraud, with Surgeons Cross, Drury, Brown and Powell. A detachment of the Army Hospital Corps, numbering sixty-three non-commissioned officers and men with two officers, Lieutenants of Orderlies, Philips and Strange, will also proceed in one of these transports. The men will be completely equipped and will be armed with revolvers. Six ambulance waggons, sixty medical comfort boxes, containing brandy, port wine, essence of beef, arrowroot, preserved milk, mustard, &c., and lightly packed as to be readily carried on a mule or ox, have been forwarded by mail steamer to Durban, the port of disembarkation. The transports will take out additional quantities of chloroform, medicines, medical and surgical instruments, and material, field panniers, field companions, medical comforts, and disinfectants, for the use of the troops of the expedition.

BOMBAY MEDICAL RETIRING FUND.—It is announced from the India Office that the following is the allotment of annuities for 1881:—£252 to Surgeon-General J. R. Miller, M.D.; £210 to Surgeon-Major F. W. Harris; £210 to Deputy Surgeon-General R. G. Lord, M.D.; £168 to Surgeon-General W. G. Hunter, M.D.; £168 to Deputy Surgeon-General F. G. Joynt, M.D.; £168 to Surgeon-Major W. E. Wood.

ADMIRALTY.—Surgeon W. H. Colahan, M.D., has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet, with seniority of Dec. 28th, 1880. The following appointments have been made:—Staff Surgeon Septimus Sexton to the *Iron Duke*, additional, for service in the *Magpie* when recommissioned; Surgeon J. A. M'Munn, M.B., to the *Iron Duke*, additional, for disposal; Surgeon James B. Armstrong, to the *Fly*, when recommissioned; Surgeon William J. B. Bookey, to the *Foxhound*, when recommissioned; and Surgeon James B. Clibborn, to the *Vigilant*, when recommissioned.

PHARMACOLOGY AND THERAPEUTICS.

TANNIN.

Lewin has found that tannin ceases to coagulate albumen and fibrin if it be treated with an alkali until the mixture has a slightly alkaline reaction. This alkaline tannate is readily decomposed, but it cannot be obtained in a crystalline form. Although the compound does not coagulate albumen, it produces in the mouth the characteristic astringent sensation. Tannin will precipitate pepsin, and coagulate peptones, and hence it has been supposed to interfere with the process of digestion. But, according to Lewin, this conclusion is erroneous, for such precipitated peptone is readily soluble in a little hydrochloric acid, and the presence of this acid is sufficient to prevent such coagulation from taking place. In some experiments in artificial digestion, he found that the presence of tannin did not in the least interfere with the digestion of albumen and fibrin by pepsin and hydrochloric acid; peptones were formed just as if the tannin had not been present. A solution of tannin being added, drop by drop, to blood or lymph, a permanent coagulation of the albumen did not take place until the alkalinity of the blood was neutralised. This is explained by the fact that the tannate of albumen is soluble in alkaline carbonate, and is not precipitated as long as the alkaline carbonate is present. The antiseptic action of tannin was long doubted because fungi grow in its solution. This is, however, the case with many other agents which retard decomposition; and the antiseptic influence of tannin has been proved by experiments, which are confirmed by Lewin. It not only prevents decomposition of organic substances, but will arrest the growth of the yeast-plant. An investigation into the action of tannin on living muscles seems to demonstrate that the muscle becomes less extensible, but considerably more elastic, so that, when the extension is over, the muscle regains its original length more nearly than in health. It is a similar condition to that which is met with during rigor mortis. Temporary arrest of the supply of oxygen has a similar effect on a muscle. Lewin conjectures, therefore, that the tannin produces its effect by transforming the alkali of the blood and lymph into the soluble tannin compound, which tends to abstract oxygen from the tissues, and to produce the local manifestations of anoxæmia. It is this influence, he suggests, that determines the contraction of vessels under its influence, and has led to its general employment as a styptic. He has found that after the injection of a solution of tannin beneath the skin of a frog's leg the muscles become pale and firm, just as if frozen, and their larger vessels are almost empty, although the chief arteries of the limb are well filled.

INHALATIONS OF NITROGEN IN LUNG DISEASE.

Inhalations of nitrogen have been employed by Kohlschütter as a means of hastening absorption within the lungs, according to the suggestions of Steinbruck and Treutler. Air containing 90 per cent. of nitrogen was inhaled daily for half an hour, and an increase up to 96 per cent. was borne without inconvenience. Under this treatment defective resonance due to chronic infiltration of the parenchyma of the lung or old pleuritic exudations quickly disappeared. In many cases the amount of cough and expectoration was increased, in consequence, it is supposed, of liquefaction of the exudations. There was usually a distinct elevation of temperature, sometimes reaching 104° F., and accompanied with other evidence of pyrexia. In some of the cases the temperature began to rise soon after each inhalation, but gradually became less after successive inhalations, a tolerance being established. In other cases there was a continuous elevation of temperature, of moderate degree, which only ceased on the discontinuance of the inhalations, and in some patients, in spite of the cessation of the treatment, passed on into the hectic of the phthisical, accompanied by signs of rapid breaking down of the lung, the formation of cavities, and the progress of the disease. Besides this effect, somnolence was observed during the treatment, and an inclination to sweat, especially at night, apparently in connexion with the pyrexia. Kohlschütter explains these effects as the result, first, of the deep inhalations taken by the patients during the treatment, and, secondly, by the changed composition of the air in the lungs assisting in the destruction of the elements of exudation. He recommends further experiments in lung disease, but only in cases in which there is no breaking down of the lung tissue or hectic fever, and points out that the method of treatment requires careful watching, since it is clearly powerful for evil as well as for good.

POISONING BY CARBONATE OF BARYTA.

A girl, twenty-eight years of age, pregnant, died under the care of Professor Seidel at Jena with symptoms indicating the action of an irritant poison—repeated attacks of vomiting, abdominal pain, diarrhœa, and collapse, with, towards the last, difficulty in swallowing and breathing. Death occurred about thirty-six hours after the onset of the symptoms. After death the stomach was found to contain a moderate quantity of reddish-brown liquid, and in both stomach and duodenum there were submucous ecchymoses, and on the mucous membrane were numerous minute hard white grains. The liver presented fatty degeneration; the other organs were normal. Arsenical poisoning was first suspected, but a packet of white powder, labeled "poison," was discovered, and recognised by a chemist as containing carbonate of baryta, sold by him for the destruction of rats. The statement was verified by chemical analysis, which also showed the identity of the powder with the white grains found in the stomach. Poisoning with the salts of barium is very rare, and M. Seidel has found only eight cases recorded in medical literature. All the salts of barium are poisonous, with the exception of the sulphate and fluo-silicate. The carbonate has been regarded as innocuous, but is no doubt converted in the stomach into the poisonous chloride, and, as this case shows, is as toxic as the other salts. The similarity of the symptoms with those of poisoning by arsenic is a point of considerable interest.

BELLADONNA POISONING TREATED WITH CHLORAL.

Atropin has been successfully employed to antagonise the effects of chloral in poisoning by the latter drug. This fact suggested to Dr. Trocquart, of Bordeaux, that chloral might be equally useful in poisoning by belladonna. A chemist was troubled with tinnitus aurium, and was advised to try belladonna for its relief. He took a handful of leaves, and infused them in a small quantity of boiling water, and drank the infusion. Half an hour later he was seized with gastric pain, excitement, and giddiness. Tartar emetic was administered, which caused some vomiting. Three hours later he was wildly delirious, shrieking out, and was restrained with difficulty by four persons. His face was flushed, covered with sweat, and his pupils were widely dilated. Each attack of delirium lasted for four or five minutes, and between the attacks were intervals of utter prostration. A dose of chloral was ordered, but could not be given on account of the patient's violence. A few hours later, however, five grammes of chloral were administered in an injection. The violent paroxysms quickly subsided. Whenever there was any indication of a return another dose of chloral was administered. The patient passed a quiet night, and woke up next morning with merely considerable muscular fatigue.

THE ANTAGONISMS OF ACONITIA.

An important series of investigations by Dr. Ringer and his assistants into the action and antagonistic actions of aconitia, atropia, and pilocarpin on the frog's heart have led to the following conclusions. Aconitia slows and weakens the heart and incoördinates the ventricular contraction. The incoördination precedes the weakening, and sometimes the contractions, though slow and incoördinate, continue strong until the heart stops. The effect on the ventricles is far more rapid and powerful than on the auricles, and the whole effect on the heart is less powerful than that on the cerebro-spinal centres, for after complete paralysis the heart often continues to beat well for a considerable time, and the general depression which follows a poisonous dose of aconitia is chiefly due to its action on the central nervous system. Atropia antagonises the action of aconitia on the heart, it restores contractions in a heart which has been arrested by aconitia, and strengthens, accelerates, and coördinates the heart simply weakened, slowed, and incoördinated by aconitia. There is no antagonism between aconitia and muscarin, or pilocarpin. Atropia, however, antagonises the combined effects of aconitia and muscarin, and of aconitia and pilocarpin. Dr. Ringer agrees with the opinion that antagonisms are due to chemical displacement, and believes that atropia antagonises muscarin, pilocarpin, and aconitia because it has a stronger affinity for the muscular and nervous structures of the heart than these substances, and displaces them, replacing their effect by its own.

THE ACTION OF SQUILLS ON THE HEART.

The action of squills upon the heart has been found by Röhmann to resemble that of digitalis. After the injection of a fresh watery infusion, or of an extract, into a vein of a curarised dog, the pulse was retarded, and the blood-pressure rose. Afterwards, the pulse increased in frequency, while the blood-pressure remained high, or fell. When the stage of accelerated pulse and of lowered blood-pressure had set in, a fresh injection again slowed the pulse, without any corresponding elevation of the blood-pressure. These effects occurred after division of the vagi, but if the vagi were divided after the retardation of the pulse, and the blood-pressure had risen, no further action could be obtained by further injections. Röhmann assumes that the increase in the blood-pressure is the result of an irritation of the vaso-motor centre, while the changes in the pulse rate are due to an initial stimulation, and subsequent paralysis of the centre of the vagus, the intra-cardiac terminations of this nerve remaining for a time excitable. The pulse tracing, however, compared with that of digitalis, shows much broader and flatter curves. It is probable also that squills has an action on the muscular tissue of the heart, similar to that of digitalis. These experiments show that there may be some ground for the objection, which practitioners have occasionally expressed, against the use of squills in the acute bronchitis of children.

BENZOIC ACID.

Schulte has found that the introduction of benzoic acid into the stomach of warm- and cold-blooded animals always causes irritation of the mucous membrane, extravasation, and hæmorrhagic erosion, and that similar irritation is sometimes observed even when benzoic acid or its salts have been introduced by injection under the skin, or into a vein. In the latter case the pulse and respiration are at first accelerated, and afterwards retarded. The blood-pressure is not influenced by slight injections, but is lowered by stronger ones, and the phenomena are independent of the vagus nerve. Whenever the dose amounts to more than two-thousandths of the body weight of the animal, toxic symptoms occur, followed by death. Salkowski has pointed out that when benzoic acid is given the urine commonly contains a substance which is capable of reducing sugar. This body is not soluble in ether, but it is soluble in alcoholised ether and acetic ether. It is very slightly soluble in water, and thus is distinguished from both benzoic acid and hippuric acid. The salt it forms with barium is insoluble in water, and contains both nitrogen and chlorine. Schulte has found that the appearance of this substance in the urine corresponds in time with the appearance of toxic symptoms. In the therapeutic use of benzoic acid and benzoate of soda for diphtheria, acute and subacute articular rheumatism, erysipelas, typhus, diabetes, nephritis, interstitial phthisis, peritonitis, &c., the reducing substance was never found in the urine after a small subcutaneous injection, but was found when a larger injection was given. The salt was found distinctly useful only in acute articular rheumatism and diphtheria.

THE LOAN EXHIBITION AT THE ROYAL ACADEMY.

AT Burlington House there is just now a collection of works by the Old Masters and by the deceased masters of the British school, as well as a collection of drawings by John Flaxman, R.A., a large proportion of which is contributed by University College. Although this is the twelfth year in which the council have applied to the owners of the art treasures of England for the loan of their works, so far from the present exhibition betraying any signs that the sources of supply are being exhausted, one cannot help feeling, on the contrary, that there has never been brought together such a splendid collection as that which the public has now the privilege of examining. The drawings of Flaxman are especially interesting. Some day the English will awake to the knowledge of the extraordinary power of this artist. At the present time he is more valued abroad than at home. Amongst the paintings are works by Raphael, Rembrandt, Teniers, Van Dyck, Velasquez, Paolo Veronese, Wouverman, Paul Potter, Sir Joshua Reynolds, Wilkie, Lawrence, Gainsborough, and numerous others of like renown. The exhibition is especially remarkable for the fine specimens of George Morland, some of whose works, as here exhibited, will surprise those who have been accustomed to associate him almost exclusively with drawings of Hodge, with a pitch-fork at hand, looking over a wooden fence at a huge pig. The pleasure of a visit to this exhibition is not, however, without some alloy; for when the May exhibitions are brought to mind comparisons are suggested which cannot fail to make the thoughtful wonder whether the large prices commanded by the painter of to-day have a really beneficial effect upon the progress of art in this country.

THERAPEUTIC NOTES.

(*Communicated* by DAVID PAGE, M.D., M.R.C.P.)

IN the treatment of Tetanus and Trismus, Spoerer has successfully employed hot-water compresses. He dips a large enough piece of coarse flannel in water of a temperature which can just be borne by the hand (50° to 55° C.), and applies the compress to the occiput and along the spine.

Quebracho has been used by J. R. Berkart as an efficient palliative in the dyspnœa of emphysema, atheroma, and fatty degeneration of the heart. Relief followed within three minutes after the exhibition of a teaspoonful of the fluid extract.

In purulent inflammations of the urinary tract, French has found kava-kava an efficient remedy, and has also used it with success in four cases of cystitis. In urethritis the formula he employed was, sixty grammes of the fluid extract of eucalyptus globulus, twenty grammes of the fluid extract of kava-kava, two grammes of benzoic acid, and twelve grammes of powdered borax; three teaspoonfuls daily. According to the statements of Dupuy, kava-kava is a sialogogue, a bitter; to a slight extent a nervine stimulant, and a blennostatic. In acute urethritis and vaginitis, the resin obtained from kava-kava was likewise proved satisfactory in allaying pain and diminishing secretion.

Kendal.

Correspondence.

"Audi alteram partem."

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—An experience of nearly eight years in private tutorial work, and of four years as medical tutor at the Westminster Hospital, is my justification for adding another to the numerous letters which have appeared in your columns on the subject of Medical Education.

Mr. Bruce Clarke has pointed out a great difficulty in the way of a sound medical education—namely, the imperfect manner in which the preliminary studies of aspirants to the profession has been carried on. An attempt to solve this difficulty has recently been made by the College of Physicians of London. Its scheme encourages students to master botany, materia medica, chemistry, and osteology before entering a hospital; so that those who have passed this examination prior to beginning their hospital career will not only have four clear years in which to study anatomy, physiology, surgery, medicine, midwifery, &c., but they will also have acquired a certain amount of scientific training, and the power of working independently, the want of which is a great drawback to youths entering fresh from school.

Unfortunately the recent examiners at the College of Physicians still keep in the old groove, as in the first paper under the new plan I see that the pharmacopœial process for obtaining morphia is asked. I cordially agree with Mr. Butlin in his suggestion, that the amount of ground to be traversed should be limited. Among the subjects to be excluded should be the preparation of the alkaloids, as I know from experience that this is purely a matter of cram, usually being left to two or three days before the examination. I am glad to see that only a slight acquaintance with botany is required by this scheme.

In conclusion, if I might be allowed to sum up, I would say that the reforms in medical education which seem to me to be the most imperative are, first, an improvement in the preliminary studies—i.e., that students should be compelled to pass in botany, chemistry, and materia medica before entering at a hospital. It would follow as a corollary that attendance at lectures on these subjects would not be required of a student after he had entered, thus affording an increased amount of time for more important work. Second, that Mr. Christopher Heath's suggestion of two years' interval between the passing of the first and second examination at the College of Surgeons should be strictly enforced.

I am, Sir, your obedient servant,
F. DE HAVILLAND HALL,
Assistant Physician to the Westminster Hospital.
e-street, Dec. 23rd, 1880.

To the Editor of THE LANCET.

SIR,—As the question of medical education is exciting much interest, of which the multitude of letters in your columns is evidence, I would venture to offer a few remarks on the subject, as one who has recently passed through the ordeal. You have heard the opinions of the teachers and examiners, the men attached to schools and colleges, that it is better to have a longer hospital course, and that this should be preceded by a good scientific examination. Each of them favours his own subject and wishes more attention was given to it; others, men of good general education, wish to see a preliminary examination in their speciality, more thorough and effective. The general practitioners are all for what they call the *practical* aspect of the question: a man should know how to dress this wound or that sore, and use such or such an instrument, besides having a practical personal acquaintance with pharmacy and dispensing, and as the one source effective in acquiring such working experience and knowledge, they advocate pupilage for the first two years to a general practitioner. There is reason in all these remedies, but the difficulty is to select a workable scheme, which will not be too long or too expensive, and which will yet give us a better educated class of men than the present general practitioners. The following seems to me to contain, at any rate, some of these requisites.

General education to continue to the age of seventeen, when the candidate can present himself for an examination, consisting of two parts, (*a*) general and (*b*) scientific, which may be passed simultaneously or at different times. This would be the preliminary examination, and satisfactory certificates in both parts a necessity for admission to the register before commencing study as medical students. The subjects of general education should be—1. English (much more than is usually demanded). 2. Latin, translations from one or two of the ordinary school authors, and grammar. 3. One modern language at least. 4. Mathematics, arithmetic, algebra, and Euclid. The science should comprise—1. Chemistry. 2. Natural philosophy. 3. Botany. 4. Zoology. Only an elementary knowledge of each would be required, and its range should be distinctly scheduled; but all should be supplemented by *vivâ voce* and practical work when possible. Additional subjects might be permitted or more advanced papers on the above.

After this preliminary examination, which would very much resemble the matriculation and preliminary scientific of London, or previous examination and 1st M.B. of Cambridge, combined and made easy enough to suit the general capacity of those who enter the profession, the student might register and immediately begin to study anatomy and physiology at some medical school. Now, I wish to make a protest against the advice so often given to the young student, "Go into the wards, and see all you can in the out-patients' department," from the first day he enters the hospital. It is undoubtedly the thing he ought *not* to do; let him devote his whole time and energy to his anatomy and physiology for the first year or eighteen months, only going into the out-patient rooms say twice a week for an hour each time, and round the wards for the same limited time on two or three other days. Why the examining bodies require certificates of attendance on courses of lectures I do not see. Why can they not be content to examine a man and by the results refer him back or allow him to proceed in his studies, without wanting evidence of how and when he gained his knowledge? By insisting on these certificates they hamper a student in the whole of his course, confuse him with a multiplicity of subjects, and regulate the time he is to spend over them, so as to make him waste it to the utmost. They should remember they see *only* examining bodies. The General Medical Council should regulate the studies as to amount and order in the examinations.

We have seen that a student of diligence and well-directed study might thus pass his examination in anatomy and physiology in one year, or a year and a half at most. To attain this end the examining bodies must consent to diminish the present time required in the dissecting room by a year. We have now three years, or two and a half, left to devote entirely to the study of medicine, surgery, midwifery, &c., and it is in this way that I would propose to provide some, at any rate, of the extra time for study demanded by Mr. Savory:—The final examination should consist of two parts—(*a*) medicine, including pharmacy and therapeutics, hygiene, medical jurisprudence, and midwifery; and (*b*) surgery, including ophthalmic, aural, and other branches. The subject of pharmacy and therapeutics is usually lectured to students in their first year; but this, I maintain, is decidedly a waste of time: the application of, and examination in, these subjects is at the end of the course, and so ought the teaching to be. The student might be allowed to present himself for the medical and surgical divisions of the examination at the same or at different times.

Now, here is the proper time and place for the apprenticeship of pupilage which general practitioners insist so much on, or for making use of the vast field, at present uncultivated, which our provincial hospitals, unions, and such places present. No one can deny the advantage, or absolute necessity, for one in our profession to have had the semi-responsible charge of patients, such as our hospital house-physicians and surgeons have, if he is to be successful in assuming the entire care of them in private practice. The London University has recognised this fully, and requires all candidates for its degree to produce evidence of having held such a position for six months; and there is no reason why the same wise regulation should not extend to every member of our profession before he receives permission to practise on his own account. The student, after passing his examinations in surgery and medicine, might receive certificates to that effect, and be obliged to then hold an appointment for six months as house-physician or house-surgeon to some public institution, or as qualified assistant to some general practitioner before he is handed his diplomas and allowed to register. The general practitioner should have a large practice, including clubs, unions, or mines, or other appointments affording an extensive field for gaining experience. The student being qualified might justly get his board and lodging, and perhaps some emolument; and while thus gaining valuable and necessary experience, his course of study would be lengthened, to the satisfaction of Mr. Savory, I hope, without any or little additional expense. Whether the provincial hospitals and other institutions would help in such an arrangement, I do not know; but Dr. Strange, in your issue of the 18th December, does not seem to apprehend any difficulty from them. Such a curriculum would, I think, satisfy the several demands of students, teachers, and general practitioners for reform in our present system. It may be much improved by others, but it is the best I have been able to elaborate after much thought; and as a suggestion I offer it to the consideration of the profession now, when the subject of remodelling medical education is so prominently brought forward.

Apologising for the length of this communication,
I am, Sir, yours, &c.,
H. HOWARD MURPHY, M.D. Cantab.
Twickenham, Jan. 1881.

To the Editor of THE LANCET.

SIR,—Having read with great interest your own valuable comments upon this subject, and also the wise and important suggestions of Mr. Savory, Mr. Heath, Dr. Strange, and others, and having had many years' experience amongst students as a collegiate lecturer and private tutor, may I, as the result of all of it, make the single suggestion, that the addition of one single year to the period of study, making five years instead of four years, would remove every difficulty with all the reasonably industrious students, and enable them to comply, moreover, with necessary requirements, and secure the acknowledged benefits suggested by one or other of your correspondents? What are the objects which should and must be obtained? These are in the main three.

1. *More adequate time for the student's work.*—This would be secured, for the extra year would double the period for some of his subjects, and enable him to do his work well, instead of too often most indifferently, for want of time.

2. *A division of subjects and examinations.*—This could be more efficiently secured, both being most desirable, and a first examination in all his scientific subjects should include his anatomical and physiological, at the end of the third year at latest. His two winters' anatomy, without which no student can learn the subject, would also be easily secured. It would also enable him to devote at least two full years afterwards exclusively to hospital work and practical subjects.

3. *Some time spent with a practitioner.*—This object would be most easily secured by residence being made compulsory with a practitioner during his first two years, a practice easily complied with and most beneficial. The only real objection to the seven years of Mr. Savory, I think, is the considerable extra outlay which would be required by the student. Would it not be well to try a less onerous addition to the period, which would, I believe, suffice and act admirably? I have very long felt that all the subjects which it is desirable for a student to study at a college or school should be examined upon; for too often, without this, mere attendance in classes for the purpose of completing schedules only leads to a complete waste of time in a good many cases. The examination might be lighter or more difficult, in accord with the aim of the student, and also in proportion to the direct value of the subject to medicine.

I am, &c.,
WILLIAM HINDS, M.D., &c.

Easy-row, Birmingham, Dec. 19th, 1880.

RETARDED SIGNS IN PNEUMONIA.

To the Editor of THE LANCET.

SIR,—When writing my paper on Retarded Signs in Pneumonia, it was not my wish or intention to lay claim to making any fresh or original observations upon the physical signs of that disease, but simply to call attention to the greater frequency of late discoverable signs. The following paragraphs, which are extracted from my paper, I think, will show this:—"I believe that physical signs, such as dulness on percussion, bronchial breathing, and bronchophony, occur later in the course of the disease than is usually supposed, or perhaps it would be more correct to say, that there is a larger percentage of cases with lately discoverable signs than our reading or teaching has hitherto led us to think." Again, "If this dulness, bronchial breathing, and bronchophony are frequently lately noticed—*for all authors admit these signs are occasionally either overlooked or lately discovered*—then it becomes necessary to diagnose the disease by symptoms instead of by signs."

I have read several articles on pneumonia, and also Dr. Sturges's book upon the clinical history of that disease, and failed to find that prominence given to the above cases which they appear to deserve. The question whether these late signs are really due to the disease having commenced in a central situation in all cases, I think, is doubtful, but as far as my own go, I believe the central origin of the disease fully explains them, for the crisis generally appeared a day or so after the signs were discovered.

In my last case, that of a girl aged seven years, the dulness was detected on the fifth and the crisis followed on the sixth day of the disease.

In the cases mentioned by Dr. Sturges in his letter to you, in which the physical signs commenced about the sixth day, the crisis not occurring for six or seven days later, might not these be the cases which have a constitutional origin, as suggested by Dr. Yeo and Dr. Goodhart during the discussion of the paper?

I am, Sir, yours obediently,
W. JOSEPH TYSON.

Folkestone, Jan. 3rd 1881.

"LISTERIAN" OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—As the discussion at the Medico-Chirurgical Society, last Tuesday, shows pretty strongly that there is a considerable difference of opinion as to the relative merits of antiseptic or non-antiseptic ovariotomy, I may be permitted to record my own most recent experience of the operation. I have had fifty operations during a period of about two and a half years, and in these I do not include other cases of abdominal section, such as simple exploratory incision, removal of myoma, or incomplete cases, nephrotomy for pyosalpinx, &c., of which there were twenty-nine in the same period. I hope in due course to be enabled to publish a complete list of all such from the commencement of my practice.

Of the 50 ovariotomies only 1 patient died. This series includes 34 for ovarian tumour (ovariotomy proper) and 16 for oöphorectomy. The results were 21 successive recoveries; then 1 death; then 28 successive recoveries. The death occurred in the case of removal of a parovarian cyst, forty-four hours after operation; it was very sudden, with symptoms of coma. The cases were taken without selection, and were of the average difficulty and danger. Two of them were, I consider, much above the average in this respect—e.g., the case of J. B——, aged thirty-nine, a large left multilocular cyst, easily removed. Twelve hours afterwards, when I was sent for, I found her in extreme collapse; the abdomen was reopened under spray, and the ligature was found to have slipped, the pedicle was tied again, and quite two pints of clotted and fluid blood were scooped out of the abdomen and pelvis. After a most tedious "toilette du péritoine," the wound was again closed, and the patient did well. In the second case, E. R——, aged thirty-nine, a tedious and difficult operation, I placed a drainage-tube, as the tumour had been so adherent as to require partial enucleation. Six hours after the operation the sister at the hospital telephoned to me that they missed a pair of torsion forceps. On seeing the patient at once, I found her fairly well, though in pain, and I recommended a further search. Next morning, exactly twenty-four hours after the operation, she was in intense pain, anxious, quick pulse, though the temperature was not much raised; but as the forceps could not be found, I concluded they were in the patient's abdomen, and, under the spray, I cut the uppermost stitch, and made from it a fresh opening into the abdomen, above the umbilicus. After a short search I found the forceps, with lymph upon them, lying down against the left side of the spine. I made the fresh opening so as not to interfere with the drainage-tube or to allow its contents to enter the abdomen. The patient made a perfect recovery.

I believe all the operations were performed strictly antiseptically. The spray solution, in most cases, was 1 in 20—occasionally 1 in 30—making the spray itself about 1 in 40, or 1 in 60. The wounds were dressed, in about the first half of the number, with gauze, and since then with the carbolised absorbent cotton-wool introduced by Mr. Gamgee. I have never pretended to conduct the treatment, after operation, strictly antiseptically; for I have looked upon it as of the very first importance to conduct the operation itself with the strictest antiseptic care until the peritoneal wound has closed, which is well known to take place very quickly; and, after that, that the abdominal wound may be treated on ordinary principles as an incised wound, which plan will not influence the result, and is a matter of a very short period, more or less, in the ultimate recovery of the patient. Of course, many of the cases healed without any pus; but I have been convinced that others have not healed quite as quickly as those of Mr. Tait, who has not regarded antiseptic principles as of the same importance as myself. Of this I have never been anxious, so long as I was satisfied that the peritoneal cavity had been exposed to only a carbolised atmosphere; for it is so well known how easily this cavity is shut off when the edges of the wound are brought together, even before the sutures are tied, making it sometimes no easy matter to insert one's finger, as, for instance, to extract the flat sponge.

I have usually ascribed the more tardy healing of the wound, when such did occur, to the action of the dressing, rather than of the spray, as my carbolised wool was made without measuring the acid, and was known to be more strongly impregnated at one time than another.

In none of the cases was there an excessively high temperature, or a frequent pulse observed, which could possibly be considered as due to carbolic poisoning.

In eighteen cases the clamp was used, and in thirty-two the ligature; in one of the latter a drainage-tube was also inserted. In the patient who died the pedicle was tied. One patient was in the fourth month of pregnancy, and was afterwards confined at term of a living daughter.

I am, Sir, yours truly,
Birmingham, Dec. 18th, 1880. THOMAS SAVAGE.

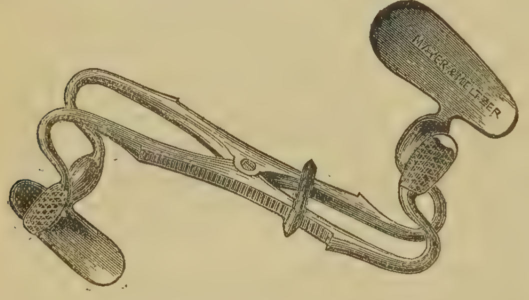
P.S.—Since writing the above, the patient upon whom I last operated died four days ago, so that my statistics should be stated as 2 deaths in 50 operations, and not 1 in 50, as stated above. The death was due to one of those unforeseen and, as far as can be told at present, unpreventable causes—viz., tetanus, which will always be liable to step in and raise the mortality of ovariotomy, apart from the question of antiseptics or non-antiseptics. The patient was perfectly well up to the ninth day; wound healed without pus; sutures removed, and looking forward to leaving the hospital. She first complained of a little "cold" from a window draught, and from that symptoms of tetanus developed, which terminated her life in twenty-four hours. At the post-mortem made by Dr. Saundby there was no appreciable cause for death. The abdomen was quite healthy; a piece of small intestine was adherent to the stump, and there was not a trace of serum or pus to be seen in the pelvis. I am now sorry that I did not wait a little longer before sending the record of my last fifty cases; but I was anxious to make the contribution as soon as possible after the Medico-Chirurgical Society's discussion.

December 27th, 1880.

NEW FORM OF GAG.

To the Editor of THE LANCET.

SIR,—I would venture to recommend a somewhat novel form of gag, which will be found useful in operations for the removal of tonsils, and in some cases of staphyloraphy. The instrument is essentially Mr. Rose's double-ended modification of Mr. Coleman's gag, to which Messrs. Mayer and Meltzer have adapted an ingenious sliding-ring-catch, to keep it open. To this a tongue-plate is now added, so that the gag answers almost all the purposes of the more expensive instrument usually employed in operations on the palate. The accompanying illustration will probably save the necessity of a further description.



I am, Sir, yours obediently,
Stratford-place, Dec. 31st, 1880. THOMAS SMITH.

ON CHIAN TURPENTINE AND PROF. CLAY.

To the Editor of THE LANCET.

SIR,—I deeply regret that the remarks with which I prefaced the report of my cases, and which were intended to convince Prof. Clay of the readiness with which we gave the Chian turpentine a fair trial at the Middlesex Hospital, and the satisfaction with which we should have welcomed any measure of success from it, have failed in their object, and have apparently left room for him to suppose we have "a prejudice against the Chian turpentine treatment not justified by the cases recorded." I would also mention for his information that the resolution of the Medical Committee was passed not owing to the results of my experience alone, but to those of my colleagues as well.

Although Prof. Clay says in his letter of last week, "I have never yet affirmed Chian turpentine to be a positive cure for cancer," I think it very pardonable if he has been misunderstood on this point; for he has made statements which to the ordinary mind distinctly imply the contrary. For instance, in his first communication (THE LANCET, March 27th, 1880) he has written, "Judging by my experience it is no figurative expression to say that it acts as a direct poison upon the growth, probably causing its ultimate death...... In the early stages of cancer it may be affirmed that *an undoubted cure may take place speedily,*......and experience justifies the expectation that under such circumstances a recurrence of the disease will not follow." He has recorded a case (Case 2) in which the os and cervix uteri "were enlarged from carcinoma to the size of a hen's egg. The os was dilated and the cavity of the cervix was filled with epithelial growth which bled freely"; and the result of treatment is described thus: "The case was a most remarkable one. The turpentine acted upon the growth with great vigour, literally melting it away in the brief period of four or five weeks," and it is added, "*She had continued quite well.*" In his second article (THE LANCET, October 2nd, 1880) Professor Clay says, that the cases previously reported by him "are unique of their kind, for, as far as I know, they are the only instances on record of cancer being *cured* solely by the administration of an internal remedy. I feel justified, therefore, in stating that uterine cancer at least may be removed by the use of Chian turpentine." And further on he writes: "It is possible, therefore, to formulate a line of treatment which shall be successful in cancers of the uterus." In short, his writings teem with phrases which imply, when they do not absolutely state, the curative agency of the treatment he advocates.

Nor do his published statements permit him to object, consistently, to my cases on the ground of their severity, and to say, "It was never contemplated by me that the remedy should be used in the treatment of cases verging on death, as five of the uterine cases reported by Mr. Morris evidently were." On referring to Prof. Clay's first case we find him stating, "The patient evidently had *not a long time to live.* The uterus was so extensively destroyed by the cancerous ulceration that its cavity readily admitted three fingers." The case was so desperate that it seemed to Prof. Clay justifiable to try the Chian turpentine "even if the remedy should produce unfavourable symptoms." Yet on the twelfth day, as he informs us, "the os was quite contracted and would now scarcely admit the finger;" in the twelfth week the parts were cicatrising, the patient's health good, and she could walk a mile or two easily. In his second paper Prof. Clay says: "It is advisable not to be too precipitate in rejecting a case of uterine cancer on the ground of its being too far advanced for treatment," and he then goes on to state how that the patient, who is said to have been told at the Middlesex Hospital "that her case was incurable, and that *she had not long to live,*" was so much improved in nine weeks that she was about to return to London, "with every prospect of soon being cured." In the face of these statements, it is perfectly amazing that Prof. Clay should object to any case short of one actually moribund.

But it is a distinct, although I am willing to think an unintentional, misrepresentation of my cases for Professor Clay to say respecting them: "Nor did I ever suggest or imagine that Chian turpentine would build up a new uterus, or repair a cancerous fistula of the intestines, or patch up a great cavity into the bladder, or restore a large recto-vaginal fistula with the fundus of the uterus extensively destroyed. Yet several of the cases described by Mr. Morris were of this character." These were the conditions brought about by the ravages of the disease during the administration of Chian turpentine over periods varying in the several cases from seven weeks to nearly seven months, and found at the post-mortem examinations; *not* the conditions at the time the treatment was commenced. Moreover, some of the patients who have been taking the medicine for months are still going about, although getting gradually worse.

Indeed, no one who will take the trouble to read my cases, as well as Professor Clay's, can arrive at any other conclusion than that even in the worst of my cases the cancer was in a less advanced stage when the turpentine was commenced than in those cases of Professor Clay in which h obtained such brilliant and merciful results.

If, Sir, it were not for the encroachment on your space, I would place brief abstracts of Professor Clay's cases, and a corresponding number of the most severe of my own, side by side, for immediate comparison; and it is with reluctance that I forego doing so.

I will, however, conclude by saying that if the twelve cases which I have published are not thought by the profession (for I fear I cannot hope to satisfy Professor Clay) to be sufficient, or sufficiently conclusive to show the utter uselessness of Chian turpentine in the treatment of cancer, I am prepared with other facts and cases in support of my opinion that "there is not a single symptom over which the drug seems to exercise even frequently, not to say constantly, an influence."

I remain, Sir, your obedient servant,

Mansfield-street, Dec. 13th, 1880. HENRY MORRIS.

SCOTLAND.

(*From our own Correspondents.*)

EDINBURGH.

THE past year has been rendered eventful in the Edinburgh Medical School by the managers of the Royal Infirmary suddenly abolishing the tutorial class of gynæcological instruction attached to the University wards. It is stated that the managers have under consideration the whole subject of tutorial classes, more especially those conducted by gentlemen who are not on the acting staff of the institution. The summary measure already adopted seems unsatisfactory to the mass of the teachers, and is decidedly unpopular with the students, who are well aware of the importance of such practical work, and who highly appreciate the benefits there obtained. In his inaugural address at the beginning of the session the President of the Royal Medical Society drew attention to the value of practical classes and ward work, and pointed out that all would gain by an extension and improvement in the tutorial system. One of the surgeons has been giving ether a trial since the beginning of the session; an inhaler and anhydrous ether are used just as employed by Dr. Thomas Keith.

On New Year's night the usual melancholy results of this "much too festive season" were apparent in the continuous stream of accidents that kept pouring into the hospital waiting-room. Among these were a compound fracture of the patella, a railway smash of the arm, necessitating amputation of the arm at the shoulder-joint, besides many simple fractures and cut heads. Most of this was due, more or less, to drink. A few cases of alcohol poisoning are reported from Glasgow.

At the annual meeting of the Scottish Society for the Prevention of Cruelty to Animals, held on Dec. 28th in Edinburgh, the Secretary stated that the cases reported by the officers of the Society had somewhat increased, the number for the past year being 311. The Chairman, Mr. Josiah Livingston, referring to the practice of vivisection, said they could do nothing to prevent this system of cruelty. Physicians and surgeons were licensed for the purpose of giving demonstrations, and they had no means of bringing those persons under the operation of the law. Another gentleman stated his belief that vivisection was certainly the most horrid species of cruelty to animals that could possibly exist. Councillor Sloan referred to several important discoveries in science and medicine made through the practice of vivisection, and said that the saving of a single man's life was worth more than all the cats and dogs in the town. Several ladies and gentlemen rose to their feet, and denounced Mr. Sloan's sentiments in an excited manner. When quiet had been restored, Mr. Sloan asked what a single human life was in comparison with all the cats and dogs nursed and pampered in the New Town? He was not there as an apologist for vivisection? But were researches in science and medicine to be baulked by mere sentiment? On its being stated that the question of vivisection was not before the meeting, the subject afterwards dropped.

GLASGOW.

THE medical schools of Glasgow were never in a more flourishing condition than at present. The total number of students attending the University this year is 2281, against 2220 last year, an increase of 3 per cent. In Medicine alone 557 students have entered, against 539 last year; so that, judged merely by numbers, the University has maintained and improved its position. The schools at Anderson's College and at the Royal Infirmary appear to share this prosperity. A feeling has lately been growing up, however, that it would be to the interest of both these institutions that their rivalry should cease and that their medical schools should be amalgamated; and the arguments in favour of this view are strong. This proposal has not yet taken any definite shape, and it is questionable if it can be satisfactorily carried out, considering that many of those more immediately interested would be sure to give it their hearty opposition. A fourth medical school has recently been started in Glasgow, in rooms situated at the gate of the University. Its lecturing staff consists of Dr. W. L. Reid, Mr. D. A. Knox, and Mr. D. C. M'Vail, who give instruction in obstetrics, surgery, and medicine respectively. It is still "the day of small things" with this school, but who knows what it may grow to?

Much interest is being shown in Glasgow in the movement for the erection of a hospital on the south side of the river. This scheme was, very properly, first taken up by the Glasgow Southern Medical Society two years ago, and from the amount of support which was at that time promised to it it is tolerably certain that it would long ago have been brought to a successful issue but for the unparalleled depression of trade which existed at that time, and which, perhaps, affected Glasgow more deeply than any other city in the kingdom. A few months ago the Hospital Committee of the above-named Society again began active operations, and as a result of their efforts a large provisional committee of employers of labour and other influential gentlemen has been formed, with the view of carrying on the work. The arguments adduced in the Committee's circular are such as to leave no doubt that the accommodation they ask is most urgently needed. It is scarcely credible that a district teeming with workshops and factories, having a population of over 200,000 people, largely of the working and indigent class, should be without a single hospital bed or a general public dispensary; or that patients coming from the southern suburbs and from the country towns beyond, suffering from severe accident or serious acute disease, should have to be jolted for many miles on the way to hospital, an experience which doubtless frequently makes all the difference between life and death to the sufferer. Large as the existing hospitals on the north side of the river are, they often fail, even in summer, to afford the accommodation required, and in winter their doors are besieged daily by a crowd of applicants, sometimes two hundred in number, waiting their turn for admission. The wealthy men of Glasgow are always ready to give freely for charitable and benevolent objects; they have a reputation to sustain in this matter, and it is indeed seldom that they have such a strong case presented to them. They will belie the estimate formed of them if they do not soon raise the comparatively small sum, £20,000, required to float this scheme.

The Glasgow sewage question is still unsolved. It has engaged the attention of successive town councils for a number of years, but no satisfactory conclusion has yet been come to. Meantime, the state of the river Clyde, the harbour, and the shores of the upper part of the Firth, is becoming daily worse. A short time ago the endemic prevalence of "influenza" (which in many respects resembled typhoid fever) in Helensburgh and the Gareloch district was attributed, and apparently with justice, to the deep deposit of decomposing mud and sewage brought down from Glasgow, and left on the adjacent shores. The latest suggestion as to the disposal of the city sewage comes from Dr. W. Wallace. In a paper read by him before the Philosophical Society of Glasgow he recommends the precipitation process, and considers lime the least precipitating agent obtainable at a reasonable expense. Alumina is better, but is much more costly. About forty tons of lime would be needed daily for the treatment of forty to seventy million tons of liquid sewage, at a cost of rather less than £9000 per annum. The effluent from this precipitating process, though not perfectly clear and pure, would not, under any circumstances, give rise to a nuisance. Dr. Wallace also announced that a new precipitation process, cheaper to work and giving even better results, would soon be made public.

In the recently-issued annual report of the Glasgow Western Infirmary it is announced that during the past year 12,782 out-door and 2052 in-door patients have been treated, an increase of 1861 on the numbers of the previous year. The number of in-door patients waiting for admission *averaged*, throughout the year, 68. The large addition to the infirmary, which is being built and equipped from funds left for this purpose by the late Mr. Freeland of Nice, and which nearly doubles the accommodation of the institution, is now almost ready for occupancy; but, as shown in the report, the managers depend entirely on increased contributions from the public to enable them to maintain any increased number of patients. Each additional bed occupied will cost about £50 per annum.

A public meeting of the inhabitants of Dundee was held on 29th December, for the purpose of devising means for the establishment of a College in that town. Towards this object there has already been received a sum of £150,000, the gift mainly of Miss Baxter, of Ellangowan, and Dr. J. B. Baxter. The proposed College is for the promotion of the higher branches of education in arts and science: Classical literature, Latin and Greek, pure mathematics, natural philosophy, mental philosophy, and natural science, including chemistry, physiology, natural history, geology, and botany. It has been suggested that medicine also should be taught at the College, and that the large and admirably-conducted Infirmary of Dundee would be of great use in connexion with a medical school. It is anticipated that in time Dundee College will come to be affiliated with one or other of the Universities, and that its classes will qualify for graduation. This rather complicates matters for Scotland's oldest University, St. Andrews, which has already difficulties enough to contend with. Indeed, it has been proposed, and we believe the scheme is at present under consideration, that the Arts and Science Faculties of St. Andrews should be at once transferred to Dundee, a change which could scarcely fail to be of benefit to all concerned.

The new building in which the work of the Glasgow Maternity or Lying-in Hospital will in future be carried on has now been completed, and appears to embody all the latest improvements in hospital construction. It consists of three storeys and attics. Two whole flats are devoted to the wards and head-nurse's rooms, each flat containing eighteen beds, and giving an average of 1460 cubic feet to each patient. In the upper flat an isolation ward is provided, to be used in the event of the breaking out of any epidemic disease. The remainder of the space is taken up by the lecture-room, lecturer's retiring-room, board-room matron's, house-surgeon's, and nurses' accommodation, &c. The sanitary arrangements are as nearly as possible perfect. The lavatories, which contain baths, W.C., washhand basins, slop-sink and general sink, are fitted up with the best and most approved appliances, and are entirely disconnected from the main building, being approached through a lobby with doors at each end. The soil-pipes, traps &c., are thoroughly ventilated. The heating is by open fireplaces and low-pressure hot-water pipes carried through all the wards, lecture-room, staircase, &c. Fresh air, warmed by passing over hot-water pipes, is admitted at the level of the floor, under the windows. The vitiated air is carried off by openings in the wall close to the roof, these being connected by separate flues with a hot-air extracting chamber. The public of Glasgow have subscribed liberally towards the hospital; but we understand that the sum of £1100 is still needed to open the building on a satisfactory footing. This sum will doubtless soon be obtained for such a deserving object.

A vigorous letter from Mr. Thomas Keith appeared in the *Scotsman* of January 3rd. It should be carefully pondered by every sympathiser with anti-vivisection movements, if, indeed, such persons could be induced to give calm and dispassionate consideration to such a subject. It furnishes, also, a fresh instance of the objectionable means to which unreasoning enthusiasts often resort in endeavouring to propagate their beliefs.

THE committee appointed by the Epsom Board of Guardians, to consider the question of the salaries of the medical officers of the union, have recommended an increase in the remuneration for the work done in several of the districts, and that a fixed sum be paid annually to the medical officers for expensive medicines instead of these being charged for quarterly.

IRELAND.

(*From our own Correspondent.*)

DR. CHRISTOPHER FLEMING, an Ex-President of the Royal College of Surgeons in Ireland, and formerly a member of the Surgical Court of Examiners, and surgeon to the Richmond Hospital, died last week in his 81st year.

The Lord Mayor of Dublin, who was installed on the 1st inst., referred to the large expenditure (£22,000) during the past year upon the city sewers, and when the works now in progress (estimated to cost £8000) are finished, he believed the sewerage of Dublin would be in a very perfect condition, at least as perfect as it could be said to be until the larger scheme of main drainage has been carried out. Another satisfactory work had been performed in the purchase of the Coombe area. The district referred to had been a nest of tumbledown, ruined, and filthy tenements, the focus and seat of disease and dirt. It has now been cleared and handed over to the Artisans' Dwellings Company, who have commenced the erection upon it of a large number of suitable and commodious dwellings for artisans and labourers, who will thus be provided with wholesome, convenient, and economical residences supplied with all proper sanitary accommodation. The Plunket-street area is also to be cleared, and although the expense is great, such an immense improvement from a sanitary, social, and moral point of view, is most desirable.

In consequence of a promise by the Chief Secretary for Ireland that certain charges made against the management of the Belfast Workhouse by Mr. Moore, M.P., for Clonmel, should be thoroughly sifted, the Local Government Board for Ireland recently instituted an inquiry into the condition of that institution in reference to the discipline and classification of its inmates, the rate of infant mortality, and the accommodation for the destitute poor. The inquiry was conducted by Mr. Bourke and Dr. Brodie; and last week their report was furnished to the Belfast guardians. They state as the result of their investigation that they found the workhouse very well managed as a rule, the hospital for infectious diseases and the schools being specially worthy of praise for their admirable and efficient condition. The classification of the inmates, as regards the separation of the sexes, was found to be sufficiently perfect and complete; and the rate of infant mortality was equal to 27·9 per cent., which was not unusually high, when the habit prevalent among mothers of taking their infants out of the house as soon as they (i.e., the mothers) are able to move, and then returning, is considered. The charges put forward by a magistrate, and referred to in Parliament, that the workhouse was "a nest of drunkenness, immorality, and crime," have been proved to be without foundation.

Typhus fever is rather prevalent at present in Dublin, and for this additional reason it is absolutely necessary that cases of the disease occurring in tenemental dwellings, where accommodation is not sufficient, and the chance of infecting others is greatly increased, should be promptly removed to hospital. Recently a case of inattention on the part of a dispensary medical officer in Dublin to this wise procedure came under the observation of the Public Health Committee of the Corporation; where in one tenement house several cases of typhus fever had taken place, and the medical attendant had not enforced their removal to hospital. His explanation was not deemed sufficient by the Committee, who considered that it was his imperative duty to report the cases to them; and this view of the matter was acquiesced in by the Local Government Board, who, in a recent correspondence with the gentleman in question, stated that the Committee should have been informed of the fact of such an outbreak of a dangerous infective disease.

By the 20th section of the 43rd and 44th Vic., cap. 13, of the Births and Deaths Registration Act (Ireland), 1880, which came into operation on the first day of the present year, every registered medical practitioner who has been in attendance during the last illness of a deceased person is required to give a certificate stating, to the best of his belief, the cause of death. Refusal to give such certificate entails a penalty not exceeding forty shillings.

The Bangor Town Commissioners have applied for a loan of £14,000, to enable them to carry out a water and sewerage scheme, &c., and the 25th instant has been arranged for the holding of local inquiry into the matter.

Mrs. Sarah Green died on Christmas Eve, at Tullabeg, Coalisland, at the alleged age of 101 years.

Deputy Surgeon-General J. L. Jameson has been appointed principal medical officer at Cork, in succession to Surgeon-General Thompson, now principal medical officer in Ireland.

THE GARRISON HOSPITAL OF HAMBURGH-ALTONA.

(*From a Correspondent.*)

IT is a much-disputed question in Germany whether the "corridor," the "pavilion," or the "barrack" system for hospitals is the best. Having been most kindly shown over one of the best and newest "corridor" hospitals in the empire, a short sketch of it may not be uninteresting.

The Garrison Hospital of Hamburgh-Altona is of red brick, three-storeyed, and contains 212 beds; central entrance, staircases stone. It stands in a garden and is surrounded by fields and open country, facing south. The two upper floors contain the wards, the lower offices, pharmacy, medicine, and surgical appliance; depôt for the whole corps, the ninth; two wards for sick officers, with servants' rooms attached; rooms for the hospital attendants, a small operating room, &c. The hospital orderlies, men detached from their regiments, and having subsequently undergone one year's training, sleep on barrack beds, iron bedsteads with planks, straw mattresses, &c., six in each room; each man has the usual barrack lock-up cupboard. The two upper floors are divided into three "stations"—surgical, medical, or "external" and "internal," and the third for venereal, eye, and skin diseases. Of venereal patients the division contained but few, the supervision of the police under the Contagious Diseases Act having lately become much stricter, the number of venereal cases has decreased in consequence. With one exception, the wards contain only six beds, with an allowance of 1200 cubic feet of air for each patient. The doors opening on to the corridor are numbered, and marked with the cubic contents of the room. Numerous and large are the windows of the corridor, as also those of the wards. These latter are provided with curtains. The whole building is supplied with gas and hot and cold water, the latter being laid on to different parts in the corridor for the patients' use. Floors polished wood. Bedsteads iron, with wire-wove mattress, with head-piece, on which lies another of horsehair. These are most comfortable beds. As also at Metz, the venereal patients here have to be satisfied with a less agreeable arrangement, lying as they do on seaweed mattresses placed on boards. One double bedside table with folding doors stands between every two beds. Two wooden washhandstands with metal basins for each ward. Black bed-head board and clothing the same as at Metz. Latrines—waterclosets, the opening of the door admitting water; urinals with constant supply of water. On each floor is a room specially set apart for smoking (nowhere else is it permitted); also a bath-room with full-length baths; a vapour-bath with cooling chamber, bed, and stove for warming linen; a small kitchen for making poultices, drinks, &c., the heating being done by steam. The upper floor contains quarters for the resident assistant-surgeon—one month on duty; the second a large operating room, a chapel, and a dark room for ophthalmoscopic examinations. The whole building is warmed, both with hot water and warm air, by means of a boiler and steam-engine in the basement. The water, contained in a series of coiled metal pipes lying in a very large brick oven, is heated to about 200°; it then rises to reservoirs in the ceiling of the upper floor, whence it is distributed by numerous small pipes into the warming apparatus proper of the wards and corridors. This consists of six or eight metal pipes, each of about four inches diameter, arranged perpendicularly in a circle, though not actually in contact, and communicating only at the top and bottom. These hot-water "stoves" stand one in each ward, and several in the corridors, reaching almost from the floor to the ceiling. The water, after passing through these, runs out again through a small pipe at the bottom into reservoirs under the floor, whence once more it finds its way in the same manner through the wards and corridors below, and so on again back into the boiler, after warming the first floor, to commence its rounds once more. It is of course evident that the temperature of the upper floor must be higher than that of the second, and this higher than that of the first; and it is found that the water, when it returns to the basement from its transit through the building, has lost about fifty degrees of heat. The wards are further warmed, as also ventilated, by means of a large wheel, shaped like a ship's screw, worked by a steam-engine. It rotates below the basement floor, draws in the external air through a high chimney built at some distance from the building, and communicating with it by means of a subterranean passage. In winter the air is passed over a series of pipes heated by steam, and then forced into the different wards through shafts contained in the walls dividing the rooms from corridor, communicating with the wards by valved openings near the floor, and others near the ceiling opposite the windows. In summer the air is not previously warmed. Near the windows are louvred openings communicating with the outside through ventilating shafts. The amount of air admitted can be regulated by a contrivance from the corridor; cold air can be supplied through one, and hot air through the other, opening into the ward at the same time. The cooking is by steam, in metal boilers cased with wood. These are the chief points of interest in this "model" hospital.

I add the following extract from the last *Décret*, June 15th, 1880, relating to appointments in the Medical Department of the French Army.

In every September an examination will be held for candidates for the Medical Department of the army, the primary conditions being the following:—All candidates must be born or naturalised French subjects. Those already doctors of medicine not to be more than twenty-six years of age; students of medicine not to be more than twenty-five years of age, but not less than twenty-two. An engagement to serve in the department for at least ten years from the date of being appointed assistant-surgeon of the second class. It is ordered that, in future, appointments be open to doctors and students of medicine of sixteen, twelve, and eight "inscriptions" (courses of lectures attended), who shall have passed the corresponding examinations. Those considered qualified and commissioned as candidates for the department—in numbers as required—are divided into two classes, the first composed of students merely, the second of those who have already taken the degree of doctor. Candidates of the first category will have to undergo the same education and the same examinations as civilians for the title of doctor of medicine—three years. They may choose their place of residence and study from among eleven cities in France, Paris included, named in the *Décret*. Attached to a military hospital, or to the military division of a civil hospital, under the orders and surveillance of the surgeon-in-chief, they will assist in the hospital work, and at the same time follow the complete course of lectures and general study, &c., of the school in which they are inscribed. The candidates do not wear uniform, but are under a certain discipline, and receive a fixed yearly sum of 1200 francs for their general expenses and the purchase of the necessary books and instruments. Should the student fail in his examination twice, he will be dismissed, and repay all moneys advanced by the State. Candidates of the second class, doctors of medicine, enter the School of Military Medicine, Val-de-Grâce, with the title of "stagiaires," at once, on the condition of their being passed bodily fit for the service. They draw 2000 francs per annum, wear uniform, obtaining a grant for their first outfit. While at the school they are made familiar with medicine and surgery as applied to the army, theoretically and practically, also with official work and routine. The course to last at least eight months. After a successful examination, these "stagiaires" become "aides-major," or assistant-surgeons of the second class.

THE Municipal Council of Paris has, it is reported, voted a sum of £400 for the establishment of a School of Chemistry, which will be free to the pupils of the municipal schools who are desirous of practice in chemical industries. The smallness of the sum is noteworthy.

Obituary.

CHRISTOPHER FLEMING, M.D., F.R.C.S.I.

THIS gentleman died on the 30th ult. at Donnybrook, County Dublin, aged eighty years. Dr. Fleming had for some years retired from practice, but formerly held the appointment of visiting surgeon to the Richmond Hospital, and was a member of the Surgical Court of Examiners in the Royal College of Surgeons in Ireland, of which institution he was president in 1859–60. Deceased was a graduate in Arts and Medicine of the University of Dublin, consulting-surgeon to Steevens's Hospital, a member of the Royal Irish Academy, and formerly corresponding member to the Surgical Society, Paris. He was the author of some medical papers, including one on the subject of chloroform in surgery, and published in 1877 a work entitled "Clinical Records of Injuries and Diseases of the Genito-urinary Organs."

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Licentiates of the College on Dec. 30th :—

Allen, Thomas William James, University Hospital.
Bathe, Anthony John, Whittington Villas.
Bull, Geo. Coulson Robins, London-street, Paddington.
Carpenter, Arthur Bristowe, Duppas House, Croydon.
Grayling, Arthur, Forest Hill.
Harvey, Sidney Frederic, Catherina-terrace, Lansdowne-road.
Macdowall, Cameron Joseph Francis Stuart, Osnaburgh-street.
Maynard, Foster Fowler Martin, St. Andrew's Park, Hastings.
Mills, Thomas Wesley, M.D. McGill, Murray-street.
Patten, Charles Arthur, Marpool House, Ealing.
Pearce, Walter, Oxford-terrace, Edgware-road.
Phillipps, William Alfred, Longton-grove.
Renshaw, Israel James Edward, Sale, Manchester.
Wilkinson, Frank Tichborne, Dean-street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 5th inst. :—

Charles Slater, Thomas Rushbrooke, and Harry Groom, Cambridge; Edward Paxton and Joseph Whittaker, Owens College, Manchester; John F. G. Dill, Cambridge and Guy's Hospital; Charles W. Thompson, Leeds; Frank Pearse, Guy's Hospital; Albert G. Cunningham, Bristol; William H. Burke, Dublin; Henry S. Wood, Melbourne; Thomas Kelly, McGill College, Montreal; Joseph H. Powell, Bristol.

The Library of the College will be closed on Friday, the 14th, and Saturday, the 15th inst., in consequence of the examination for the Membership.

UNIVERSITY OF DURHAM. — The following name should have appeared in the list published in our issue of Dec. 18th of gentlemen who had conferred on them the M.D. degree :—

Bedford Fenwick, M.B., M.R.C.S.

LONGEVITY OF MEDICAL MEN.—The calendars of the Royal Colleges of Physicians and Surgeons, London, give some rare examples of longevity amongst their fellows and members—viz.: Archibald Billing, F.R.C.P., of Park-lane, completes his ninetieth year on the 10th inst.; Joseph Hurlock, F.R.C.P., of Brighton, is eighty-eight; Sir Thomas Watson, Bart., F.R.S., D.C.L., eighty-eight; Alexander Tweedie, F.R.S., F.R.C.P., eighty-six; James Arthur Wilson, F.R.C.P., of Holmwood, near Dorking, eighty-five; Bisset Hawkins, F.R.S , F.R.C.P., eighty-four; Sir James Alderson, F.R.S., late President of the Royal College of Physicians, eighty; Christopher J. R. Allatt, F.R.C.P., of Dover, eighty; Sir George Burrows, Bart., F.R.S., D.C.L., late President of the Royal College of Physicians, seventy-nine; James Muscroft, F.R.C.S., of Pontefract, ninety-five; T. M. Greenhow, F.R.C.S., of Leeds, ninety; Robert Tayler, F.R.C.S., of Brighton, ninety-one; James Moncrieff Arnott, F.R.S., late President of the Royal College of Surgeons of England, eighty-seven; John Flint South, F.R.C.S., of Blackheath, eighty-four; Cæsar Henry Hawkins, F.R.S., F.R.C.S., Serjeant Surgeon to the Queen, of Grosvenor-street, eighty-three; James Luke, F.R.S., F.R.C.S., Consulting Surgeon to the London Hospital, eighty-three; Robert M'Cormick, R.N., F.R.C.S., Deputy Inspector of Hospitals and Fleets, eighty-three; this gentleman accompanied Sir Edward Parry as Assistant Surgeon in Her Majesty's ship *Hecla* in the attempt to reach the North Pole in 1827.—*The Daily Telegraph.*

MR. JOHN DUNCAN, a weaver, has presented to the University of Aberdeen a collection of botanical specimens, which he had accumulated with his own hands, and which is stated to be unique in respect of its value and completeness.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. The late Sir Thomas Hare, Bart., of Stow Hall, Norfolk, bequeathed a legacy of £100 to the West Norfolk and Lynn Hospital.

PRESENTATION. — Dr. John Finigan, of Addison Lodge, Glasnevin, county Dublin, has been presented with an address and a valuable service of solid silver plate.

THE Fishmongers' Company have made a grant of 100 guineas towards the cost of the new buildings at St. Bartholomew's Hospital.

THE salaries of Dr. Brett, medical officer to the Union house and district of Watford, have been increased from £55 and £70 to £70 and £100 per annum respectively.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BENTHALL, W., M.R.C.S.E., has been appointed House-Surgeon to the Derbyshire General Infirmary, vice Hough, resigned.

DOBSON, A., L.R.C.S,., L.R.C.P., has been reappointed Medical Officer for the West District of the Holbeck Union.

DONKIN, W. F., M.A., has been appointed Public Analyst for the County of Wilts.

EVERARD, H. N., M.B., has been appointed House-Surgeon and Apothecary to the Leicester Infirmary and Fever Hospital, vice Moore, resigned.

HOOPER, C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health to the Aylesbury Rural Sanitary Authority.

HUMBLE, G. A., M.D., M.R.C.P.L., has been appointed (*pro tem.*) Physician to his Excellency the Governor of Patagonia (South America) and Staff, vice Dr. Baraja, deceased.

HYSLOP, J., M.B., C.M., has been appointed Assistant-Physician to the Royal Edinburgh Asylum, Morningside.

LEITCH, J., M.B., C.M., has been reappointed Medical Officer of Health for the Holme-Cultram Urban Sanitary District, Cumberland.

LONGFORD, H., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Thirsk District and the Workhouse of the Thirsk Union, vice Ryott, deceased.

MALLINS, H., M.B., C.M., has been appointed Medical Officer to the Walton District of the Wayland Union.

MANBY, A. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Reedham District of the Docking Union.

MOORE, Mr. E. H., has been reappointed Public Analyst for the Eastern Division of the County of Sussex.

PADDISON, E. H., M.B., has been appointed a Junior Assistant Medical Officer to the Surrey County Lunatic Asylum, vice Hosking, resigned.

PATTINSON, J., F.C.S., has been appointed Public Analyst for the Borough of Gateshead.

PAYNE, C. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of the Workhouse, Shoreditch Union, vice Hargreaves, resigned.

POTTER, H. P., F.R.C.S., M.R.C.S.E., L.S.A.L., &c., Medical Registrar of St. Thomas's Hospital, has been appointed Resident Medical Superintendent to St. Mary Abbott's, Kensington, at a salary of £300 per annum, rising to £350 after the first year, with house &c., vice W. B. Whitmore, M.B., resigned.

REDWOOD, T., Ph.D., has been reappointed Public Analyst for the Parish of St. James and St. John, Clerkenwell.

STODDART, Mr. F. W., has been appointed Public Analyst for the City of Bristol, vice W. W. Stoddart, deceased.

TOWLSON, H. J., M.R.C.S.E., has been appointed Medical Officer to the Barrowden District of the Uppingham Union.

VACHER, F., F.R.C.S., has been reappointed Public Analyst for the Borough of Birkenhead.

WALTER, W., M.D., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Honorary Surgeon to St. Mary's Hospital, Manchester, vice Heslop, resigned.

WELLS, A. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Third District of the Fulham Union.

Births, Marriages, and Deaths.

BIRTHS.

Buck.—On the 2nd inst., at Ryde, the wife of Thomas Alpheus Buck, M.B. Lond., of a son, stillborn.

Colenso.—On the 28th November, at Durban, Natal, the wife of Robt. J. Colenso, M.B., M.R.C.S.E., of a son.

Constable.—On the 2nd inst., at Kennington-park-road, the wife of Joseph J. Caffry Constable, M.D., of a son.

Holland.—On the 27th ult., at Maida-vale, W., the wife of J. Holland, M.D., of a daughter.

Kisch.—On the 31st ult., at Sutherland-gardens, Maida-vale, the wife of Albert Kisch, M.R.C.S.E., of twin sons.

Randell.—On the 2nd inst., at Vanbrugh-park, Blackheath, the wife of E. B. Randell, M.R.C.S.E., L.D.S., of a daughter.

Tredinnick.—On Christmas Eve, the wife of Ernest Tredinnick, of Strefford, Craven Arms, of a daughter.

MARRIAGES.

Barlow—Dalmahoy.—On the 30th ult., at 69, Queen-street, Edinburgh, by the Rev. A. Whyte, M.A., Thomas Barlow, M.D., F.R.C.P., to Ada Helen, daughter of the late Patrick Dalmahoy, Esq., Writer to the Signet.

Gamlbe—Shipley.—On the 28th ult., at St. Peter's, Eastgate, Lincoln, Ernest G. Langwith Gamble, L.R.C.P.L., to Emmeline, youngest daughter of G. H. Shipley, of Lindum House, Lincoln.

Hayward—Mackenzie.—On the 30th ult., at Union Chapel, Oxford-street, Manchester, by the Rev. Alexr. McLaren, D.D., Thos. Ernest Hayward, M.B. Lond., F.R.C.S.E., of Haydock, Lancashire, to Catharine, only daughter of Melville Mackenzie, of Edinburgh.

Jones—Reeder.—On the 30th ult., at Wath-upon-Dearn, by the Rev. John Jones, Vicar of Blaenavon (father of the bridegroom), assisted by the Rev. H. Partington, Vicar, William Makeig Jones, of Wath, to Annie Tofield, only daughter of Thomas Reeder, of Wath.

DEATHS.

Buck.—On the 29th ult., at the County Lunatic Asylum, Leicester, John Buck, M.R.C.S., for twenty-eight years Medical Superintendent of that Asylum, aged 64.

Evans.—On the 31st ult., at Rome, of typhoid fever, George Harrison Evans, M.B., F.R.C.S., of Chad-road, Edgbaston, elder son of the late G. F. Evans, M.D., F.R.C.P., Birmingham, in his 36th year.

Neylan.—On the 10th November, at Bowral, Sydney, New South Wales, John Desmond Neylan, M.R.C.S.E., L.S.A.L., Order of Medigié (Fourth Class), of County Clare, Ireland, in his 30th year. R.I.P.

Prentice.—On the 29th ult., at his son's residence, Campbell-road, Bow, Alfred Prentice, M.D., in his 76th year.

White.—On the 29th ult., at Duncan-terrace, Newington, Edinburgh, William Alexander White, M.D., F.R.C.S.E., Deputy Surgeon-General (Retired), Army Medical Department.

Whyte.—On the 2nd inst., at Clifton, Bristol, Charles Whyte, Inspector-General of Army Hospitals, aged 85.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

INTERNATIONAL MEDICAL CONGRESS.

London, August 2nd to 9th, 1881.

SECTION XIV.—MILITARY SURGERY AND MEDICINE.

Surgeon-General Prof. Longmore, C.B., President.

Sir William Muir, M.D., K.C.B., Director-General, Army Med. Dep.
Surgeon-General Sir Joseph Fayrer, K.C.S.I., M.D., LL.D., F.R.S., India Office,
Dr. J. W. Reid, Director-General, Med. Dep. of Navy,
Vice-Presidents.

Dr. W. H. Lloyd, Fleet Surgeon, R.N.,
Surgeon-Major Sandford Moore, Aldershot,
Surgeon A. B. R. Myers, Coldstream Guards,
Secretaries.

Proposed List of Subjects for Discussion, subject to revision before 31st December, 1880.

1. By what arrangements can the practical difficulties in the way of employing antiseptic surgery (Listerism) in the treatment of wounds inflicted in the field in time of war be most readily overcome? [The discussion to include (*a*) the system on which the treatment can be most efficiently carried out; and (*b*) the fittest material means to be employed in it, under the circumstances in which armies are placed while on active service.]

2. To what extent, and in what special directions, has conservative surgery advanced in field practice, as shown by statistical results of the treatment adopted for gunshot wounds during the wars of the last ten years? and what indications have been afforded, if any, by the experience gained during this period for making further advances in the conservative treatment of such injuries?

3. What are the most reliable, and at the same time practicable, means of immobilising the parts involved in gunshot fractures of the Spine, Pelvis, and Femur in field practice?

4. On improvements in field hospital and transport equipment, for use with armies moving in uncivilised or partially civilised countries, suggested by the experience gained during the recent military operations by British troops in South Africa.

5. On the prevalence and prevention of Typhoid Fever among young soldiers in India.

Medical Diary for the ensuing Week.

Monday, Jan. 10.

Royal London Ophthalmic Hospital, Moorfields.—Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Medical Society of London.—8½ P.M. First Lettsomian Lecture: Sir Joseph Fayrer "On Tropical Dysentery and Diarrhœa."

Tuesday, Jan. 11.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Anthropological Institute of Great Britain and Ireland.—8 P.M. Ordinary Meeting.

Royal Medical and Chirurgical Society.—8.30 P.M. Mr. Knowsley Thornton, "On one hundred and seventy-two Antiseptic Abdominal Sections, with remarks on the causes of death in the fatal cases"; Mr. Frederick Treves, "On a case illustrating the condition of Large Arteries after Ligature under Antiseptic and Non-antiseptic Measures"; Mr. Henry Lee, "On Radical Cure of Varicocele"; Mr. Jer. M'Carthy, "On Aneurism of the Axillary Artery treated by Antiseptic Ligature of third part of Subclavian Artery."

Wednesday, Jan. 12.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital.—Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital.—Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital.—Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children.—Operations, 2½ P.M.

Hunterian Society.—7½ P.M. Council Meeting.—8 P.M. Mr. Jonathan Hutchinson "On the Clinical Importance of Recognising the Precancerous Stage of Cancer."

Society for the Encouragement of Arts, Manufactures, and Commerce.—8 P.M. W. Fleeming Jenkin, F.R.S., "On a Sanitary Protection Association for London."

Royal Microscopical Society.—8 P.M. Prof. P. Martin Duncan, "On three Microspongiadæ belonging to the Hexactinellids from the deep sea"; Mr. G. Shadbolt, "On the Aperture Question"; Prof. E. Abbe, "On the True Conditions of Stereoscopic and Pseudoscopic Effect in Microscopical Vision"; Mr. A. D. Michael, "On a Species of Acarus believed to be unrecorded."

Obstetrical Society of London.—8 P.M. Specimens will be shown by Dr. Chambers, Mr. Doran, Dr. Hoggan, and others. Papers: Dr. Thomas Chambers, "On Complete Extirpation of the Uterus with both Ovaries (recovery)"; Dr. W. R. Rogers, "On a Case of Chronic Complete Inversion of the Uterus successfully treated by Sustained Elastic Pressure"; Dr. Matthews Duncan, "On Delivery in a case of Double Uterus"; and other communications.

Thursday, Jan. 13.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital.—Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Ophthalmological Society of the United Kingdom.—8.30 P.M. Mr. Higgens, "On Hyposcleral Cyclotomy"; Dr. W. A. Brailey, "On a rare form of Muscular Asthenopia"; Mr. Hulke, "On Ophthalmoplegia Interna"; Dr. A. D. Davidson and Mr. Fitzgerald (Dublin), "On Cases of Detachment of the Retina in Albuminuric Retinitis." Living specimens must attend at 8 o'clock.

Friday, Jan. 14.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Quekett Microscopical Club.—7 P.M. Conversation and Exhibition of Objects.

Clinical Society of London.—8½ P.M. Annual Meeting.—Election of Officers.—Report on the Treatment of Hip Disease, with especial reference to the Operation of Excision.—Mr. Croft, "On a case of Traumatic Hydronephrosis"; Dr. R. H. Lloyd, "On two cases of Myxœdema"; Dr. Sutherland, "On a case of Chronic Vomiting, in which no food except Koumiss was taken for sixteen months."

Saturday, Jan. 15.

Royal Free Hospital.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, January 6th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 31	30·03	N.	36	34	..	38	32	·06	Overcast
Jan. 1	30·35	N.	35	33	..	45	31	..	Bright
" 2	30·50	S.E.	44	43	..	46	33	..	Foggy
" 3	30·36	S.E.	44	42	..	46	41	..	Overcast
" 4	30·32	E.	42	39	..	44	38	..	Overcast
" 5	30·26	N.E.	43	40	..	45	37	..	Cloudy
" 6	30·44	E.	38	35	..	43	35	..	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Beards and Moustachios.

Enquirer.—It would seem to be dawning on the consciousness of the male population that, after all, beards do not make as effective throat protectors as may be purchased for a shilling, or moustachios the best and most convenient of respirators; while in respect to both these apparatus the natural have to be endured constantly, whereas the artificial need only be employed in times of need or at pleasure. We fear the laborious argument that it was healthful to man to spare himself the trouble of shaving was somewhat strained, and that the wish for a fashionably formidable appearance was father to the thought of healthfulness as regards the wearing of beards and moustachios. The number of persons returning to the old English practice of shaving both the chin and the upper lip is noticeably increasing, and there is certainly much to be said for the clean and orderly character of the result. It is, at least, a remarkable circumstance that throat affections have not died out, or, we believe, sensibly diminished, since the custom of growing the beard became general. It must in the long run be a matter of personal predilection whether a man shaves or leaves his face embellishment to nature. It is practically in this case, as in most others, idle to seek an argument in favour of the vagaries of fashion in the code of health laws.

ESCAPE OF WORMS BY THE EXTERNAL MEATUS.

To the Editor of The Lancet.

Sir,—A few weeks ago I saw a case reported in your journal of rupture of both tympanic membranes by the common round worm, the worms making their escape, one by the right, the other by the left external ear. I have had lately a somewhat similar case under my care, in which the right tympanum was ruptured, giving rise to a good deal of hæmorrhage and slight deafness, the worms, three in number, escaping by the external meatus.

Yours truly,
Beeford, Hull, Dec. 14th, 1880. Jno. Dickson, M.B.

Mr. James Robertson.—We are unable to answer the question.

OPIUM CRAVING.

To the Editor of The Lancet.

Sir,—Would any of your readers who have had experience in the treatment of opium-eaters be so good as to give me the most suitable remedy or remedies for the relief of the craving in a patient of mine who has been in the habit of taking the drug for twenty-eight years, at times as much as one and a half drachms per diem? and oblige, yours truly,

C. Clark Burman, L.R.C.P. & S., &c.
Belford, Northumberland.

Insanity in America.

At a recent meeting of the Council of the National Association for the Protection of the Insane and the Prevention of Insanity, held at New York, the President, Dr. H. B. Wilbur, stated there were at least 50,000 insane persons in the United States, and that of these one-half were in State asylums or hospitals, about 2000 in incorporated or private institutions, about 7000 in city or county asylums, and some 16,000 in county poor-houses or in the custody of friends. The object of the above Association is to bring about an improved method of treatment of the mentally unsound, by directing attention more to the cure of the malady than to the restraint of its victims.

TONGA.

To the Editor of The Lancet.

Sir,—I have a letter before me dated Fiji, September 7th, 1880, written by a gentleman long a resident in the country to his father in England. As this gentleman seems to know a great deal about the discovery of tonga, I shall, with your permission, give an extract or two from his letter. The history of the discovery of tonga which he gives differs somewhat from that mentioned by Dr. Bancroft, as stated in Mr. Christy's letter in your impression of December 4th.

The letter says, "At Lau, in Lomaloma, the windward portion of this group, has resided for many years a Mr. Veccey, a Hungarian gentleman, married to a half-caste Tongan wife. For above two years he suffered so much from neuralgic pains in the head that he went almost mad at times. His wife persistently stated that the Fijians could cure him, but some latent fear of poison for a long while operated to prevent his trying any native medicine. Finally he acceded to his wife's entreaties, and consented to try the natives' remedies, but conditionally that the medicine should be shown to him before he took it. During two years Mr. Veccey took and tried no less than fifty-five different medicines—the juices of leaves, barks, and roots—all of which he would only take after seeing the plant or tree from which they were taken, and he obtained on each occasion the native name and took a written note of it.

"From the bulk of these remedies he received no visible relief, nor could he perceive any effect; but from four of them he derived some temporary alleviation from his long-sustained agony. Finally, a medicine was brought to him which in four doses effected a complete and permanent cure.

"One of the Messrs. Ryder of Mango going home, Mr. Veccey entrusted to him a few packages of medicine consisting of the four barks which had alleviated his sufferings and the one that had cured him, so cut up and mixed as to defy discovery, nor did he entrust the secret to Mr. Ryder. He simply requested Mr. Ryder to endeavour to ascertain if the medicines contained any new and unknown valuable properties, and, if so, if he could make a commercial speculation of them.

"I may add that the barks are cut to shreds and mixed to prevent discovery, and every effort here is used to keep them a secret."

The name "tonga" was given to the combination of barks in obedience to the wishes of Mr. Veccey's wife.

I am, Sir, yours truly,
Lincoln, Dec. 10th, 1880. W. O'Neill, M.D., M.R.C.P. Lond.

To the Editor of The Lancet.

Sir,—I sent you a few days since a letter upon tonga, and some remarks made by Dr. Bancroft upon Alstonia constricta, stating that he used it in Australia for fevers, &c., and found it as efficient as quinine.

I have just received from Dr. O. Hesse of Feuerbach (to whom I sent a supply of Alstonia constricta some time since for the purpose of investigation) a valuable paper of his in Liebig's "Annalen der Chemie," Band 205, pp. 360–371, in which he describes at length two alkaloids that he has obtained from the bark—viz., alstonia and alstonidin.

I trust that the value of these alkaloids will soon be tested in this country by physiologists, as will no doubt be the case in Germany before long. An alkaloid which would replace and be equal to quinine in its effects, but be obtainable at a lower price, would be a boon in many parts of the globe. I may add that I believe that Dr. Hesse is analyst for Messrs. Jobst, one of the largest quinine manufacturers in the world.

Yours truly, T. Christy, F.L.S.

Dr. J. M'Grigor Maclagan.—The report may be obtained on application to the present medical officer of health of the district.

GLACIALINE.

To the Editor of The Lancet.

Sir,—I have read with no little surprise the letter in The Lancet of January 1st, signed by two members of the profession, extolling the virtues of glacialine. All that the writers state may be perfectly true, and probably is so; but what is glacialine? Some time since a medical friend bought in Glasgow a box of this powder, and as its use was recommended for the preservation of every edible substance, he thought it desirable to know its nature and properties, and for this purpose sent some of it to me for analysis, the result revealing it to be pulv. sodæ biboracis pure and simple.

The moral I wish to convey here is that we (the English people) are at present having such a flood of these "frivolous" things puffed and advertised and put into the channels of business, and recommended for every mortal ill, that it is high time to stem the tide, if it be possible. It is astonishing what virtues a substance possesses when it is not known what it is.

Yours faithfully,
Jan. 3rd, 1881. F. M. Rimmington, F.C.S.,
Public Analyst.

EATON *v.* BARKER.

A CORRESPONDENT writes to us:—

"In your annotation of the case of Eaton *v.* Barker and others you say 'If the people of Grantham will allow Mr. Eaton to be thus deprived of his legitimate fees, &c., it will be incumbent upon the profession to interfere in his relief.'

"Would it not be better for the profession to take the lead, and show the newly organised corporation of Grantham what we think of Mr. Eaton's conduct in undertaking the risky duties, for which he claims but very reasonable remuneration?

"No doubt there will be many right-minded people in Grantham, although they are indifferently represented in the corporation, and these will be influenced by the very significant judgment delivered by Mr. Justice Stephens; but I think we ought to move in the matter ourselves, and, in order to facilitate the movement, I beg to suggest that a medical officer in each union should collect what subscriptions he can from his professional brethren, and remit them to you in lump sums, to be presented to Mr. Eaton, with a suitable address setting forth the motives of the subscribers.

"I shall be happy to receive subscriptions in my union and to include my mite, whether you adopt my suggestion, or whether you propose an amendment to it."

"TEMPERAMENTS."

To the Editor of THE LANCET.

SIR,—The note on "Temperaments" in your issue of December 4t having made me desirous of reading up the subject, I shall be greatly obliged by you or any of your numerous readers naming the best sources of information, whether in connexion with medicine, or as a part of general knowledge.—I am, Sir, yours truly, F.R.C.S.E.
December 15th, 1880.

A Provincial House-Surgeon.—1. No.—2. The coroner is bound to issue his summons in accordance with a prescribed form.

FATAL MIDWIFERY CASE IN PRIVATE PRACTICE.

To the Editor of THE LANCET.

SIR,—I send you notes of a fatal case of labour which took place under my care lately. I often think that if, instead of our successes, our failures were recorded, they would be much more instructive.

Mrs. W——, aged twenty-five, a fine, healthy, well-made young wife, began in labour for her second child at midnight of December 18th, 1880. I was sent for at 12.30, found all going on well, and at 2 A.M. a fine female child was born. The placenta came away easily in about ten minutes; the uterus contracted firmly, and remained so. I went upstairs to see her before leaving at 3 A.M. (one hour after delivery). She said she felt quite well, and not a bit reduced; her pulse was 72, of good tone, and the uterus still firmly contracted. I left her with a perfectly easy mind.

At 9 A.M. (seven hours after delivery) I was hastily summoned, and on arriving found her in a state of collapse, and evidently dying. The uterus was firmly contracted; there was and had been no hæmorrhage; the body, extremities, head, tongue, and breath were absolutely cold; not the faintest pulse in either wrist, and only a faint, flabby, second sound over the heart; the face and hands were livid; intense pain referred to the epigastrium and extreme—very extreme—dyspnœa; and although her lungs evidently filled well with air, her constant entreaty was for "more breath." Her intellect was unaffected.

I at once came to the conclusion that this was a case of thrombus of the pulmonary artery, and having given her a strong stimulant with a dose of sedative solution of opium to ease her pain, I sent for my able and experienced colleague, Dr. Robinson, who came at once, and on examination entirely concurred in my view of the case. We gave stimulants (ether and ammonia) freely, with hot bottles and friction to the limbs, with the view of rousing the heart and forcing the circulation, in the faint hope that possibly the plug might be broken up and forced into the smaller pulmonary arteries (ending in the lesser evil of infarction of the lesser arteries of the lungs), but without avail, as she quietly died about 10 o'clock (one hour after I was sent for). She was a very healthy girl, with no history of rheumatism or other disease.

Comment or speculation on the case from me is needless.

Yours very truly,
JAMES J. B. TAYLOR, M.B.
Lightburne House, Ulverston, Dec. 23rd, 1880.

Mr. Myers.—Any registered surgeon would advise on the subject.

RETREATS FOR DIPSOMANIACS.

To the Editor of THE LANCET.

SIR,—Can any of your readers either tell me or put me in the way of learning whether any retreat for dipsomaniacs has been opened anywhere in England under the provision of the recent Habitual Drunkards Act, such that a patient, on previously signing his consent, may be actually compelled to remain for some period?

I do not see any such advertised in the columns of THE LANCET.

I am, Sir, yours truly,
Nottingham, Jan. 4th, 1881. PHILIP J. SMITH.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE first examination for the present session in Anatomy and Physiology for the Diploma of Membership of the College was commenced on Monday last, when 146 candidates presented themselves, being six in excess of the corresponding quarter last year. The following were the questions on Anatomy submitted to them, when they were required to answer four, and not more than that number, out of the six questions:—

1. Describe that portion of the innominate bone which lies internal to a line drawn vertically through the centre of the obturator foramen.
2. Describe the palmar fascia. What structures lie superficial to it, and what are exposed upon its removal?
3. Describe the attachments of the quadratus lumborum. Mention the structures with which it is in relation.
4. Describe the course and inosculations of the anastomotica magna arteries in both upper and lower extremities.
5. What are the structures which form the root of the lung? Describe the relative position of these structures to each other, and the anatomical relations of the root of the lung on both sides of the thorax.
6. Enumerate the nerves supplying the skin and muscles of the scalp, and mention the sources from which they are derived.

The following were the questions on Physiology:—

1. In what manner is urine secreted? By what circumstances are its quantity and quality affected in health?
2. Describe the course of the blood in the fœtus. State the changes which the fœtal blood undergoes in the placenta.
3. What is glycogen? Where is it formed in the human body? From what materials is it formed?
4. Describe the structure of the skin and its glands.
5. Describe the structure and extent of the olfactory mucous membrane. Describe the conditions requisite for the sense of smell.
6. How is absorption effected in the small intestine? State what share is respectively taken in the act of absorption by the lymphatics and bloodvessels.

At this meeting the recently elected members of the Board—Messrs. John Langton and Gerald F. Yeo—took part, Mr. Arthur E. Durham presiding.

PARAFFIN JACKETS.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Enquirer," asks for too much if he thinks an apparatus has yet been devised which will effectually draw outwards a collapsed side of the thorax or the curvature of a spine; but, for all that, much may yet be done to prevent the evil from increasing, and to give comfort and support to the patient.

"Enquirer" has tried plaster-of-Paris and the poroplastic material, and condemns both. Let me recommend him to try paraffin wax, which may be obtained at any of Young's depôts, and which, when melted, must be used just in the same way as liquid starch. The bandage, being soaked in the paraffin, should be lightly wound round the patient's body, and will set much more rapidly than starch. It must be slit up with a strong pair of scissors at the back just before it sets, and, if properly smeared with liquid paraffin wax, will form a stiff, elastic, and cleanly mould of the body, which may be removed at pleasure for comfort at night and to allow ablutions in the morning.

I should mention that another garment should be worn next the body (or the skin may be well oiled in case it is not used) in order to prevent the paraffin from adhering, and that no pressure on the ribs can occur if it is properly managed. Indeed, by the use of a pad placed underneath, any part, may be specially relieved, even of its own share of contact with the jacket. Eyelet-holes may be punched in the jacket along the cut margins, and it will then resemble a corset, which can exercise no pressure, whilst it gives universal support.

I am, Sir, your obedient servant,
EDWARD HAUGHTON, M.D.
Spring Grove, Upper Norwood, Dec. 1880.

Query should apply to the registrar of the university.

Indicus and J. S.—Next week.

W. M. D. has forgotten to enclose his card.

FOGS.

To the Editor of THE LANCET.

SIR,—In reference to your article in last week's LANCET on Rain and Fogs, permit me to draw your attention to what many must have experienced, but no doubt overlooked—viz., last summer I was in a fog off Jersey so black that I could not see the man at the wheel, and this in the daytime. Again, on another occasion, in a steamer off Penzance, the captain called us on deck, saying he did not know the moment that we might not have to jump for our lives. When I got on deck I could not see the captain, though I heard his voice, the fog was so black and thick. Certainly this could not be coal smoke or exhalation from London clay.

I am, Sir, yours truly,
Jan. 3rd, 1881. THOS. R. DOWNES.

HIGH-HEELED BOOTS AND SHOES.

To the Editor of THE LANCET.

SIR,—Dr. Pullin deserves the thanks of the public for bringing the above before them, and had he added a few remarks upon another complication in the boots and shoes of the present day, I should have thought it unnecessary to have troubled you. I mean the shortness of the boots and shoes, and also their narrow and pointed toes. Within the last few years, in addition to high heels, we have these abominable narrow toes, which I believe will be the ruin of half the feet of those who are foolish enough to persist in wearing them. By raising the heel two inches from the ground the foot is pushed forward into a short, tight, narrow funnel, and what is the consequence? Corns and bunions in all manner of unusual places, blisters and sores on different parts of the feet, and, worst of all, pressure upon the toenails, and especially those of the great toe, with inflammation and "ingrown toe-nail," with all its accompanying pain and horrors, and sometimes disease of bone.

I daresay almost every general practitioner will agree with me that he has had many more cases of "ingrown toe-nail" since the high-heeled and narrow-toed mania than when people wore sensible boots and shoes.

I remember one lady consulting me, with shame on her part, who had paid a chiropodist quite a little fortune for "medical attendance" on bunions, corns, and ingrown toe-nails. I have no doubt but that chiropodists are very much in request at the present moment, and are doing a good trade at the expense of those (especially ladies) who will have fashionable boots and shoes.

"The voice of the profession," as Dr. Pullin remarks, will, I trust, be raised against the high heels and narrow toes. It is painful to see young ladies striving to walk in these instruments of torture. It is certainly, if they only knew it, far from graceful or elegant. Apologising for troubling you, I am, Sir, your obedient servant,

Leamington, Dec. 1880. FRANCIS WILLIAM SMITH, M.D.

King Blushrose.—Highly objectionable, of course, and altogether unprofessional; but it is impossible to put a stop to this sort of thing, and we do not wish to advertise the "trade" further by noticing it.

One Aggrieved.—Our correspondent is thanked for his communication, but we see no reason to alter the opinion we have expressed.

CORONER'S LAW.

To the Editor of THE LANCET.

SIR,—There are two points connected with the above subject on which I shall be glad to receive information. 1st. Am I bound to make a post-mortem examination whenever ordered by the coroner? 2nd. Am I liable to be summoned and bound in such case to serve as a juror in the coroner's court?

With regard to the first query I can find no authoritative statement. So far as I can make out, under the Medical Witnesses Act I am bound to give my attendance when so required, but am I also bound to make a necropsy, or rather does "attendance" imply doing this? I am not bound to make an analysis of the stomach and its contents, as in view of possible incompetence in that direction. This may be done by an expert. If incompetence is allowed as an excuse in one direction, can it not be pleaded in another? Would not attendance at midwifery constitute incompetence? Surely in the eye of the law every man must be incompetent or unfitted for any kind of work the doing of which will endanger the life of another.

The second question which I put—namely, as to liability of medical men to serve as jurors, arises from the fact that in this neighbourhood several medical gentlemen have been summoned and have attended as jurors. As I always understood that we were exempt for all service of this kind, and as I still so believe, I shall be glad to receive information, lest I should, by acting on this belief, be running into danger.

I remain, Sir, yours, &c.,

Dec. 17th, 1880. W. HENRY KESTEVEN, M.R.C.S.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Morgan, Manchester; Mr. T. Robinson, London; Dr. Liveing, London; Dr. Mahomed, London; Mr. T. R. Downds, London; Mr. G. A. Wright, Pendlebury; Mr. Rimmington; Mr. H. J. Forster; Mr. B. F. Giles, Wem; Mr. Baber, Brighton; Mr. Hayman, Stokenchurch; Mr. C. Lucas, London; Mr. Nettleship, London; Dr. Crocker, London; Dr. Maclagan, Hexham; Mr. Thompson, Chelmsford; Dr. Latham, Cambridge; Mr. Armstrong, Newcastle-upon-Tyne; Mr. Walford; Mr. P. S. Smith; Dr. Godson, London; Dr. Kelsey; Dr. Blomfield; Mr. Thomas Smith, London; Dr. Tomkins, Monsall; Dr. Swift, Walker, Hanley; Dr. Skinner, Clevedon; Dr. Charles, Glengariff; Mr. D. H. Stone, London; Miss Jackson; Mr. Cable, Greenwich; Mr. Hemming; Mr. Rutherford; Mr. Sampson Low; Mr. Clouting, Thetford; Mr. Tyson, Folkestone; Mr. Berry, Wigan; Dr. C. Morfit, London; Mr. Mayall, London; Mr. J. K. Barton; Dr. Lloyd, London; Mr. Stride, Brighton; Mr. Smith, Norwich; Mr. Brodie, Kensington Mrs. Andrews; Mr. Tinley; Mr. Rainbow, Coventry; Mrs. Pratt, Liverpool; Dr. Budd, Norwood; Mr. Willey, Birmingham; Dr. Page, Kendal; Mr. Newington; Dr. Eastwood; Dr. M'Intyre, Natal; Mr. Collier, London; Mr. Outram, Glasgow; Dr. Tatham, Salford; Dr. Barnardo; Commander Cheyne; Mr. Robertson, Manchester; Dr. Collum, Surbiton; Dr. Saul, Lancaster; Mr. Hackett, Leeds; Mr. T. Cooke, London; Mr. Reade, London; Dr. A. B. Squire, London; Dr. Mossman, Eastbourne; Mr. Douglas, Workington; Mr. Willett, Great Budworth; Medicus, Canterbury; Medicus, Lutterworth; H. A. S., Hackney; King Blushrose; O. H. F.; W. D. M.; A Provincial House-Surgeon; Ne cede Malis; &c., &c.

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A Lecture

ON

THE DIFFERENTIAL DIAGNOSIS OF CARDIAC MURMURS.

Delivered in the Extra-Academical School of Medicine, Edinburgh,

By BYROM BRAMWELL, M.D., F.R.C.P. EDIN.,

LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE, AND ON PRACTICAL MEDICINE AND MEDICAL DIAGNOSIS IN THE EXTRA-ACADEMICAL SCHOOL OF MEDICINE, EDINBURGH; LATE PHYSICIAN AND PATHOLOGIST TO THE NEWCASTLE-ON-TYNE INFIRMARY.

(Concluded from page 45.)

The murmur is endocardial—is it organic or functional?[1]

It is sometimes very difficult, or even impossible, to say whether a murmur is purely organic or purely functional, for, in the first place, the two conditions are not unfrequently combined, as, for example, where anæmia accompanies aortic stenosis or mitral incompetence; and, again, a mere roughness of the endocardium may produce a murmur (an organic murmur, therefore), without causing any disturbance of the circulation or secondary changes in the heart (the usual accompaniments of an organic lesion). In the latter case the diagnosis mainly turns on the following points: (*a*) the presence or absence of the associated conditions of an inorganic murmur (symptoms and signs of anæmia), (*b*) the stability of the murmur, whether it is constant or variable, and (*c*) the effects of treatment. (See below, the Diagnosis of Inorganic Murmurs.)

Practically, the first step in the differential diagnosis is to determine the rhythm of the murmur. The so-called functional murmurs are always systolic, and are either aortic, pulmonary, or mitral.[2] If therefore a murmur is diastolic or presystolic we may, with certainty, conclude that it is organic. If the rhythm of the murmur does not decide the question—i. e., if the murmur is systolic,—we must seek to determine whether it is organic or functional by attention to the following facts:—

1. *The presence or absence of the causes of inorganic murmurs on the one hand, or of organic murmurs on the other.*—Anæmia is the great cause of the so-called functional (inorganic) murmurs. If there is no anæmia the strong probability is that the murmur depends upon organic causes. The presence of anæmia does not, however, prove that the murmur is inorganic, for, as I have previously stated, anæmia and organic murmurs are not unfrequently associated. This caution more particularly applies to those cases in which a patient suffering from rheumatic fever is anæmic. In such a case the probability is in favour of organic mischief, and a guarded prognosis should always be given. In well-marked anæmia there is the characteristic pallor, shortness of breath on exertion, tendency to vertigo and syncope on sudden alterations in position (e.g., rising from the recumbent position, venous hum in the neck, slight œdema of the feet, &c.). Where the anæmia is only slight, the presence of a venous hum (*bruit de diable*) in the neck is very characteristic, and affords important corroborative evidence that the murmur is inorganic. A history of rheumatic fever, or still more the actual presence of rheumatic fever, are in favour of the murmur being organic.

2. *The condition of the heart and circulation.*—Serious organic valvular lesions always give rise to important disturbances in the circulation and secondary changes in the heart, which will be presently described (see below). The presence of such alterations is strong evidence in support of an organic lesion. The absence of such alterations does not, however, prove that the murmur is inorganic, for (*a*) a slight organic lesion (such as a mere roughness of the endocardium), may, as I have stated above, cause a murmur without producing any interference with the circulation; (*b*) there may have been no time for such alterations to have been produced, as, for example, in recent endocarditis. Again, the dynamic murmurs which occur in profound anæmia may be associated with symptoms such as occur in organic lesions, dropsy, shortness of breath on exertion, &c.

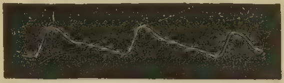
3. *The point of maximum intensity of the murmur.*—Inorganic murmurs are most frequently heard in the pulmonary area in the second left interspace, at a point an inch and a half to the left of the sternum, less frequently over the aortic area, and more rarely over the mitral area.

4. *The extent of propagation.*—Inorganic murmurs are not, as a rule, well propagated; an aortic murmur which is propagated into the vessels of the neck, and a mitral murmur which is heard at the inferior angle of the left scapula, are probably organic.

5. *The effect of treatment* is most valuable in a diagnostic point of view[3] (for in cases of simple anæmia, chlorosis, for example, the murmur speedily disappears).

6. *The character of the sphygmographic tracing* may be of value, more especially in deciding whether an aortic systolic murmur is organic or functional. The accompanying tracing (Fig. 17) was taken from a case which was admitted to the Newcastle-on-Tyne Infirmary under my care some years ago. The patient, a male, was markedly anæmic; there was a well-marked systolic aortic murmur; the left ventricle was not markedly hypertrophied. The tracing seems to show that, in addition to the anæmia, there was some constriction of the aortic orifice.

FIG. 17.



Aortic Stenosis.—J. B——, aged fifty-one. Admitted to Newcastle Infirmary, under Dr. Byrom Branwell, Nov. 29th, 1878, suffering from anæmia and dropsy. There was a well-marked aortic systolic murmur; the left ventricle was not hypertrophied. The pulse-tracing seems to show that the murmur was organic, and not hæmic. Pressure 1½ oz.

7. *The sound characters of the murmur.*—Inorganic murmurs are generally soft and of short duration. Organic murmurs may also be soft and feeble, but in such cases the lesion is often serious, and there are marked symptoms of cardiac failure.

The murmur is organic. What is the extent of the lesion; and what is its gravity?—In recent cases it may be impossible to decide these points. In chronic cases, the following circumstances must be taken into consideration in estimating the extent of the lesion:—

1. *The effect of the lesion on the heart and circulation.*—It may be stated as a general proposition that the great effect of all valvular lesions is to prevent the steady onward passage of the blood-current. Obstructive lesions (stenosis) produce this effect *directly* by preventing the passage of the usual quantity of blood from those parts of the circulation which are situated behind the narrowed orifice (from the right auricle and parts behind it in the case of mitral stenosis; from the left ventricle and parts behind it in aortic stenosis). Regurgitant lesions produce this effect *indirectly* by allowing some of the blood which should be passed forwards to flow backwards through the incompetent orifice (from the aorta to the left ventricle in aortic regurgitation, from the left ventricle to the left auricle in mitral regurgitation).

In seeking therefore to estimate the extent of any valvular lesion, it is necessary to examine the effects produced:

(*A*) *Behind the lesion*, in the cavities of the heart and in the circulation behind the affected valve, more especially therefore the extent of venous obstruction.

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[1] In the case of organic murmurs there is no (permanent) structural alteration of the valve itself to account for the murmur. Inorganic murmurs are due either to altered conditions of the blood itself (hæmic murmurs) or to temporary alterations in the ventricular cavities (such as dilatation), spasm of the musculi papillares, permitting temporary regurgitation. The so-called dynamic murmurs are in reality therefore organic murmurs of temporary duration. The so-called hæmic murmurs depending upon clots in the heart cavities I regard as organic, and class accordingly. Inorganic murmurs are very common in conditions of anæmia. They are always systolic, and are most frequently heard in the pulmonary area (in the second left interspace at a point an inch and a half outside, to the left, of the sternum).

[2] Naunyn, George Balfour, and others deny that the inorganic murmurs of chlorosis are ever arterial, and say that they are due to mitral regurgitation. The arguments for and against this view were stated in a former lecture.

[3] This statement does not apply to cases of progressive pernicious anæmia—the anæmia of leucocythæmia and some other affections in which treatment is frequently useless.

(*B*) *In front of the lesion*, more especially the condition of the arterial circulation.

The more extensive the lesion the more extensive and more manifest are these effects.—This is true as a general proposition, but, as we shall presently see, the nutritive condition of the tissues (the tendency to withstand or to undergo degenerative changes) is a very important factor in the production of symptoms.

I will now briefly describe the chief effects of the different valvular lesions on the heart and circulation.

1. MITRAL STENOSIS.

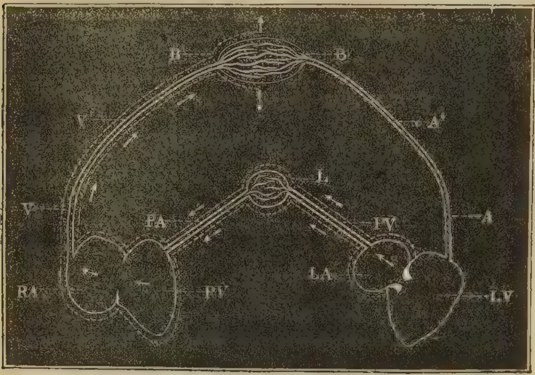
A. Backward effects.

(*a*) The right auricle is over-filled with blood and becomes hypertrophied and dilated. This increase in size must be looked for by percussion.

(*b*) The pulmonary veins become engorged.

(*c*) The lungs become congested: *lung symptoms* consisting of shortness of breath, especially on exertion, going upstairs or up a hill; tendency to catarrhal affections of the lungs and bronchi, especially chronic bronchitis; œdema of the lungs; hæmoptysis from engorgement or pulmonary apoplexy; effusion into the pleural cavities (hydrothorax), &c.

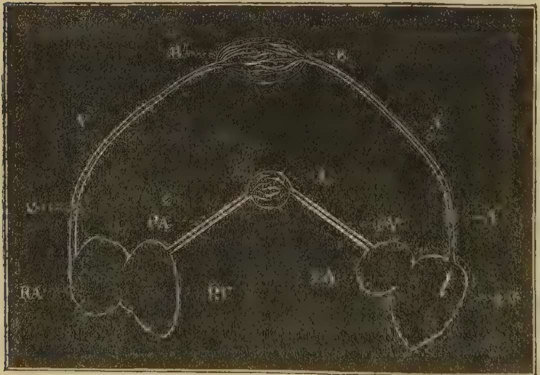
FIG. 18.



Graphic representation of the effects of a lesion of the mitral valve (mitral stenosis in this case) on the heart and circulation. The effects of mitral regurgitation are the same, but there is, in addition, hypertrophy of the left ventricle. LV=left ventricle; LA=left auricle; PV=pulmonary veins; L=lungs; PA=pulmonary artery; RV=right ventricle; RA=right auricle; V=venæ cavæ; V¹=venous system; B¹=termination of the venous system in the systemic capillaries; A=the aorta; A¹=the arterial system. The arrows show the direction of the backward pressure. The dotted lines show the effects of the obstruction (dilatation) on the different parts.

(*d*) The pulmonary artery becomes engorged, the tension of the blood which it contains is increased; the pulmonary valves are consequently closed with increased force, and *the pulmonary second sound is accentuated* and is louder than the aortic. The aortic second sound is less loud than in health, because of the small amount of blood passing from the left ventricle to the aorta. The accentuation, therefore, of the pulmonary second sound is in part then only apparent.

FIG. 19.

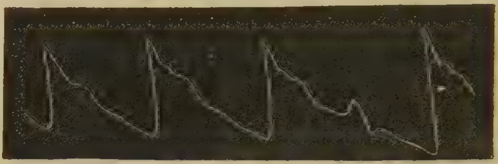


Graphic representation of the effects of a lesion of the aortic valves (aortic regurgitation in this case) on the heart and circulation. The letters have the same significance as in Fig. 18. The left ventricle is hypertrophied and dilated; the mitral valve is as yet competent.

The amount of accentuation is, as Skoda was the first to point out, a gauge of the extent of the mitral lesion. *Comparative auscultation of the aortic and pulmonary second sounds should therefore be made.*

The second cardiac sound is frequently reduplicated, owing probably to delayed closure of the pulmonary segments. The right ventricle has difficulty in emptying itself, and its contraction occupies more time than that of the left; hence the pulmonary segments are closed a little later than the aortic.

FIG. 20.



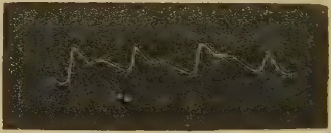
Irregularity of the Pulse.—W. M——, aged fifty, admitted to Newcastle Infirmary under Dr. Byrom Bramwell, Nov. 30th, 1878, suffering from the usual symptoms of mitral disease. The heart's action was extremely irregular. The left ventricle much hypertrophied. There was no rheumatic history. The symptoms were of two months' duration. Pressure 3¾ oz.

(*e*) The right ventricle becomes engorged, hypertrophied and subsequently dilated. *The increased size of the right heart is to be ascertained by percussion.*

(*f*) The right auricle becomes engorged, hypertrophied, and dilated.

The tricuspid valve ultimately gives way and becomes relatively incompetent. When this occurs, a systolic tricuspid murmur and venous pulsation in the neck (right external jugulars) are present.

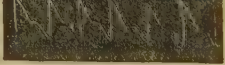
FIG. 21.



Small Pulse of Mitral Regurgitation.—H. M——, aged seven, admitted to the Newcastle Infirmary, under Dr. Byrom Bramwell, Oct. 16th, 1878, suffering from mitral regurgitation and severe bronchitis. There was considerable hypertrophy of the left ventricle. The tracing was made when the patient was convalescent from the bronchitis. Pressure 1½ oz.

(*g*) The systemic venous circulation becomes engorged.[4] The face, more especially the lips, becomes blue and slightly swollen. Dropsy commences in the feet, and gradually extends upwards, finally affecting the peritoneum and other serous cavities. Cardiac dropsy is most marked at night, and is frequently absent in the morning. It commences in the feet because the circulation is there slowest, the feet being the parts of the body most distant from the heart, and because the return current from the feet has, when the patient is in the erect position, to overcome the force of gravity.

FIG. 22.



Mitral Regurgitation.—M. A. C——, aged sixteen, admitted to Newcastle Infirmary, under Dr. Byrom Bramwell, Jan. 24th, 1878, suffering from cough and shortness of breath, dating from an attack of rheumatic fever two months previously. Heart's action very rapid (120-130). The first sound appeared to be reduplicated; a systolic murmur at the apex, audible when the heart became slower. Pressure 3 oz.

Engorgement of the stomach, with resulting chronic catarrh, foul tongue, &c.

Engorgement of the liver, enlargement of that organ, slight jaundice, possibly towards the end of the case, hepatic venous pulsation.

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[4] This, of course, occurs before the tricuspid incompetence mentioned above.

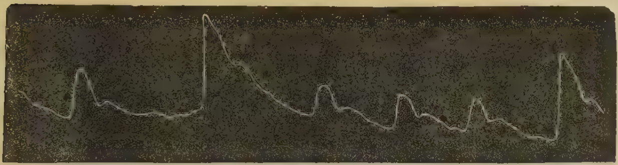
Engorgement of the kidneys, scanty urine containing abundant urates, albumen, but no casts.[5]

Engorgement of the brain with mental cloudiness, tendency to sleep, &c.

I have attempted to represent graphically the backward effects of mitral and aortic lesions in Figs. 18 and 19.

B. Forward effects.—Small and variable quantities of blood are passed into the left ventricle through the stenosed orifice. Small and variable quantities of blood are consequently pumped into the arterial system, the pulse is therefore small, unequal in volume, and irregular in time. The sphygmographic characters of the pulse are not very distinctive. Mahomed thinks the occurrence of a second small imperfect contraction may be peculiar. (See Fig. 20.)

FIG. 23.



Mitral Regurgitation.—S. B——, aged fifty-eight, admitted to the Newcastle Infirmary, under Dr. Byrom Bramwell, Feb. 25th, 1878, suffering from cardiac dropsy. There was a well-marked mitral systolic murmur, which disappeared under treatment. The heart was considerably enlarged (hypertrophied and dilated). Pressure 4 oz.

The contraction of the left ventricle is less powerful than in health, and the first sound, as heard over the left heart, is modified in the manner already described. The left ventricle is not increased in size; in fact, in some cases it is smaller than in health.

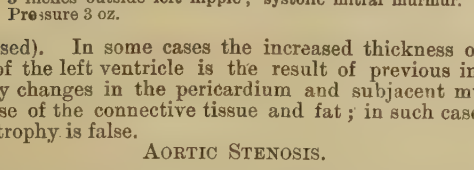
MITRAL REGURGITATION.

A. Backward effects.—The same as in mitral stenosis. (See previous page.)

B. Forward effects.—The pulse is small and irregular, but not so unequal in volume as in mitral stenosis. The sphygmographic characters are seen in Figs. 21, 22, 23, 24.

The left ventricle is hypertrophied. The explanation of this is difficult. It is probably due to increased stimulation of the muscular wall of the left ventricle by the large quantity of blood which is poured into it from the left auricle (there is no obstruction at the mitral valve, and the tension of the blood in the left auricle and parts behind, is increased). In some cases the increased thickness of the wall of the left ventricle is the result of previous inflammatory changes in the pericardium and subjacent muscle, increase of the connective tissue and fat; in such cases the hypertrophy is false.

FIG. 24.



Irregular and Intermittent Pulse.—O. M——, aged forty, admitted to the Newcastle Infirmary, under Dr. Byrom Bramwell, suffering from cardiac dropsy. The heart was very much enlarged; apex-beat 4½ inches below and 3 inches outside left nipple; systolic mitral murmur. Pressure 3 oz.

AORTIC STENOSIS.

A. Backward effects.—The left ventricle becomes hypertrophied, in consequence of the increased effort required to force the blood through the stenosed orifice. So long as the mitral valve is sound, there are no *lung* or *venous symptoms* such as are seen in mitral lesions. (See Fig. 19.)

B. Forward effects.—The pulse is small but regular, and of good tension. The sphygmographic characters are seen in Fig. 17.

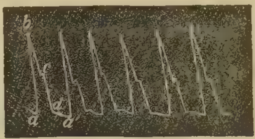
The smallness of the pulse and the amount of hypertrophy of the left ventricle are important indications of the amount of stenosis.

AORTIC REGURGITATION.

A. Backward effects.—The left ventricle becomes hypertrophied and dilated, the dilatation being partly due to the pressure which the regurgitant current exerts on the ventricular wall while in a condition of relaxation, partly to the impaired nutrition which results from interference with the coronary circulation.

So long as the mitral valve remains competent there are no lung or venous symptoms. Relative incompetence sooner or later results from the ventricular dilatation. Lung and venous symptoms are then superadded.

FIG. 25.



Aortic Regurgitation.—Case: G. A——, aged fifty-six, admitted to Newcastle Infirmary, under Dr. Byrom Bramwell, Feb. 21st, 1878, suffering from shortness of breath and swelling of feet. Had been ill for three months. The face was pale and anxious, lips slightly dusky. Double aortic murmur; heart considerably hypertrophied; apex between sixth and seventh ribs, 3 inches below and 2 inches outside left nipple. Considerable hypertrophy and engorgement of right heart. Died March 5th, 1878. Aorta very atheromatous; aortic valves very incompetent; segments shrunken, turned in towards the ventricle; coronary arteries much obstructed; cardiac walls fatty; left ventricle dilated; pericardium adherent. The arteries were practically empty during cardiac diastole. *a*—*b*=percussion-stroke; *b*=apex; *c*=tidal wave; *d* indicates the position of the aortic wave, which is absent in this tracing. Pressure 2½ oz.

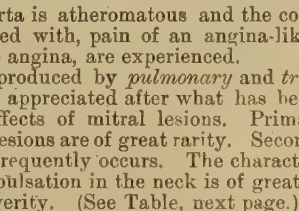
B. Forward effects.—The pulse is highly characteristic, presenting the well-known jerking, visible, collapsing, and tortuous character first described by Corrigan.

The sphygmographic characters of the pulse are seen in Figs. 25 and 26. The face is pale, and often wears an anxious expression. There is a tendency to syncope.

The amount of alteration of the pulse, the degree of hypertrophy and especially the degree of dilatation of the left ventricle, and the condition of the mitral, are the points to which attention should be particularly directed in the examination of a case of aortic regurgitation.

In many cases of aortic regurgitation, especially where the base of the aorta is atheromatous and the coronary circulation is interfered with, pain of an angina-like character, or attacks of true angina, are experienced.

FIG. 26.



Aortic Regurgitation.—Taken from same patient as No. 25 after administration of digitalis. The letters have the same significance as in Fig. 25. Pressure 3 oz.

The effects produced by *pulmonary* and *tricuspid* lesions will be readily appreciated after what has been said in describing the effects of mitral lesions. Primary pulmonary and tricuspid lesions are of great rarity. Secondary tricuspid regurgitation frequently occurs. The character and amount of the venous pulsation in the neck is of great importance in gauging its severity. (See Table, next page.)

The gravity of the lesion depends upon—1. *The extent to which the lesion can be compensated.*—In all cases of valvular lesion there is an attempt made by nature to meet the difficulty. The hypertrophy of the left ventricle which follows stenosis of the aortic orifice is the best example of this fact.

In many cases the balance between the lesion on the one hand and the compensatory changes in the heart on the other is so even that little or no disturbance of the circulation, and hence no symptoms result. The extent, therefore, to which the lesion can be compensated, and the length of

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[5] A few hyaline casts are sometimes seen. Other forms of casts may, of course, be present as the result of secondary changes in the kidney, or of intercurrent inflammatory attacks.

TABULAR STATEMENT SHOWING THE POINTS OF DIFFERENTIAL DIAGNOSIS OF CARDIAC VALVULAR LESIONS.

	CHARACTERS OF THE MURMUR.			EFFECTS OF THE LESION ON THE HEART AND CIRCULATION.								
Lesion.	Point of differential maximum intensity.	Rhythm.	Directions of propagation.	Left ventricle.	Left auricle.	Lungs.	Pulmonary second sound.	Right ventricle.	Tricuspid valve.	Right auricle.	Systemic venous circulation.	Arterial circulation; pulse.
Mitral stenosis.	Apex, which is normal.	Presystolic.	Downwards and inwards, to a limited extent.	Normal or small.	Dilated and hypertrophied.	Engorged lung symptoms.	Accentuated.	Hypertrophied and dilated.	Towards end may be incompetent.	Dilated and hypertrophied.	Engorged; dropsy; face blue, and effects of engorgement of stomach, liver, kidneys, brain, &c.	Small, weak, unequal in volume, irregular in time.
Mitral regurgitation.	Apex, which is displaced downwards and outwards.	Systolic.	Upwards and outwards to left axilla, and inferior angle of left scapula.	Hypertrophied and dilated.	Dilated and hypertrophied.	Engorged lung symptoms.	Accentuated.	Hypertrophied and dilated.	Towards end may be incompetent.	Dilated and hypertrophied.	Engorged; dropsy; face blue, and effects of engorgement of stomach, liver, kidneys, brain, &c.	Small, weak, and irregular in time.
Aortic stenosis.	Second right costal cartilage.	Systolic.	Upwards along course of aorta, and into vessels of neck.	Hypertrophied.	Normal.	Normal.	Normal.	Normal.	Normal.	Normal.	Normal.	Small, regular, and of good strength.
Aortic regurgitation.	Second right costal cartilage, mid. sternum, lower end of sternum.	Diastolic.	Downwards to lower end of sternum.	Hypertrophied and dilated.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound.	Normal so long as mitral valve is sound; face pale.	Jerking, visible, collapsing, and tortuous.
Tricuspid regurgitation (usually secondary).	Lower end of sternum.	Systolic.	Upwards and outwards towards right.	Normal if lesion is primary.	Normal if lesion is primary.	Normal or anæmic if lesion is primary.	Weak if lesion is primary.	Hypertrophied and dilated.	Incompetent.	Dilated.	Engorged; venous pulsation in neck; dropsy, &c.	Small, weak, irregular.

time which this compensation can be maintained, are most important points in estimating its gravity.

The extent of compensation depends upon:

(*a*) *The general reparative power of the individual.*—A valvular lesion of moderate extent occurring in an individual whose tissues are prone to degeneration or already in a state of decay is much more serious than a lesion of far greater extent in a healthy person.

(*b*) *The special reparative power* (*conditions of nutrition*) *of the cardiac muscle.*—So long as the cardiac muscle remains sound (the hypertrophy good), compensation is maintained and symptoms are at a minimum. Wherever degeneration of the cardiac muscle and consequent dilatation occur compensation fails and serious symptoms result.

The structural soundness, therefore, of the cardiac muscle (the presence or absence of dilatation) is of the utmost importance in a prognostic point of view.

2. *The extent of the lesion.*—Other things being equal, the more extensive the lesion the more serious the case.

3. *The nature of the lesion.*—Clinical experience tells us that some valvular lesions are more serious than others. Walshe gives the following as the order of relative gravity, estimating the gravity not only by the ultimate lethal tendency of the different lesions, but by the amount of complicated miseries which they inflict.

1. Tricuspid regurgitation (most grave).
2. Mitral regurgitation.
3. Mitral constriction.
4. Aortic regurgitation.
5. Pulmonary constriction.
6. Aortic constriction (least grave).

The relative gravity as regards tendency to sudden (instantaneous) death is, however, quite different. *Aortic regurgitation* frequently proves suddenly fatal by syncope. The other valvular lesions do not cause sudden death.

4. *The surroundings and habits of the patient.*—Valvular lesions, other things, such as the condition of tissues, &c., being equal, are much less serious in persons in comfortable circumstances than in those who struggle for existence, and have to lead laborious lives. Indeed, rest to the damaged organ is the first and most important indication for treatment.

5. *The mental temperament of the patient* is, for the same reason, of some importance. Valvular lesions are less serious in persons of a quiet and placid disposition than in persons of an excitable and anxious temperament.

6. *The age of the patient* is of some value, as it gives a general idea of the qualitative state of the tissues.

In young subjects compensation is much more active than in old people. This is not, perhaps, an unmixed evil; it would almost seem that in some cases of valvular lesion running a rapid course in young subjects, that the lesion grew *pari passu* with the general bulk.

7. *The etiology of the lesion.*—Valvular lesions of rheumatic origin are, as a rule, less serious than those which result from other causes, probably because the average age of rheumatic cases is younger than that of others, and hence the reparative process and compensation are more perfect. Non-rheumatic valvular lesions are often due to degenerative processes. In such cases repair and compensation are slight, and there are often complications, such as structural kidney lesions and the like.

Acute valvular lesions occurring in the course of pyæmia, scurvy, and other blood diseases (ulcerative endocarditis) almost invariably give rise to speedy death.

8. *The associated pathological conditions* are of great importance. In fat, flabby individuals, and in all cases in which the tissues are prone to degenerate, the prognosis is bad. Kidney disease and other complications, of course, render the case more serious.

9. *The duration of the case and the effects which the lesion has already produced* are of great value. The shorter the duration and the greater the effects, the worse the prognosis.

In speaking of the prognosis I have said nothing with regard to the sound character of the murmur. The mere loudness of a murmur is no criterion of the gravity of the lesion. The loudness of a murmur depends in great part upon the force of the blood-current which produces it. Where the heart is feeble or the walls degenerated, the murmur is less loud than where the cardiac muscular tissue is sound. Hence feeble murmurs are frequently more serious than loud ones, and indeed in some of the worst cases of valvular disease, as, for example, in extreme mitral stenosis, there may be no murmur at all.

ABSTRACT OF

The Brown Lectures.

FURTHER INVESTIGATIONS ON ANTHRAX AND ALLIED DISEASES IN MAN AND ANIMALS.

BY PROF. W. S. GREENFIELD, M.D., F.R.C.P.

LECTURE III.

ANTHRAX IN MAN.

ANTHRAX may affect the human subject in at least three different ways—malignant pustule, anthrax œdema, and internal anthrax. *Malignant pustule* occurs almost invariably as a primary lesion following direct inoculation. It is usually seated on the face, neck, or hand, or some exposed part of the body, and commences by a small red point or pimple, which may be painless, or attended by a sensation like that of the sting of an insect. A small papule speedily forms, which becomes covered by a flat vesicle, which enlarges and usually bursts, discharging a clear or bloody fluid. A central black eschar forms at the base of the discharged vesicle, and other smaller vesicles form around it. The surrounding tissues become inflamed, so that the vesicle is seated on a hard red base, with a sort of erysipelatous blush and swelling extending a considerable distance around. The central eschar enlarges, and the corona of vesicles, as well as the inflammatory sore and œdema, increase to such an extent that when seated on the face, the entire side of the face, head, and neck may be involved in the œdematous swelling. There is often enlargement of the corresponding lymphatic glands. If the patient survive the central slough separates, the wound granulates, and the œdema and lymphangitis subside. The constitutional symptoms vary very greatly. They may be slight or wanting, even when the local condition is most typical, or there may be slight depression and some febrile symptoms. Far more commonly there is marked fever, the temperature rising as high as 106° F. or more, and there are severe constitutional symptoms, either shivering, vomiting, accelerated pulse and respiration, great prostration and anxiety, delirium, and rapid death, sometimes in convulsions, or great depression and prostration, sleeplessness, laboured breathing, profuse perspirations and other symptoms of fever with exhaustion, ending sometimes in delirium. Death may occur in thirty or forty hours from the formation of the pustule, or the patient may die at the end of four, five, or six days, not often later. The following cases may be cited as illustrative of the disease:—

CASE 1. (Communicated by Dr. Bell of Bradford.)—J. G——, aged thirty-six, a woolsorter, in good health, had been sorting Persian wool till June 9th, and from that time to June 19th Bokhara wool, noticed a small pimple on the anterior and outer surface of the arm over the elbow-joint on June 15th. On the 18th it was inflamed and painful, but he continued at work. On the 21st there was a bulla an inch in length and three-quarters of an inch in breadth, with a dark-coloured base and filled with serum; the skin and tissues for an inch around were hard, and the inflammation extended to the upper third of the arm and lower third of the forearm and two-thirds around. He did not feel ill; his appetite was moderate; he slept well; pulse 68. For a few days the vesication extended at the margin of the sore, but on June 28th the slough was detaching, and the man completely recovered. There was not apparently any enlargement of the axillary glands. Blood taken from the brawny swelling around the sore contained scarcely any bacilli, but a few typical bacilli were found in the serum from the vesicles around the slough on June 23rd, and on inoculation of a guinea-pig with a very minute quantity, death ensued in twenty-nine hours, and its spleen, which was greatly swollen, soft, and vascular, swarmed with bacilli when examined an hour after death, so that in a very mild case as regards general symptoms the poison was present in the most virulent form.

CASE 2.—W. E——, a boy, aged fifteen, employed in the yard of a factory where Van mohair was largely used, went one day into the room where his brothers were sorting this wool, and whilst playing with them they pushed him into the wool head foremost. This was on June 23rd. At that time he had a small pimple over the outer angle of the left malar bone. On the 25th a change was observed in the pimple, but no special notice was taken of it. On the 29th, when he got up, the eyelid and side of the face were swollen, and in the afternoon he felt so poorly that he had to come home from work. He was not, however, seen by Dr. Logan until the evening of July 1st, when the whole side of the face and neck were swollen, and in place of the pimple was a vesicular ring, with a bulla in the middle which had burst, having a dark depression in the centre. Temperature 105°; pulse rapid and weak, and he was delirious. Later there formed the usual black eschar, which reached the size of a florin. He was very ill for four or five days. Dr. Greenfield saw him on July 10th. He was then able to walk, but still very weak. There was a very typical black eschar the size of a shilling, surrounded by a narrow ring of vesicles and a still swollen indurated base. The swelling of the face continued, and there was very great engorgement of the lymphatic glands of the neck and the supra-clavicular region of the same side. Blood taken from the margin of the swelling on July 6th was without effect on inoculation.

CASE 3.—A man, aged sixty-three, the minder of a preparing box, the machine through which the wool is passed after it has been sorted. He noticed on Aug. 28th that his lower lip was swollen, and that a pimple which he had had for about a week below the lip was inflamed and painful. On the 29th he was up and in bed repeatedly; did not feel well; vomited once. Next day the swelling increased, and in the evening of the 31st he sent for the doctor, who found a vesicle, with an inflamed hæmorrhagic base about the size of a sixpence; this burst, leaving a dry gangrenous-looking centre surrounded by a ring of vesicles, the whole being on a very inflamed base. There was great surrounding swelling, and the submaxillary lymphatic glands were much swollen. Considerable improvement occurred the next two days, but on the night of Sept. 3rd he became delirious, and at 10 A.M. on the 4th he was comatose—temperature 103°, pulse 140, respiration 33—and died at 2 P.M. The serous fluid taken from the vesicles on the lip, and the blood from the surrounding swelling on the day of death, contained typical anthrax bacilli.

Internal anthrax.—It has been known for some time that there are cases of rapidly fatal disease by means of an internal inoculation. In 1872 Wagner published such a case, which he called "mycosis intestinalis," and two years later he wrote a paper entitled "Intestinal Mycoses, and their Relation with Splenic Fever," in which he recorded eight cases, where, in addition to the gastro-intestinal lesions, there was bacillus anthracis in the blood. In its general character and mode of onset this "intestinal mycosis" resembles in some respects the form shortly to be described of internal anthrax or anthracæmia. But other symptoms appear early, as vomiting, sometimes dysphagia, slight pain and uneasiness in the abdomen, colic, or diarrhœa. The diarrhœa may be bloody from the first. There is great prostration, cyanosis, and collapse, often without elevation of temperature. Death may occur in twenty-four hours, or be delayed two or three days. Post-mortem: There is often some blood-stained serum in the peritoneal cavity; the mesenteric and retroperitoneal glands are infiltrated with semi-gelatinous fluid; the walls of the stomach and parts of the intestine are swollen and congested, with submucous hæmorhages sometimes. The enteric mucous membrane may be injected or merely stained with blood. The intestinal canal contains blood-stained mucous or watery blood-stained fluid. Rarely there occur pustular or carbuncular foci in the intestines. In addition to these special local conditions there may be one or more of the conditions met with in the general and pulmonary forms. Other observations on supposed internal anthrax, by Huber and Butler, Leydig and others, were next referred to.

The observations of Frisch upon rag-disease (Hadern-krankheit) were then briefly described; they are not at all conclusive, but rather against the view that this disease is anthrax in any form. The mode of death of the dog inoculated with blood taken from subjects of the disease differed from that of anthrax, and the organisms found in the dog's blood were not bacilli but spores. Rabbits experimented on died much more rapidly than in anthrax, and all points to the affection being a peculiar form of septicæmia. Very similar effects were obtained by Dr. Greenfield in some experiments, narrated in his lectures last year, of inoculation with putrid blood, which had been kept for several weeks, taken from horses which had died of supposed anthrax at the Cape.

In the report of the medical officer of health for Glasgow, Dr. James B. Russell (Report of the Medical Officer of the Local Government Board, 1878), a number of cases of malignant pustule occurring amongst hair-spinners working in Russian horsehair were narrated, and reference is made to cases of fatal illness amongst workers in the same factory, which he believes must have been due to the same cause, although without external pustule. But there do not appear to be any satisfactory records of cases of disease of the form under consideration, and therefore it may be well to give an outline of the facts recently revealed by the investigation of so-called "woolsorters' disease" at Bradford, especially as their connexion with anthrax has been conclusively established.

A number of cases of death had occurred amongst workmen employed in wool-factories in Bradford and its vicinity, especially amongst those engaged in sorting and preparing in the raw state certain kinds of mohair. It had been observed that these cases were almost entirely limited to these men, that they occurred in batches, that they had no special relation to age or previous health, and that they were attended by a peculiar train of symptoms, leading usually to rapid death, sometimes with pulmonary symptoms. Slighter ailments, sometimes even grave symptoms from which recovery ensued, and cases of malignant pustule and boils of various kinds, also occurred amongst the same class of workmen. The disease was so clearly associated in some way with the wool and hair that the working of it was regarded with dread; and at last, a number of cases occurring about the same time, the subject became manifestly one for inquiry. (This was undertaken for the Local Government Board by Mr. John Spear in association with Dr. Greenfield.) It is to the untiring industry and devotion, the steady pertinacity, combined with the scientific acumen of a member of our profession—Dr. Bell of Bradford—that the credit both of working out the history of the disease and first suspecting its cause is unquestionably mainly due.

Dr. Greenfield then gave an account of the origin of the kind of wool which is most infectious—the Van or Persian mohair; the most deadly being that which is classed as inferior, and contains together with much dirt many so-called "fallen fleeces"—i.e., the fleeces of animals dying a natural death. It is the sorting of this wool—a process which leads to the disturbance of a quantity of dust—that is so dangerous. The wool waste, the dust which collects from the sorting, is almost invariably used as manure; and the water employed in washing is sometimes passed into the sewers, whence it may be distributed over sewage farms. Instances of splenic fever in cows and sheep on pastures so irrigated were related in the first lecture.

The clinical records of woolsorters' disease permits of its division into three classes—one in which the symptoms are fulminant, intense, and rapidly fatal; another in which though severe, the fatal issue is delayed three, four, or five days; and a third in which the disease extends over a week, and is fatal, if at all, from secondary complications. The symptoms of the more rapid form are well illustrated by a case which has been recorded by Dr. Bell in THE LANCET of June 5th, 1880. This was a case of a man, fifty-eight years of age, previously in perfect health. On June 28th, 1877, he said on reaching home that he had opened a bad bag, and had some very nasty and offensive work. He slept well through the night, was up early next morning, had breakfast, and said nothing about feeling unwell. He perspired much at his work, and at 10 A.M., feeling very unwell, had to leave. He had great difficulty in walking home—two miles and a half—was much exhausted, and went to bed, oppression of breathing being especially noticed. He was seen at 7 P.M., was then perspiring freely; there had been no shivering or chilliness, no vomiting, thirst, or pain. There was some wheezing in the trachea; very little cough; no expectoration; respiration 34; expiration prolonged; no dulness on percussion; some rhonchus over right base, but no moist sounds; axillary temperature subnormal; rectal 102·2°. At 11.30 P.M. aspect anxious, face pale, with slightly leaden hue. He said he felt very poorly, but had no pain; respiration became more laboured; pulse rapid and irregular; and he died three hours afterwards. Such intensely rapid cases as these, though probably not uncommon, have not recently come under observation, but cases having these clinical features are not uncommon in some other centres of wool or hair manufactories. More frequently the symptoms resemble those of other forms of blood-poisoning. The onset is often sudden, sometimes gradual, and preceded by malaise for some days, with all the various general premonitory symptoms which are apt to usher in other acute febrile and septic diseases.

Of the declared symptoms, the earliest are usually great prostration and a sense of oppression of breathing. Distinct shivering or rigor appears to be rare, initial vomiting is not frequent. There may be headache, nausea, but this may be absent and appetite be good. An emotional condition and occasionally a sort of hysterical state may be shown early in the case. It often happens that the patient is so unconscious of any danger, that he refuses to send for a doctor until within two or three hours of death, and in several recorded cases has attempted to go to work, or even done so, within five or six hours of death. The respiratory symptoms are generally well-marked at an early stage. The breathing is laboured and difficult, not usually much accelerated, and often with a sense of pressure or constriction. There may be only slight blood-stained expectoration, or this may be profuse, or, on the other hand, absent. Nothing beyond slight rhonchus is to be made out on physical examination. The pulse is usually rapid and weak, occasionally irregular. The face is sometimes congested, more commonly pale, with a slight cyanotic tint. The extremities are cold and bluish, and the temperature of the surface of the body subnormal. The rectal temperature is usually two or three degrees higher than the axillary, or there may be even greater difference. Profuse and repeated perspirations are not uncommon. The appetite may be good and digestion also apparently good, but vomiting is not uncommon, and it may be repeated and urgent, and not related to food. Diarrhœa is occasional, not constant or bloody. The mental condition varies: anxiety and depression are the rule in the early stages; later the mind may be clear to the last, or delirium may set in some time before death. Convulsions are not uncommon at the stage of collapse, a comatose condition being present in the intervals of the convulsions. As the case progresses the dyspnœa becomes more intense, and death sometimes occurs quite suddenly, as if from syncope or collapse. When more prolonged there are abundant rhonchi and mucous râles over the entire chest, especially posteriorly, and percussion dulness at the bases may be found. Occasionally tetanic spasms or coma lead to the fatal issue. The rectal temperature is seldom higher than 102° or 103°, and in some cases has been normal or subnormal. A higher temperature is frequently present in cases of external malignant pustule, and also in some of the cases diagnosed as woolsorters' disease, and generally in the most favourable cases. There may be a secondary pneumonia, attended by the usual symptoms, and fatal at a later period.

The post-mortem appearances vary considerably; the differences observed appear to depend partly upon the duration of the disease and partly upon the point of entrance of the poison into the system. No cases resembling "intestinal mycosis" have been observed in the cases of woolsorters' disease that have been investigated. In the more rapidly fatal cases the lesions resemble much those found in ordinary bovine splenic apoplexy, or in the lower animals inoculated with the intensest virus. There is usually a marked cyanotic appearance, and decomposition is said to be somewhat rapid. There is no external swelling, no petechiæ, no swelling of throat or neck. The lung tissue may be congested or quite natural; there may be ecchymoses beneath the bronchial mucous membrane and in the pericardium. The abdominal viscera show no change, except slight cloudy swelling of the kidneys and liver. There may be hæmorrhages in the lungs, heart, kidneys, and other organs. These cases are much rarer than those in which there is cellulitis in the neck, especially around the pharynx, and more often blood-stained serous or gelatinous infiltration of the mediastinal tissues. The bronchial glands are swollen, softened, and congested, with more or less hæmorrhage into or around them. The tissues at the root of the lung may be similarly infiltrated, and there may be from one to two pints of fluid in the pleuræ, with consequent partial collapse of the lungs. There may be blood-stained secretion in the bronchi, yellowish or blood-stained fluid in the pericardium, and ecchymoses in the visceral layer. There may be ecchymoses beneath the endocardium, and into the muscular tissue of the left ventricle; and blood-staining of the endocardium rapidly takes place. Sometimes submucous ecchymoses in the pharynx, and slight in the stomach, but nothing in the intestinal tract. The spleen is hardly, if at all, changed, the extremely vascular and almost diffluent condition observed in animals not being met with. Nothing noteworthy in the liver; but the kidneys are often swollen and the seat of ecchymoses. Rarely there is serous infiltration beneath the peritoneum, or less commonly along the retro-peritoneal glands. Brain is usually healthy, less frequently there are ecchymoses in the pia mater, or extensive hæmorrhages. Rarer conditions are large hæmorrhages in front of the pericardium and into the mediastinum, or around the pharynx, with swelling of the cervical glands. The rarer conditions met with in prolonged cases consist in hæmorrhagic infarctions in the lungs, sometimes accompanied by superficial pleurisy; or less often patches of broncho-pneumonic consolidation, sometimes with softening or suppuration. This condition must be regarded as due not merely to prolonged congestion, but to the presence of blood-poisoning, or possibly some predisposition. They may occur in cases in which the history points to the anthracial origin, and in which also bacilli are found in some of the fluids.

Dr. Greenfield next proceeded to detail the evidence upon which the foregoing observations were based. He showed that the whole subject of anthrax is in a transitional state, that the criteria for its diagnosis hitherto accepted are obviously inadequate, and that in order to insure proper attention to the prevalence of the disease and the modes of its diffusion, every possible objection and difficulty must be met, however trivial.

GROUP A. *Cases in which no definite result was gained by inoculation.*

These cases were also first in chronological order.

CASE 1.—That of a man employed for some weeks in sorting Van mohair until Saturday May 1st. At 7 P.M. on that day he complained of feeling sick, coldness, and oppression at the chest. On Sunday he stayed in bed. On Monday he had frequent vomiting, and from that time till death had repeated attacks of coldness and profuse perspiration, with increasing cyanosis. The mind was clear to within one hour and a half of death, when convulsions set in and lasted an hour. He died at 8 P.M. on May 5th, the entire duration of the attack being four days and of the definite symptoms two days. The post-mortem revealed much serous effusion in both pleuræ, without any signs of inflammation; pulmonary collapse; great enlargement of the bronchial glands, some of which contained blood-clot; some ecchymosis at base of heart and in valves; other organs natural. Blood taken from the body fifty hours after death and received after five days contained numerous motionless rods, many containing spores and other larger filaments; only a few ordinary bacteria. Inoculation with this fluid did not produce anthrax.

CASE 2.—A man, seventy-one years old, who had been washing wool, including Van mohair, till May 15th. On the morning of the 17th he felt unwell; on the 18th he had pain in the chest and abdomen, and felt cold. On the 19th there was vomiting, purging, great prostration, and some cyanosis; on the 20th increased cyanosis, great dyspnœa, and râles all over the chest, and he died early on the 21st. At the post-mortem examination, twenty-eight hours after death, there was marked decomposition and subcutaneous emphysema, and abundant gelatinous œdema in the mediastinal tissues, large quantities of fluid in the pleura, and œdema and some congestion of the lungs. The bronchial glands were greatly swollen and congested, blood-stained frothy mucus in the trachea and bronchi; also some injection of the peritoneum, swollen gelatinous œdema of mesentery, with swelling and congestion of the mesenteric and retro-peritoneal glands. Spleen enlarged, soft, and dark-coloured. Fluids from this case were received by Dr. Greenfield fifty hours after death. The blood from the spleen contained many rods, the larger ones blunt at the ends, and containing spores resembling those of bacillus anthracis. No bacterium termo. The pleural serum and fluid from the lungs contained very long rods containing spores. Inoculation with these fluids was without result.

CASE 3.—A woolsorter, thirty years of age, who had been sorting Cape mohair, was taken ill on May 18th, and died on May 27th, having had symptoms resembling those of subacute pneumonia. On post-mortem examination, twenty-three hours after death, pus was found encapsuled in the right pleural cavity; minute purulent spots, surrounded by congestion, scattered through both lungs; the bronchial glands swollen, softened, and infiltrated with blood; spleen enlarged, very soft; some hæmorrhage around one kidney; no bacilli found in the blood, only a few bacterium termo, but some bacilli in the pericardial serum and spleen; no result from inoculation experiments.

GROUP B. *Cases in which anthracoid nature was proved by the microscope and by inoculations.*

CASE 4.—A wool buyer, thirty-six years of age, who had not been known to be exposed to contagion from any of the ordinary wools; after about a week of malaise he left work on May 29th, and on the 30th was seized with illness, chiefly severe headache and dyspnœa. These continued and increased on the 31st and June 1st and 2nd, on the morning of which day the headache became more intense, and extended down the neck and back. He became unconscious and died at 4.30 A.M. on the 3rd after three days and a half illness. Post-mortem examination nine hours after death; numerous petechiæ on abdomen and chest; extensive hæmorrhages into the mediastinal tissues and epicardium, and some wedge-shaped hæmorrhages at the surfaces of the lungs. More than two pints of clear serum in each pleura. Hæmorrhage and inflammatory œdema around pharynx. Extensive extravasation of blood in pia mater. The fluids were received and examined thirty-six hours after death. No bacilli found in pleural or pericardial serum or in spleen; but in the blood a few very long bacilli. Inoculation successful, and practised on two heifers, one protected, the other not (see Lecture I.); and also of guinea-pig and mouse, producing most typical anthrax.

CASE 5.—A man employed in sorting inferior mohair which had been roughly washed. For four days before definite symptoms he had complained of feeling chilly and of aching in the limbs; but it was not till midday on July 22nd that he came home from work feeling thoroughly cold. Towards night he was very restless, with dyspnœa, profuse perspiration, and some cyanosis. He died next day at noon. An examination nine hours after death revealed extensive semi-gelatinous infiltration of the mediastinal tissues, large serous effusions in both pleuræ, and semi-gelatinous œdema of subpleural tissue. Bronchial glands swollen, soft, with ecchymosis in and around them. Small submucous hæmorrhages in the trachea and larger bronchi, which contained frothy blood-stained mucus. Blood received twenty hours after death contained a few typical anthrax bacilli; and inoculation of a guinea-pig produced death in thirty hours with typical anthrax. Similar results from blood from heart and spleen, and the juice expressed from a bronchial gland; and some very large bacilli in the pleural serum.

CASE 6.—That of a man thirty-nine years old, who had been sorting white Van mohair. On August 28th, feeling pain in his head, returned from work in the morning, but took a good dinner. Next morning he stayed in bed. There was some uneasiness in abdomen and free perspiration, and towards morning some dyspnœa. He got up next day to go to work, but the dyspnœa increased, together with a sense of prostration and coldness. At 9 A.M., respiration 46, pulse 120, very weak and intermittent; temperature 98°. Extremities cold and livid; profuse perspiration. Dulness at bases of lungs. He died at 2 P.M. of the same day.

Autopsy twenty-six hours after death.—The neck appeared swollen. There was emphysema of the areolar tissue in the anterior mediastinum, extending to the subperitoneal tissue of the abdominal wall; over pericardium some gelatinous exudation. Each pleura contained about four pints of serous fluid. Heart healthy; lungs collapsed but healthy. Bronchial glands greatly swollen, and the seat of extravasated blood. The fluids were examined forty-eight hours after death. In that from lungs were numerous bacilli in various stages of growth, and in the spleen, and guinea-pigs inoculated from each of these sources died in forty and sixty-six hours respectively, with greatly swollen spleen, containing abundant bacilli.

Thus out of eleven cases in all, either of malignant pustule or of supposed internal anthrax, six of which were fatal, experiments were made with nine, and in four only were any results obtained by inoculation of rodent animals. Yet in all the fatal cases microscopical examination revealed the presence of bacilli in one or more of the fluids or tissues of the body. The apparent discrepancy is explained when the length of time which elapsed between death and the inoculation experiments is considered; for when decomposition has already set in before the post-mortem is made, it is exceptional to produce results by inoculation with blood or other fluids. In all these cases in which the body was examined soon after death, the inoculation was successful, and hence it was in the later cases that these results were obtained.

SYPHILIS AND LOCOMOTOR ATAXY.

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MUCH attention has been lately directed to the existence of a causal relationship between syphilis and locomotor ataxy, and, in Germany especially, facts have been marshaled on each side of the discussion.

The occasional obtrusive association of the two diseases did not escape the keen eye of Duchenne, and his allusion to the subject, in his original papers on the disease, is worth quotation. "Some [ataxic] patients had suffered from constitutional syphilis; it was the only reasonable or apparent cause of the ataxy, but the causal relation is uncertain, for, apart from the special symptoms of syphilis, at its different periods, the locomotor ataxy presented, in these patients, no new or special symptoms, and specific treatment, as a criterion, was equally useless."[1]

No subsequent writer, with the exception of Schultze,[2] attached any importance to the association until in 1876 Fournier[3] insisted on its freqency. His experience that syphilis preceded ataxy in twenty-four out of thirty cases which had come under his notice was generally regarded as due to the special character of his practice. So also with an assertion of the frequent relationship of the two, made in this country by Drysdale. Vulpian, however, to whose sphere of observation the objection does not apply, stated in his lectures,[4] published in May, 1879, that "there are actually few patients with locomotor ataxy who have not had, some years before the appearance of the first symptoms of this affection, an infecting chancre and secondary syphilitic accidents. . . . . I do not think that it is an exaggeration to say that of twenty patients attacked with locomotor ataxy there are at least fifteen who are old syphilitic subjects." Attention has been specially drawn to the subject by a paper by Erb, published in July, 1879,[5] in which he stated that of forty-four cases observed consecutively, there was a history of antecedent syphilis in twenty-seven, or 61 per cent.

Statistics of a different character have been brought forward by German authorities, whose opinions are entitled to great weight. Westphal,[6] of seventy-five cases, found that 18½ per cent. had had primary sores only, and another 14½ per cent. had had secondary symptoms. E. Remak[7] found a history of syphilis in only one quarter of fifty-two cases, and Bernhardt[8] in the same proportion of thirty-seven cases.

The facts which have come under my own notice corroborate the statements of Fournier, Vulpian, and Erb. In 1878, in a paper read at the Bath meeting of the British Medical Association,[9] I expressed the opinion that syphilis must be regarded as a cause of locomotor ataxy in one-half of the cases of that disease; and I now propose to bring forward some evidence in support of this assertion. Thirty-three cases of the disease in men have come under my notice since I began to investigate carefully the relation to it of syphilis. My earlier notes include many instances in which syphilis preceded ataxy, but these have been rejected because in other cases observed at the same time the point was not noted. The thirty-three cases are thus unselected, the only cases rejected being some in which the ataxy was apparently secondary to an acute myelitis.

Of the thirty-three cases eighteen presented a clear history of constitutional syphilis, fifteen described both primary sore and secondary symptoms, three presented or described distinct secondary symptoms, although they were ignorant of having had a primary sore. Five other patients had had a sore, but no secondary symptoms could be ascertained. In the remaining ten cases there was no history of a sore or constitutional symptoms. One of these, however, had had a rash which he was sure was syphilitic, but he was told by a medical man that it was not. Of these ten patients five had suffered from gonorrhœa. Thus, of the whole thirty-three cases, twenty-three (about 70 per cent.) had suffered either from a primary sore or secondary symptoms, and in 53 per cent. there had been undoubted constitutional symptoms, of which in several the indications were still present.

The significance of these facts depends on the proportion of the male population of this country who have had primary sores or constitutional syphilis. Before assuming a causal relationship in these cases between the antecedent venereal disease and the subsequent locomotor ataxy we ought to deduct from the coincidences that proportion which the prevalence of venereal disease may have rendered accidental. Unfortunately, we have not the necessary information. But it is probable that the proportion of adult males, over twenty-five, who have had venereal sores or symptoms of constitutional syphilis is much smaller among the middle classes than among the poor. It is therefore of interest to inquire whether syphilis precedes ataxy with equal frequency in the two classes. Of the thirty-three cases twenty-one were seen in hospital practice, and twelve in private. Of the former there was a history of constitutional syphilis in ten, and of a venereal sore alone in five, making a total of two-thirds of the hospital cases. Of the twelve cases seen in private there was a history of secondary syphilis in eight, and of a venereal sore alone in one, a total of three-quarters of the cases. These facts suggest that syphilis is an antecedent of ataxy, at least as frequently in the well-to-do classes as among the poor.

If we deduct 20 per cent. as explicable by accidental coincidence, there will still remain 50 per cent. of the cases of ataxy in which we must regard the antecedent syphilis as the essential cause of the disease. It may not have been the only cause of the disease; sex, for instance, doubtless has an influence, but the teaching of these facts, as far as they go, is, that one-half of the patients with ataxy would not have this disease if they had not, at some previous period, suffered from syphilis.

How is this conclusion to be reconciled with the figures of Westphal, Bernhardt, and Remak? These facts were published soon after, and in contravention of the statements of Erb, and were manifestly based upon old notes of cases. Statistics so obtained are, it is well known, of very doubtful value upon many points, and, according to my own personal experience, upon this point for one. Erb himself affords an illustration of the change of opinion which may occur when attention is specially directed to a question. In his article in "Ziemssen's Cyclopædia" (written apparently in 1876), he said: "Among chronic diseases, syphilis has been often credited with being the cause of tabes, with what justice cannot as yet be determined. ...... Judging by my own experience this connexion seems doubtful."[10] His changed opinion in 1879 I have already stated.

In women it will probably be found that the proportion of cases presenting syphilitic antecedents is much smaller. Such is the experience of Erb and Westphal, and with it my own observation agrees, although my cases are too few to justify a confident statement.[11]

The lesion in locomotor ataxy is, however, very different from those which are ordinarily caused by syphilis. It is a degeneration limited to a system of structure, and contrasts with the random distribution of ordinary syphilitic processes. This objection has been urged with force by Broadbent, Julliard, Westphal, and others, and I can corroborate the statement of Westphal that in cases which succeed syphilis the lesion is precisely similar to that found in other cases. But theoretical considerations of this character must yield to facts. We know too little of any morbid agency thus to limit its possible operation to certain forms of effect, with which we happen to be familiar. Indeed, a study of the morbid changes which are universally admitted to be syphilis might make us hesitate in exclusions. In the falling off of the hair after syphilis we have a change which no one hesitates to ascribe to syphilis, but which is very unlike its other consequences, and might almost be described as a true degeneration of a system of structure."

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[1] Arch. Gén. de Méd., sér. v., tome xiii., 1859, p. 439.
[2] Inaug. Diss., Berlin, 1867.
[3] Gazette Médicale de Paris, No. 53, 1876.
[4] Leçons sur les Maladies du Système Nerveux, p. 245, 1879.
[5] Deut. Arch. f. klin. Med., Bd. xxiv., p. 42.
[6] Berlin. klin. Wochenschrift, 1880, Nos. 10 and 11. [7] Ibid. [8] Ibid.
[9] Syphilitic Neuroses, Brit. Med. Journ., Aug. 31, 1878, p. 318, and March 1, 1879, p. 303.

[10] Ziemssen's Cyclopædia, American translation, vol. xiii. (1878), p. 528.

[11] Westphal's 75 cases included 20 women, in none of whom was there a history of syphilis. If these 20 cases are deducted, the proportion of the 55 men who had had secondary symptoms rises to 20, and a chancre only, to 25 per cent., making a total of 45 per cent.

The common failure of anti-syphilitic treatment in ataxic cases, which Duchenne pointed out, has been confirmed by most subsequent writers, with the exception of Fournier. It is, however, not altogether surprising, when we remember how different in character the lesion is from those which are commonly influenced by iodide and mercury. The failure of the therapeutic test cannot be held as invalidating other adequate evidence as to the causal relation of the two diseases. But although, as a rule, anti-syphilitic remedies have no marked influence on the disease, occasional exceptions are met with, and I have seen one case of early ataxy in which iodide and mercury effected a practical cure.

As a rule, the interval between the syphilis and the first symptom of the ataxy is considerable. It was noted by Erb in only 17 cases. In 5 it was between two and five years, in 8 between six and ten, in 4 between eleven and fourteen. In my own cases the exact interval was noted in 18 cases. The interval is, as a rule, longer than in Erb's cases. No case of simple tabes was met with earlier than seven years after infection, the actual numbers being: at seven years, 1; at nine, 3; at ten, 2; at thirteen, 3; at fourteen, 2; at fifteen, 1; at seventeen, 1; at twenty, 3; at twenty-one, 1; at twenty-five, 1. Thus two-thirds of the cases occurred more than ten years after the primary disease.

Some other degenerative diseases of the nervous system may be found to stand in a similar relation to syphilis. All Hutchinson's cases of "ophthalmoplegia externa,"[12] for instance, occurred after syphilis, although in the patient whose brain I examined the lesion was purely degenerative. Reflex iridoplegia, the loss of reflex action to light, with preservation of the associated action on accommodation, so common in ataxy, I have several times seen in syphilitic subjects without disease of the spinal cord, and Erb has described an example of the coincidence. Indeed, I believe that it may be taken as a practical rule that (apart from general paralysis of the insane) reflex iridoplegia always indicates either syphilis or tabes, and that it not unfrequently indicates both.

Other forms of degenerative disease of the spinal cord, which occasionally follow syphilis, may also have a causal relation to it. It seems that one effect of constitutional syphilis may be to induce a neuropathic state in which certain degenerative diseases of the nervous system readily occur.

Queen Anne-street, W.

CASE OF CEREBRAL ABSCESS.

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ON Wednesday, Aug. 25th, 1880, I saw for the first time, in consultation with Dr. Massey, senior surgeon to the Dispensary, a boy named John B——, aged sixteen, the son of a groom residing in a poor part of the town. At the time of my visit he was lying on his back in bed, with his head thrown back on the pillow and his legs drawn up. His face wore an expression of suffering, he was troubled with severe frontal headache, and when touched or moved at all he cried out with pain, "Oh, my head!" The intellect was clear, and there were no other head symptoms. The skin felt harsh and dry, the temperature in the axilla was 100·2°; the pulse was remarkably slow, only 56 in the minute, full and at the same time easily compressible; the tongue was slightly furred, the bowels constipated, and there had been vomiting. I examined the chest with some difficulty, owing to the pain caused by moving him, and ascertained that in front there was some dulness on the right side; no crepitation, but the breath sounds were harsh and the expiration prolonged; behind the dulness on the right side was specially marked at the base. The urine was not examined.

The following day we saw him again. The pain in the head was even more acute and incessant, otherwise his condition was about the same. The pain was constant, always referred to the frontal region. The intellect was quite clear; he was able to read books and answer questions; beyond a sluggishness of the pupils to light there was nothing to indicate any impairment of function in the cranial nerves. He was able to take his food, and there had been no vomiting since our last visit. The pulse was still very slow. The position of the head was most remarkable, thrown back on the spine as in tetanus, and on making an examination we discovered that he was actually resting on the occiput and sacrum, and that the hand could be easily passed under the arch of the spine. On calling that evening to take his temperature, I found this opisthotonos even more marked; it was constant, and entirely unaccompanied by convulsive attacks or other tetanic symptoms.

On the next day his condition was about the same, and it being quite impracticable to have him properly nursed at his own home, it was considered desirable he should be moved into the General Hospital. This was accordingly done the same afternoon. His death took place on the next day, Saturday, August 28th.

Mr. Anderson, the resident surgeon of the hospital, has kindly furnished me with the following notes of the post-mortem examination:—On removing the skull-cap slight congestion of the membranes was noticed, and when the brain was removed a distinct swelling was observed on the under-surface of the right temporo-sphenoidal lobe, which had been noticed when removing this lobe from the middle fossa. Fluctuation could be very distinctly felt at this spot. On making a section, an abscess was found, which contained about an ounce of thick creamy pus. It had burst internally into the right lateral ventricle, which was also found filled with pus. The brain-substance around was so softened as to be diffluent, and in the neighbourhood were some small red spots from extravasated blood. The abscess had not given way in any other direction. The membranes at the base of the skull were normal; there was no disease whatever of the petrous bone, or any of the other cranial bones. There was nothing abnormal about the heart. A number of pleuritic adhesions were found on the right side of the chest. There was congestion of both lungs at the base; otherwise the organs appeared healthy. The liver, spleen, kidneys, and intestines were all normal.

The above is a brief account of the case as it came under my notice. I will now proceed to give such facts relating to its history as I have been able to ascertain after careful inquiry, together with a few observations on the points which appear to me most striking.

J. B——'s father and mother are living and well; his eldest sister died at the age of nine; he has one other sister and a brother living, both of whom are in good health. He had measles when a child, and is said to have had an attack of modified small-pox about seven years ago, but he showed no marks of it. He never had scarlet fever or any other illness, nor did he at any time in his life suffer from earache or discharge from the ear. Until a little more than a twelvemonth back he may be said to have enjoyed very good health. He was a bright and diligent scholar, and his attendance at school was never interfered with by illness. At that time his health began to fail. Some three or four months before he had entered upon a situation as stable-boy in a gentleman's house at Sneinton, near Nottingham, and after a little while they noticed that he was disinclined for work, low-spirited, given to sleepiness, and that he frequently complained of headache; his appetite also was poor. It was supposed, however, that these symptoms were attributable to his having overgrown his strength, and as his work was by no means of an arduous nature, and his mistress took a very kind interest in him, he was allowed to continue his employment, and, in fact, remained in the situation until three months before his death. There is no account of his having been laid up with any chest affection, but his aunt, with whom he lodged, says that last autumn he complained a good deal of his chest being tender and that his breath was short. During the time he was in service as stable-boy there is no hint of his having received any blow on the head, though I have questioned everyone who had to do with him closely on the subject. Previous to this he was under the observation of his father, who says most positively that he never suffered from any accident except a very slight one four years ago. The details of this he gave me. The boy was in a cart on his knees, leaning against the back board; it gave way and he fell with it, but saved himself from tumbling out by catching at the side. He was struck in the mouth and cut his lip, but there could have been no loss of consciousness, even of the most temporary kind, as after washing his face he went on as before. It would be unnecessary to mention this apparently trifling circumstance except to show the extreme improbability of his ever having received a blow on the head sufficient to produce concussion. It has already been said that he never had any earache or discharge from the ear; it should be also mentioned that he never had a whitlow, glandular suppuration, or abscess of any kind.

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[12] Med. Chir. Trans., 1879, p. 327.

So much for the previous history. Coming now to the circumstances of his illness, which terminated fatally on August 28th, the onset of the more serious symptoms may be said to have dated from the beginning of June. He had been ailing before in the way above described and doing but little work, but now the headache became more constant and severe, and he had to lay up a good deal, though he was not altogether absent from work. The pain in the head was chiefly through the temples; he was attacked with giddiness occasionally, but he does not seem to have had any fit or loss of consciousness; drowsiness was also a prominent symptom, and there was a good deal of difficulty in arousing him from sleep.

On July 15th (six weeks before his death) he had very decided rigors, so marked that his mistress thought he was suffering from the ague. Very shortly after this he was sent to the Convalescent Home at Mablethorpe, in Lincolnshire; and whilst there Mr. Campbell, the medical officer to that institution, informs me that he was very apathetic, suffered severely from headache, accompanied by constipation and occasional vomiting, the sickness always being checked as soon as the bowels were cleared out. He returned from there to his father's home in Nottingham on Thursday, Aug. 19th. It is noteworthy that he made this long and fatiguing journey alone, and that at the end of it he was able to walk part of the way from the station, a distance of about half a mile. Greatly fatigued, however, with the exertion, he stayed in the whole of the next day (Friday). On Saturday he felt better, went out a little way, and spent some time talking to a friend in the market-place. On the Sunday evening, while sitting at tea, there was a sudden accession of pain to the head which obliged him to take to his bed, and which remained constant until death took place with the symptoms detailed above.

There are several features of interest in this case both from a pathological and clinical point of view. In the first place, there seems to have been no adequate cause for the abscess; no affection of the internal ear, no fracture of the skull, no thrombosis or diseased condition of the dura mater of the sinuses, no concussion (at least, no evidence of such), no pyæmia or suppuration in other parts of the body. Unless, indeed, the pleurisy, from which he appears to have suffered about a year before, may have had some connexion with the formation of the abscess (a thing difficult to conceive), here is a case in which, to say the least, there is no assignable cause. If there be such a thing as idiopathic cerebral abscess, this surely is one! Then, again, the absence of cyst wall, and the diffluence of the brain-substance around, clearly indicate that the abscess was of recent formation, while the occurrence of distinct rigors on July 15th would seem to point to that date as the period at which suppuration took place. If this be so, we must assume that the obscure head symptoms which had shown themselves for about nine months before the onset of the last illness, were not symptoms of the abscess, but simply evidence of the unhealthy condition of the brain-substance preceding its formation.

Clinically, the most remarkable feature of the case was the occurrence of opisthotonos—a symptom which is noted in only one of the cases tabulated by Sir William Gull and Dr. Sutton in "Reynolds's System of Medicine." In this, the sixty-second case, which is recorded by Dr. Ogle, there is said to have been "a slight attack of opisthotonos."

Nottingham.

A Cottage Hospital was opened last week at Keith. The institution, the erection of which has cost about £1500, is to be known as the Turner Memorial Hospital, in memory of the late Dr. Turner, its originator.

ON SOME POINTS IN THE
PATHOLOGY AND TREATMENT OF ACUTE RHEUMATISM AND DIABETES.

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(Concluded from p. 48.)

Having suggested the common origin from which glucose and lactic acid may be derived, I will not here stop to consider how they produce their effects, but on the hypothesis that they result from an enfeebled action of the "coördinating chemical centre," proceed to consider whether any remedies can be administered which, combining chemically with their antecedents, will put a stop to their formation, and produce innocuous compounds which are speedily eliminated from the system.

There are two remedies which have a marked effect in lowering the temperature in pyrexia: quinine and salicylic acid. How do they act?

We know that quinine (1 part in 1000) will stop the amœboid movements of the white blood-corpuscles; it will check inflammation and the resulting out-wandering of these white blood-corpuscles.[1] If in the febrile stage, when the size of the red blood-corpuscles is diminished, quinine be administered, the globules resume their normal size.[2] This is due, however, to the fall of temperature, for the same thing occurs whenever the fever heat is lowered by the action of external cold.

If ozonised oil of turpentine be dropped into an alcoholic solution of guaiac resin, no alteration of colour occurs, but if a drop of blood be added, the blue appears at once—i. e., the blood acts as a carrier of ozone from the turpentine to the resin. Professor Binz has found that quinia, even in so small an amount as one part in twenty thousand, has a perceptible influence in preventing this. Similarly when into a dilute watery solution of the sulphate of indigo carbonate of sodium is thrown until the reaction is decidedly alkaline, and a little blood, and subsequently ten drops of ozonised turpentine are added, a green colour begins at once to develop, and in a little while passes into the clear yellow of isatin. In this case also the blood acts as a carrier of ozone, and Binz and his pupil Ransoné have found that quinia also inhibits this action, one part of it added to a thousand of the mixture delaying the change of colour for an hour. That the action of the alkaloid was on the blood, and not on the indigo and guaiac solutions, was shown by the fact that when similar solutions without the blood were shaken in the air and absorbed ozone, the characteristic colourations of its action were produced just as readily when quinia was absent as when it was present. Binz also proved that the red corpuscles were the portions of the blood affected.[3]

It would seem, then, that when quinia is administered internally it acts as an antipyretic simply by inhibiting the action of the red blood-corpuscles, and preventing the transference of ozone or oxygen by them from the lungs to the tissues. By its action in this way, it produces a great decrease in the elimination of uric acid and urea; it prevents therefore the oxidation of living sarcosine. After a thirty-eight-grain dose, Dr. G. Kerner[4] found the urea was diminished one-fourth, and the uric acid about four-fifths.

Quinia passes through the system unchanged, and is eliminated chiefly by the kidneys. Dr. L. Thau in three experiments out of 4·4586 grammes of the alkaloid given, recovered from the urine passed during forty-eight hours, 4·3 grammes, so that only 0·1586 gramme remained unaccounted for.[5]

By its presence therefore in the blood quinia may prevent the oxidation of the various normal or morbid products in the tissues, and so reduce the temperature, but it does not favour the elimination of those morbid products; they still exist in the tissues, and must be eliminated before the part is restored to a healthy condition. As an illustration of this, I may mention that on two occasions I have seen attacks of gout developed whilst the patient was taking small doses of quinia as a tonic; in one case the patient actually predicting that as I had given him quinine, it would certainly induce an attack.

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[1] Binz: Archiv für mikroscop. Anat., iii. 1867; Virchow's Archiv, Band xlvi., 1869, p. 138.

[2] Manassein: Ueber die Dimensionen der rothen der Blutkörperchen unter verschiedenen Verhältnissen. Berlin, 1872.

[3] See Wood's Therapeutics, 2nd edit., 1877, p. 64.

[4] Pflüger's Archiv für Physiologie, 1870.

[5] Wood's Therapeutics, p. 69.

The action of bark differs in some respects from that of quinine. It has been found by clinical experience that in ague 200 grains of bark produce an effect equal to fifteen grains of quinine, that quantity of bark containing less than five grains of quinine. Is this due to the quinic acid which bark contains, the dry distillation of which produces either benzoic acid (Zwenger and Himmelman) or salicylous acid (Wöhler)?

The other remedy to which I have referred—namely, salicylic acid—when introduced into the system must enter into chemical combination with some of the constituents of the tissues. After its administration it appears in the urine partly as salicylic acid, but also as salicyluric acid; in the same way as hippuric acid, after the administration of benzoic acid, is found in the urine.

By combining one molecule of living sarcosine with two molecules of salicylic acid we obtain the elements of salicyluric acid, and oil of gaulteria or winter-green.

$$\underset{\text{Sarcosine.}}{C_3H_7NO_2}+\underset{\text{Salicylic acid.}}{2C_7H_6O_3}=\underset{\text{Salicyluric acid.}}{C_9H_9NO_4}+\underset{\text{Oil of wintergreen.}}{C_8H_8O_3}+H_2O$$

And oil of wintergreen, when acted upon by soda (in the blood), is resolved into sodium salicylate and methyl alcohol.

$$\underset{\text{Oil of wintergreen.}}{C_8H_8O_3}+\underset{\text{Soda.}}{NaHO}=\underset{\text{Sodium salicylate.}}{NaC_7H_5O_3}+\underset{\text{Methyl alcohol.}}{CH_4O}$$

This action, dependent upon the constitution of living sarcosine, may not be impossible, the salicyluric acid and sodium salicylate being eliminated by the kidneys, and the methyl alcohol inducing that diaphoresis and cerebral disturbance which are often associated with the administration of salicylic acid.

But the following hypothesis seems more reasonable. Salicylic acid when taken into the stomach will be absorbed, and pass directly by the portal vein into the liver. What will it meet with there? If we turn to the list of substances in Tables I. and II. about to be hydrated in the liver, we find at the end glycogen and either allanturic acid or alloxan. Alloxan, when acted upon by acids (HCl or H_2SO_4), is, we know, decomposed, the resulting products being alloxantin, oxalic acid, oxaluric acid, the last being transformed into oxalic acid and urea, and this last again into carbonic acid and ammonia. Taking, then, two molecules of glycogen and two of alloxan, we may have under the influence of salicylic acid—

$$\underset{\text{Glycogen.}}{2(C_2H_5O)_2C_2O_3}+\underset{\text{Alloxan.}}{2(CN)(NH_2)(C_3O_4)}+3H_2O$$
$$=\underset{\text{Carbonic ether.}}{(C_2H_5)_2CO_3}+\underset{\text{Cyanic ether.}}{2(C_2H_5O)(CN)}+\underset{\text{Oxaluric acid.}}{(NH_2)_2(C_3O_4)}+\underset{\text{Oxalic acid.}}{3C_2O_3.H_2O}$$

Now, salicylic acid and salicyluric acid both decompose carbonates.

$$\therefore \underset{\text{Carbonic ether.}}{(C_2H_5)_2CO_3}+\underset{\text{Salicylic acid.}}{2C_7H_6O_3}=\underset{\text{Ethyl salicylic acid.}}{2(C_2H_5)C_7H_5O_3}+\underset{\text{Carbonic acid.}}{H_2CO_3}$$

And ethyl salicylic acid, when treated with soda, is decomposed into sodium salicylate and alcohol.

$$\underset{\text{Ethyl salicylic acid.}}{(C_2H_5)C_7H_5O_3}+\underset{\text{Soda.}}{NaHO}=\underset{\text{Alcohol.}}{C_2H_6O}+\underset{\text{Sodium salicylate.}}{C_7H_5NaO_3}$$

Cyanic ether is decomposed by water, assisted by an acid into alcohol and cyanic acid:

$$\underset{\text{Cyanic ether.}}{(C_2H_5O)(CN)}+H_2O=\underset{\text{Alcohol.}}{C_2H_6O}+\underset{\text{Cyanic acid.}}{CNHO}$$

Again:

$$\underset{\text{Alcohol.}}{C_2H_6O}+\underset{\text{Cyanic acid.}}{2CNHO}=\underset{\text{Allophanic ether.}}{C_2H_3(C_2H_5)N_2O_3}$$

And

$$\underset{\text{Allophanic ether.}}{C_2H_3(C_2H_5)N_2O_3}+\underset{\text{Salicylic acid.}}{2C_7H_6O_3}=\underset{\text{Salicyluric acid.}}{2C_9H_9NO_4}+\underset{\text{Water.}}{H_2O}$$

Consequently, according to these formulæ glycogen and alloxan combine to form carbonic and cyanic ethers, urea, and carbonic acid. The carbonic ether is then transformed into salicylic ether, which, passing into the blood, is decomposed into alcohol and sodium salicylate. The cyanic ether is transformed into alcohol and allophanic ether, the last (or it may be some compound metameric with it, and bearing the same relation to it that the isocyanates bear to the cyanates) combining with salicylic acid to form salicyluric acid and water. Consequently, from four equivalents of salicylic acid we have three equivalents of alcohol set free in the blood, and to this, in some measure at least, must be due the diaphoresis and cerebral disturbance. The sodium salicylate and salicyluric acid pass off in the urine.

These formulæ will explain the difference of the action of salicylic acid in diabetes and in acute rheumatism. Alloxan is the first necessary factor, and in acute rheumatism, as there is increased oxidation going on in the muscular tissue, abundance of alloxan is formed. This, decomposed by the salicylic acid, converts the glycogen into the ethers, which are then eliminated as salicyluric acid, and the formation of glucose and lactic acid is prevented.

If in diabetes the coördinating chemical centre is only weakened to such an extent that, though glucose appears in the blood, alloxan is still formed and appears in the liver, salicylic acid will combine with it, decompose the glycogen, and so prevent the formation of sugar. But if the centre is further weakened, so that $(CN)(NH_2)(CO)_3$ the antecedent of alloxan in the muscular tissue is decomposed in the tissue, forming other products, such as oxamide, urea, &c., which escape into the blood, then the salicylic acid alone can no longer decompose the glycogen, and the amount of sugar eliminated from the system would be unaffected by this remedy. In diabetes, therefore, dependent upon organic change in the nervous system, and of some considerable standing, little benefit would probably result from salicylic acid administered alone. A diet rich in nitrogen must be given, in order to produce excess of uric acid, which, oxidised perhaps in the blood, would then furnish the requisite material for the salicylic acid to act upon—

$$\underset{\text{Uric acid.}}{(CN)_2(NH_2)_2(CO)_3}+O=\underset{\text{Cyanamide.}}{(CN)(NH_2)}+\underset{\text{Alloxan.}}{(CN)(NH_2)C_3O_4}$$

Caffein in such cases may theoretically be worth a trial in combination with salicylic acid, since with hydrochloric acid and chlorate of potassium it is converted into alloxan.

If alloxan is formed in sufficient quantity to combine with the glycogen and prevent the formation of glucose, oxalic acid would be formed and appear in the urine; and as regards this, I may mention that in the case of a patient who came under my care in Addenbrooke's Hospital many years ago, suffering from diabetes, and who recovered under a restricted diet, I noticed that whenever his symptoms were improving oxalates appeared in his urine, but disappeared when the sugar increased. I then thought their presence due to the oxidation of the glucose, but the above formula shows that this is only partially the case. The fact appears to have some clinical significance.

As regards the appearance of uric acid and urates in the urine, it may, I think, be shown that if the disintegration of the muscular be in excess of that of the nervous tissue, uric acid will be formed in excess and pass into the blood. If the contrary condition exists there will be excess of some of the biliary secretions and of phosphates in the urine, but this must form the subject of further investigation. Salicylic acid, then, in acute rheumatism and in diabetes enters into chemical combination with the antecedents of lactic acid and of glucose, and so prevents their formation; and in acute rheumatism, by preventing the formation of lactic acid, there is no longer that dilatation of the minute arteries and consequent hyperoxidation of the muscular tissue, producing pyrexia and increased formation of urates, which are accompaniments of the disease. But to effect this purpose the dose in this disorder must be large enough to produce some decided effect upon the system, such as copious diaphoresis, noises in the ears, or difficulty of hearing, and put a stop to the formation of lactic acid. Salicylic acid that has once passed through the portal system has probably comparatively little effect after it gets into the general circulation. Why this is the case does not seem very clear, but in experiments that have been made with benzoic acid, it was found that when the substance was injected into the circulation alone it appeared as such in the urine, and not as hippuric acid. When two grammes of benzoic acid and 30 cc. of bile (which contains glycocine) were injected into the blood of a dog or cat the urine was found to contain a considerable quantity of hippuric but no benzoic acid; with a larger proportion of benzoic acid the excess passed into the urine together with the hippuric acid.[6] Simultaneously with the appearance of the physiological effects will come relief to the joints and muscles. The dose necessary to effect this is rarely less than

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[6] Kühne and Hallwack's Jaresbericht, 1859, p. 638.

60 or 70 grains, it may be 100, 120, or more. The plan I adopt is to give the true salicylic acid in hourly doses of 20 grains until 60 grains have been taken, and then 10 or 20 grains every hour, watching its effect until the symptoms are relieved, and the patient's joints can be moved without pain. I give it in the form of pills (20 grains mixed with a little pulvis acaciæ and glycerine can be made up into six hard pills). And during the last four years, though I have given it to patients with all forms of heart disease, I have never seen any bad results follow its administration. Given in the form of pill it is, perhaps, absorbed less quickly, but more uniformly, into the circulation. But I have been careful not to use the artificial salicylic acid. This is made by passing carbonic acid into carbolic acid, and is therefore, unless very carefully prepared, liable to contain carbolic acid. "When six or eight grains of carbolic acid are taken in a wineglassful of water a sense of numbness is felt on the lips and in the mouth, followed by a sensation of coolness. Then if the stomach is empty slight nausea and an uneasy sensation in the abdomen follow, with vertigo, ringing in the ears, and slight deafness. The pulse falls in frequency and force, as does also the cardiac impulse, and diarrhœa sometimes occurs."[7] Similar effects to these have been ascribed to the use of salicylic acid, but, I believe, unfairly.

Whilst the remedy appears to relieve and cure acute rheumatism, it is an unquestionable fact that relapses are extremely liable to occur. These, I think, are explainad by the supposition that whilst the formation of the *materies morbi* is prevented, owing to the decomposition of its antecedents, by the remedy; this has no effect in improving or restoring the tone of the "coördinating chemical centre," and in a short time, if the remedy be discontinued, the morbid products are again formed. But give the remedy in much smaller doses two or three times a day until the "centre" has recovered its tone, and then relapses need no longer be feared.

In diabetes large doses of the remedy have been given, but in favourable cases I have found one or two doses of twenty grains reduce the amount of urine one-half in twenty-four hours without raising the specific gravity, the diet remaining unchanged. I give this quantity twice a day, and a third dose at bedtime if the remedy produces no fulness at the back of the head nor buzzing in the ears, and allow the patients plenty of meat, tea, or coffee, and a moderate amount of wheaten bread and milk.

In pyæmia, typhoid fever, or other zymotic disease, where the poison is acting on the blood itself as well as affecting the various nervous centres, salicylic acid (if the theory I have advanced be approximately true) can have comparatively little beneficial effect.

Cambridge.

IVORY EXOSTOSIS IN BOTH EARS SUCCESSFULLY REMOVED BY OPERATION.

By GEORGE P. FIELD, M.R.C.S.,
AURAL SURGEON TO ST. MARY'S HOSPITAL.

(Concluded from page 46.)

THE next case I have to mention is one of true ivory exostosis in both ears, similar in almost every particular to the one I have published.[1] That patient, Dr. G. M——, can now, Oct. 1880, hear perfectly well in both ears, and has never had any trouble with his hearing for the three years since the operation. Moos of Heidelberg has recorded a somewhat similar case. In an excellent book published this year[2] the author, after stating that these growths do not return when removed (Rindfleisch), goes on to say "that the ivory exostoses of the skull, owing to their hardness, are generally excised with extreme difficulty by means of saw and chisel,[3] and the violence involves very great danger." This, I think, is self-evident. I hope in the next edition he will be able to mention the operation by means of the drill, of which the following is another example.

A. S——, aged thirty-one, a gentleman in good health, came to consult me, Dec. 1879, by the advice of Dr. Symes Thompson, complaining of severe deafness, attributable to a compact growth of bone filling up both ears. He stated that as long as he could remember he had suffered from ear-ache from time to time. In 1866, when a midshipman in the Royal Navy, he first observed he was becoming deaf, and began to suffer increasing pain in the ears, but does not remember ever having any discharge from them. He attributes his deafness to sea-bathing, and states that at times in hot climates he "almost lived in the water." In 1870 he came home from China and consulted various medical men for his deafness, whose general opinion seemed to be that he would "grow out of it." Year after year he gradually became more deaf, till at length his "ears almost closed up," and, thinking nothing could be done for them, he was compelled to retire from Her Majesty's service. On Dec. 16th, 1879, he placed himself under my care. Both ears were closed by a bony growth, which was found to be a large ivory exostosis, and in each ear they arose from the posterior wall of the external auditory meatus. He heard the watch only when in contact with the right ear and about two inches from the left. My colleague, Mr. Edmund Owen, saw the case with me the next day, and agreed in thinking that the only chance of his ever hearing fairly well again depended upon an operation for the removal of a portion of the bone. The case presented exactly similar features in almost every respect to the one I have already published. In each instance the disease was not hereditary, and there was no history of gout or syphilis; there was no pain, but a most distressing feeling of fulness and pressure in the ears was experienced, causing great discomfort and uneasiness, together with tinnitus aurium. The growth filled up both ears; the tumours arose from the posterior wall of the meatus; they were of ivory consistence, adamant-like growths of the petrous bone, and extended from about a quarter of an inch from the orifice to within a short distance of the tympanic membrane. I therefore decided to operate with the American dental engine. This instrument can be used with comparative safety even on a tumour thus awkwardly situated, but it can readily be understood that, from the narrowness of the canal and from the close relation of the brain and other important structures, great care is necessary. Mr. S—— postponed the operation for a month, in order, as he expressed it, "in case anything went wrong, that he might have a merry Christmas first."

On Jan. 29th the patient was placed under chloroform, and I proceeded to drill through the growth in the right ear. Here let me state that to perform the operation I have found that it is necessary to have the help of three assistants—one to give chloroform, one to work the treadle of the engine, and one to hold the steel guard in the ear, which I use to prevent as much as possible any risk from the slipping of the drill when in motion.[4] Help is required also to sponge and to syringe with cold water, to keep away the blood which fills up the meatus with great persistency, and often prevents, for a time, a view of the bone. I worked away steadily for fifty minutes, and at last succeeded in getting a fine drill through the growth. For the reasons before assigned, the greatest caution is necessary, and the operation would require considerable time, even if the part to be pierced proved to be less solid. On Feb. 11th I enlarged the opening, the patient being forty-five minutes under chloroform. On March 2nd I operated for fifty-five minutes on the left side in a similar way, and in this ear I found two subsequent operations necessary—one on March 24th, lasting forty minutes, and one on April 17th, half an hour.

I will describe as shortly as possible the operation. The patient is placed on a high couch four feet from the ground, with his head resting on a pillow, and the side to be operated on must be well propped up towards a good light. It is necessary to have the patient placed as high as this, as the dental engine is adapted to a high chair, and so consequently the drill will not reach anyone placed on an ordinary sofa. The handle of the drill or the holder of course might be made longer, but that would involve constant stooping on the part of the operator, which in such a long operation is best avoided by this high position of the patient. Chloroform is then administered, and an assistant holds a steel guard in position round the growth, the guard having been made beforehand to fit the exostosis. Messrs. Weiss and Son made me for my first operation, and which answered admirably, a soft metal guard of copper, very thin, and small enough to pass between the growth and the anterior wall of the meatus. In fitting it, I bend one end to the exact shape to pass behind the growth on the right side, and the other end to pass behind and exactly fit the left exostosis. When I have thus got the shape of both growths, a guard exactly corresponding to the softer metal is made of steel, which at the time of the operation can be readily placed in position, and prevents danger in no small degree. I generally begin with a small drill, and subsequently enlarge the opening with a larger instrument.

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[7] Dr. Bill: Amer. Jour. of Med. Sci., July, 1872, p. 45.

[1] THE LANCET, July 20th, 1878.

[2] The Principles and Practice of Operative Surgery, by Stephen Smith, M.D., of New York.

[3] Heinecke of Erlangen has successfully operated by gouge and mallet; but in that case there were suppuration and granulations on the membrana tympani.

[4] Made by Weiss and Son, already described in THE LANCET, July 20th, 1878.

I have not found it necessary to cut through the skin first, before using the drill. I proceed at once to make a small hole by the side of the steel guard, avoiding the base of the tumour, as there is nothing to indicate the direction, and a slip would be attended with the utmost danger to the life of the patient. It must be remembered that very often the operator is working in the dark, for whatever means he may adopt blood will be sure to fill up the meatus. If he succeeds even in making a way through the base of the growth, he may find himself in a very unexpected and unenviable position. With the steel guard firmly fixed in place, I have found it best to work very slowly, constantly taking out the instrument to sponge or syringe away blood, and thus for an instant or so get a view of the bone. The operation, necessarily very tedious, is by no means an easy one, and even with much care and caution bestowed upon every detail, unforeseen *contretemps* may arise.

I have just stated that I consider the help of several assistants necessary; an accident occurred to impress this on my memory. In the last operation on the left ear one assistant was absent, and the consequence was I had to hold the guard and work the drill myself. Unfortunately, somehow or other, the guard slipped and I injured the membrana tympani, and set up slight facial paralysis. This facial paralysis, what did it mean? I at first thought I had touched the chorda tympani nerve, which is a branch of the facial; it winds forwards above the tendon of the tensor tympani, between the malleus and incus escapes through the Glasserian fissure, and descends to unite with the gustatory nerve, and terminate in the tongue. One or two cases have been related (see Burnett, p. 506) where irritation of the chorda tympani has been said to cause facial paralysis. In my case I may have touched the chorda tympani, but then it seems to me that the tongue alone would be affected, and not the muscles of the face. In my patient the mouth after the operation was drawn slightly over to the unaffected side. A sure sign of injury to the facial nerve. The patient confirmed this view by saying next day, "What I complain of most, doctor, is that I can't whistle." I feel sure that I must have touched the inner wall of the tympanum and the aqueduct of Fallopius, which covers the facial nerve, and wounded or slightly grazed the latter. And this was done when the guard slipped, notwithstanding I was working with the greatest care, proceeding very slowly and holding the drill so firmly that I thought it impossible I could go wrong, but an eighth of an inch was sufficient to pierce the membrana tympani and touch the opposite wall. Luckily, I had great power over the instrument; my arms ached from the constant and firm grip I had used in holding the drill. It was the least touch, and that was all, and I knew at once the mischief I had done.

I am happy to say that, by the help of galvanism and careful treatment, the patient recovered from the effects of the paralysis, and the perforation in the membrana tympani closed. The operation itself is one of extreme difficulty, and any serious complication in carrying it out adds largely to one's anxiety. The patient afterwards did remarkably well, and regained his hearing in both ears.

I think that in all communications of this kind every detail should be recorded and every mistake fairly acknowledged. Accidents, however careful the surgeon may be, must occur occasionally; if they are admitted unhesitatingly good may come, for it renders others less likely to fall into the same error.

In conclusion, I am thankful to be able to record a most satisfactory result.

Lower Seymour-street, W.

DR. JAMES WEAVER has, we regret to learn, been compelled by failing health to resign his appointment as medical officer of health to the Longton Corporation.

TREATMENT OF EMPYEMA BY IRRIGATION AND ASPIRATION.

BY W. W. MOXHAY, M.R.C.S. ENG.,
SURGEON TO THE ROYAL BERKS HOSPITAL.

I WISH to place on record a case of empyema treated by a combination of irrigation and aspiration, with perfect Listerian precautions, according to Fraentzel's description at page 717 of the fourth volume of Ziemssen's Cyclopædia. It may be that mine is the first so operated on in England, and Fraentzel himself only quotes eleven.

My patient, a boy aged eight, was operated on on July 16th. His pleura was washed out twice a day until Aug. 19th, then once a day to the 22nd, and on the 29th the wound was healed, and the lung had expanded well all over. The respiratory murmur came close to the ear on every portion of the surface of the chest on this (the left) side, and there was barely a quarter of an inch of difference in the measurement of the two sides. There had been no fetor all through. At first simple distilled water was used, then a weak solution of iodine, and latterly carbolic acid solution (two grains to the ounce). The fluid used was always of the temperature of 100° or 103° Fahr. By a Nélaton's tube, with several apertures, the fluid was let into the posterior part of the cavity of the pleura from a glass funnel somewhat raised above the level of the wound, which was near the mammillary line between the fifth and sixth ribs, and by another tube also going to the back of the cavity, and attached to a cross-acting syringe, the fluid was drawn out and discharged into a basin until cleared from all pus or lymph.

I should just like to remark that in trying to get up some statistics, I was foiled by the curious mixing together in various writings of cases of serous, fibrino-serous, and purulent effusions, under the heading of empyema. Should such things be?

This case was three miles from my house, and I never should have been able to carry out the details, which took up much time, without the kind and able assistance of Mr. B. Brookes of Sonning.

Reading.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium

WESTMINSTER HOSPITAL.

PNEUMONIA; EXTREME PROSTRATION, WITH LOSS OF CONSCIOUSNESS; CRISIS ON THE EIGHTH DAY, AND CONVALESCENCE ON THE TWELFTH; TREATMENT BY ALCOHOL; REMARKS.

(Under the care of Dr. STURGES.)

THE notes from which the following is abstracted were taken by Dr. Gristock, medical registrar.

William E——, aged twenty-five, warehouse porter, a stout muscular man, of temperate habits and good personal and family health, was admitted on Dec. 7th, 1880. For some six weeks he had been under treatment for enlarged tonsils, but his general health had not suffered, and he had kept at work as usual. On the evening of the 4th, and again on the 5th, he had had repeated rigors, together with cough, stitch in the right side, and difficult expectoration of hitherto uncoloured mucus. He had now kept his bed for three days. His aspect was depressed; respiration 34; temperature 104°; pulse 132, full and compressible; tongue moist and red. There was still severe pleural pain. The sputum was rust-coloured, viscid, and scanty. The base of the right lung yielded the usual consolidation signs, with as yet very limited area of percussion dulness;

moist râles were audible throughout both lungs. On the second day dulness at the right base, reaching upwards nearly to the lower angle of the scapula, together with œgophony and distant yet still distinctly tubular respiration indicated some pleural effusion on the affected side. The general condition was more depressed: there was still much pain from stitch, with absolute sleeplessness; respiration 44, temperature (midday) 104·6°, pulse 132, urine of sp. gr. 1024, containing distinct trace of albumen, with no marked deficiency of chlorides. There was great difficulty in getting the patient to take nourishment, excepting milk; beef-tea he altogether declined, and mutton broth was substituted. He was treated with ammonia salines, and, fomentations and poulticing failing to relieve the chest pain, five leeches were applied to the seat of it, followed by hot fomentation. By these means this particular symptom was in great measure removed. On the third day, however (being the fifth from the first rigor), the patient was notably worse. He had been restless and delirious during the night, utterly sleepless, and breaking into sweats. At the time of the visit the face was bluish; the lips and ears were distinctly cyanotic; signs of general bronchitis were still very distinct, the râles in places approaching the subcrepitant; pulse was 144, and respiration 44, temperature at midday 103·8°. It was now deemed necessary to give brandy, and during this day four ounces were taken. That night was restless and sleepless, like the others. Delirium was sufficiently active to make a special nurse requisite; the temperature, meanwhile, continued to fall, and this midnight (of Dec. 9th, or the fifth day) was 100°. He was now given bark and ammonia in place of the saline draught. Passing over the 10th (or sixth day of this disease), during which he continued in much the same state, still wholly without sleep, delirious, and with trace of albumen in urine, the 11th of December found him semiconscious, passing urine in bed, much cyanosed, moving about restlessly, not answering, and hardly to be recalled to himself. The tongue was now dry, and sordes were collecting on the teeth. There was much sweating; the temperature was 101·8°; pulse 140; respiration 46, at the time of visit, but both pulse and breathing varied much from hour to hour at this period. In this extreme condition he was ordered half an ounce of brandy every half hour (thus taking twenty-four ounces of brandy during twenty-four hours). Directions were given that in case of increased difficulty, or rate of breathing threatening death by apnœa, he should be at once bled to from six to eight ounces. During the night of this seventh day this condition actually occurred, insomuch that preparations for bleeding were made. Owing, however, to the circumstance that the lancet is less accessible now than formerly, some delay arose, the urgency became less, and bleeding was not actually performed. On the 12th, the eighth and, as it presently appeared, the critical day of the pneumonia, the patient was delirious and irresponsive. Respiration was 34; pulse had fallen to 126; and temperature to 99·4° He still passed urine unconsciously, and the symptoms of typhoid sinking were hardly less; the physical signs had not changed. He had now been five days in hospital entirely without sleep; but on this afternoon, at the time of the visit, was observed to be drowsy. The half hour doses of brandy were thereupon suspended. He fell into his first sleep, and, as may truly be said of cases like his, awoke safe. The change was at once recognised in his aspect and manner, and even the precise hour of this critical change. On the 13th (the ninth day of illness) it was reported that he had had a quiet night, sleeping well; his pulse was 100; temperature 99·4°; respiration 26; urine free from albumen. He was rational, and drowsily answered questions. The next day redux crepitation was heard, and the tubular was exchanged for bronchial breathing. The bronchitic râles were now but partial, and over portions of both lungs respiration was free and natural. It was now obvious that the active stage of disease was over. All medical treatment, including brandy, was stopped by the 14th, and by the 16th, the twelfth day of illness, the man was convalescent, and almost all signs, whether of lung consolidation or bronchitis, had passed away. It was observed, however, that for several days longer the face remained somewhat dusky, and that what may perhaps be called without objection the severe shock of the disease was not recovered from with quite the same celerity which marks the return to health after a pneumonia of ordinary character. Still, on the seventeenth day from his first rigor, being the ninth from the extremest severity of his illness, the patient was up and about almost in his usual health.

Remarks by Dr. Sturges.—We have here an example of pneumonia of unusual severity, yet which in the end underwent its critical change with remarkable suddenness, eight days being occupied by the advance of the disease, and hardly four in reaching convalescence. Two points especially call for short notice—(1) The delay and the manner of crisis, with the sudden termination therewith of the bronchitis, no less than of the pneumonia; (2) the indications that the case afforded for prognosis and for treatment.

1. The area of lung consolidation was not large, nor did it notably spread. But the accompanying bronchitis was much more extensive than is usual in pneumonia, implicating both lungs, and reaching in places to the smallest tubes. Nevertheless, the onset, the course, and the termination of the affection were such as belong to pneumonia, and not such as belong to bronchitis. Especially was this shown by the fact that when the crisis came the lung recovered at once and altogether, the signs of bronchitis disappearing almost as soon as the signs of consolidation. It is true that we have bronchitis more or less in every pneumonia, and that the physical signs of the two are apt to disappear almost together; but in a case like the present, where bronchitis is exceptionally extensive, and in both lungs, while there is but a single patch of consolidation, there is room to question whether we have not a secondary or bronchial and not an idiopathic pneumonia; whether, in other words, we are not to expect a lengthened course and gradual changes such as bronchitis shows, rather than a limited course and sudden amendment such as pneumonia shows. In such circumstances a consideration of the origin and general features of the illness is all important. If in these respects the case conforms, as it did here, to the well-known pattern of true pneumonia then, however extensive the bronchitis, there is yet ground not only for expecting crisis at the usual period, but also for hoping that with this event the bronchial affection will disappear along with the pneumonic. *Bronchitis when coupled with pneumonia in this wise departs from its own rule of gradual recession, and conforms to that of its associate.*

The crisis was late—namely, on the eighth day,—and the fall of temperature was gradual: "a defervescence by lysis." According to some definitions, therefore, there was no crisis at all. The temperature on the morning of the eighth day, when the man was unconscious and threatening to die, was not appreciably lower than on the same evening when he awoke from his first sleep, and it became certain that he would live. For three days, indeed, the body heat had been falling, while all the most ominous symptoms—the prostration, the passing of urine unconsciously, the drying of the tongue and teeth—had been accumulating, and the physical signs had shown no change. We may get just such a fall of temperature when death is impending, and this might seem to be the case here; yet never was there a more sudden arrest of active symptoms. We could tell the very hour when the fever left him, and the transition from immediate present danger to the mere exhaustion of a past conflict was seen first in his face. It is most common, indeed, for the temperature to fall suddenly through several degrees at or about the time of crisis, but we see that this is not always so. *The temperature chart may sometimes give no indication at all of the most marked crisis.*

2. What should have been the prognosis in such a case as this, and how far was it influenced by the treatment? It happens sometimes that with just such general symptoms as those we have here there is not merely a patch of consolidation, but a whole lobe or more is solid; or, otherwise, that the consolidation is not towards the base but at an apex. In such cases, while we wait and hope for the crisis, we are fearing all the while that the actual condition of the lung may be one of rapid disintegration unrecognisable as yet by any physical sign. There is less room for such fear in a case like the present. Let the hepatisation be of small area, at the lower rather than the upper part of the lung, and not spreading, the illness new and sudden, and the patient temperate, of good general health, and not an infant or an old man, and however grave the general symptoms the natural tendency to recovery is so strong that we can hardly place a limit to it. Where else in disease is there anything like it? We are sometimes struck with the sudden termination of a specific fever, but there still remains the prolonged convalescence of such fever. Where but in

true pneumonia do we find a patient blue and gasping and insensible one week and well the next? Such being the nature of the disease, nothing can be more hazardous than the drawing of conclusions as to the results of treatment. The most we can say for certain is that pneumonia, on the whole, has fared better since we have ceased to treat it with remedies. Suppose this man had been bled at the time when bleeding was actually proposed, how admirable an example would he have seemed to furnish of the good of bleeding? And so of the alcohol. It is easy to attribute too much to it. Yet two things may, perhaps, be safely said under this heading. One, that in most cases of pneumonia of this gravity some substitute or other for food is urgently needed, since food itself, in whatever form, can no longer be taken; the other, that the stimulation of alcohol pushed just so far as to produce its earliest toxic effect of narcotising seems to meet the needs of a prostration happening on the very eve of crisis, and which is wakeful and actively delirious. At the same time the nature of this need for alcohol, liberally administered for a short period, in an emergency like this, whether as medicine or as the best substitute for food, would imply the needlessness of it in all cases of pneumonia where suitable nourishment can be given in sufficient quantity. It is quite certain that ordinary pneumonia recovers perfectly well without a drop of alcohol.

NEWARK HOSPITAL.

HYSTERICAL SPINAL AFFECTION OF TWO YEARS' DURATION; CURED BY CORRIGAN'S IRON.

FOR the following notes we are indebted to Mr. J. D. T. Reckitt, house-surgeon.

Alice D——, aged twenty-five, dressmaker and single, was first seen on May 20th, 1878, when she stated that until two years before, when she had a fall, spraining her back a little, she had always enjoyed good health. She was first attended at her home. She kept her bed, but had a healthy appearance, though the expression of her countenance was melancholic. She had been treated in the hospital, and had also been under treatment at home for what she stated was spinal disease, the treatment including blisters to the spine, various liniments, and, lastly, crutches; but all to no purpose. The nature of the case was suspected to be hysterical, and in answer to inquiries the patient said she had severe pains almost everywhere, not excepting even the ends of the finger-nails, and added to this, a sympathising mother dilated very largely upon the extreme suffering the patient underwent. She had not been able to walk for several months, but her appetite had continued pretty good. She slept badly, and had much headache. It was therefore determined to apply the actual cautery, and the patient was assured that she would be able to walk in two months' time.

On May 25th, assisted by Mr. J. Sheppard, Mr. Reckitt made six impressions—three on either side—in the spinal fossæ, from the commencement of the dorsal region downwards. The patient complained of considerable pain, and she nearly fainted. It was decided to reapply the iron in a week's time if there was no improvement.

On June 2nd she appeared so depressed and reluctant to have a reapplication, that it was deferred a week; and accordingly, a week later, six more impressions were made on either side, but below the former. She was ordered to get up.

On the 16th she felt a little better, but still had a little pain and slight headache. She was ordered to try to walk with help.

On the 23rd she said she was improving slowly. She was told that probably another application would be necessary.

On July 7th she was downstairs, and had walked several times with help.

On August 20th she presented herself at the hospital, having walked up a distance of half a mile with her sister's aid. Much better, and walked fairly.

On the 30th so much improved that she was discharged.

Remarks.—The apparent total inability of the girl to walk when first seen, and the rapid effect of the heroic measure adopted, would appear to prove that hysteria—or rather, perhaps, malingering in a hysterical subject—was the main feature in the case; and also that the treatment, though somewhat cruel, was the only means to make such an obstinate individual use her ambulatory powers, and to assure her of her ability to do so.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

A Series of 172 Antiseptic Abdominal Sections.—Radical Cure of Varicocele.

THE ordinary meeting of this Society was held on the 11th inst., J. E. Erichsen, Esq., F.R.S. President, in the chair. The subject of antiseptics as applied to peritoneal surgery—principally ovariotomy—was again under discussion, a paper by Mr. Knowsley Thornton being read; and Dr. Bantock took the opportunity of once more urging his objections to the "Listerian" method. A short description of a new method for the radical cure of varicocele, by Mr. Henry Lee, was also read.

Mr. KNOWSLEY THORNTON read a paper "On 172 Antiseptic Abdominal Sections, with remarks on the causes of death in the fatal cases," of which the following is an abstract. After some remarks as to the details given in the printed tables which accompanied the paper, the author pointed out certain further information which it is desirable should accompany statistical tables of operation cases. First: an account of all cases of abdominal tumours seen during the time covered by the tables, but not operated upon, with the reasons why no operation was performed. Second: the highest temperature and pulse, with the day of the operation upon which they were respectively recorded. Such additional information is necessary in order to show the success of the individual surgeon in dealing with ovarian or other similar disease, and the general progress in this branch of surgery, and also to show the well- or ill-doing of the cases which recover after operation. The fact that all the cases had been treated on Lister's method, and nearly all by the complete intra-peritoneal ligature, was dwelt upon. Common methods of treatment in a large series of cases being especially useful in extending knowledge by affording material for comparison with other methods, the importance of accurately following the teachings and practice of Lister, to the exclusion of so-called "modified Listerism," was insisted on. In the author's hands the *pure Listerism* had reduced the mortality in the most common operation in the tables—ovariotomy—from 23·94 per cent. to only 4 per cent., a result altogether beyond the mere improvement to be expected from increased experience in performing the operation. The question of drainage, by means of Keith's improved form of Koeberlé's glass tube, was then discussed, the small mortality in the last 75 ovariotomies (4 per cent.) being claimed as a proof that drainage is unnecessary if Lister's method be perfectly carried out in abdominal section, comparative statistics being given to prove the same conclusion. The question of selection of cases was alluded to in relation to two of the three deaths in the last series of 75 cases; both were apparently hopeless, but were given the last chance; and both, though open to question as to completion, were included among the complete operations. The question as to what cases should be called complete or incomplete was then discussed. A comparison of the mortality in simple and difficult cases (it is *nil* in the author's hands in the former), in the cases tapped and not tapped, and in those which had only one or both ovaries removed was also given. The causes of death in the fatal cases were then given in some detail, and the bearing of the antiseptic method on the mortality was illustrated by a division of these cases into *three* groups. The danger arising from the transfixion or opening of a diseased Fallopian tube was pointed out as a possible cause of septicæmia—a question also important in dealing with uterine fibroids. The incomplete ovariotomies and other operations in the tables were discussed, and, passing to the treatment of uterine tumours by abdominal section, the author pointed out the difficulties in the application of Lister's method to those cases in which the uterine cavity is opened, and showed from his own statistics that, whereas in cases in which the cavity was not opened the mortality was only one in eight (and that one a very exceptional case in many respects), in cases in which the cavity was opened three out of four died. The general conclusions drawn from the whole 172 antiseptic cases were as follows: 1. Simple cases recover under Lister's method, with a certainty previously unknown. 2. There is less fever, and convalescence is more rapid, than under the old method. 3. The success obtained in the more complicated cases is in proportion to the exactness with which the antiseptic method can be applied to the individual cases. 4. The accidents and complications occasionally following operation, such as hæmorrhage, for example, are more easily overcome in aseptic cases. 5. There are difficulties and some dangers in the application of the method, and the more experience the individual surgeon has in it, the more readily he foresees and avoids these, and the more complete becomes his success in applying it. In a few concluding words the author pointed out how much peritoneal surgery owed to Mr. Lister, and how much more to Mr. Wells; without the untiring energy and success of the latter it would never have been in the position to benefit by the method of the former.—The PRESIDENT, in inviting discussion, drew attention to the introduction into this paper of the subject of removal of the uterus, which opened up a new field of inquiry into the claims of antiseptics, the views held on their merits and disadvantages in ovariotomy being almost irreconcilable.—Dr. BANTOCK began by referring to the debate which had taken place at the last meeting of the Society, and criticising the remarks made by Mr. Thornton on that occasion. He maintained that his own experience, though comparatively small, was sufficient to prove the inefficiency of Listerism. Mr. Thornton's reference to his (Dr. Bantock's) hospital statistics before they had been published was unusual, and if, instead of quoting the last year's figures, he had given those of the previous year, he would have found that the rate of mortality as between his cases and Mr. Thornton's was reversed. The opinion he held that carbolic acid was injurious was shared in by many, for some of the most eminent Continental surgeons had attributed fatal results to its use. In considering the subject of drainage it must be remembered that drainage is always applied to the most severe cases, and to say that in such cases death is due to the use of the drainage-tube is to beg the question. In his own practice the daily diminution of the discharge showed that the drainage-tube did not excite suppuration; and the specimens of fluid he showed on the last occasion proved this, for they were perfectly aseptic. He believed tapping to be most injurious, and would say that it should never be done unless the operator were prepared to follow up the procedure by removal of the cyst. It was harmful, not because of its liability to cause septic poisoning, but because of its leading to inflammatory changes in the cyst. He had removed a cyst (not previously tapped) where the fluid was putrid; the drainage-tube was used, and the temperature fell at once after the operation. He did not believe at all that septic matter could be introduced through tapping. That suppression of urine was more frequent since antiseptics had been used was shown by the fact that it was only once met with by Mr. Spencer Wells in 800 cases; and he himself (Dr. Bantock) never had a case of suppression until he adopted the Listerian method. Dr. Keith's statistics, showing a mortality of 1 in 26 without antiseptics and 1 in 24·5 with antiseptics, were significant. Dr. Bantock concluded by showing that the consumption of ice at the Samaritan Free Hospital had risen considerably since Mr. Thornton's introduction of the ice-cap and his employment of Listerism, and he thought this fact was opposed to Mr. Thornton's statement that there was less fever since the adoption of Listerism than before.—Mr. HULKE asked Mr. Thornton if he would state precisely what he meant by Lister's own method. Mr. Lister had, no doubt, greatly modified his method, and it would be satisfactory to know exactly the details as now carried out.—Mr. THORNTON said the procedure was as follows:—The abdomen is washed by the nurse before the operation with a 5 per cent. solution of carbolic acid, and a cloth soaked in this solution is lightly bandaged on until the operation begins. All the instruments, ligatures, &c., are placed in trays containing this solution, which is diluted with warm water to 2½ per cent. shortly before the operation. The strength of the solution in the spray bottle is also 5 per cent., which is diluted by the steam of the spray-producer to about 2½ per cent. The sponges (always well cleansed after each operation by ammonia and by sulphurous acid—1 in 8) are kept in a 5 per cent. solution, and during the operation are washed in warm water, and then in a 2½ per cent. solution. Gauze is applied directly over the wound, is strapped on, and not removed until ten days after the operation, by which time the wound will (in 99 cases out of 100) be found healed by the first intention, so that it is not necessary to use the spray in removing the ligatures. Gauze is again put on, and the patient goes out with the wound quite healed.—Mr. HEATH congratulated Mr. Thornton upon the plain way in which he had given the facts of all his operations—especially for including his uncompleted operations in his tables. But why were no cases given beyond June last? Ten years ago he held office at the Hospital for Women and performed and witnessed many ovariotomies. He had been pleased to find that Mr. Wells and his colleagues at the Samaritan Free Hospital had come round to the views which were then held at Soho-square—viz., that preliminary tapping was bad, and that ligature was the best method of treating the pedicle. The results they then had were very good. It was remarkable that in all Mr. Thornton's fatal cases there were adhesions; for this proved the truth that if the case be a simple one it does well. Ovariotomy might be compared with lithotomy, where, if the stone be a large one, the chances are against recovery. So in ovariotomy, if the cyst be very adherent, the chances of a fatal result are the same whether the case be treated by drainage or by antiseptics. Therefore he believed that as good results might be expected without the use of the spray as with it; and in his own experience the wounds healed readily; far different from the cases where the clamp was used, when patients used often to go out with the wound unhealed.—Dr. HEYWOOD SMITH, alluding to the removal of uterine fibroids, especially of the intramural class, when symptoms are more urgent, asked whether in such cases oöphorectomy should not be practised, as it seems to give some hope of the arrest of growth of such tumours. The introduction of antiseptics had certainly reduced mortarity in cases of old vascular adhesions, which before the days of antiseptics were often a source of danger from the oozing of blood into the peritoneum.—Dr. CHAMPNEYS pointed out that statistical tables dealing only with ovariotomy were somewhat misleading, for they take no account of those cases which are passed over as unfit for operation, and which by rights should be placed on the side of the fatal cases. Every encouragement should be given to surgeons to operate in all doubtful cases, disregarding the influence this might have in raising the rates of mortality; for cases were met with in which after death it was seen that the tumour could easily have been removed.—Mr. THORNTON disclaimed any intention of entering into a repetition of the debate which took place at the last meeting. The statistics he then quoted from Dr. Bantock's practice had been mostly published by that gentleman in a letter to one of the medical journals. The apparently excessive consumption of ice, on which such stress had been laid, arose from the great waste due to the storage of ice at the Samaritan Free Hospital; and it was not found to be necessary to keep such a supply now, for the ice-cap was very rarely used. He did not think anything would be gained by entering into controversy on the matter after the exhaustive debate at the last meeting, but preferred to wait until fresh facts were brought before the Society. If the fluids shown by Dr. Bantock were really aseptic it would prove that the air of the hospital—and, indeed, the air of London—was purer than the air of Mont Blanc when Professor Tyndall made his experiments. He no longer used any "protective," for Mr. Lister does not use it for wounds of which the edges can be kept in apposition. The reason why the tables included no cases of the past six months was simply that the paper had been written for some time, and included other abdominal sections up to that date (June). He did not imply that all the bad cases died—indeed, under antiseptics a large percentage of bad cases recover. He agreed with Mr. Heath as to the inutility of tapping, and the value of ligatures, and had early come to that conclusion when seeing cases treated by tapping and by the clamp. He hoped that some day the subject of operation for uterine fibroids would be discussed. He had avoided mention of oöphorectomy—an operation which he was sorry to see was being coupled with ovariotomy, whereas it was a far simpler measure, and the indications for its performance had yet to be defined.

The following is an abstract of a paper, "On the Radical Cure of Varicocele," by Mr. HENRY LEE:—The operation advocated in this paper is that of removing a portion of the anterior skin of the scrotum, and subsequently dividing the veins which are to be obliterated. All the steps of the operation are conducted through the wound made by the removal of the skin. The veins are compressed temporarily, so as to prevent hæmorrhage, and then divided. The cut orifices of the veins are sealed with the black hot cautery, which, if of proper temperature, is allowed to adhere to them for five or six seconds. The ligatures and needles used in compression are then removed, and the edges of the skin brought into apposition from below upward by carbolised sutures. Union by first intention takes place more or less perfectly, and the patient is allowed to follow his usual avocations in three or four days.—Mr. PEARCE GOULD described an operation that he had performed for the radical cure of varicocele during the last two and a half years. It consisted in passing a loop of platinum wire round the spermatic veins subcutaneously, and then connecting it with a galvanic écraseur, and making it burn its way through the veins. In all he had performed it eleven times, two of the cases being incomplete, the other nine having resulted in cure without accident. The advantages he claimed for it were its safety, simplicity, painlessness, and efficiency, and the fact that the operation is limited to the diseased parts. He considered Mr. Lee's operation as more complicated, and held that the wound of the scrotum was liable to œdema, and even suppuration; and being closed by the continuous suture, there was no outlet for any effused serum. The removal of part of the scrotum has been shown to be ineffectual for the cure of varicocele, and he doubted if it were needful if the occlusion of the veins were satisfactorily secured. He thought it hardly safe to allow patients to get up and move about so soon as three or four days after such operations on veins, but preferred to wait until the clots were firmly adherent, and the divided ends of the vessels securely closed.—Mr. LEE, in reply, said that although he had now employed the actual cautery in a very large number of cases, he had never had a case of septic poisoning following its use. He attributed this to the complete closure of the veins—the small as well as the large—effected by it. It also effectually sealed the arteries; and if the operation is fairly done there is no oozing whatever. The wounds heal without any sloughing. His object in interfering with the scrotum was to prevent any return of the varicocele.

At the close of the meeting Dr. Heywood Smith exhibited a new apparatus for actual cautery just brought over from Matthieu of Paris, the invention of a M. de Carter, a great improvement in some respects on Paquelin's. There was no bottle to carry about, which not only required the aid of a second person, but was liable to be upset and to give rise to an inconvenient flare, the temperature could easily be regulated by a screw attached to the instrument, and there was also no need for a spirit lamp. The whole apparatus itself was more portable and also less costly.

Reviews and Notices of Books.

Report on the Scientific Results of the Voyage of H.M.S. "Challenger" during the years 1873–76, *under the command of Capt. Geo. Nares and Capt. Frank Thomson.* Prepared under the superintendence of Sir C. WYVILLE THOMSON, F.R.S. Zoology I. Published by order of Her Majesty's Government. Longmans; Macmillan; Simpkin, Marshall, and Co.

THIS magnificent volume contains the first instalment of the Reports on Zoology, which are the results of the expedition of the *Challenger*, and the plan adopted is undoubtedly that from which the greatest benefit can accrue to science. The *Challenger* was sent out with Sir C. Wyville Thomson in charge of a civilian staff, by whom the specimens captured were, as far as possible, preserved, classified, and arranged. The *Challenger* was a corvette of 2306 tons, fitted with engines of 1206 horse power. The guns she formerly carried were for the most part discarded, and she was modified to suit the special requirements of the expedition. Three gentlemen were associated with Sir C. W. Thomson—Mr. H. N. Moseley of Oxford, Mr. J. Murray, and Dr. V. Willemoes Suhm, a young naturalist of great promise, who appears to have won the esteem and regard of his colleagues, and who unfortunately died from an attack of acute erysipelas on the voyage home. Subsequently considerable assistance was obtained from the services of Mr. F. Pearcey.

The voyage lasted three years and a half, and on arriving at home or previously, as opportunity offered, the immense accumulations of material were placed in the hands of experts to arrange or distribute when old, and to name and classify when new. In this way it is obvious every advantage will be taken of the stores obtained. The work is expected to extend to ten or twelve volumes of zoology, to which will be added an introduction containing a narrative of the voyage and all necessary hydrographical details, and a volume devoted to an account of the meteorological observations taken by the naval scientific staff on board. In the present volume the general introduction to the Zoological series of reports has been undertaken by Sir Wyville Thomson himself, and occupies fifty-nine pages. It is succeeded by a Report on the Brachiopoda obtained during the voyage by Thomas Davidson, which occupies 67 pages, and is illustrated by 4 plates. Then follow in succession a Report on the Pennatulida by Albert Kölliker (41 pages and 11 plates); the Ostracoda by G. Stewardson Brady (184 pages and 44 plates); the Bones of the Cetacea by William Turner (45 pages and 3 plates); the Development of the Green Turtle by W. K. Parker (58 pages and 13 plates); and, lastly, a Report on the Shore Fishes collected during the voyage by Albert Günther (82 pages and 32 plates).

The first and most interesting fact that has been established by this expedition is that in corroboration of what had been previously ascertained from the cruises of the *Lightning* and of the *Porcupine*, and in opposition to the views entertained by even such eminent naturalists as Forbes, there is no actual depth-limit to animal life, but that at depths of upwards of three miles, under a pressure of two and a half tons to the square inch, with a temperature close upon the freezing-point, and probably in utter darkness, animal life is still abundant, and all the principal types of marine invertebrata are represented. Wallich has even shown that the much despised Bathybius, when brought up from these great depths, exhibited signs of motion. The area of the great ocean basin is enormous, and is estimated by Sir W. Thomson at one hundred millions of square miles; and he is satisfied that the nature and distribution of the special fauna of this area may be brought with comparative ease within the limits of human knowledge.

The implements employed in the dredging operations were an ordinary dredge with wire rope, which was connected with india-rubber accumulators, to relieve sudden strain, and a donkey engine to haul it up. Sometimes a well balanced trawl, fifteen feet in beam, was used instead, and with great success. The pressure was so great that the wood of the beam was materially affected. In one instance when a pine beam was used, the wood was compressed till the knots stood out a tenth of an inch beyond the general surface, and on another occasion the beam was crushed as if it had been passed between rollers. The quantity of wire rope of various sizes taken out was very great. They had 10,000 fathoms of 3-inch rope on board, and expended 4200 fathoms; 31,000 fathoms of 2½-inch rope, of which they expended 27,100 fathoms; and 15,000 fathoms of 2-inch rope, of which they expended 10,860 fathoms. They were supplied with 22 trawls, and expended 16. The greatest depth dredged on any occasion was 4575 fathoms. The proceedings adopted were very regular and systematic. A single dredging operation occupied the whole day. Steam was got up at daybreak (the ship running under sail during the night), and the ship was hove-to during the morning watch, and a sounding taken. The exact depth, the nature of the bottom, and the bottom temperature having been thus ascertained, and a sample of the bottom water procured, the dredge (or trawl) was put over after breakfast, and the line slowly veered to about 4000 fathoms. In from two to three hours the movements of the accumulators indicated that the dredge had reached the bottom, and it was allowed, with all precautions, to drag for an hour or two. The operation of heaving-in then commenced, and continued for four hours or more, according to the resistance from the weight of the dredge or the state of the weather, the usual rate being about one foot a second. When the number of 100 fathom marks on board indicated that the dredge was nearing the surface the naturalists congregated on the bridge, and preparations were made for its reception. As it was usually in the afterpart of the day when it arrived, lanterns were sometimes required. Sieves were used to separate the animals of various sizes, and in hot climates the specimens brought up were at once registered, and put into spirit, though by so doing many opportunities of observing in detail the colours, structure, and consistence of the tissues of the animals were lost. Animals brought up from great depths were always dead. The ship was fitted with an excellently arranged naturalist's room, with an almost unlimited supply of instruments, many thousand wide-mouthed phials, and thousands of gallons of pure spirit; and, as occasion offered, large quantities of material were sent home from distant stations, as from Bermuda, Halifax, the Cape, Hong Kong, and Japan, and yet several thousand specimens in bottles, cases, casks, and jars were brought home, each specimen having the number of the station at which it was obtained, written indelibly on parchment, dropped into the same jar. The breakages were extraordinary few in number, only four vessels being broken out of 5000.

It would appear that the food of many of the groups of the abyssal fauna is the globigerina ooze, which constitutes the floor of the ocean through a large area. This globigerina ooze is so named because the foraminifer named globigerina enters largely into its composition, but with it are associated members of the group of Orbulina, Pulvinulina, Pullenia, and Sphæroidina. All these animals live near the surface of the ocean, but after death drop to the bottom, the organic matter contained in their tests constituting the chief part of the food of the creatures living at great depths. The abyssal fauna living at depths below 500 or 600 fathoms is remarkably uniform; all the classes and most of the leading orders of marine invertebrata are fully represented, but their representation is not in the same relative proportion as near the surface. Thus, the Gasteropoda and Lamellibranchiata are rare. An order of Rhizopods closely allied to the Radiolaria are largely represented, and have been named by Haeckel the Phæodaria. A large series of starfish related to Archaster are found, which recall many fossil forms; also a prominent family of regular urchins, the Echinothuridæ, exist, long known only by an obscure fossil from the chalk. A group of the Holothuriadæ, named the Elasmopoda, is very conspicuous. There are also many crustacea and many fishes, the latter presenting peculiarities in structure that enable them to be easily distinguished from shore fishes, and being especially characterised by the delicacy of their tissues, which easily break down on dissection, and either by the largeness of their eyes or the absence of these organs.

A general examination of the geological evidence, coupled with an examination of the fauna of the abysses of the ocean, has led Sir W. Thomson to the conclusion that the great meridional depressions of the earth's crust now occupied by the ocean date from the period of its original cooling. From the Silurian period up to the present time there has been a continuous ocean with mean bottom temperature oscillating about the freezing-point; and during all this time an abyssal fauna, of whose existence we have evidence in every rescued page of geological history, must have migrated continuously, becoming slowly changed during the lapse of immeasurable time, with the slightly altering phases in the distribution of sea and land. Slowly, very slowly, movement takes place in the vast masses of water. From the polar regions a stream runs constantly towards the equator, displacing the warmer water of the tropical regions, which is driven with equal slowness towards the poles, and owing to the southern pole being colder than the northern, the chief mass of cold water is supplied from this hemisphere, which correspondingly affects the fauna, the majority of the animals supplying evidence of their derivation from a southern source. In the last paragraph of his preliminary observations, Sir W. Thomson states that the study of the abyssal fauna refuses to give the least support to the theory which refers the evolution of species to extreme variations guided only by natural selection—a remark that Mr. Darwin has criticised severely, as being not only a misrepresentation of the view generally understood by the term "theory of evolution," but also as being in opposition to the entire results of the expedition, which seem if anything to establish the continuity of animal life.

Of the several reports we have little to say, since their interest lies in the description and representation by means of lithographs of new or rare species. The figures are beautifully executed, and no expense has been spared to make them complete. The descriptions are of course technical, and as each series has been placed in the hands of the most distinguished naturalists, they will constitute the types to which all specimens in future obtained will be referred.

Dr. Davidson remarks that although the number of Brachiopods brought home was great, only thirty-one species are represented. The greatest depth at which any living Brachiopod was obtained was 2900 fathoms, but they do not abound at depths beyond 500 fathoms. The new species obtained appear to have been few; though one, the Terebratulina Wyvillii, is the finest and largest species of the subgenus Terebratulina hitherto discovered, either in the recent or fossil condition. Professor Kölliker, in describing the species of Pennatula submitted to him for examination, refers for anatomical details to his own classical work upon them, but gives a new classification, which has been rendered necessary by the examination of the new species discovered.

Dr. Stewardson Brady's report on the Ostracoda is very complete. He finds that they are very rare or absent when the ocean bed consists of red clay or globigerina ooze. Fifty-two species were obtained in all, nearly all of which are represented in the forty-four plates which accompany the memoir, and which are most beautifully drawn and printed.

The memoir of Professor Turner gives, in short compass, the characters of the bones of the various skulls, teeth, vertebræ, and other parts of the osseous skeletons that were captured in the course of the expedition.

The account of the development of the Green Turtle given by Mr. Kitchen Parker is of course perfection, and the plates illustrating the paper are coloured in the effective manner familiar to all who have seen his drawings in the Linnæan and other Transactions.

We have so recently drawn attention to Prof. Günther's study of Fishes that we need only say that the present memoir is the well from which his more general description has been drawn, and that it supplies the facts on which his generalisations rest.

In looking over the pages of this volume, and remembering that it is the first instalment of the results obtained during the voyage, we cannot but feel satisfied with the work done. It reflects the highest credit on all concerned. The liberality of the Government (for such an expedition costs many thousand pounds), the excellent appointments of the vessel for the purpose intended, the judicious selection of the staff, both civil and scientific, the unanimity and harmony with which all the required observations were carried out, and, lastly, the interest and value of the results obtained, are all points on which the organisers of the expedition may be sincerely felicitated. Sir Wyville Thomson may be especially congratulated on having secured the services of such able and willing collaborateurs, and on the rapidity with which he has brought the first results under the notice of the scientific world. We hope soon to have the opportunity of examining the second volume.

WITH the close of 1880 the *Revue Mensuelle de Médecine et de Chirurgie* (Paris: Germer Baillière) completed its fourth year of publication, and the number declaring this fact announces also the separation in future of the *Revue* into two parts—viz., a *Revue de Médecine* and a *Revue de Chirurgie.* Each journal will appear, as heretofore, on the 10th of the month. The *Revue de Médecine* will be edited by MM. Landouzy and Lépine, the "direction" consisting of MM. Bouchard, Charcot, Chauveau, Parrot, and Vulpian. The *Revue de Chirurgie* will be under the direction of MM. Ollier and Verneuil, the acting editors being MM. Nicaise and Terrier. In their remarks upon these changes the editors state that they believe the interests of science will be best served by the alteration. The *Revue Mensuelle* took a high position from its first appearance, and it has been the medium of publication of many important memoirs, as may be seen by reference to the index covering the whole period of four years, which is appended to the last number.

PILGRIMS AT MECCA.

ACCORDING to the report of the Turco-Egyptian Sanitary Commissioners at Mecca, the number of Mahomedan pilgrims collected in and about the holy city (Mecca) during the pilgrimage just ended, amounted between the 3rd and 16th November to two hundred thousand persons; composed of natives of Turkey, India, Egypt, Morocco, Arabia, Syria, Persia, Java, &c. The greatest mortality amongst them after their first arrival in Mecca, about 4th November, was twenty-one daily. During the sacrifices on Mount Arafat the maximum mortality reached thirty-one daily, and in Mecca after their sojourn on Mount Arafat it reached thirty-seven daily; the total deaths from 4th to 19th November being set down at two hundred and ninety-six.

The number of animals—sheep, camels, and other beasts of burden—collected in the neighbourhood of the pilgrim encampment is estimated at a figure far exceeding the number of the pilgrims; and when we remember that this enormous host of people and animals are collected together in one vast encampment without any organized sanitary police to compel compliance with the orders of the sanitary authorities, the number of deaths is not surprising.

The same report states that during four days no less than a hundred thousand sheep were slaughtered in the valley of Mouna, and that, notwithstanding the establishment of thirteen slaughter-houses, fourteen trenches for the interment of the carcasses of the slaughtered animals and the débris, five hundred and five public latrines, the sanitary authorities found themselves utterly unable to enforce their use for want of a proper sanitary police.

The diseases given in the report as the cause of death in the above two hundred and ninety-six cases are rather vaguely stated as fever, diarrhœa, and small-pox; fever, one hundred and eighty-three; diarrhœa, sixty-four; small-pox, forty-nine. As a simple mortality statistic, this statement is perhaps satisfactory enough; but as a scientific medical sanitary question, it would be interesting, and perhaps useful, to have a little detailed correct information on the supposed causes, exact nature, and characters of the fevers and diarrhœa prevailing in such a vast encampment of people of so many different ages and nationalities; also of the amount of sickness and its nature, means of treatment, &c., as the report gives merely the number of deaths.

The crowd is now dispersed, and the pilgrims are on their homeward voyage, about six thousand having passed by way of Suez up to Dec. 4th for Egypt, Morocco, and other places in the Mediterranean and Levant, and, so far, it is gratifying to learn that the general health is satisfactory. About half this number, according to official accounts, has been carried by British steamers—making an average of from 500 to 600 passengers per vessel—five British vessels having arrived at Suez with pilgrims up to the above date, one French, three Turkish, and one Egyptian.

With regard to the utter want of any organised force, and the supineness of the Government to grant proper assistance to the sanitary delegation to enforce attention to hygienic rules, the commissioners say:—"We have had on former occasions to urge a reform of the existing system, and we again bring forward our proposition of last year—viz., to prohibit all sacrifices among the masses of pilgrims in camp; to transfer the slaughter-houses and ditches for interment and débris from the Valley of Mouna to Wady-el-nar; to establish a military cordon outside the camp; to prohibit the introduction of living sheep among the pilgrims. Our conviction is that without some reform such as this we shall have to report in the next few years a lamentable amount of sickness in this valley (Mouna), as the pilgrimage will soon take place during the hottest months of the year."

It is evident from this report that the sanitary commission which, we are told, is sent yearly to Mecca to superintend the sanitary condition of the pilgrims, to prevent the development and propagation of contagious disease, is entirely unsupported, and utterly helpless to perform the work for which, we are told by the Turkish and Egyptian Governments, it is sent. Their faith is not in prevention—not in hygiene, but in quarantine! Instead of organising and carrying out effectually measures to prevent the outbreak of disease, nothing is done till some contagious disease becomes rampant—then is raised the cry of the slothful "quarantine," bringing with it unhealthy lazarettoes, huddling together of ships' cargoes of pilgrims, amongst whom disease already exists, or if not will soon be propagated from an infected lazaretto, vexatious taxes on shipowners to meet extravagant quarantine dues, questions of litigation, sacrifice of life, health, and money, interruption of commerce, and trouble to everybody, while all might probably be prevented.

As the European powers have interested themselves in ameliorating the internal administration of Turkey and Egypt, a little active interference, to introduce properly executed hygienic reforms for the two hundred thousand pilgrims of different nations who collect annually at Mecca would seem to be urgently required, to prevent disease among them there, and its propagation by them to other countries. It will do little towards that to learn that official letters have been sent from one foreign-office to another, to say a sanitary commission has been sent. A commission of five Turkish and Egyptian medical men was sent last year, but with what result their report shows, entirely without an executive under their own control.

THE DEAF AND DUMB ASYLUM.—The annual meeting of the governors and subscribers of this charity was held on Monday at the Cannon-street Hotel, Mr. Charles Few, the treasurer, presiding. The report of the committee stated that they had decided to give a specific trial to the pure oral system for educating the deaf and dumb, as resolved upon at the recent congress at Milan. With that view they purposed to elect an increased number of boys and girls at their election this month, and to form classes so as to give the new system a complete and fair trial with an entirely fresh arrangement of teachers. The expenses for the year were £11,291, being £289 in excess of the receipts. The report was adopted.

THE LANCET.

LONDON: SATURDAY, JANUARY 15, 1881.

IT is to be hoped that the metropolitan public have read rightly the moral of Dr. BREWER'S letter as Chairman of the Metropolitan Asylums Board, reprinted from *The Times* in our columns last week. He told us what indeed ought to have been ascertained long ago, to the saving of no little misapprehension, that the Hampstead Hospital difficulty not only has deprived the Board of the use of a large hospital which might have been invaluable for cases of small-pox in the present crisis, but also stands in the way of the Board acquiring new hospital sites and of erecting new hospitals while the difficulty lasts. In other words, the Metropolitan Asylums Board, as at present circumstanced, cannot do more than make the best use possible of its existing accommodation for small-pox cases, and this is practically exhausted, and the present hospital sites it has the possession and use of admit of very little additional accommodation being placed on them for the disease. The hospital accommodation for small-pox which the Board now possesses has exercised little if any appreciable influence upon the progress of the growing epidemic, is wholly insufficient to compete with the epidemic as it stands, and will be altogether swamped as the epidemic approaches its acme. So far as the arrest or sensible limitation of this outbreak is concerned, it must be understood that as regards the isolation of cases in hospital there will virtually be no check. This is greatly to be regretted, but it will do no harm in the long-run if it serve to fix upon the mind of the metropolitan population that, at the best, isolation can but be a measure of protection subsidiary to vaccination—a truth which there is good reason to fear has been largely forgotten from the prominence which of late years has been given to hospital accommodation for isolation of cases of small-pox. Isolation has its place, and a singularly important place, in the measures for dealing preventively with small-pox; but it can never supply the place of vaccination; and, moreover, while isolation in hospital must of necessity be of limited application, vaccination may be and ought to be of universal application. While, therefore, we are, by a series of unfortunate circumstances, deprived for the moment, in face of a growing epidemic, of the important assistance to be derived from ample accommodation for the isolation of cases of small-pox, the more important means of vaccination remains to us, and if it be diligently and duly made use of, may justify us in looking upon the growing epidemic with little anxiety. This is the moral which should be derived from Dr. BREWER'S letter.

The "if" we have made use of above is a terrible word, however, and includes within its two letters all the difficulties of the situation in regard to vaccination. *If* the local vaccination authorities, where small-pox appeared in the east of London, had followed up the individual cases as set forth in the instructions for their guidance in such circumstances by the Local Government Board; and *if* the sanitary authorities had freely co-operated with them, we should not now be in fear of an epidemic of small-pox. *If* the vaccination authorities of the west and centre of London, learning a lesson from the shortcomings of their brethren in the east, would set themselves diligently and fully to carry out their functions, either with or without the help of the sanitary authorities, there need not be the least alarm of the extension of small-pox in any great degree into the central and western districts. But the vaccination authorities are the Poor-law authorities of the several districts, and we know how difficult they are to move unless operated upon strongly by the public opinion of the ratepayers. Hence the "if," under these conditions, becomes a word of very dubious import. Nevertheless, upon the due exercise of the powers as to vaccination possessed by these authorities the safety of the uninfected districts of the metropolis as to small-pox depends, and the arrest of the disease in the infected districts also depends. This should, above all things, be clearly understood. They are responsible for the primary vaccination of infants, and have powers of revaccination, free of cost to the public, of older children and persons of mature age. *If* all the vaccination authorities of the metropolis could be imbued with a just sense of their responsibility, and be brought at once duly to exercise the powers which have been entrusted to them by the Legislature, London might be saved from the small-pox epidemic at the last hour.

But since the great epidemic of small-pox in 1871–72 *revaccination* has assumed an importance in the question of vaccination it had not before possessed, particularly on account of the great number of persons who have been seized with small-pox beyond the age to which the compulsory clauses of the Vaccination Acts apply. It is to this class of persons that the present condition of things in the metropolis has peculiar importance. Their safety rests wholly with themselves, and, assuming that they have all been vaccinated in infancy, an effective revaccination will make them more certainly proof against the disease than if they had previously suffered from it. It is, perhaps, unfortunate that, in view of these older persons, the Local Government Board has not completed its arrangements for the issue of vaccine lymph from the calf (although it is doubtful whether this lymph would be issued for purposes of revaccination alone), but as this lymph can be purchased in the market, it is for the individuals interested to decide whether they will set off personal safety as to small-pox against the price of a charged tube or an ivory point. But one thing is clear, that persons who ought to be revaccinated will act unwisely if they are not revaccinated as early as practicable, not waiting until the full swing of the epidemic (if it is to come) be upon us, when an abundant experience has taught us that it is not always easy to secure an efficient revaccination, partly from a deficient lymph-supply, and partly from the condition of performance of the operation not always being the best.

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NOTWITHSTANDING the loss of the Parliamentary Select Committee by the dissolution of Parliament, it may be doubted whether the question of Medical Reform ever stood better before the public or the Legislature than it does today. Changes more or less affecting old corporations are not made in a day. A case has to be made out, and often it takes a ten years' conflict to determine very simple questions. This is more especially true when the questions are more or less technical. Such is the case of Medical Reform. It was natural that statesmen and legislators should have considered that in surgery there was no authority like that of the College of Surgeons, and that in general medical politics all wisdom was to be found gathered round the table of the Medical Council. This delusion has been nearly dispelled. And the public now sees that the College of Surgeons is a corporation and the General Medical Council a corporation of corporations, and that nothing worse can be devised for such bodies than to leave them in undisputed possession of ancient privileges or vague powers without making them responsible in some degree to the profession they represent, and without bringing them into vital co-operation with that profession in its growth and its activity. This is the meaning of the demand that has been so strenuously made for more than ten years for Medical Reform. The inefficiency of the present Medical Council has been most painfully and completely demonstrated. The number of representatives of separate corporations in the Council has been shown to import into debates rather a care about financial matters than about the interests of the public. We notice in another place the action of certain Corporations that practically sell their highest qualifications, and what ought to be their greatest honours, in a way that will be thought almost incredible. Some of the licensing examinations of our best Examining Bodies leave out the most vital subjects; many of these include only a most inadequate attention to the preliminary and general education of the student. In addition to these evils affecting the profession itself, there is great looseness in the state of the law as regards practice by unqualified persons, so that a large number of deaths occur in cases in which the deceased or his friends have been practically defrauded and made to believe that they were being served by a qualified practitioner, when in reality they were being attended by a totally unqualified one.

Such are the evils crying loudly for removal. The most of them have been practically admitted by the two Governments which preceded the present one. It is not credible that the present Government should be less ready to see the case for Reform, or less likely to entertain it. All impressions to the contrary we believe to be unfounded; and we shall continue to believe so until they refuse to bring in or to support a Bill honestly and earnestly dealing with these great evils.

One thing is wanted—a united Profession. And there are special reasons why the Profession should be disposed to act unanimously at the present moment. It is probable that before long the question of Medical Reform will be again before the House of Commons, and will only need the support of the Profession to commend itself to the acceptance of the Government.

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WE desire to cherish the hope that good may come out of the evil trouble at Guy's Hospital, not only as regards that institution but others. The question so painfully raised in connexion with the management of this particular charity for the sick poor has been much, and long, vexed elsewhere. There is one fundamental error underlying the widespread dissatisfaction, and it is the cause of all the worry and grievance. The lay committees and administrators of hospitals are jealous of the medical authority which must needs assert itself. In nominal connexion with the older endowed charities are men of the highest social distinction, who accept their position as trustees and governors as posts of honour. They know nothing of the inner working of the institution, and rarely interfere in the deliberations of its governing body, until one day some half-dozen respected members of the executive board appeal to its ornamental colleagues for support, and these personages come down in red-hot zeal to rescue them from a difficulty, or to resist what they are told is an attempted encroachment on lay authority. Matters can never go on prosperously while this system and method of government exist. The existence of an outlying reserve at the call of any party on the working board is a perpetual source of danger. There would be no objection to a tribunal of appeal in case of internal difference of opinion; but the honorary members of a hospital board do not constitute such a tribunal. They are simply voters who may be pressed into the service of the moment by personal influences. It is nearly always against the medical authority this outside might is invoked. There will always be jealousy—that is inevitable; but it would be better to leave the onus of maintaining its supremacy with the minority of any board than to give it the right of calling in special assistance when in difficulties. In these preliminary observations we are trying to get to the bottom of matters, and it is not too much to say that in nearly all the difficulties and differences which develop into scandals in connexion with hospital management the impracticable party—that is, the party which *will not* be constrained to act wisely—is originally in the minority, and would so remain but for the aid of the outsiders, who seem ever most ready to come to the rescue of the wrong.

As we have repeatedly insisted, the medical authority must be supreme in a medical charity. This does not necessarily mean that the governing body should be wholly composed of medical men, or even that the profession needs to be in a majority; but inasmuch as all the work and charity proper to the institution is medical, the chief actors in the benefaction ought to be largely represented on the Board of Management. The point to make good in order to sustain this view of the case is that a hospital is essentially a medical charity. Can this be seriously doubted? The only earnest objectors to the proposition we have just laid down are the religious enthusiasts and ecclesiastical propagandists who regard hospitals as promising spheres for the carrying out of their purposes. With these persons we join issue. Let the preacher occupy his pulpit, and the polemical disputant select any appropriate platform for his work; the hospitals are simply houses of medical treatment for the sick. The spiritual needs and desires of the patients should be simply satisfied by ministers of their own persuasions. A sick chamber is not the place for preaching or teaching. Priests, teachers, and "ministering sisters" are out of place in such an institution, the latter more particularly, because under cover of services to the body they do not scruple to attempt what they are pleased to regard as "service to the soul." It is, in our judgment, wholly foreign to the purposes of a hospital to carry on missionary work within its walls. Medical men attached to houses-of-cure for the sick should make this understood. Nothing can, or must, be allowed to interfere with the effort to cure disease. If the patient desires to see a minister of his own denomination he should have a perfect right to do so; but the sick Churchman should not be irritated by the efforts of the Roman Catholic or Dissenter, or the Catholic be exposed to the zeal of the Protestant, still less should the "Evangelical" be annoyed by the parade of Ritualism, either in words or services, or a special garb worn by the nurses. A hospital is an essentially secular establishment, and it should be conducted by men who are prepared to regard it in this light, and not in any other. With a Committee so constituted there would be little difficulty, because men of business not imbued with any non-natural idea must perceive that a hospital is a medical institution, and can only be rightly administered as such. Take the medical element out of the establishment and nothing remains. This is so obvious that only a preconceived notion of the "opportunity" could possibly induce any sensible person to overlook the consideration, and to give it full effect.

What we mean by the claim of *supremacy* for the medical element is simply that the medical requirements of the sick shall be fully recognised by the Committee of Management. This, of course, implies that there shall be medical men on the board, and in sufficient number to make their influence felt. There is no desire on the part of the medical profession to overstep its province. We do not wish to see physicians and surgeons, as such, entrusted with governing powers. The utmost we ask and claim is that the medical men entrusted with the duty of curing the sick in an institution set apart for that purpose, shall be the judges of what is necessary to render their practice successful. This is surely a very reasonable and simple demand. The house exists for the cure of disease, and the medical staff is appointed to carry out that intention. It follows that the medical staff must select its tools and materials, and generally determine the domestic conditions under which the task confided to it is to be performed. It were idle to argue in support of a proposition so self-demonstrative. Either the claim should be admitted or the enterprise must be abandoned.

The question of the moment is how to secure that the demand we make shall be enforced on those who, having other views of the hospital question than those common-sense enjoins, and looking upon these institutions as "fields" and "mission-houses," are striving to subvert the medical charities of the metropolis and the country generally to their own narrow purposes? A Royal Commission has been suggested. If this can be obtained, good may undoubtedly result from an inquiry. There are, however, certain preliminary considerations which ought to be made plain. First: the Commissioners must include medical men of repute, recognised and trusted by the profession at large. It is vain to hope for a satisfactory issue to any inquiry which is not conducted by men who have a full knowledge of hospital business and the conditions on which alone it can be successfully carried out. There are men in our midst who have had ample experience in hospital service, and yet neither provoked the active antagonism of lay governors nor sacrificed the principle of hospital government on medical principles. Such men have given proof of their discretion and tact, and these are the qualities which it is most necessary, at this conjuncture, to bring conspicuously to the front. Second: any inquiry to be effectual must be exhaustive, and include all the leading hospitals which have large endowments, whether in the metropolis or the provinces. It is especially desirable that the area of the inquiry should be extensive, because while the trouble is widespread, there are scattered throughout the land institutions which thrive and are pervaded by a spirit of contentment, and it is important that the secret of this success should be elicited. To allay all anxiety, give general satisfaction, and make the utmost of the opportunity for the collection of valuable information the field of investigation must be fully covered by the inquiry. Third: the search for evils and causes of friction in the working, and failure in the extended success of medical charities, must be uncompromising. It is as established agencies for the relief of physical suffering, and the cure or amelioration of bodily disease, hospitals require to be scrutinised. No phase of their constitution should be allowed to escape the scrutiny. The method of raising and administering their funds, the mode of selecting their officers, the arrangement of offices and the appointment of persons to fill these offices, with the functions and power of each, require to be studied at close quarters, and in their practical relationship as links in the succession of causes and sequences by which the purpose of the charity is to be carried into effect. If a Royal Commission, constituted in a manner likely to secure these results, and properly furnished and empowered for the business in hand, can be secured, it will do good, but nothing short of a complete fulfilment of the conditions we have advocated can be reasonably trusted, or would be worth the trouble and cost of a trial.

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IN the usual acts of volition the mental process is entirely concerned with the results obtained, and takes no heed of the action of individual muscles. In raising a cup to the lips the attention is fixed on the elevation of the hand by the flexion of the elbow, not on the contraction of the biceps, brachialis anticus, and other flexor muscles of that joint. But it is well known that the will can exert control not only over groups of muscles acting together, but upon individual muscles, and, by practice, can cause contraction of muscles formerly not under the direct control of it. Thus, by practice, the biceps can be contracted alone without any other of the flexors of the elbow-joint, each one of the facial muscles can be separately contracted to show its individual action, the scalp can be moved to and fro, or one or other of the muscles of the soft palate can be put into use as desired, and thus its individual action verified. For the most part this power of contracting single muscles independently of the common purposive movements of the body is in abeyance, and cultivated by a few as a study, and by others as an amusement. But it was reserved for a Dr. KJOELSTAD of Christiania to make use of it as a curative agent in certain cases of deformity of the spine, especially lateral curvature. Dr. TIEDEMANN has developed the treatment still further, and Dr. ROTH has recently called attention to it in this country. It is stated that by making patients with lateral curvature of the spine examine their deformity by the aid of a reflecting-glass, a contraction of the muscles which are weakened, and which by their relaxation permit or even cause the deformity, can be excited by the will. By practice these contractions can be made of longer duration, increased in strength, and excited independently of the aid of vision, so that by a simple act of volition these weakened muscles can be set in action, and the deformity corrected or lessened. It is easy to see how the cure of this affection can be thus expedited and aided—for it is not suggested that it is able alone to cope with severe deformities,—and it indicates a direction in which those who have such cases under treatment may derive help. It is in strengthening the weakened structures and exciting to tonic contraction the relaxed muscles that the true cure of scoliosis lies. Spinal supports may assist by rendering such a return of the normal condition more easy of attainment, but alone they are not calculated to prove curative, and there is ample experience to show that when trusted to for more than accessory aid, they not only disappoint, but may even exaggerate the evil they are designed to benefit.

THE annual Report on the Health of the Navy for the year 1879 has just been presented to Parliament. It has undergone some change in form compared with preceding reports, in conformity with the views "expressed by the Parliamentary Committee on Official Statistics," the tables in the Appendix showing the cases, deaths, and invaliding by classes of diseases only, instead of by each disease as formerly, and the professional details in the Report being curtailed as much as possible. It is stated that "it is proposed, as occasion offers, to ask their Lordships' permission to publish any reports of sufficient professional interest which may be received in office." In the meantime these annual reports lose much of their importance to the profession generally by the changes thus introduced, and are of comparatively little value for the study of the geographical distribution of diseases, and of the causes of sickness and mortality in our Navy. During the year 1879 the cases of sickness in the service generally amounted to 1117, the deaths to 8·58, the proportion invalided to 32·96, and the mean number constantly sick to 44·98 per 1000 of the average strength. These ratios are all lower than in 1878, but the reduction in the mortality occurred in that from accidents which in 1878 had been very high owing to the loss of the *Eurydice.* The death-rate from disease in 1879 was ·91 per 1000 above that of the preceding year. In all these particulars, however, there is a reduction upon the average of the preceding ten years. The cases ranged between 856 in the Home Force and 1620 per 1000 in the East Indies; the mortality between 5·37 on the Australian Station and 22·91 on the West Coast of Africa and Cape of Good Hope; and the invaliding between 15·05 from Australia, and 42·42 from the Mediterranean. The cases were under the average of the preceding year on all the stations except the South-East Coast of America, where there was a very trifling excess, and the West Coast of Africa and Cape of Good Hope, where they were 340 above it, but even there the ratio corresponded closely with that of the average of the last ten years. This excess appears to have been to a great extent the result of the service on shore of the Naval Brigade during the Zulu war. Unfortunately "separate returns, distinguishing the sickness of the crews afloat from that of the men employed on shore, have not been furnished," and it is therefore impossible to state with accuracy the influence of this duty upon the health of the men employed. The mortality was higher than in 1878 on all the stations, except the Home, Pacific, and Australian, and in the Irregular Force, but the excess was very marked only on the West African and Cape of Good Hope stations, where it was in a great measure due to the occurrence of small-pox on board the *Boadicea* on the West Coast. The disease appears to have been introduced into her by some Kroomen shipped at Sierra Leone, of whom twelve took the disease and ten died; twenty-four cases and two deaths occurred among the Europeans. Only one of the Kroomen bore marks of vaccination, and he recovered; the Europeans had all been vaccinated. The deaths from continued fever and dysentery were also considerably above the average, and occurred chiefly among the men serving at Fort Chelmsford, Fort Ekowe, and the Lower Tugela. These diseases were attributed to malaria, and to the impurity of the drinking-water, and the dysentery also to the presence of intestinal worms.

We observe with regret a remark at page 3 of the Report which throws a certain amount of doubt upon the perfect accuracy of the returns as regards the causes of death. It is stated that "there appear in the returns 201 entries for tubercular diseases, while 189 were invalided for and 45 died of them; this apparent anomaly is due to the cause, that the men who were first entered sick for other complaints of the respiratory organs were eventually invalided for or died of phthisis, which developed while they were under treatment." Surely this indicates neglect on the part of medical officers, and perhaps also inefficient supervision, as we presume that in the regulations of the Naval Medical Department care has been taken to lay down rules for such an obvious and frequent occurrence as the change in the returns of a patient's disease, either from a correction of the diagnosis, or from the development of another disease during the progress of, or convalescence from, that for which he was originally placed under treatment. We would call the attention of the new Director-General to the necessity for an inquiry into this matter, and the adoption of measures to ensure accuracy in the future.

Tables are given in the Appendix, showing the influence of age, in four decennial periods, on the prevalence of the various classes of diseases, and on the mortality and invaliding caused by them. The following are the results as regards the service generally. Our space will not allow us at present to enter into the details of the various stations and the different classes of diseases.

	Per 1000 of mean strength.		
Ages.	Cases.	Deaths.	Invalided.
Between 15 and 25	1321	6·7	31·01
,, 25 ,, 35	963	9·41	30·75
,, 35 ,, 45	708	12·75	41·03
Above 45	567	18·91	63·96

This shows that the younger men furnish much the highest proportion of cases, while there is a marked progressive increase in the mortality with the advance of age. The proportion invalided is nearly the same in the first two decennial periods, after which, as might be expected, there is a marked increase.

Numerous detailed tables are also given in the Appendix, to illustrate the operation of the Contagious Diseases Acts, not only during the year under review, but also for the whole period during which they have been in operation.

A CORRESPONDENT puts to us a very proper question. It will appear simply incredible to most people that a Medical Authority within the meaning of the Medical Act, and among the bodies privileged to be included in Schedule A of that Act, virtually sells its highest qualification. It is very natural, therefore, that we should be asked if such is really the case. The press of this country has been for some years loud and unanimous in its denunciations of some obscure colleges in the United States—where colleges rise up as mushrooms or as Jonah's gourd, but, alas! do not disappear so quickly—which have carried on a thriving trade in Degrees in all Faculties, selling them to persons who had a few pounds to give in exchange for titles which they were not likely to acquire in the ordinary way. Our own notice of this subject was slightly less loud because of our knowledge that some of our own medical corporations do virtually sell their highest qualification. It is now some years since one of them made, it is said, £10,000 in one year by the virtual sale of its lowest qualification. But the question put to us to-day by a correspondent has reference to the sale of another and much more serious qualification—that of the Fellowship of the Royal College of Surgeons of Edinburgh. In answer to his question we have simply to say that the Edinburgh College does virtually sell its Fellowship. That is to say, if any person already possessed of a licence in Surgery from any Licensing Body in the United Kingdom applies to the Edinburgh College for a Fellowship, and can accompany his petition with testimonials showing that he has not broken any of the lesser commandments, the constitution and custom of the College are such that he will receive its Fellowship on the payment of a certain sum. There is no doubt or mystery about this. It was frankly admitted by Dr. ANDREW WOOD before the Select Committee of the House of Commons. But it is a very discreditable state of the law, and should bring the Scottish corporations into the very front of the army of medical reformers, instead of being, as alleged, in the ranks of the principal opponents. In the medical world a Fellowship of a College of Surgeons implies merit. It implies in the English college an extended education and the passing of a very severe examination. It implies probably a pecuniary outlay of nearly £400, over and above the cost of an ordinary medical education. The possession of a Fellowship is a condition of obtaining office in metropolitan hospitals, if not in provincial ones. Can there be anything out of the region of sacred things more serious than to preserve the point of such a distinction? But here is a Royal College of great respectability and renown actually selling it! So that two men may be competing for an appointment of great responsibility, for fitness for which a Fellowship of a College of Surgeons is thought the best security, and yet in the one case the Fellowship is a real thing, in the other it is entirely unreal; in the one case it has been worked for and won, and in the other it has been—bought! Can there be a greater unfairness than for a Royal College to send a man into a community, to work among other men, with such a piece of tinsel to his name? We regret to say that the Fellowship of the Royal College of Physicians of Edinburgh, and of the Faculty of Physicians and Surgeons of Glasgow, are to be had on the same easy and pecunious terms, without examination and *in absentia*, as in the case of the Edinburgh College of Surgeons! The working of this monstrous system has just received a startling illustration in the Report of the Sub-committee on Medical Education appointed by the Committee of Council of the British Medical Association. "We may mention the case of a student who presented himself at the Royal College of Surgeons, London, and was rejected. He immediately started for Edinburgh, where he was again rejected. Upon this he went to Glasgow, and passed. He registered as a qualified practitioner, forwarded certain sums of money to Edinburgh, and, as qualified practitioner, was made a Fellow, without further tests, by the very College which had, not long before, rejected him as unfit, by examination, for the licence!" Nothing can exceed the significance of this simple narrative, and it is to be hoped that the Edinburgh College itself — the college of many illustrious men — will take advantage of impending legislation to relieve itself from a position so discreditable and anomalous.

Annotations.

"Ne quid nimis."

PROPOSED AMENDMENT OF THE PHARMACY ACT.

THE Council of the Pharmaceutical Society have for some time been engaged in framing a draft of a Bill for the amendment of the Pharmacy Act, and have just published the result of their deliberations. The immediate cause of the proposed addition to the legislative regulation of the trade is apparently the decision of the legal tribunals by which the action of co-operative societies in dealing in drugs is declared not to be against the law. Its main object is evidently to render such action illegal, and the chief clauses are framed for the purpose of altering the wording of the Pharmacy Act on which the recent decisions were based, so as to exclude co-operative stores from the right of practising pharmacy. As the *Pharmaceutical Journal* remarks, "a challenge is thus thrown down to the several opponents of those interests which the chemist and druggist is convinced ought to be protected. It is a step which means war to the knife with co-operative stores and their stimulators, in regard to the practice of pharmacy."

Opposition to the Bill is anticipated, it would thus appear, by those who propose it, and that their anticipations will be verified is scarcely doubtful. The object of the proposed additions to the Act is, it is frankly admitted, to afford protection to the pharmacists, a protection which, it is urged, they may claim on account of the study and knowledge now demanded of them before they can engage in their occupation. But in their statement of the case and of their expectations one consideration is apparently overlooked. Neither the Pharmacy Act nor the Medical Act was intended for the protection of the class which it regulates; each was for the protection of the public. For the attempt at amendment of the Pharmacy Act in this particular to be successful, it will be necessary not merely to plead the claims of the pharmaceutical chemists to "protection," but to show that, in the practice of pharmacy at co-operative stores under the direction of a qualified pharmaceutical chemist, any danger to the public is incurred. This, we conceive, they will find by no means an easy task.

Some other clauses of the Bill are likely to meet with little opposition, and may be regarded as real amendments. One of these provides that patent medicines containing poisons within the meaning of the Pharmacy Act shall be subject to the regulations as to labeling and otherwise now in force as regards the ordinary sale of such poisons; and it makes the sale of a patent medicine, whether by wholesale or retail, containing a scheduled poison, without due labeling, an offence punishable by a fine not exceeding five pounds on the first occasion, and ten pounds upon any subsequent occasion, upon summary conviction. This is a very desirable provision on account of the great number of fatal accidents which have arisen from the misuse of secret remedies containing poison. By another clause the onus of properly labeling these medicines is thrown upon the makers, not the vendors of them. Another provision exempts all chemists and druggists carrying on business on their own account from serving on juries, a just and reasonable proposal. Widows are left as under the present Act, but the time during which executors may carry on a business on behalf of widows is limited to three years, unless this period is extended by the Pharmaceutical Society.

INDIAN LIBEL CASE.

WE have received from India a detailed report of the judgment in the appeal from the conviction of the magistrate of Allahabad in the case of Hall *v.* McLeod and Wyman. It may be remembered that Surgeon-Major Hall brought a criminal action against the editor and publisher of the *Indian Medical Gazette* for defamation, in imputing to him untruthfulness in an advertisement inserted by him in the *Indian Herald*, soliciting contributions for the Allahabad Eye Hospital, and accusing him of unprofessional conduct in the publication of the advertisement. Judgment was given for the plaintiff in the Allahabad Court, and the defendants were sentenced to a fine, or in default to simple imprisonment. Against this judgment the defendants appealed, on the grounds that the article complained of was not defamatory, but was a fair criticism on Dr. Hall's advertisement, and that it came within the exceptions to Section 499 of the Indian Penal Code on the subject of defamation. It was also pleaded that the Court of Allahabad had no jurisdiction, and that the publication by the defendants had not been proved. The Chief Justice, Sir R. Stuart, gave judgment against the appellants on the two last pleas, but in their favour on the first and most important plea. The conviction, therefore, was quashed. The Chief Justice expressed his opinion that the prosecution had utterly failed, and regretted that it had ever been undertaken. He thought that if the defendants' conduct was made the subject of complaint at all, it should have been tried in a civil and not a criminal court. But while thus blaming Dr. Hall for the course he adopted in bringing a criminal action, and without any previous communication with the defendants, he exonerated him fully from the charge of unprofessional conduct. He says: "For myself, I am far from approving of this article [in the *Indian Medical Gazette*], and I differ in opinion from the writer of it. I think it shows bad taste on the part of the author, and that to some extent it casts a slur on the prosecutor and does him injustice. I consider that Dr. Hall was quite entitled to advertise the claims of the hospital as a public institution. ...... Dr. Hall could have very well afforded to have disregarded the unmerited attack, as perhaps it may be called. He is a gentleman well known and highly respected in these Provinces for his many good qualities and for his professional knowledge and skill, and I know of no officer of Government more worthy of esteem." The remarks of the Chief Justice appear fully to bear out the opinion we expressed when the report of the first trial was before us, that Dr. McLeod had placed himself in an unpleasant position in having made so serious a charge against Dr. Hall, apparently without sufficient inquiry; while Dr. Hall had been deficient in courtesy in having commenced a criminal action against a member of his own profession and an officer of his own service without having first afforded an opportunity of withdrawing the imputations which he had put forth, apparently from a misapprehension of the facts of the case.

PROFESSOR GAIRDNER ON POINTSMEN'S WORK.

PROFESSOR GAIRDNER of Glasgow, moved by recent railway accidents due to faults of pointsmen, publishes a letter in a Glasgow contemporary, in which he details the case which he had treated in the Royal Infirmary in 1872. This patient was a pointsman at Rutherglen station, where from 250 to 300 trains were due every twenty-four hours, or about one train, on an average, every five minutes. Though the intervals at night were long, in the daytime they were such that, in the man's own words, "trains would pass for an hour together as close as they could follow." The work was divided into a day and a night shift, the latter being thirteen hours, the former eleven. The pay was £1 a week. There was no time for meals, which had to be taken while at work. The wonder would be how any man so situated could escape giddiness or some break down in the nervous system. The fact that men do so so often is a wonderful testimony to the principles on which the nervous system is constructed. But, as it happened, this man came to suffer from a nervous complaint characterised by passing insensibility, of which the patient was sometimes quite unconscious. The man said that when his duty was most anxious the disorder was at the worst. Dr. Gairdner thinks the public are to be congratulated on that man having come under treatment. It seems highly probable that in this way an accident was averted. Since then Dr. Gairdner has taken pains to ascertain the rules of French lines, and finds them much more considerate of the limitations of human faculty. On the Scotch line the hours have been reduced to eight, but without special intervals for taking food. The patient got well after two or three months' hospital rest and treatment. Dr. Gairdner sets a good example in publishing this case. By itself it shows the need for more consideration of responsible railway servants. If any of our readers have similar cases in their clinical books they will do well to publish them. It must especially be remembered that in the worst attack in the hospital the patient had no memory of what had occurred. It will be necessary to examine pointsmen for something more than mere colour-blindness.

"SPERMATIC CRYSTALS."

FURBRINGER has examined the composition of the contents of the seminal vesicles and prostatic fluid from fifty bodies, and the prostatic secretion from twenty healthy individuals, and has found that the "sperm crystals" described by Bottcher occur exclusively in the prostatic secretion. They appear to be identical with the so-called Charcot's crystals (which were really discovered by Robin), and which are said by Schreiner to consist of a phosphate of a new organic base. In the secretion of the prostate gland this organic base appears to exist in combination with some other than phosphoric acid, and, for the formation of the crystals, the acid must be furnished either by the secretion of the testicles or by post-mortem decomposition of the walls of the ducts. The clinical significance of the discovery of these crystals in secretions which come out of the urethra is that there is an abundant secretion from the glands of the prostate.

SERIOUS CHARGE AGAINST A MEDICAL MAN

At an inquest held on the 8th inst., at Whitchurch, near Bristol, before Mr. Biggs, Deputy-Coroner for Somerset, a very serious charge was brought against a medical man. According to the evidence, the deceased was a married woman, forty-seven years of age, who for ten years had needed no medical advice. On the 29th ult. she complained of a sore-throat; and as more serious symptoms soon developed, Mr. Lodge was sent for. He promised to come in the evening, and meantime sent a bottle of medicine. As he did not attend, repeated messages were sent to him representing the urgency of the case; and when at length, on the afternoon of the 1st inst., he reached the house, the woman was dead. It appeared that she had been unconscious for some time before death, and that there was suppression of urine. In spite of the fact that Mr. Lodge had not attended the deceased during life, he gave a certificate of death from enteritis. Meantime the case had been reported to the coroner, who decided that an inquest was necessary, and directed Mr. Crisp of Keynsham to make a post-mortem examination. Mr. Crisp, who was assisted by Dr. Roué of Clifton, gave it as his opinion that death had occurred from arrest of the action of the kidneys, probably from exposure to cold. The kidneys were found to be markedly contracted and cirrhotic, and there was no urine in the bladder; the heart was fatty. There was no trace of enteritis. The coroner, in summing up, regretted that Mr. Lodge had not seen fit to be present at the inquest, although he had been informed that it was to be held. He said that a medical man could not be compelled to attend a patient, but that Mr. Lodge should have stated that he was unable to visit the deceased, and thus have enabled the friends to obtain other advice. With reference to the certificate of death, he said that "an act had been done which, if not illegal, approached so nearly the borderland of what was legal and illegal as to be stigmatised as irregular in the strongest sense of the word. If there was one law more than another whose objects were to preserve life and to prevent abuses, it was that law of registration of deaths; and if medical certificates were to be given in this way, it went very far to defeat the whole reason for registration. Such a course was grossly irregular and in the highest degree improper; and if it were passed by in silence it would open up abuses which he hardly dared to contemplate." The jury, in bringing in a verdict in accordance with the medical evidence, expressed their regret that Mr. Lodge did not attend the deceased after promising to do so.

The evidence summarised above appears to set out two charges against the medical man implicated; the first, that although repeatedly sent for, he delayed his visit until the woman was dead; the second, that, although he had never seen the deceased during life, he gave a certificate as to the cause of death. It is a minor point that the post-mortem examination revealed no trace of the certified cause of death. We shall be glad to hear what Mr. Lodge may have to say in defence on both the issues raised.

THE ORGANS OF TOUCH.

M. Ranvier has communicated to the Académie des Sciences a note on the structure of the organs of touch. The study of the exact structure of the tactile organs is a matter of considerable difficulty. Hence some observers have found only nerve-fibres rolled in a spiral, while others have discovered terminal structures, more or less complicated, and Merckel even believed that he had discovered terminal sensory cells. M. Ranvier has found that much light is thrown on the subject by the examination of the structures in newly-born children and young infants. At birth, the nerves of touch may be found to pass into certain papillæ on the palmar aspect of the fingers, immediately beneath the cells of the mucous layer of Malpighi. There they form a network of which the ramifications, although distinct, are closely pressed together. At this time the terminal network which represents the future tactile corpuscle presents no admixture of cellular elements; but, beneath it, there exists a small collection of round cells. By examining the changes of structure in children of different ages, the successive phases of evolution of the tactile corpuscles can be traced. Gradually the cells, at first collected beneath the ramification of nerve-fibres, surround it, and pass in among its branches. The whole soon becomes limited, and thus a tactile corpuscle is formed. Sometimes the corpuscle remains unilobar, but more frequently other lobes form in the same manner as the first, and are joined to it. Hence it is that in young children, as Langerhaus has stated, the nerve-fibres which enter into the composition of the tactile corpuscles are separated by layers of cells. In the course of development these cells become pushed to the periphery of each lobe, and most of them undergo a considerable atrophy. This fact alone suggests that they are not nervous in nature, since the nerve-cells, so far from undergoing atrophy during growth, gradually increase in size up to their full development. Ranvier has never been able to see any communication between the nerve-fibres and the cells in the tactile corpuscle; the ramifying branches of the nerve-fibres, after a tortuous and usually complicated course, end by free flattened knobs.

SALT AND SNOW.

When next a storm of snow falls in the metropolis it may be well to remember that the device of scattering salt on the whitened ground with the view of causing the deposit to melt is simply that of making a freezing mixture. In the rapid change of form from solid to liquid the snow absorbs—to use an obsolete expression—a large amount of heat, no inconsiderable part of which may chance to be appropriated from the extremities of passing foot-passengers. The soles of boots and shoes are not improved by being saturated by the saline mixture, and "the cold strikes" very perceptibly. The police regulation which requires that householders shall clear the snow from the pavement in front of their houses is sufficiently ridiculous, leading, as it does, to the production of such a slippery footpath that those who would walk safely must walk on the road. It will be making confusion worse confounded, and intensifying the nuisance created by a casual fall of snow—not now-a-day a very common infliction—if the thoroughfares are to be converted into baths of "freezing mixture," to the detriment of health and the injury of shoe-leather. It would be worth something to be rid for a while of the incubus of "science applied to health," and the astute refinements of a labouring and laborious civilisation.

NIGHT-WORK AT HOSPITALS AND THE HOSPITAL SATURDAY FUND.

It is reported that the collection of the Hospital Saturday Fund for last year reaches £6604, of which £1598 was raised by street collections, and £5205 by means of *employés*, shops, &c. The total was an increase of £452 on the previous year. This is so far satisfactory, but we agree with the recommendation of the president, Mr. Morley, that the efforts of the Fund should be directed to increasing the amount of the collection in workshops. £5205 is a very inadequate contribution from the working men of London to institutions which exist very largely for their benefit and those of their families. The expenses of the movement have fallen from 27 per cent. to 14 per cent. This, too, is satisfactory. We cannot endorse the suggestion made by the President that the Fund should urge on the hospitals the propriety of opening their gates at night, for the convenience of men employed during the day. At the very least this suggestion requires a good deal of consideration. For one thing, men employed during the day should not, as a rule, go to hospitals; they are not proper objects for hospital treatment, but for treatment by private practitioners or at provident dispensaries. Secondly, hospital work, like all other work, is best done in the daytime. Thirdly, for the run of patients night would be a bad time. On these and other grounds we do not see our way at all to approve of the suggestion, that hospitals should be open for night-work to all comers.

A CURIOUS FACT IN ANIMAL REPRODUCTION.

A CURIOUS fact has recently occurred which throws some light on similar cases reported of the human species, but which have been received with considerable doubt by some authorities. The *Journal de Médecine Vétérinaire de Lyons* states that last April, on a farm in the department of Isère, a mare about ten years old gave birth, at full time, to a foal. Soon after the throes of parturition recommenced, and with assistance another foal was brought into the world. Twin foals are sufficiently rare to cause astonishment at any time, but the astonishment of the attendants was changed into amazement when they discovered that it was not a horse foal they had taken from the mare, but an unmistakable mule. The little creature, unfortunately, and as is generally the case with twins in solipeds, did not long survive its birth. The veterinary surgeon who was subsequently called in made inquiry into the case, and as a result he gives the following explanation:—It is a very common practice in Dauphiné to present the mare, when in œstrum, twice to the stallion, and at a brief interval, believing that fecundation is more certain by this procedure. But, as it seldom happens that the villagers can obtain the services of a stallion which can serve the mare twice with only a few minutes between, or yet a second stallion, and as male asses are by no means scarce, they oftentimes employ one of the latter to succeed the horse. And this is what happened with the mare alluded to.

The case is not absolutely unique, even in equine physiology, however, for Fleming, in his "Text-book of Veterinary Obstetrics" (p. 152), gives six similar instances, and one in which a mare, put first to an English stallion and soon after to a Barb, produced twin foals—one resembling the first, the other the second stallion. It may be noted that, of all the domestic animals, the mare is the least disposed to multiparity.

THE INTERNATIONAL WATER SUPPLY REFORM ASSOCIATION.

ENGLISH travellers have so often denounced the dangers of drinking water in Continental hotels and towns, that the formation of an international society for the special purpose of calling the attention of the governments of Europe to the quality of the water supplied throughout each country, should meet with very general approval, at least among Englishmen. This society, though founded in Paris during the International Exhibition of 1878, may be considered to have only now commenced its first year of practical existence. The movement was originated by Mr. J. G. Jäger, director of the Amsterdam Water Company, who early secured for the association the patronage of their Majesties the Kings of Holland and Belgium. An international Committee was formed, a programme and set of rules drawn up and submitted to the approval of some five hundred delegates at the International Congress of Hygiene, held at Turin last September. Definite rules were then adopted, and the Association Internationale pour l'Eau Potable comes into actual existence with the advent of this year. The honorary presidency was offered to Sir Richard Wallace in consideration of the great services he has rendered in supplying drinking water to the public. The Prince of Wales has also been asked to patronise the association in consequence of the personal interest he has displayed in the question of water-supply. The head-quarters of the society are in Paris, and its organ, the *Revue d'Hygiène et de Police Sanitaire*, is edited by Professor Vallin. Dr. F. de Chaumont of Netley Hospital, and Mr. Edwin Chadwick, C.B., are among the members of the English committee. All persons interested in sanitary reform are invited to join this association. The subscription is fixed at ten francs per annum, half to be sent to the central committee, and the remainder kept for the purposes of local agitation, &c. It will be the business of each national committee to bring every influence to bear upon their respective governments, so that the central authority may exercise its full power in compelling local districts boards, &c., to provide suitable drinking water for the use of all inhabitants. Everyone who has travelled on the Continent, and visited even certain of the most fashionable health-resorts, will recognise the urgent necessity of some such action; while at home in England we are too well aware how much there still remains to be done to save the populations from the dangers of water contamination. For the present, however, it is among the smallest countries in Europe that the Association has met with the most success. We have seen that the King of Holland and the King of Belgium have lent their personal support, and now we learn that an influential Greek section has been formed under the Presidency of Dr. Bambas, and with the mayor of Athens as one of its active members. In France and Italy the Society has received a fair amount of support, but it still remains to be seen whether England will lend any efficient aid.

PHYSICIAN IN ORDINARY TO THE QUEEN IN IRELAND.

WE learn that Dr. Benjamin G. McDowel has been appointed as Physician in Ordinary to Her Majesty in Ireland, in the room of the late Dr. Alfred Hudson. Dr. McDowel is a graduate in medicine of the University of Dublin, a Member of Council and Fellow of the Royal College of Surgeons in Ireland, Physician to the Whitworth and Hardwicke Hospitals, and formerly Professor of Anatomy in the School of Physic, Trinity College, and Surgeon to Sir Patrick Dun's Hospital, Dublin. The appointment is one which is regarded with approval by the medical profession.

THE FIRST TO FEEL THE FROST.

THE first frost or fall of snow, leaving a slippery deposit on the ground, inflicts a fearful impost of toil and suffering on the horses. It does not need a highly sensitive development of the instinct of sympathy to be moved with compassion for the evident misery and injury, the fear and the muscular straining to preserve a footing, entailed on the animals harnessed to heavy omnibuses, and even between the shafts of cabs. Indeed, the cab-horses probably suffer the most, because they are constantly employed on the cross thoroughfares, whereas the main routes traversed by the public vehicles are more readily cleared, or reduced to a quagmire, which, however disagreeable, is not slippery. It is inevitable that there must be a heavy loss of property in horseflesh, as well as the suffering inflicted, due to every sudden frost, or fall of snow. The immediate results may not be great, but the violent straining of muscles which the horse undergoes is not without its persistent consequences. Can nothing be done to prevent this evil? It is strange that the extensive adoption of asphalte and wood pavings has not led to the invention of a shoe which, while affording that protection of the hoof which is supposed to be necessary, shall give the foot a secure hold on the ground. It would seem as if the solution of this apparently not very complex or difficult problem has defied the ingenuity of contemporary talent, as it defied that of our predecessors. We are, of course, familiar with the various devices which have been suggested; but, while looking at them practically, must confess to feeling convinced that not one is so complete a success as to warrant popular use. This is a matter in which medical men, who nearly all employ horses, and are compelled to expose them to heavy risks in all weathers, are especially interested.

TRICHINOSIS.

ACCORDING to a recent report to the Sanitary Committee of Massachusetts, it appears that of 2701 pigs examined during five months no less than 154, or nearly 6 per cent., contained trichinæ. The animals came from different and distant regions, but the majority were from the western States. The same report affirms that rats are affected with trichinosis at Boston to a much larger extent than in Germany. Of fifty-one rats caught in a Boston slaughter-house thirty presented trichinæ. On the other hand, twenty-eight fowls fed in the establishment were found to be healthy. Forty rats taken in another large slaughter-house all contained trichinæ; but of sixty found in different stables only six were thus affected.

In France little consideration has, until lately, been given to the danger of trichinæ in imported pork. At Lyon, however, inspection has been commenced, and has quickly born fruit. An enormous consignment of lard, amounting it is said to 120 tons, was lately received at Lyon from New York. Of fifty specimens examined immediately after arrival three were found to be infested with trichinæ. At Barcelona six cases of death from trichinosis have occurred in three months.

THE MEDICO-CHIRURGICAL SOCIETY.

THE last two meetings of this Society have been practically wholly taken up with papers and discussions on antiseptic ovariotomy, in a great measure travelling over the same ground. We notice that there is another paper announced on the results of 200 cases of this operation, and we are compelled to draw the attention of the secretaries and council of this Society to the serious inconvenience and waste of time entailed by such procedure. It might surely have been arranged for the three papers, if, indeed, they were necessary, to have been read on the same evening and discussed together. It is at least open to doubt how far such statistical papers meet the object held in view by the Society, but to deliberately and by arrangement assign three several sittings to three papers all running on the same lines, is a serious interference with the usefulness of its meetings.

A MEDICAL MINISTER.

THE portfolio of Public Instruction in the Cairoli Cabinet has, after due deliberation, been accepted by Dr. Guido Baccelli, the distinguished professor of clinical medicine in the Roman University. The Italian Legislature, both in the Chambers and the Senate, owes much to the physicians and surgeons who are so numerously represented in either House, but to none more than to Dr. Baccelli. *Sanitas sanitatum omnia sanitas* has been his watchword; and in every measure affecting, however remotely, the public health his voice has always been raised with power and effect. On other subjects he has signally exemplified the advantages which a mind trained in the medical *palæstra* can confer on the legislator, and more than once a ministerial crisis has been averted by the skill with which he brought back an agitated and mutually recriminating House to the merits of the question before it. His tenure of office will shortly, we believe, be marked by the introduction of measures for the improvement of University training in general and of medical qualification in particular—measures which cannot fail to interest those who are engaged in similar reforms among ourselves. Dr. Baccelli, we believe, has no thought of giving up his large consulting practice, but he has resigned the chair of Clinical Medicine, to which Dr. Panizza, his occasional substitute, has just been appointed his successor.

FOOT-AND-MOUTH DISEASE.

A SERIOUS invasion of eczema epizoötica, or foot-and-mouth disease, has taken place, after the country had been free from it for several months. The infection is supposed to have been conveyed by diseased cattle from the North of France, which arrived at Deptford Market some time ago. Thence it was carried in every direction, the fairs and markets being the chief sources of dissemination. It now prevails pretty generally over England, notwithstanding the efforts made to check its progress. It is to be feared that inspection of the cattle markets is often at fault. For the chief metropolitan market there is only one inspector, and as the number of animals crowded together is frequently more than two thousand, it is evident that they cannot be submitted to that careful examination which is so necessary for the detection of the disorder, particularly at its commencement, or in its milder form. The infection can be conveyed by all kinds of media independent of the living animal, and this certainly renders the extension of the disorder far more easy, and its suppression much more difficult, than some other transmissible diseases of animals. It must not be forgotten that the infection can be transmitted to other than the bovine species, and man himself is not proof against it. The milk is the chief vehicle of infection.

PATHOLOGICAL SOCIETY OF LONDON.

THE newly elected President, Dr. Wilks, will take the chair for the first time at the meeting of the Pathological Society on Tuesday next, and, according to custom, will deliver some introductory remarks before the regular business of the Society is proceeded with.

DEATH ON THE STAGE.

A TALE is told of an excited medical student who, while watching the final catastrophe of "Romeo and Juliet," and impatient of the supineness of those who discover the dead body of Romeo, called out, "Hold hard while I run and fetch a stomach-pump." A similar feeling must take hold of any medical member of the audience of the Prince of Wales' Theatre, while watching the death of Mr. Coghlan in "The New Trial." Mr. Coghlan (as Connaro) takes poison, and is some five minutes in dying; while a doctor of medicine (a modern scientific doctor, who has a microscope on his table) stands calmly by without attempting to interfere with the deadly draught, the nature of which we (and probably the doctor as well) were quite unable to diagnose from the symptoms of the patient—symptoms which were of the stage stagey, albeit that they caused no little sobbing and sniffing amongst the audience. Such exhibitions are not pleasing or instructive, and we think that a return to the usages of the ancients, in allowing all deaths to take place out of sight would be a distinct gain to the modern stage.

SEATS FOR SHOPWOMEN.

THE shopping season having recommenced we renew our appeal to the humanity of ladies, and request them to bear especially in mind the under-mentioned large establishments conducted by firms which have intimated their willingness to provide seats for their *employées*, and to sanction the use of them in all intervals of counter-serving.

Alger and Co., Brighton.
Arnott and Co., Henry-street, Dublin.
Arnott and Co., Jamaica-street, Glasgow.
W. Baker and Sons, Lower Dorset-street, Dublin.
T. J. Blackwood, George-street, Edinburgh.
J. Brown and Son, George-street, Aberdeen.
Capper, Sons, and Co., Gracechurch-street and Fenchurch-street.
Debenham and Freebody, Wigmore-street and Welbeck-street.
Dickins and Sons, Regent-street.
Farmer and Rogers, Regent-street.
Fraser, Sons, and Co., Buchanan-street, Glasgow.
Gainsford and Co., High-street, Borough.
Gowans and Goodlet, Edinburgh.
S. Hannington and Sons, North-street, Brighton.
Hitchcock, Williams, and Co., St. Paul's Churchyard.
H. Hoadley, Buckingham-palace-road.
Howell, James, and Co., Regent-street.
Lewis and Allenby, Regent-street.
McBirney and Co., Aston Quay, Dublin.
M'Swiney and Co., Lower Sackville-street, Dublin.
Marshall and Snelgrove, Oxford-street.
Pim Brothers, South Great George's-street, Dublin.
Peter Robinson, Oxford-street.
William Tarn and Co., Newington-causeway,
T. Venables and Sons, Whitechapel.
J. H. Webb and Co., Corn Market, Dublin.
William Whiteley, Westbourne-grove.

INTESTINAL BACTERIA.

NOTHNAGEL of Jena has been investigating the organisms found in fæces, and has examined the microscopical characters of five hundred stools in health and disease. He found many microscopic organisms constantly present, but that which was found in greatest abundance was the Clostridium butyricum of Prazmowski (the butyric vibrio of Pasteur, the Bacillus amylobacter of Van Tieghem). It occurred in the fæces in which no starch could be demonstrated. It is probably this which has given rise to the statement that the yeast fungus is often present in the fæces; in point of fact it is very rarely found in the fæces. Riesenfeld and Brieger discovered butyric acid in both the intestinal contents and in stools, and the product is doubtless the result of the growth of these bacteria.

SOME dissatisfaction is naturally felt in Aberdeen at the action of the Endowed Institutions Commissioners in reducing the medical bursaries in the University from twelve to eight. At a meeting of the Aberdeen Town Council last week, Dr. Beveridge especially drew attention to the impropriety of this step, and thought the Commissioners must have misinterpreted the evidence placed before them in reference to the matter. It was ultimately understood that any representation made to the Home Secretary with a view of reversing the decision of the Commissioners upon the subject would have the support of the Council.

AT a meeting of the Norfolk and Norwich Medical Chirurgical Society at Norwich, on January 4th, 1881, the following resolution was moved by Mr. Alan Reeve Manby, seconded by Dr. Bateman and Mr. Cadge, and agreed to unanimously, "That this meeting, reprobating the systematic exclusion of the medical officers from the government of hospitals, tenders its sympathy to the medical staff of Guy's Hospital in the present crisis."

THE Marquis of Bute has expressed his willingness to defray the entire cost of construction and maintenance of a small hospital for Aberdare. The sole stipulation appears to be that the nursing shall be conducted by Sisters of Mercy.

MM. FOURNIER, GOUGUENHEIM, and KRISHABER are nominated as members of the organising committee of a Congress of Laryngology to be held in Paris in September, 1882.

SURGEON-MAJOR SIR SAMUEL ROWE, K.C.M.G., Governor of the West African Settlements, has been appointed Governor of the Gold Coast Colony.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

SMALL-POX HOSPITALS.

Mr. N. C. Collier, the medical officer of health of the Fulham District of the metropolis, has addressed a letter to the local authority protesting against a proposition of the Metropolitan Asylums Board to increase the accommodation for small-pox patients in the Fulham hospital by 250 beds. Mr. Collier disavows any sympathy with the opinion that small-pox is distributed from a small-pox hospital by atmospheric infection. His experience does not appear to lend any support to this view of the question; but he entertains no doubt of the exceptional prevalence of the disease in the neighbourhood of hospitals (meaning the metropolitan we presume), and he is equally convinced of the causes of such prevalence. He attributes this prevalence to the unusual opportunities of the indirect communication of the contagion by the conveyance of patients to the hospital, through carelessness of the carriers, the friends accompanying them, and the flocking of both relatives and friends into the district of the hospital from infected centres. He writes of the impracticability of getting rules for preventing this indirect communication of infection observed by sub-officials and others engaged in the conveyance of patients; of the impossibility of controlling the contagion conveyed in the movements of persons in the infected houses, and which may even attach to the money passed across the bar and counter of the tavern and refreshment house. It is obvious that the larger the number of patients accumulated at one spot the greater must be the multiplication of the chances of disseminating the contagion of the disease in this fashion. The true way to minimise this danger he holds is for each parish to provide its own hospital, and he points out that this was the original intention of the promoters of the Sanitary Act, 1866. Mr. Collier is generally right in this reference. Our present huge hospitals are outcomes of the wondrously incoherent state of the local government of the metropolis. They were devised for poor-law purposes, irrespective of medico-sanitary requirements or of their relation to the public-health generally. But the sanitary authorities of the metropolis ignored as a rule their moral if not legal duties under the Sanitary Act of 1866, and so it has come to pass that the Metropolitan Asylums Board has had to act as both sanitary and poor-law authority in the matter of hospital accommodation in infectious diseases. If each metropolitan sanitary authority had carried out frankly and fully the intention of the Act of 1866, it is probable the metropolis would have escaped its present difficulties as to infectious hospital accommodation, and that a much greater control would have been exercised over the spread of small-pox.

THE HAMPSTEAD HOSPITAL.

Mr. Pearson Hill and the solicitors for the plaintiff in this case have taken exception in *The Times* to certain statements in Dr. Brewer's letter, which we published from that journal last week. Mr. Pearson Hill writes of the "parish of Hampstead" as if it were situated in space and not contiguous to the parish of St. Pancras, and as if a parochial boundary were proof against infection. His letter, however, is chiefly interesting as giving a summary of the plaintiff's evidence in this case as set before the jury, and it may be assumed was accepted by them. A greater condemnation of the anomalous position of the Metropolitan Asylums Board in the case could not well be conceived.

The city of Rochester and the town of Chatham having combined to form a joint Hospital Board, application is to be made to the Local Government Board for permission to borrow money with the view of purchasing two and a half acres of land whereon to build a hospital for infectious diseases.

A farmer has been fined £6 17*s*., including costs, at the Leicester County Police-court, for mixing the milk of certain cows affected with foot-and-mouth disease with other milk, and selling the mixed milk for human food, contrary to the Order in Council of the 9th July, 1879.

The *East London Observer* reports that the Local Government Board have decided to call for the resignation of the two medical officers in St. George's-in-the-East, a disagreement between whom led to an official inquiry, conducted by Dr. Bridges, to which we referred a short time ago.

One of the poor-law medical officers of Whitechapel is held to have vacated his appointment for having removed his residence outside the limits of the district for which he was appointed.

The Halsted Rural Sanitary Authority have adopted the recommendations of a committee of their body to establish three cottage hospitals for infectious diseases in their district.

We understand that it has been decided to remove the sanitary offices of the Port of London Sanitary Authority from Deptford to Greenwich.

The Local Government Board has issued an important series of model by-laws on Houses let in Lodgings, under the 90th section of the Public Health Act, 1875.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Influenced by the continuance of mild weather, the rate of English urban mortality is still exceptionally low for the time of year. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5883 births and 3109 deaths were registered last week. The births exceeded by 698, while the deaths were 166 below, the average weekly numbers during 1879. The deaths showed a decline of 199 from the number returned in the previous week. The annual death-rate, which had been equal to 18·6 and 23·7 in the two previous weeks, declined again last week to 21·3. The lowest death-rates in the twenty towns last week were 13·7 in Portsmouth, 15·9 in Leicester, 16·4 in Bradford, 18·1 in Birmingham, 18·3 in Oldham, and 18·5 in Sheffield. The rates in the other towns ranged upwards to 24·3 in Manchester, Liverpool, and Bristol, 24·8 in Leeds, and 25·4 in Sunderland. During the thirteen weeks of last quarter the death-rate in the twenty towns averaged only 21·5 per 1000, against 25·0 and 24·2 in the corresponding periods of 1878 and 1879.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 342 and 398 in the two preceding weeks, further rose last week to 401; they included 105 from scarlet fever, 87 from measles, and 39 from fever, principally enteric. The annual death-rate from these zymotic diseases averaged 2·7 per 1000 in the twenty towns; it ranged from 0·7 and 1·0 in Wolverhamptom and Sheffield, to 3·5 in Oldham and Sunderland, and 4·1 in Nottingham. Scarlet fever showed the largest proportional fatality in Sunderland, Norwich, Nottingham, Oldham, and Bristol; and whooping-cough in Nottingham, Portsmouth, Sunderland, and Leeds. The highest death-rates from fever occurred in Plymouth, Leicester, and Leeds. The 17 deaths referred to diphtheria in the twenty towns included 11 in London. Small-pox caused 38 more deaths in London and its suburban districts, and 2 in Birmingham; no fatal case of this disease was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 440 in the ten preceding weeks, further rose to 447 on Saturday last. The number of new cases of small-pox admitted to these hospitals, which had been 65 and 146 in the two previous weeks, were 85 last week. On Saturday last 24 patients were under treatment in the Highgate Small-pox Hospital, being 4 less than the number at the end of each of the two preceding weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 290 and 353 in the two preceding weeks, further rose last week to 363; these were, however, no less than 132 below the corrected average number in the corresponding week of the last ten years; 232 were ascribed to bronchitis, and 85 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·1 per 1000 in London, corresponding with the rate from the same diseases in Liverpool.

In the twenty towns last week the causes of 83 deaths were not certified, either by a registered medical practitioner or by a coroner, being equal to 2·7 per cent. of the total deaths. The proportion of uncertified deaths was equal to 1·9 per cent. in London, and averaged 3·4 per cent. in the nineteen provincial towns. No uncertified deaths were registered either in Brighton, Portsmouth, Plymouth, Nottingham, or Newcastle-upon-Tyne; while their proportion was largest in Salford, Sheffield, and Leeds.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 25·9 per 1000 last week, against 20·8 and 22·5 in the two preceding weeks; this rate exceeded by no less than 4·6 per 1000 the average rate last week in the twenty large English towns. The rates in the eight Scotch towns ranged from 15·9 and 21·4 in Greenock and Perth, to 30·6 and 36·0 in Aberdeen and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 92 and 93 in the two preceding weeks, further rose to 105 last week, and were equal to an annual rate of 4·1 per 1000, against 2·7 in the twenty large English towns. In the eight Scotch towns the zymotic death-rate last week ranged from 2·9 and 3·2 in Dundee and Greenock, to 6·1 and 8·5 in Leith and Paisley; no deaths from any of these zymotic diseases were registered either in Aberdeen or Perth. The fatal cases of scarlet fever in the eight towns, which had been 29 and 30 in the two preceding weeks, declined to 27 last week, of which 12 occurred in Glasgow, 9 in Edinburgh, and 5 in Leith. The 29 deaths from whooping-cough showed a further increase upon recent weekly numbers, and included 13 in Glasgow, 7 in Edinburgh, and 5 in Dundee. The 20 fatal cases of diphtheria also showed an increase; no less than 14 were returned in Glasgow. The 7 deaths from "fever" corresponded with the number in the previous week, and included 4 in Glasgow, 2 in Edinburgh, and 1 in Paisley. The annual death-rate from acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) was equal to 6·3 per 1000 last week in the eight Scotch towns, against 4·6 in London; the increased fatality of these diseases in the Scotch towns was confined to Glasgow, but their death-rate was also exceedingly high in Aberdeen.

HEALTH OF DUBLIN.

The registered mortality in Dublin again showed a marked excess last week. The annual death-rate from all causes in the city, which had been equal to 27·0 and 35·8 in the two preceding weeks, was last week 31·8; and the death-rate during the thirteen weeks of last quarter averaged no less than 32·6 per 1000, against 20·9 in London and 21·8 in Edinburgh. The 203 deaths in Dublin last week showed, however, a decline of thirteen from those returned in the previous week; they included 28, or rather less than 14 per cent., which were referred to the seven principal zymotic diseases, showing an increase of one upon the number in the previous week. Of these 28 zymotic deaths, 13 resulted from fever (including typhus, enteric, and simple), 7 from scarlet fever, 3 from whooping-cough, 2 from diarrhœa, and one each from small-pox, measles, and diphtheria. The annual death-rate from these zymotic diseases was equal to 4·4 in Dublin, against 3·0 in London and 4·9 in Edinburgh. The deaths referred to fever in Dublin, which had been 7, 8, and 10 in the three preceding weeks, further rose to 13 last week, and were equal to a rate of mortality nearly eight times as high as the average rate from the same cause in the twenty large English towns. Fatal cases both of scarlet fever and whooping-cough in Dublin were less numerous than in the preceding week. The deaths both of infants and of elderly persons showed an increase upon recent weekly numbers.

PROGRESS IN REGISTRATION.

Ever since the Public Health Act of 1872 mapped out the whole of England and Wales into urban and rural sanitary districts, and provided each district with an authority which is responsible for its health condition and government, an increasing demand has arisen for trustworthy vital statistics relating to these sanitary districts. The registration system, however, which had for thirty-five years been accustomed to deal only with Poor-law unions or districts and registration sub-districts, did not kindly lend itself for the provision of the required statistics of sanitary districts. The boundaries of urban sanitary districts seldom correspond with those of parishes, townships, or registration sub-districts, hence it was next to impossible for medical officers of health, even if provided with copies of the Birth and Death Registers, to compile correct statistics for their district. Not only were the urban and rural portions of a divided parish undistinguished in the registers, but in the registration of deaths in public institutions (mainly workhouses, hospitals, and lunatic asylums), the previous residence of deceased inmates was not recorded. It is satisfactory to hear that from the beginning of this year both these defects in our registration system have been removed. Registrars have been instructed to distinguish in each case whether the birth or death occurred in an urban or sanitary district, and so to describe the place of birth or death in the register, that the entry may be referred to the proper sanitary district. Instructions have also been issued by the Registrar-General, directing that in future, when registering deaths in public institutions, the registrars shall ascertain and insert in the register the previous residence of the deceased inmates. These two instructions, if intelligently carried out by registrars, will most materially assist medical officers in their statistical duties, and may, it is to be hoped, pave the way in time for the publication of official vital statistics for sanitary as well as, if not instead of, registration districts, which consist for the most part of an arbitrary aggregation of parishes and places, fixed more than forty years ago mainly for poor-law purposes. At present the only urban sanitary districts for which the Registrar-General publishes accurate statistics are the twenty largest English towns, and it cannot be doubted that much good would result from the publication of uniform and trustworthy statistics for a far larger list of urban sanitary districts. This will now become possible, in consequence of the before-mentioned improvements in our Birth and Death Registers.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DUBLIN SANITARY ASSOCIATION.

The eighth annual meeting of this Association was held at the Molesworth Hall, Dublin, on the 5th inst. The annual report referred to the accurate as well as graphic description given by the Royal Commissioners of the tenement houses in Dublin, and made suggestions for periodical analyses of the Vartry water; the prevention of slaughter-house nuisances; the provision of public baths and washhouses for the working classes, and the inspection and surveillance of public laundries. Dr. Johnston, president of the College of Physicians, in moving the adoption of the report stated that both the College of Physicians and College of Surgeons were entirely in accord with the movement promoted by that Association; and they were preparing a report in reference to the death-rate of the city. They fully believed that the high death-rate of the city was owing to the state of the tenement houses. They should be closely inspected, and an officer should also be appointed to investigate the cause of sickness in the tenement localities. Mr. C. H. Meldon, M.P., remarked that the Association had done admirable service in educating the public mind on sanitary subjects; but they must go further than they had yet done, and educate the minds of the lower classes on these topics, otherwise it would be impossible to carry out sanitary laws. A source of great danger was the bad condition of the connecting sewers in many of the very best houses in the city. There ought to be an inspection of those sewers, and he also concurred in the recommendation that public laundries should be registered and kept in proper condition. The Recorder of Dublin moved a resolution expressing the satisfaction of the meeting with the recent inquiry by the Royal Sanitary Commission, as being of so searching and comprehensive a character, and trusting that the recommendations of the Commission would be energetically carried into effect by the sanitary authorities.

OUTBREAK OF FEVER AT TANDRAGEE.

An epidemic of fever has recently taken place at Tandragee, a town in Armagh, with a population of some 1500 persons. It is reported that about 100 of these have been attacked, but the affection does not seem to be of a very malignant nature, as but ten or eleven persons have died from the epidemic during the past three weeks; no death has been recorded this week up to Tuesday last. It is said that no fatal cases have occurred where the patient was attended by a medical practitioner, and strict attention paid to sanitary regulations. The cause of the outbreak, which is probably a form of typhoid fever, appears to be due to contaminated water from one of the pumps which supply the town. The village schools have remained closed since the Christmas vacation.

UNHEALTHY INDUSTRIES.

Our contemporary *The Queen* is, we are glad to see, giving its readers a very able series of articles on the "Health Aspects of Women's Industries." Hygienic knowledge, to be of any real use, must be popularised, and any effort to make the industrial classes, or those who are brought in contact with them (and probably no class has better opportunities of disseminating useful knowledge than those readers of *The Queen* who practise charity as well as fashion), really acquainted with the evils and dangers to health which we encounter in our daily life is one to be encouraged; and we trust that the editor of the "Ladies' Newspaper" will continue the good work upon which he is engaged.

YELLOW FEVER.

Yellow fever has been more or less prevalent among the French garrison at St. Louis, Senegal, said to have originated from the overcrowding of the troop-ships conveying the reliefs to the garrison. Seventeen deaths were recorded between Nov. 20th and Dec. 2nd, 1880, and on the latter date a civilian was attacked, and died.

Mr. Sergeant, the medical officer of health for Bolton, has been lecturing publicly in that town on the avoidance of disease. An excellent lecture now reported is devoted to personal hygiene, and we trust it will be presently followed by one on a public hygiene. Lectures of this class are admirably adapted to instruct the hearers, and secure the willing co-operation of citizens in the difficult duties which a medical officer of health and his local authority have to perform in ralation to the public health.

An order has been issued by the Privy Council, under the Contagious Diseases (Animals) Act, 1878, setting forth the regulations to be followed in localities (areas) infected with foot-and-mouth disease.

THE SERVICES.

THE TRANSVAAL WAR.

In addition to the reinforcement of medical officers for service at the Cape, which we announced last week, the War Office has decided to send out a full Bearer Company of the Army Hospital Corps under the command of Surgeon-Major William Johnston. The company will consist of 136 non-commissioned officers and men of the Army Hospital Corps, with the following officers:—Surgeon-Major Thomas Faris, M.B., second in command; Surgeons W. C. Milward, Alfred Peterkin, P. B. Conolly, H. F. Babington, M.B., W. H. Bracken, M.D., and W. Dugdale. Captain of Orderlies James Gordon, Lieutenants of Orderlies W. Pike and H. S. Webb are attached for duty. A detachment of the Army Service Corps, consisting of one officer and forty non-commissioned officers and men, will join the company at Aldershot for transport duty prior to embarkation. The Bearer Company will, we believe, go out completely equipped, taking out ambulances, surgery waggons, stretchers, cacolets, and litters, the latter for conveying wounded over mountainous roads, and with all the latest improvements and appliances for the special work of removing wounded from the field, dressing their injuries, and conveying them to the field hospitals. Surgeon-Major Johnston, who has been selected by the Director-General for the command, has recently returned from a tour of service in South Africa, and was present at the storming of Seccocoeni's stronghold in 1879, where the Bearer Company under Surgeon-Major Hector did excellent service.

Brigade-Surgeon Edward M. Sinclair, M.D., has been ordered to the Cape for immediate service in the Transvaal.

Deputy Surgeon-General Thomas William Fox, M.D., has been appointed Principal Medical Officer of the Chatham District, in succession to Surgeon-General Henry Kendall, M.D., who retires on half pay.

Surgeon-Major David Woods, half-pay Medical Department, has been permitted to commute his half-pay.

SCOTS GUARDS.—Surgeon William Campbell, M.B., from the Medical Department, to be Surgeon; Surgeon G. S. Robinson, from the Medical Department, to be Surgeon; Surgeon Robert F. Cumming, from the Medical Department, to be Surgeon.

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—The following appointments have been made:—Alfred Charles Edward Harris to be Surgeon; Peter Murray Braidwood, M.D., to be Honorary Surgeon.

Correspondence.

"Audi alteram partem."

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—The perusal of your leader on Medical Education induces me to offer a few remarks on this subject, and I will confine what I have to say to one point, and that is the question of apprenticeship as the commencement of a medical career. When, in 1872, I had the honour of giving the introductory lecture at the Middlesex Hospital, I ventured to express my own doubts as to whether the abolition of the old system of apprenticeship had been an advantageous move in the cause of medical education. Since the date just named, my opportunities of observation among students when in course of training by lectures and when under examination have increased much, and certainly the conviction is now strong in my mind that the abolition of apprenticeship was a great mistake, and a move that was much to the disadvantage of the medical student. A young man goes from school to live with a medical practitioner, and there he learns to compound the medicines which his master prescribes in his book when he comes in from his rounds. He sees how the mixtures look when they are made, and if they are clear and pleasing to the eye, if not to the palate, of the patient; and while gaining knowledge on these points, he soon becomes ready at reading and writing prescriptions—matters in which the knowledge of even the advanced students of the present day is often strangely deficient.

Not to mention the treatment of small surgical cases that come at all times into the surgery, whereby manual dexterity and tact are early acquired and developed, the apprentice enjoys the opportunity of going out with the assistant to visit patients at their own homes, and so learns to speak with wisdom and judgment to those who are sick, so acquiring "the mystery of practice"; and while thus employed he finds out pretty soon, and in good time, how he really likes the actual practice of the profession; and if he does not take kindly to it he can withdraw and turn to some other way of getting his living, for none are to be so sincerely pitied as those who have been led to seek their bread by the practice of physic, while they have an innate loathing of their art. There can hardly be even tolerable success without might or earnestness; mind must be thrown into the work, and "there cannot be might or earnestness—of the best sort—in an uncongenial enterprise" (THE LANCET, p. 65, Jan. 8th, 1881).—Yours, &c.,

JOHN C. THOROWGOOD, M.D., F.R.C.P.

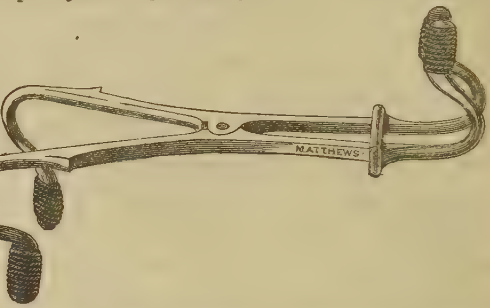
Welbeck-street, W., January, 1881.

THE NEW FORM OF GAG.

To the Editor of THE LANCET.

SIR,—With reference to Mr. T. Smith's letter on the above in your issue of last week, I wish to state, in fairness to Messrs. Matthews, that they were the first, about three years ago, to construct at my suggestion the double-ended gag *with the sliding ring-catch*, which Mr. Smith erroneously speaks of as an ingenious adaptation of Messrs. Mayer and Meltzer. In fact, it was at the request of Mr. Mayer that I lately sent him my gag to copy.

The addition of the tongue-plate, as suggested by Mr. Smith, will, in my opinion, be no improvement, as one of the great features of the gag (as shown in the illustration) is its simplicity and adjustability.



After considerable experience in operations about the mouth, where an anæsthetic is used, I have come to the conclusion that the tongue should be left perfectly free, and only occasionally depressed with a suitable spatula when dealing with parts which its presence obscures; for I have found that with the continuous pressure of a plate the tongue is always liable to bulge up behind it, and so impede or prevent respiration by pressing on the glottis, causing great danger to the patient and anxiety to the operator.

I am, Sir, yours obediently,

Welbeck-street, Jan. 10th, 1881. WILLIAM ROSE.

MAIN SEWER VENTILATION—CITY FILTH AND WATERCLOSETS.

To the Editor of THE LANCET.

SIR,—I suppose some people will say that an official ought not to waste his time by making any reply to adverse criticisms on his works and recommendations. This, no doubt, in a general way is true, but as there are special cases set forth in THE LANCET of the 8th inst., and replies to which may have general interest, I venture to break the rule.

At p. 70 of your last issue, under the heading "Sanitation in Leeds," the favourable returns as to the local health are commented upon. I beg to observe that in 1867, when making inquiry into rivers' pollution, I learned that the new sewers and drains were unventilated, and that the large main outlet sewer presented its open end unprotected for the wind to blow into, and so drive sewage gases, with increased force, to the upper portions of the town. There had been and were at the time many cases of fever throughout the town, but more especially in the new and better class of suburban houses, which had been drained to the new sewers. I obtained returns of the expenditure on these new sewers, and for the same period a return of the rate of local mortality; and I pointed out to the Chairman of the Works Committee that an increasing death-rate had followed closely the increasing main sewering and draining expenditure, and I put the question to him, "Do you think such result should be?" There was of course only one form of answer possible—namely, that the result ought to have been the other way. I then pointed out that the open-mouthed main sewer should be closed so as to allow sewage to flow out and prevent the wind driving in, that all the main sewers should be abundantly ventilated, and that house drains should be disconnected by external ventilation. These things have been done, and more, the local surveyor having gone a very wide step in advance, by untrapping all the street gullies, to the extent of some 20,000 in number, the aggregated area of the whole being about 3600 square feet. I do not know of any other town which has gone so far in main sewer ventilation. You give the results in your notice, as above quoted—namely, a local death-rate for the four weeks ending the 27th of November, 1880, not exceeding 19·9 per 1000, as against 25·6 in the corresponding period of 1879. There is no one thing connected with the main sewering and house draining so obstinately resisted as is main sewer ventilation. The engineers' inspectors, at their local inquiries for main sewering or sewers' extensions, stipulate, before promising to recommend sanction, that the sewers shall be fully and properly ventilated. The promise may be given, only to be entirely neglected, or most inefficiently carried out; and then, if there is defective workmanship in the sewer construction, in flushing, and, as a consequence, foul accumulations, the few small openings made at wide intervals apart become nuisances and are closed—so that main sewer ventilation ceases, excepting through the drains and into the connected houses, the results being malarious sickness. Half-informed men then, both at home and abroad, take up their parable and denounce main sewering, house draining, and waterclosets, as if these were mere inventions of the evil one to inflict sickness and misery on man. Let me repeat once again that house-drains which do not drain, and main sewers which do not sewer—that is, do not unceasingly transmit all sewage by an even and continuous flow to some common outlet—must not claim my parentage. The sewers and drains I recommend must have full, abundant, and free ventilation to the external air—every house to be so drained, ventilated, and connected with the main sewers, so as to be free from any possibility of scourge taint, as if standing isolated in the middle of a separate plot.—I remain, Sir, yours faithfully,

London, Jan. 11th, 1881. ROBERT RAWLINSON.

BOGUS DEGREES AT HOME.

To the Editor of THE LANCET.

SIR,—As the question of reform in medical education is coming more and more to the front, there are one or two questions which many who are interested in the subject would like to have answered.

It has been asserted that the Medical Corporations of Scotland have solved the whole problem. In view of this assertion, I ask—

(1) Is it true, as has been alleged, that the Fellowship of the Royal College of Surgeons of Edinburgh can be obtained *without examination*, upon the payment of the necessary fee?

(2) Is it a fact that the F.R.C.S. of Edinburgh is a sufficient qualification for the office of surgeon to any (or some) of the metropolitan hospitals?

(3) Can a candidate who has failed to obtain the double Edinburgh qualification (L.R.C.S., L.R.C.P.) obtain the L.R.C.P., or some similar licence, and then be straight away elected to the F.R.C.S.?

If these things indeed be true, then there is gross injustice and a glaring inequality between the Fellowship of the London College of Surgeons and that of the Edinburgh College. The F.R.C.S. Eng. requires an extended curriculum and a strict examination. If the Edinburgh F.R.C.S. can be bought, it is clearly a much lower title, while the public is under the belief that the two are of equal value. Well, if this be the solution that is satisfactory to the Scottish Corporations, it is certainly not so to those who, like myself, claim to be

A DISINTERESTED MEDICAL REFORMER.

Jan. 11th, 1881.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, Mr. P. A. Taylor again gave notice of his anti-vaccination resolution, which he subsequently put down for discussion a month hence. It is in the following terms: "That, in the present unsettled condition of medical opinion in regard to the safety of using ordinary humanised lymph, as also of the safety, effectiveness, and practicability of the use of animal vaccine, it is, in the opinion of this House, inexpedient and unjust to enforce Vaccination under penalties upon those who regard it as unadvisable or dangerous."

On Friday, Mr. Stansfeld reintroduced the Bill for the repeal of the Contagious Diseases Acts. The names on the back of the Bill are Mr. Stansfeld, Mr. W. Fowler, Mr. H. Fowler, and Mr. J. Cowen. Mr. O'Shaughnessy brought in a Bill further to facilitate the building, enlargement, and maintenance of reformatory institutions in Ireland. Mr. Hardcastle, in conjunction with Sir Trevor Lawrence and Dr. Farquharson, brought in a Bill to amend the Medical Act, 1858; and Mr. Gray, a Bill to provide for the better notification of infectious diseases in Ireland. Petitions were presented on behalf of Dr. C. A. Holcombe and Surgeon-Major T. G. Skardon for inquiry into their respective cases. A copy was presented of further correspondence respecting the manufacture of "oleomargarine" in the United States.

On Monday a return, ordered last August on the motion of Mr. Meldon, was presented of all medical officers of workhouses, &c., in Ireland who have resigned their offices and applied to their Boards of Guardians for superannuation. A return, ordered in the same month on the motion of Mr. Callan, of correspondence relative to the treatment of patients in Dr. Steevens's Hospital, was also presented. Mr. Dillwyn reintroduced his Bill to amend the laws relating to the custody and treatment of lunatics, and it was put down for second reading on Wednesday, May 25th. Mr. Errington gave notice that on Monday next he will ask the Vice-President of the Council whether he will agree to the appointment of a Select Committee to continue the inquiry commenced in 1878 into important questions of medical reform. Mr. Grantham asked the Secretary of State for India if he has inquired, in pursuance of his promise in August last, of the proper authorities in India, whether, by the report of a medical board dated September 5th, 1868, signed by Surgeon-Major Peskett, Surgeons Lowdell and Condon, and Assistant-Surgeon Walsh, at Nynee Tal, Capt. Chatterton was not recommended to take twelve months' leave of absence for the purpose of returning to England to undergo an operation—viz., the division of the left tendo Achillis—on the ground that it was not safe to perform the operation in India. Whether Surgeon-Major Powell, acting as garrison surgeon in Fort William, Calcutta, did not afterwards, in April, 1869, confirm the above recommendation on the same ground. Whether the only report on which the despatch of January 5th, 1869, ordering the compulsory retirement of Captain Chatterton, was founded, and which practically alleged that he was shamming, was not that made in Nov. or December, 1868, by Assistant-Surgeon M'Dermott, who was shortly afterwards removed from the medical charge of that and other cases previously under his care. And how it was that Captain Chatterton was dismissed the army in April, 1869, on the report of an assistant-surgeon, when Captain Chatterton was acting on the reports of more eminent surgeons made both before and after the report of the assistant-surgeon. The Marquis of Hartington briefly replied that he had caused inquiry to be made into the case, and was waiting the result. Mr. Parnell put a series of questions as to the treatment of certain members of the Land League in Tralee gaol. Mr. Forster postponed a detailed reply, but stated that instructions had been sent to Dublin, in reply to a complaint by the prisoners, directing that their personal requirements should be attended to.

On Tuesday, petitions for inquiry into the Indian Medical Service were presented on behalf of Matthew Moriarty and William Courtney. Mr. Errington gave notice of a Bill to alter the qualifications required for holding certain medical appointments.

On Wednesday a further petition *re* the Indian Medical Service was presented from James R. Jackson.

On Thursday, Mr. Dwyer Gray, ex-Lord Mayor of Dublin, questioned the Chief Secretary for Ireland as to an outbreak of fever at Tandragee. Mr. Forster said he was sorry there had been an outbreak of fever at Tandragee. It was caused, not by the importation of foreign flax, but by the impurity of water obtained from a well. The Local Government Board were doing all they could to prevent the spread of the fever. The well had been closed, a second medical officer had been appointed in the district, and one of the medical inspectors of the Board had been specially sent to Tandragee. The latest report said the disease was abating, and that the number of deaths up to Tuesday was seven, not eleven.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council, held on Thursday last, after the transaction of the ordinary routine business, the Committee on Preliminary Examinations, appointed on Dec. 9th, 1880 (see THE LANCET, Dec. 11th, 1880), presented their first report, dated January 10th. They recommended that the preliminary examinations for the diplomas of Member and Fellow, at present conducted by the College of Preceptors under the authority of the Council, should cease from and after the 31st of December, 1881, and that in communicating the decision to the General Medical Council, it should be intimated that the giving up of the College Preliminary Examinations renders it in the highest degree desirable that the General Medical Council should, so far as may be possible, require that examinations recognised in lieu of the College examination should be held at such times and places as may best suit the convenience of candidates who desire to enter the medical profession. With regard to the regulations relating to the several preliminary examinations recognised by the College, whether for the Fellowship or Membership, the committee recommended (1) that a certificate of registration by the General Medical Council shall entitle a candidate to commence his professional education at any time after the date of registration; (2) that the Council reserve to themselves the right of determining the conditions of admission to examination for the diploma of the College in the case of any colonial, Indian, or foreign student not registered by the General Medical Council; (3) that, in future, candidates for the diploma of Fellow be not required to undergo any preliminary examination beyond that required for the diploma of Member, and (4) that the regulations for obtaining the diplomas of Member and Fellow of the College be altered in accordance with these resolutions. The Committee has reserved to a further report the subjects contained in Dr. Haldane's communication respecting the desirability of candidates for the medical profession being required, before they enter on the purely medical curriculum, to have been instructed and examined in the rudiments of natural science, physical, chemical, and biological (see THE LANCET, Dec. 11th, 1880).

The Committee on the necessary arrangements for the institution of additional examinations for the diplomas of Member and Fellow, appointed on Nov. 13th, 1879 (see THE LANCET, Nov. 15, 1879), presented their second report, dated Jan. 6th, 1881. In their first report, dated May 10th, 1880 (see THE LANCET, May 15th, 1880), the Committee recommended that notice should be given to the several medical authorities concerned in "the conjoint scheme" of the intention of the College to withdraw from that scheme. This recommendation was adopted on June 10th in a modified form—namely, that "in view of the uncertainty which prevails as to the compulsory establishment of a conjoint scheme in each division of the united kingdom, the Council give notice to the several medical authorities in England, of their intention, whether alone or in conjunction with other bodies, to make arrangements for the institution of a complete examination to be passed by all candidates for the diplomas of Member and Fellow of the College." In their second (present) report the committee state that at their request the president addressed a letter to the President of the Royal College of Physicians of London, wishing him and other delegates from his College to meet the committee and confer on the practicability of making arrangements for a joint examination for qualification to practise medicine, surgery, and midwifery. That the invitation was declined on the ground that the Royal College of Physicians, being bound by the terms of the conjoint scheme, dated the 1st of May, 1877, could not take part in the formation of any other examining board until after the expiration of five years from the 1st of October, 1877, the shortest time fixed by the scheme for its duration; and that the President, on behalf of the Committee, pointed out to the President of the Royal College of Physicians that the interpretation thus put upon Section 12 of the scheme was at variance with that held by the College—namely, that the said section is binding on the several medical authorities only on condition that the conjoint scheme has come into actual force. To this objection the President of the College of Physicians has not yet replied. Having failed in their endeavours to bring about a conference with the Royal College of Physicians, the Committee entered without further delay into the consideration of the arrangements for the institution of further examinations for the Membership and Fellowship. The Committee has reserved any recommendations on the institution of examinations in chemistry, materia medica, medical botany, and pharmacy; but in regard to medicine and midwifery the Committee recommended the following resolutions for adoption:—1. That there be four instead of two examiners in medicine. 2. That the examination in medicine, both written and *vivâ voce*, be extended, and do include the examination of patients. 3. That on and after Jan. 1st, 1882, every candidate for the final Membership or Fellowship examination be required to pass an examination in midwifery, unless he shall possess a recognised qualification in midwifery, or, before obtaining the diploma, shall produce a certificate of having passed the necessary examinations entitling him to a recognised qualification in midwifery. 4. That there be two examiners in midwifery. 5. That the examination in midwifery be partly written and partly *vivâ voce*. 6. That candidates, having passed the examination in midwifery for the Membership, or any examination recognised as equivalent thereto, be not required to undergo any further examination in midwifery for the Fellowship. 7. A candidate for the Membership or Fellowship to be exempted from the necessity of passing an examination in medicine or midwifery—(*a*) if he possess any degree, diploma, or licence in medicine or midwifery, registrable under the Medical Act of 1858, as a legal qualification to practise in medicine or midwifery, as the case may be; (*b*) or any degree, diploma, or licence in medicine or midwifery, of a Colonial, Indian, or foreign university, which the Council may, on special application, consider to be sufficient.

The reports of both committees were adopted, and it was resolved that the recommendations contained therein should take effect at once, without waiting for the confirmation of the minutes.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners during the week.:—

J. England Walker and William Atkinson, University College; James Darbyshire and Benjamin Blakemore, Manchester; W. A. Winship, Newcastle-on Tyne; Henry Knowles, Leeds; Percy H. White, Edinburgh; James Cox, Melbourne, Australia; Herbert Ley, Walter F. Mitchell, and Bowen S. Mends, St. Bartholomew's Hospital; George Stoker, Joseph R. Lock, and Herbert C. Hodges, St. Thomas's Hospital; David P. Key, H. H. W. Button, and Thomas B. Winter, Guy's Hospital; Arthur W. C. Peskett, and Adolphus J. Richardson, London Hospital; Ithel P. Llewelyn, King's College; Reginal L. Huzzey, Charing-cross Hospital; James H. Daniel, John E. London, Thomas A. Guinness, Robert Cheyne, William S. Hayman, Samuel Camps, Samuel C. Philson, Charles H. Piesse, and Meryon S. Wilson, King's College; George F. Phillpot, Francis J. Lea, Frederick W. Cock, Hedley V. Drew, Donald S. Gunn, and Charles J. Lumpkin, University College; Robert Hall Wilkinson, Gaskion R. M. Wright, Philip T. Richards, William T. Partridge, Rhys S. Jones, William H. Clark, Francis Dean, St. Bartholomew's Hospital; Edgar Wakelam, Augustus L. Paliologus, Wilfred Howard, and Ernest D. Minter, Guy's Hospital; George Hessenaur, London Hospital; Charles H. Thompson, Dublin and St. Thomas's Hospital; Arthur J. Barnard, St. George's Hospital; Henry J. C. Godfrey, John A. Soothern, John E. Dunn, and Penn Furnivall, St. Thomas's Hospital.

Of the 146 candidates examined 66 were referred for three and seven candidates for six months further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 6th:—

Clarke, Fincastle Geo. Barlow, Upper Norwood.
Hodgson, John, Oldham, Lancashire.
Knaggs, Henry Valentine, Camden-road.
Prendergast, Joseph Moran, Melbourne, Australia.
Ross, Ronald, Southampton.

The following gentlemen also on Dec. 30th passed their Primary Professional Examination:—

John Hoole, St. Bartholomew's Hospital; Fredk. Hamilton Kenny, London Hospital.

[The address of Mr. Wordley, in the list published on Jan. 1st, should have been printed "Great Suffolk-street."]

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. J. F. Stanford, F.R.S., late of North Bank, Regent's Park, bequeathed £25,000 to St. Mary's Hospital, to build a new wing to bear the name of his mother, Mrs. Mary Stanford. The Gloucester Infirmary becomes entitled to £500 by the will of the late Mr. W. J. Holt, of Gorphwysfa, Carnarvonshire. As one of the residuary legatees of the late Dr. Scott, of Perth, the County and City of Perth has received £3603 9*s.* William Denis Browne has given £100 to the Meath Hospital, Dublin; and the Adelaide Hospital has received £100 under the will of the late Misses Adams. Mr. William Tattersall has given £1000 to the Blackburn and East Lancashire Infirmary, in augmentation of the endowment fund.

DEVONSHIRE HOSPITAL, BUXTON.—Dr. Robertson, Chairman of the Board of Trustees and Committee of Management of this charity, is able to give a favourable report of the institution, to which there has now been added a Samaritan Fund. A good feature in the administration of the charity is the issue of postal cards to in-patients on leaving the hospital, to be filled up and returned six weeks after discharge, and on which is to be stated the result of the treatment received. During the seven years this arrangement has been in existence 7695 of these cards have been returned; by these, 5579 patients are reported as improved, 2077 as no better, and 39 as having died.

THE Baxter Physical Science Scholarship of £116, conferred by the University of Edinburgh on the most eminent B.Sc. who has taken his degree during the present or the preceding year, has been awarded to Mr. D. Orme Masson, lecturer on Chemistry at University College, Bristol, who is prevented from accepting it in consequence of holding his present appointment.

UNIVERSITY OF DUBLIN.—The Board of Trinity College have granted the degree of Bachelor in Medicine (without fees) to Mr. John Charles Martin, for distinguished success in having obtained double first place at the recent examinations for medical and surgical degrees.

THE salary of the medical superintendent of the Three Counties Lunatic Asylum has been increased from £600 to £700, and that of the senior assistant medical officer £10 a year, up to £200.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, Dr. H. J. Domville, C.B., Inspector-General, in the chair, the sum of £60 was distributed among the several applicants.

THE Hospital Sunday collection in Liverpool, made on the 9th inst., has realised, so far as is at present ascertained, a sum of £2871, against £2819 last year. At Aberdeen the collection amounted to £432 18*s.* 10*d.*

THE magistrates of Cornwall have sanctioned the expenditure of £20,000 for the enlargement of the County Lunatic Asylum, so as to provide accommodation for 150 additional pauper lunatics.

THE Duke of Connaught has consented to preside at the anniversary festival on behalf of the Hospital for Sick Children, to be held at Willis's Rooms on March 16th.

THE Local Government Board have made a first class grant of £10 13*s.* for efficient vaccination to Mr. Wm. Milligan of Wirksworth.

QUEEN'S COLLEGE, BELFAST.—Prof. Nesbitt has been appointed librarian to this institution.

DR. THOMAS O'SULLIVAN has been elected Lord Mayor of Limerick.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

BRITTON, T., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the Halifax Rural and Combined Sanitary Districts.

BUXTON, T., M.R.C.S.E., has been appointed Medical Officer for the Kingsbury and Fazeley Districts of the Tamworth Union.

COLLEDGE, L. R., L.R.C.P., M.R.C.S.E., has been appointed Assistant Surgical Registrar to St. George's Hospital.

DAWSON, W., M.B., M.R.C.S.E., has been appointed Medical and Surgical Registrar to the Victoria Hospital for Children, vice Dr. Beckingsale, resigned.

DUNSMURE, J., M.D., F.R.C.S.Ed., has been appointed Medical Officer to the Pensioners of Trinity College Hospital, Edinburgh.

EVANS, E. P., L.R.C.P.Ed., has been appointed Medical Officer for the Mountain Ash District of the Pontypridd Union.

HALL, R. S., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Ince-in-Makerfield Urban Sanitary District.

HANNAH, N., L.R.C.P.Ed., L.F.P.S.G., has been reappointed Medical Officer of Health for the Ashton-in-Makerfield Urban Sanitary District.

HASLAM, G. J., M.D., M.R.C.S.E., has been appointed District Surgeon to the Salford and Pendleton Royal Hospital, vice J. Newton, promoted to House-Surgeon.

HERMAN, G. E., M.B., M.R.C.P.L., F.R.C.S.E., has been appointed Physician to the Eastern Division of the Royal Maternity Charity, vice Roper, resigned.

HOLDEN, L., F.R.C.S.E., has been appointed Consulting Surgeon to St. Bartholomew's Hospital.

ILLINGWORTH, C. R., M.B., C.M., M.R.C.S.E., has been appointed Medical Officer for the Rishton and Clayton-le-Moors Districts of the Blackburn Union, vice Pilkington.

LEAHY, A. W. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Registrar at Charing-cross Hospital.

MAHON, G. A. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Eighth District of the Newport Pagnell Union.

MILNES, G. H., M.R.C.S.E., has been appointed Assistant House-Physician to St. George's Hospital.

NEWTON, J., M.R.C.S.E., has been appointed House-Surgeon to the Salford and Pendleton Royal Hospital, vice D. T. Evans, M.R.C.S.E., L.S.A.L., resigned.

PRICE, J. L., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Standish-with-Langtree Urban Sanitary District.

SHIVES, J., M.D., L.R.C.S.Ed., has been appointed Medical Officer of Health to the Liversedge Urban Sanitary Authority, vice Sykes.

SMITH, R., M.D., C.M., M.R.C.P.L., has been appointed an Assistant-Physician to Charing-cross Hospital.

Births, Marriages, and Deaths.

BIRTHS.

CAREY.—On the 8th inst., the wife of Richard John Carey, M.A. Camb., Medical Officer of Canning-town, E., of a daughter.

COTTON.—On the 9th inst., at Sloane-street, S.W., the wife of Holland J. Cotton, M.D., of a son.

JONES.—On the 4th inst., at Chesham-place, the wife of T. Ridge Jones, M.D., of a daughter.

KENDALL.—On the 28th ult., the wife of Surgeon-General Henry Kendall, M.D., Principal Medical Officer, Chatham District, of a son, who survived his birth only a few minutes.

MARRIAGES.

BEDFORD—DRAKEFORD.—On the 29th ult., at St. Bartholomew's Church, Sydenham, Walter George Augustus Bedford, M.B., M.R.C.S.E., of the Army Medical Department, youngest son of the late Vice-Admiral G. A. Bedford, of The Elms, Sydenham-hill, to Adelaide, eldest daughter of the Rev. D. J. Drakeford, M.A., of Elm-grove, Sydenham.

CARMICHAEL—BRIDGET-HAWES.—On the 29th ult., at St. Luke's, Redcliffe-square, Daniel Macrae Carmichael, M.B., M.C., of Portree, N.B., to Hannah Sarah, daughter of the late Mrs. Bridget-Hawes, of Priory-grove, South Kensington.

FROST—ANDERSON.—On the 8th inst., at St. Michael and All Angels', Paddington, William Adams Frost, F.R.C.S., second son of C. M. Frost, Esq., of Ladbroke-square, to Maria Deane, eldest daughter of W. J. Anderson, of Sans Souci, Cape Colony, and Westbourne-terrace, W.

HADDEN—LESLIE.—On the 11th inst., at the Parish Church, Alton, Hants, Martin Lindsay Hadden, son of the late James F. Hadden, Esq., of Union-grove, Aberdeen, to Alice, second daughter of Louis Leslie, M.D., of Amery House, Alton.

DEATHS.

ALCOCK.—On the 23rd ult., at his residence, Catherine-street, Waterford, Daniel Robert Alcock, Staff-Surgeon R.N. (retired), aged 43.

BAIN.—On the 8th inst., at "Balmoral," Bournemouth, Benjamin Bain, L.R.C.S.Ed., L.R.C.P.Ed., late of Birtley, co. Durham, aged 37.

BARFOOT.—On the 5th inst., at Freshwater Villa, Cadogan-road, Surbiton, Edward Wade Barfoot, M.R.C.S.E., in his 74th year.

DOWNING.—On the 7th inst., at Franklin-road, Brighton, the residence of his sister, Edward Hugh Downing, M.R.C.S.E., of Deptford, Kent, in the 32nd year of his age.

KNOTT.—On the 8th inst., at his residence, Harwich, and without any previous illness, William Knott, M.R.C.S.E., Half-pay, 6th (Inniskilling) Dragoons, aged 88.

WIGG.—On the 22nd ult., at King's Lynn, Norfolk, Eleanor Hart, wife of Thomas Carter Wigg, M.D., formerly of Ballarat, Victoria. (Australian papers please copy.)

WOOLLEY.—On the 31st ult., at Kent Cottage, Old Kent-road, S.E., Samuel Poole Woolley, M.B., M.R.C.S.E., &c., aged 36.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, January 13th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A. M.
Jan. 7	30·56	E.	36	34	..	43	31	..	Fine
" 8	30·60	E.	34	32	..	40	29	..	Overcast
" 9	30·37	W.	36	35	..	39	31	..	Overcast
" 10	30·08	E.	35	33	..	37	32	..	Overcast
" 11	29·82	E.	34	33	..	37	30	..	Snowing
" 12	29·46	N.W.	31	..	..	33	27	0·11	Overcast
" 13	29·54	N.W.	26	..	..	34	19	..	Overcast

Medical Diary for the ensuing Week.

Monday, Jan. 17.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ a.m. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ p.m. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 p.m.

Royal Orthopædic Hospital.—Operations, 2 p.m.

St. Mark's Hospital.—Operations, 2 p.m.; on Tuesday, 9 a.m.

Medical Society of London.—8½ p.m. Mr. John Brunton, "On a case of Nævus of the Scalp successfully treated by Sodium Ethylate"; Dr. B. W. Richardson, "On Sodium Ethylate in the treatment of Nævi and other forms of disease, with remarks on Potassium Ethylate."

Tuesday, Jan. 18.

Guy's Hospital.—Operations, 1½ p.m., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 p.m.

West London Hospital.—Operations, 3 p.m.

Pathological Society of London.—8½ p.m. The following specimens will be shown:—Recurrent Multiple Sarcoma; Localised Scleroderma (living specimen); Acute Myositis; Abscess of Liver following Dysentery; Cirrhosis of Liver in a Child; Cystic Degeneration of the Breast; Two cases of Tricuspid Stenosis; Case of Chloasma (living specimen); Perforation of Septum Ventriculorum and Thrombosis of Pulmonary Artery (card); Thrombosis of Innominate Vein; Congenital Sacral Tumour (card); &c.

Royal Institution.—3 p.m. Professor Edward A. Schäfer, F.R.S., Fullerian Professor of Physiology, R.I., "On the Blood."

Wednesday, Jan. 19.

National Orthopædic Hospital.—Operations, 10 a.m.

Middlesex Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ p.m.

King's College Hospital. — Operations, 2 p.m., and on Saturday at 1 p.m.

London Hospital.—Operations, 2 p.m., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 p.m.

University College Hospital. — Operations, 2 p.m., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations 2½ p.m.

Society for the Encouragement of Arts, Manufactures, and Commerce.—8 p.m. Mr. A. G. Lock, "On Causes of Success and Failure in Modern Gold-mining."

Thursday, Jan. 20.

St. George's Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital.—1½ p.m. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 p.m.

Central London Ophthalmic Hospital. — Operations, 2 p.m., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 p.m.

North-West London Hospital.—Operations, 2½ p.m.

Royal Institution.—3 p.m. Mr. Francis Hueffer, "On the Troubadours."

Friday, Jan. 21.

St. George's Hospital.—Ophthalmic Operations, 1½ p.m.

St. Thomas's Hospital.—Ophthalmic Operations, 2 p.m.

Royal South London Ophthalmic Hospital.—Operations, 2 p.m.

Royal Institution.—8 p.m. Mr. Warren De La Rue, "On the Phenomena of the Electric Discharge with 14,400 Chloride of Silver Cells."

Saturday, Jan. 22.

Royal Free Hospital.—Operations, 2 p.m.

Royal Institution.—3 p.m. Mr. Sidney Colvin, M.A., "On The Amazons: A Chapter in the Study of Greek Art and Mythology."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Venous Pulsation.

At a meeting of the Medical Society of the College of Physicians in Ireland last week the Vice President of the College (Dr. W. G. Smith) detailed a case of aortic and mitral valve disease in which a venous pulsation could be detected on the back of the hands. It occurred in a man aged thirty-seven, who had suffered from two attacks of rheumatic fever, and for about nine days, and until shortly before death, a venous pulsation on the back of both hands, and passing for three inches up the forearms, was apparent. There was an appreciable interval between the arterial and venous pulsation, and pressure stopped the pulsation between the part compressed and the heart, the venous wave being in the direction of the blood-stream. It was suggested that the pulsation was derived from the left side of the heart, being transmitted from the arterial system into the venous circulation through the capillaries. The heart weighed on removal 1 lb. 5½ oz.

SILICA AS AN ANODYNE IN CANCER.

To the Editor of The Lancet.

Sir,—At the present time, when new remedies are being anxiously sought in the hope of finding one that will alleviate the intense pain experienced by those afflicted with cancer, I think it worth while to submit to the notice of your readers the following particulars connected with a case now under my charge.

On November 5th, 1880, I was asked to see Mrs. S——, residing in this neighbourhood, and, by examination, discovered that she had malignant disease of the cervix uteri, from which she had been suffering to her own knowledge for the last six months.

Her condition was one of great mental distress and bodily agony. She had had no sleep of more than ten minutes' duration for three weeks before I saw her, and was never free from pain when awake. She described the pain "as if numbers of lancets were being stuck into the lower part of the body, and as if hooks were inserted into her hips, and then torn out; and as if the bottom of her back were being cut off from the rest of her body."

I ordered one grain of silica in the form of "silicon lozenges" three times a day, and to continue taking an anodyne mixture at night, which had previously been prescribed by another medical gentleman, to whom she could go no longer in consequence of increasing weakness.

On Nov. 8th I saw her again, and I found that she had suffered much less pain, and had slept on the night of the 7th for twenty minutes at a time. As the mixture produced constipation, I ordered her to discontinue its use, and to continue the lozenges.

On Nov. 11th I saw her for the third time, and found her moving about the house, comparatively cheerful, able to read with enjoyment, and that the pain had become, in her own words, "quite bearable," and was not constant. Sleep also had returned to a considerable degree, although taking no anodyne but the silicon lozenges, the intervals between waking being less frequent.

On Nov. 20th I visited her again, and found her more cheerful than before, and, as far as pain was concerned, she informed me "that she had no real pain, only an uncomfortable feeling about the lower part of the body." The lozenges, too, seemed to soothe her, and she could now sleep soundly for one hour, and believes she would sleep for longer periods but for irritability of the bladder, which wakes her at that interval. I may mention that the disease has affected the base of the bladder, and this I believe is the cause of the irritability.

I was induced to try the silicon lozenges from the fact that my father, Dr. R. F. Battye (who was the first to use silica in the treatment of cancer), had attended a patient in the same house who had died of cancer, but had suffered no pain after the first fortnight, and remained free from pain till her death, which occurred about a year after.

If not trespassing too much on your valuable space I will send you from time to time short notes of the progress of this case.

I am, Sir, yours respectfully,

J. H. Battye, M.D.

St. George's-road, London, S.W., Nov. 23rd, 1880.

P.S.—The formula for "silicon lozenges" is contained in the *Edinburgh Medical Journal* for November, 1874.

"SHAM DOCTORS AND UNQUALIFIED PRACTITIONERS."

To the Editor of THE LANCET.

SIR,—In your edition of January 8th, 1881, you report two cases of sham doctors in our neighbourhood. I am quite sure if you knew the facts of both cases you would have justly treated them in a different manner.

In the first case, on page 65, an old qualified man, who has a private income, I believe, derived from a patent medicine, has been able to compete with his brother practitioners by allowing people to run up bills for various periods varying from five to thirteen years, has had a mania for rushing in and out of people's residences, and at last, when worn out, employs a man, who has never studied at or entered any hospital, to do his work. With a dog-in-the-manger spirit, he has tried to retain his hold against his fellows. This man (the assistant), after a run of three years, is sued by the Medical Defence Association, and instead of their producing over seventy fraudulent death certificates (as can be proved by the registrar who holds them), he is only summoned upon three, and fined a paltry sum.

In the second case (page 67), Mr. Wordley, a gentleman who served five years as an apprentice to a legally qualified practitioner, then went to Australia, served as an assistant, returned to England in 1870, then again served as an assistant, and received good testimonials, opened a dispensary under my surveillance in Great Suffolk-street, Borough, and through his steady working has made it a great success—so much so as to create a jealousy amongst a clique. Acting upon my advice, he entered Guy's Hospital in 1874, at forty-three years of age, and so won the good opinion of several of the professors that they did not refuse to meet him in consultation. The dispensary mentioned was carried on in the most legitimate manner—no advertisements, no prices published. I attended at stated hours, and if any important case occurred I was sent for immediately at any hour.

On Dec. 21st, 1880, Mr. Wordley was called to see a poor woman at 10.30 P.M. He found she was an old sufferer from chronic disease; from her poverty he knew it would be useless putting them to the expense of sending for me, and as he had to present himself the next day for examination at the Apothecaries' Hall, he told the friends to send for the parish medical officer, and generously gave them the fee to get the poor woman nourishment. Five days afterwards he was surprised by the friends coming and asking him for a certificate of death, as they had not followed his advice. He declined to give them one, as he had only seen the case once, and censured them for not calling in the parish aid; but as the friends did not wish for an inquest, he wrote a certificate, stating what was the matter with the patient when he saw her, signed his name as A. W. Wordley, L.S.A., he having succeeded in obtaining his diploma, after six years' study, on Dec. 23rd, at the age of forty-nine.

I am quite sure that, after my knowledge of your impartiality during the past twenty-seven years, you would not have inserted the article you did if the facts had been known. The Apothecaries' Hall and the Medical Council can prove the veracity of my statement as regards his qualification, and I consider a man who will enter the hospital at forty-three years of age, go through the microscopical minutiæ required now by the Examining Boards, deserves the highest commendation, and I beg to suggest that it is quite time that the discretionary powers assumed (?) or given (?) to coroners, coroners' officers, registrars, &c., and the false and undignified position occupied by medical men in these cases should be looked into by the Medical Council, and in a future letter (with your permission) I can open the eyes of the whole profession to facts, and not fables.—I am, Sir, yours truly,

GEORGE DANIEL HARDING, L.R.C.P., M.R.C.S.

Lorrimore-street, Jan. 12th, 1881.

To the Editor of THE LANCET.

SIR,—In reference to the inquest upon Martha Lusty, will you kindly insert the following: The daughter requested me to see her mother at 7, Bancor-court, White-street (not Bangor-terrace, Southwark-bridge-road, as stated,) at 10.30 P.M. on the 21st ult., as she feared she would not survive the night. I did so gratuitously, and advised her removal to the Infirmary. I directed her daughter how to proceed, and she promised to see to it early in the morning. They appeared to be in great poverty, and depending entirely upon the daughter's earnings. Six days after she applied for a certificate (when I thought the woman in the Infirmary), and having seen her only once I did not feel justified in giving one—hence the inquest. The above is an illustration of the "fraudulent and dangerous practices" commented on by the Jury.

I am, Sir, your obedient servant,

A. W. WORDLEY, L.S.A. Lond.

Indicus.—Our correspondent will find the information he requires so far as regards the military service in the Army Medical Warrant of Nov. 27th, 1879, published in the Army Circular of Dec. 2nd, 1879.

Leo.—Dallas's Manual.

Librarian.—Messrs. Williams and Norgate, Henrietta-street, Covent-garden.

Læsus.—Next week.

Dr. John Davies.—We cannot advise. Consult a solicitor.

Dr. Lewins.—We are compelled to dissent from our correspondent as to the utility of further discussion in the matter, at all events for the present.

THE MEDICAL STAFF OF GREAT HOSPITALS.

To the Editor of THE LANCET.

SIR,—In the important and perhaps very best eclectic periodical of any in Europe, whose articles attract alike the serious attention of THE LANCET, the *Saturday Review*, &c., and of the more ephemeral journalistic sheets, the *Revue des Deux Mondes*, November 1st, 1880 (meaning the two worlds—*l'ordre moral et l'ordre* or *monde physique* I presume), Monsieur Léon Lefort, of the Academy of Medicine, has been enlightening the public as to the amount of administrative influence claimed and granted to civil hospital surgeons in a manner which seems to apply not inaptly to the present controversy at Guy's. A few translated passages will not perhaps be uninteresting to all of us.

"We are not, let the Secretary of State (M. le Ministre) know it once for all, subordinated to the administrative body of the hospital in the ordinary sense of the word. The doctor of a civil hospital claims the right to weigh with the whole influence of his scientific authority the direction of the hospital service, but he would not consent to be the manager (*directeur*) of the hospital." M. Lefort had stated previously that even in the army, "It could never be his (the surgeon's) province to conclude contracts and bargains or collect supplies. The question is not one of substituting the medical element for the administrative one, but to apportion to each his legitimate share of action and influence" (p. 186). The whole admirable article shows the terrible consequences of making a medical department subordinate to any authority but that of the general and his staff, the commanding officer, &c., as in all military affairs, and not, as still in the French army alone almost now, to what is called l'Administration Intendance, &c., neither, in fact, more nor less than our commissariat and its branches—transport train, purveyors' department, &c. Thus two thousand sick were crammed into the Péra Hospital in spite of the reiterated warnings of Baudens, Michel Lévy, and others, with the result of widespread and devastating pyæmia (*infection purulente*) and septicæmia. Michel Lévy, like our two distinguished men at Guy's, resigned in disgust. The essay "is extant, and written in very choice" French. It is already said to have engaged the serious attention of the Minister of War, General Farre. It does credit to Professor Lefort and to the great review which has welcomed him to its pages. It is impossible in a short letter to give more than a glance at the many good and outspoken things it contains.

I am, &c., yours most sincerely,

CAMERON MACDOWALL, F.R.C.S.E., &c.,
Bombay Army.

E.I.U.S. Club, 14, St. James's-square, S.W.

Studiens.—Application might be made to Moore and Co., St. Mary-axe, E.C.

J. S.—We regret that we cannot give our correspondent the information he requires. We believe the papers have not been published.

Mr. M. W. Hilles.—If our correspondent will forward a specimen of the instrument it shall have our attention.

Ne cede Malis.—The case is peculiar, and should be settled amicably. It is one for consideration on both sides. The terms should have been arranged before for an attendance so inconvenient to the practitioner. Abstractly his charge per visit is not unreasonable, but for a regular medical attendance it seems so.

THE PRACTICE OF MEDICINE AND SURGERY ABROAD.

To the Editor of THE LANCET.

SIR,—I should be glad if any of your readers would inform me what qualifications are necessary for the practice of medicine and surgery in the United States, Canada, or Egypt.—I am, Sir, yours faithfully,

Jan. 10th, 1881. M.R.C.S.

Can Surgeons claim Midwifery Fees?—Certainly; but no legal qualification seems to be necessary to claim midwifery fees. The claim of a midwife would be recognised as simply based on contract.

Dr. Hawkes.—The paper will appear shortly.

ASSOCIATION OF TONSILLITIS AND RHEUMATISM.

To the Editor of THE LANCET.

SIR,—I am somewhat surprised at the association of tonsillitis and rheumatism being treated as a novelty. Dr. R. Liveing pointed it out to his clinical class at the Middlesex in 1874, but not as anything new, and he told us to give colchicum a good trial in all cases of recurrent quinsy. In a great number of cases I have been able to trace the connexion, quinsy seeming in certain members of rheumatic families to take the place of the articular affection, and I have had at least one proof of the danger of treating tonsillitis by an abortive process without due consideration, my patient as the result being laid up for sixteen weeks with subacute rheumatism. In many cases the connexion might only prove a parallel to gonorrhœal rheumatism as the result of an aborted gonorrhœa, but beyond that there is a decided association (of an almost hereditary character), which must be evident to anyone who has his attention drawn to it.

I am, Sir, yours, &c.,

Abingdon, Dec. 28th, 1880. GEORGE GOSSET.

THE "COMMERCIAL" ASPECTS OF MEDICINE.

To the Editor of THE LANCET.

SIR,—The suggestive article in THE LANCET of the 1st instant on the classing of the medical profession as "commercial" may receive a further illustration of the existing tendency in this direction. Some allowance may perhaps be fairly made for the compilers of a post-office directory in taking a too limited view of the proper relation of things; but what can be said for a leading college at Cambridge which, in the printed form sent at the end of each term to the parents or guardians of its students, places under the heading "tradesmen's bills" that of the surgeon? I give you privately the name of this college, not knowing whether or not a similar practice prevails at other colleges. That it should exist at all at Cambridge is perhaps the more remarkable since for several years past the medical department of the university cannot be said to have neglected any opportunity of advertising its desire to attract students to its teaching.

I remain, Sir, your obedient servant,

Jan. 8th, 1881. AN OLD SUBSCRIBER TO THE LANCET.

W. Y. Coombe.—There are several such institutions—e.g., Copped Hall Green, Waltham; Llanover-road, Sudbury; Box-grove, Tylehurst, Reading; Limpsfield, Surrey.

DISTRICT MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

To the Editor of THE LANCET.

SIR,—From time to time I have observed in your columns remarks deprecating the appointment of the same individual to the posts of district medical officer and medical officer of health. In your last week's issue you apparently assume that if the health officer be not also union medical officer, he will be more independent, and not in private practice. This is not so in many cases. I think your remarks are very theoretical, and display a want of information as to the inconvenience arising from divided authority and responsibility.

In several districts of this union both appointments have for many years been held by the same individual. The result has been very satisfactory in every way. In one unfortunate district, however, the reverse is the case. The result has been perpetual ill-feeling between the two officers for many years, which ill-feeling has been duly handed down to their successors.

The district medical officer in cases of small-pox, &c., visits and effects the removal of the patients, gives directions to the surveyor of the local authority as to disinfection and any other steps necessary. The officer of health never goes near the cases, but simply includes them in his fortnightly report to the local committee, together with information copied from the medical relief book. In other words, the district medical officer has the risk and responsibility, while the other useless mortal has the pay—pretty liberal, too—for the duties of a position which he himself once aptly described as "useless and anomalous," and a member of the Local Committee termed a sinecure.

This is, to say the least of it, unjust. I think your editorial opinion would undergo considerable modification if you could for a short time fill either of the above positions and feel the consequences of setting two men to worry each other, and at the same time deprive both of one-half of the power one would have if possessed of both appointments. I see no objection to the combined scheme with one officer of health not in private practice. Even then the individual cannot be ubiquitous, or so well acquainted with the districts as the union medical officers, or in a position to act so promptly. Then you have to compensate the present officers of health if they are to be superseded, especially our "useless and anomalous" friend above mentioned.

I am, Sir, yours faithfully,

Jan. 1881. PALINURUS.

*** We give space to this curious and inconsequent letter in illustration of our remarks last week. We are content with the recorded experience of the Local Government Board on the subject.—ED. L.

MEDICAL ADVERTISING AND THE SYDNEY INFIRMARY.

A most reprehensible practice of puffing medical men in connexion with cases in the infirmary of Sydney seems to prevail. An absurd instance is before us, in which "Dr. Marshall" is represented as exceeding all the surgery of Europe by curing a case of fistula. Who is to blame for this?

"*Aut viam inveniam, aut (Deo juvante) faciam.*"—Our correspondent acted rightly.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Eberle, Easingwold; Mr. Hacket, Leeds; Dr. M'William, Culmill; Mr. Oliver, Manchester; Messrs. Macmillan and Co., Cambridge; Dr. Satchell, Tunbridge Wells; Dr. Spowncer, Gainsborough; Dr. Lloyd, Edinburgh; Mr. Duncan, Glasgow; Mr. Adamson, Hetton-le-Hole; Messrs. Poulton and Paul, Norwich; Dr. Hayward, Liverpool; Mr. Pitman, Barcelona; Mr. Pike, Exeter; Mr. Hayward, Chatham; Dr. Courtin, Paris; Dr. Blomfield, Lynn; Mr. Craig, London; Mr. Glaister, Glasgow; Dr. Alexander, Bradford; Dr. Evans, Cardiff; Mr. Hilles, London; Mr. MacDowall; Dr. Wynn Williams, London; Mr. Popert, Southport; Dr. Thorowgood, London; Dr. Thin, London; Dr. Lewins, London; Dr. Buzzard, London; Mr. Moxhay, Reading; Mr. F. D. Lys, Bere Regis; Dr. Combe, Twyford; Mr. Manby, East Rudham; Mr. R. Rawlinson, London; Dr. Bomford, Fort William; Mr. Rahu, Ipswich; Mr. Chubbe, Manchester; Mr. Hamilton, Swadlingcote; Mr. Mossman, Eastbourne; Dr. Galezowski; Mr. Horne, London; Dr. Williams, Liverpool; Mr. Parry, Ferndale; Mr. Cullingworth, Manchester; Dr. Lediard, Carlisle; Mr. Bloxsome, Manchester; Dr. Saul, Lancaster; Dr. Caddy, London; Mr. Harding, London; Mr. de la Motte, London; Messrs. Ihlee and Home; Dr. Rogers; Dr. Baines; Dr. George Johnson, London; Mr. Teevan, London; Mr. Rose, London; Messrs. Oliver and Boyd, Edinburgh; Dr. Lloyd Roberts, Manchester; Mr. Southam, Pendleton; Mr. H. A. Allbutt, Leeds; Mr. Fosbroke, Alcester; Dr. Charteris, Glasgow; Dr. Weaver, Longton; Dr. Dudgeon, London; Mr. Malcolm Morris, London; An Old Subscriber; M.R.C.S.; Delta; A. W. W.; Leo; A Junior; S. C.; Palinurus; Studiens; J. D. M.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Grime, Blackburn; Dr. Jones, Ystrad; Mr. Carey, Canningtown; Dr. D. Powell, London; Mr. Walker, Fulbourne; Mr. Devis, Hereford; Mr. Bain, Birtley; Mr. Blomfield, Lynn; Dr. Clapperton, Broughton; Mr. Turle, Enderby; Mr. Milligan, Worksworth; Mr. Hayward, Haydock; Mr. Jones, Sowyn; Mr. Jennings, Coleford; Mr. Dingley; Mr. Nesbitt, Monaghan; Mr. Tagge; Mr. Hackett, Leeds; Mr. Clark, Macclesfield; Mr. Brettell, Dudley; Mr. A. Dingley, London; Dr. Macgregor, Clayton West; Mr. Vereland, Hertfordshire; Mr. Massingham, Walstanton; Mr. Williams, Birkdale; Dr. Sands, New York; Mrs. Hall, Torqnay; Mr. Mason, Itchin; Messrs. Douglas and Co., Workington; Dr. Moore, Rothwell; Mr. Earp, Nottingham; Mr. Pike, Exeter; Mr. Healy, Newtown; Mr. D. G. Williamson, London; B., Bristol; Medicus, Birmingham; P. F.; Medicus, Blackburn; M.D., Chester-le-Street; Medicus, Oxford; T. H. J. C., Great Ilford; P. G., Preston; E. J. D., Hastings; L. M.; Joseph; A. M. D., York; C. E. G.; T. T., Brighton; H. B. R., Gipsy-hill; A. B., Greenheys; C., Fulham; M. B. S.; M.R.C.S.; Dorset; Scapula, Birmingham; Rex; B.A.; Medicus, Walthamstow; Medicus, London; Æsculapius; C. R. H., Oldham; M. W.; Medicus, Salbury; W. M., South Shields; G. B. M., Islington; &c., &c.

Morningside Mirror, Secular Review, Greenwich and Deptford Chronicle, Court Circular, Revista Frenopatica Barcelonesa, Wigan Observer, Church of England Temperance Chronicle, Isle of Wight Express, Halifax Courier, Sanitary Journal, Staffordshire Daily Sentinel, Weekly Mercury, West Kent Courier, Lancaster Guardian, &c., have been received.

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The postal arrangements relating to the distribution of THE LANCET will be considered from time to time in the interests of subscribers.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

ABSTRACT OF A

Clinical Lecture

ON THE

DIFFERENTIAL DIAGNOSIS BETWEEN CERTAIN HYSTERICAL CONDITIONS AND MYELITIS.

Delivered at the National Hospital for the Paralysed and Epileptic, on Dec. 16th, 1880,

By THOMAS BUZZARD, M.D., F.R.C.P.

Gentlemen,—The subject of nervous mimicry of organic disease in general has been, as you are well aware, admirably discussssed by Sir James Paget. It is not my intention to take up your time by attempts to add anything of importance on the general question to the account which we owe to one whose unrivalled experience has been recorded with consummate literary skill. But I wish to bring before you to-day some cases of recent occurrence to illustrate the difficulties which often occur in distinguishing between certain forms of acute and chronic myelitis, and hysterical imitations of the symptoms belonging to such conditions. Opportunity will thus be given me for referring to points of diagnosis that may assist in preserving us from errors which are of very frequent occurrence. I may say at once that it is often extremely difficult, and occasionally for a long time impossible, to arrive at a confident opinion in cases of this kind. Yet, unless we can do so, should the case be one of hysteria, we stand little or no chance of curing our patient, and for obvious reasons it is a still more serious matter if we mistake a case of organic disease of the spinal cord for one of hysteria.

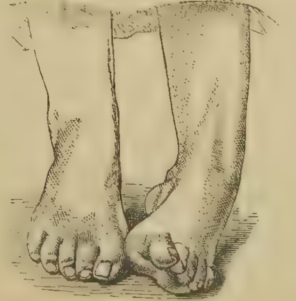
But, first, let me mention the forms of disease of the spinal cord which, according to my observation, are the most likely to be confounded with hysteria, and I will here refer to Grasset's classification. On the side of *systematic* myelitis there is first spastic spinal paralysis from sclerosis of the lateral columns of the cord, and next acute anterior polio-myelitis, that affection of the anterior cornua upon which I lectured last week. In my experience tabes dorsalis is rarely or never imitated by hysteria. I certainly did see not long ago a lady in whom a complete and temporary loss of the muscular sense in the lower extremities imitated one of the symptoms of locomotor ataxia, and produced a slight incoördination in the gait, but the diagnosis was easy, owing to the entire absence of any corroborative symptoms. On the side of *diffuse* myelitis—i.e., myelitis invading without distinction any or all of the regions of the cord,—two forms alone need special reference. Of the first, a circumscribed and subacute variety (most often perhaps when it attacks the dorso-lumbar region); of the second, that special form which we know as insular or disseminated cerebro-spinal sclerosis. Of this last I shall only say now that it is as regards this form of myelitis, and its imitation by hysteria, according to what I have seen, that an insuperable difficulty of diagnosis is very apt to occur. I propose to reserve this important variety for consideration in a future lecture. On the present occasion I shall refer to cases in which subacute myelitis, anterior poliomyelitis, and lateral sclerosis come in question.

Early in last summer a school-girl, aged fourteen, was admitted into the hospital unable to stand without support. She could not walk, but with a stick in one hand and an arm to lean upon, she would advance, like a kangaroo, by a series of springs. It was said she could spring up three stairs at a time. Her ankles were constantly kept bound firmly together, and with this arrangement she was comfortable enough. When, however, the bandage was removed there was sudden, instantaneous adduction and rotation inwards of the knees, and consequent separation of the ankles, each foot being at the same time turned strongly inwards. In its rapidity the movement resembled the action of a gunlock. The muscles would then be found rigidly contracted, and the girl would cry out with the pain which the spasm evidently occasioned her. The patellar tendon-reflex was in excess on each side, and there was also ankle clonus. From notes taken by Mr. Broster, it appears that about two years previously some water had been let fall from above on her head (just behind the right ear) as she looked out of window. This gave her a very great shock, and was followed by earache, headache, gradually increasing deafness, and in three months by a state of delirium and "childishness," with loss of sight, hearing, taste, and smell. The delirium lasted a week. After this there was great pain in the head, and the legs and arms used to be violently drawn and twitched. There was also from the description some opisthotonos. These symptoms continued for two or three months. The sight then returned suddenly, the spasms grew less, the hearing and sense of smell were restored, and she gradually got into the state exhibited on admission, in which she had then remained for a twelvemonth. The strongest faradaic currents producing a slight and only temporary relaxation of the rigidity, the girl, on the sixth day of her admission into hospital, was placed under the influence of ether, and as she became insensible the muscles relaxed. She was then allowed to recover; but when consciousness had apparently only half returned, the legs resumed with extreme suddenness their position of adduction and rotation inwards. They were not, however, now so rigid, and she was induced (intoxicated by ether as she still was) to stand and walk feebly. She was then again (and still more completely) anæsthetised, and whilst unconscious the legs were rotated outwards and abducted. This time they retained their new position when the girl recovered consciousness. The left foot was then perfectly straight, but there was still some inversion of the right. In this one ankle clonus could still be readily obtained by dorsal flexion, and also, though to a less degree, in the left foot. After this there was no return of rigidity, and on the following day she walked well. A week after the etherisation no ankle clonus could be induced. She was sent home perfectly well within a fortnight of her admission. I heard the other day that she is in excellent health.

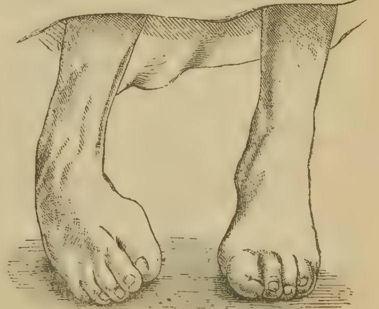
We had the advantage here of a *complete* history, and the diagnosis was easy. But I can quite understand that during the progress of this case there must have been difficulty especially in excluding cerebral and probably spinal meningitis, and that the rigidity with exaggerated reflex would have a *primâ facie* resemblance to that arising from sclerosis of the lateral columns secondary to a lesion above. But the course of the disease—and especially the opisthotonos followed by *sudden* return of sight—was conclusive of hysteria. Moreover, had the rigidity depended on bilateral sclerosis, the jumping feats would have been absolutely impossible. Added to this, the gluteus maximus, the most important muscle in jumping, is also a rotator outwards, and this movement had been in complete abeyance—an inconsistency of the most striking kind. Now, this girl recovered rapidly because we were absolutely sure of our diagnosis. You cannot cure a case of hysteria so long as you have any serious doubts about its nature.

In the diagram before us (drawn from photographs which Dr. Gowers kindly took for me) are two pairs of feet, which present a certain superficial resemblance. In each the inner border is drawn up into the position of a not severe varus. They are the feet of two young women who were in the hospital at the same time, and there is this special point of

B.



F.



interest about them, that F——, really a case of acute myelitis, had been treated as a case of hysteria, and B——, really a case of hysteria, came in as a paralytic. I show you the patient F——. This girl, aged sixteen, was admitted last April, on account of loss of power in both her legs, which had existed for three months. In the early days of her illness she had been treated by cold shower-baths administered daily, and strong currents from a magneto-electric machine to her legs, continued, she says, every day for a month. The history of her symptoms is briefly as follows. A feeling of pins and needles from the waist downwards was followed next day by weakness and pain in the legs, and on the following morning by total inability to move them, and complete anæsthesia. Some bladder trouble occurred for nine days, and want of control of bowels (from her account) for some weeks. Her description, however, is not very clear on this point. Two months after her attack she for the first time succeeded in moving her left leg. The right could not be moved till five weeks later; sensation returned in the left leg six weeks after the onset, and a week later in the right. When she came here she could lift the left heel two feet off the bed, and bend the knee. On the right side she could only make the faintest effort at flexing the hip and ankle-joint, and could not bend the knee. The right foot lay in a position of talipes varus, which could be reduced by the hand, but not by the patient's volition. The patellar tendon-reflex and sole-reflex were absent on the right side, feeble on the left. The electrical examination was most important. Whilst the muscles of the *left* limb responded to induced currents but little stronger than normal, the peroneus longus of the right side showed no reaction to the greatest strength of Stöhrer's two-celled induction-machine, and the anterior tibial group required much stronger currents than in health. The right quadriceps extensor failed to contract to either induced or voltaic current. At the present time the right peroneus longus reacts to interruptions of twenty to thirty cells voltaic current, the vastus internus to sixteen cells, the externus to twenty cells. None of these muscles react to faradaism, to which the tibialis anticus alone responds nearly normally. The tibialis anticus, which has all along been less affected than the other muscles, determines the position of the foot, its antagonist, the peroneus longus, which holds down the head of the first metatarsal bone being paralysed.

In this case the electrical examination alone is sufficient to exclude hysteria. Duchenne wrote that the electro-muscular contractility was normal in hysterical paralysis. According to my observations there are exceptions to this, which, however, is doubtless the rule. Occasionally there is a distinct, although slight, lowering of electrical excitability in the muscles in hysterical paralysis, where this has been of long duration. The lowering of excitability, however, applies to both forms of electrical excitation, and in that respect differs from the "reaction of degeneration" where the decrease in faradaic excitability is usually accompanied by increased excitability to the voltaic current. We *never* see in hysteria the various muscles of one limb showing differing degrees of abnormality of response to faradaism, from a condition of total absence perhaps in some, to nearly a natural state in others. Moreover, according to my observation, in hysteria applications of electrical stimulus (and especially of the voltaic current) on one or two occasions usually suffice to restore the natural excitability of the muscles (equally in all), which has simply declined apparently through disuse. A difficulty can only arise where the observer has but one opportunity of testing the electrical condition, and it is then quite possible to occur. It must be remembered that, as a distinct lowering of faradaic excitability almost invariably signifies organic change in a nerve or nerve centre, a diagnosis of hysteria can never safely be arrived at whilst that condition persists. On the other hand, I need scarcely remind you that the preservation of a completely normal faradaic excitability in the muscles of a limb does not show that that limb is not paralysed. It would be hardly necessary to refer to this, but that I once heard it stated in a court of law that the plaintiff was certainly not paralysed, since the muscles of the limbs contracted to electrical currents! In cases of paralysis, it is only when the integrity of the grey matter of the anterior horn is disturbed, or when there is some lesion of the anterior root of the nerve, that you find decided loss of electric excitability. You may have, and frequently do have, complete paraplegia with all the muscles responding normally.

As regards the patellar tendon-reflex, I have never seen it lost in a case which proved in the sequel to be hysterical, although I am not prepared to deny the possibility of its absence in such circumstances, if the muscle has suffered from lengthened disuse.

The other patient, B——, aged twenty-four, came in unable to stand without support. In trying to walk between two persons the left foot was seen to be in a position of varus, as shown in diagram, and as she lay in bed the foot occupied the same position, although it was not then quite so determined. Now, in her case the faradaic excitability of the muscles of both lower extremities was found to be quite normal. The patellar tendon-reflex was very excessive on both sides, and most marked on the left. There was no ankle clonus. The sole-reflex in the left foot appeared normal. In the right tickling was at first followed by no response, but being persevered in the limbs drew up strongly. After the daily use of the wire brush, with induced currents, for two or three weeks, and general treatment, the patient was able to walk round Queen-square without help; next day a still longer distance, and soon went out of the hospital recovered.

Now this patient had suffered for three years from convulsive fits, in which she was described as losing her consciousness. The occurrence of fits in such cases as these may materially aid our diagnosis, or, on the other hand, may lead us into error. Supposing that the patient who is apparently paralysed has attacks of typical hysterical eclampsia, we have in them a symptom which, when associated with others, may tend to render a diagnosis of hysteria certain. In the present instance, although the first fit occurred after the patient had been frightened by being locked up in a room, and was therefore presumably hysterical, the attacks, some of which were witnessed in the hospital, were of an epileptoid rather than hysterical character, and their occurrence lent us no aid. As I said just now, they may easily lead to error. About a year ago I admitted a young woman on account of paralysis in all four limbs. She was described by those who sought admission for her as a case of hysterical paralysis. Seven months before she came here the patient had complained of pain in her back, side, and head. The pain was very bad on the vertex. Next she became very weak on her legs, and moved them in an incoördinate manner. At this time there was great weakness of the right hand, and the right side of the face was paralysed. Soon she became unable to walk at all.

A month after she had begun to be ill this patient had a fit, and these had been repeated on five or six occasions before her admission. I have little doubt that it was the occurrence of these fits, associated as they were with paralytic symptoms, confined at first to the lower extremities, which gave rise to the diagnosis of hysteria in this instance. The apparent want of connexion between the two symptoms would be suggestive (unless the possible existence of multiple lesion were insisted upon) of the inconsistencies of certain forms of hysteria.

When we came to examine this patient with the ophthalmoscope (which we never omit doing), it was found that she had optic neuritis. This fact, of course, immediately carried us a long way on to a diagnosis of serious brain lesion. Moreover, in addition to this she had a bedsore, and the presence of this alone was significative of organic disease.

Let me call your attention to the note respecting the state of the muscles of this patient's legs on admission. "Lower limbs powerless; not the slightest power of movement; *no wasting*, no rigidity. No difference between the two limbs. The muscles respond to faradaic currents of somewhat higher strength than is required normally." (As the case advanced there was much wasting, and the legs were rigidly drawn up.) I shall have occasion to refer to the question of wasting of muscles and its diagnostic value. For my present purpose it is only necessary to add that this patient grew worse and worse, that in spite of the most diligent attention, her bedsores extended, and that she died some months after admission. The autopsy showed basilar meningitis and spinal meningo-myelitis, the cord being disorganised and softened throughout. The patient, it should be said, was the subject of inherited syphilis.

I lately saw in consultation in the course of a week three ladies, each of whom had been thought to be suffering from hysterical paralysis, although in two cases there had been some difference of opinion on the part of those who had seen the patient. The first proved to be a case of advanced

Pott's disease of the spinal column with paraplegia. The second was an example of anterior polio-myelitis. Three months previously this patient, a lady aged twenty-six, had been attacked with feverishness, pain in the back, and aching in the legs. The following morning she was weak in her legs, and next day had entirely lost the use of them. There was no affection of sensibility or of the bladder. I found the patellar tendon-reflex absent in each limb, the muscles of both thighs wasted and flabby. Powerfully supported she could move her legs a very little, but both feet were dropped. The cutaneous-reflex from the sole was good on each side. I learned from the gentleman in attendance, who (as it happens) is able to give skilled evidence on the point, that when examined electrically a short time previously to my visit, the muscles gave typical "reaction of degeneration" in varying degrees. I found that percussion produced contraction in the right tibialis anticus and peroneus longus, but not in the left. The "reaction of degeneration" and the varying degrees of response to mechanical and electrical stimulation showed conclusively that the case was not one of hysteria. It is an example of acute anterior polio-myelitis. The third patient had been paralysed in both legs for two and a half years, and in the left arm for nine months. Uterine troubles and pelvic cellulitis had preceded the paralysis, and an abscess had discharged through the bladder. The loss of power had been gradual, and took a few months to become complete. It was accompanied by cramps and some loss of sensation. The patient was in bed, and unable to move her legs at all, and the feet were dropped; the legs were wasted. There had never been bedsores. The urine (always acid) had been drawn off for two years, the use of the catheter having commenced, as I learned, in connexion with the local troubles of the bladder from the abscess. The patellar tendon-reflex was here distinctly present, but not strong, on each side. Tickling the soles was not felt, and produced no reflex. The legs were not contracted, but the joints were somewhat stiff. Strong induced currents were not felt, and there was not at first free response of contraction in the muscles. A strong constant current was then applied, and the interruptions of this the patient felt very much. A return being then made to faradaism the currents were now felt acutely, and the contraction of the muscles became nearly normal, in proportion to their wasted bulk. Moreover, the muscles of the thighs were now used in a quasi-voluntary manner to draw up the legs in an endeavour, as it appeared, to escape the painful application. The left arm, which lay across the chest, was neither rigid nor lax, but as if asleep. When the patient's attention was engaged in another direction the arm was held up, and being then let go, it subsided gradually and slowly. A strong opinion was expressed that the condition was hysterical, chiefly on the following grounds. The gradual loss of power, with loss of sensation if it were organic, must have been due to more or less diffuse myelitis, involving grey as well as white matter. The situation of this must have been either in the lumbar portion of the cord, whence the nerves proceed to the lower extremities, or at some point above this. Had it been in the former, the patellar tendon-reflex would have been absent, and the muscles would have lost their faradaic excitability. If it had been above there would necessarily have been by this time descending degenerative changes in the lateral columns, which would have shown themselves by more or less rigidity and exaggerated reflex. Had myelitis been so extensive as to involve the whole of the lower half of the cord in softening, there must have been bedsores and difficulties with the rectum. The result of the case has justified the opinion which was arrived at by those who consulted upon it. Under careful feeding, moral treatment, and faradisation of the skin with the wire brush, the patient speedily regained the use of the arm, was shortly afterwards able to walk to a certain extent, and is now, as I learn, quite recovered.

In this case, as I have seen in many belonging to the class of hysteria, the epidermis, which had arrived at extraordinary thickness, apparently from disuse of the limbs, offered great resistance to the passage of electric currents. In these circumstances a more than usual amount of care in thorough soaking and rubbing of the skin, as well as in selecting the motor point, is necessary in order to avoid fallacies.[1] This woman's legs were very thin. There is, I think, a very common notion that the existence of wasting negatives hysteria. But a disused limb is of course liable to emaciate. The only way to distinguish with certainty between this wasting and that which arises from change in the trophic centre in the spinal cord, or from disease of a nerve-trunk, is by observing the condition of faradaic excitability, and seeking for any qualitative changes on interruption of the voltaic current. I have reason to think that not a few cases of anterior acute polio-myelitis occurring in young females pass as examples of hysterical paraplegia, owing to omission to test carefully the state of the muscles by electrical currents. Such cases may sometimes recover in the course of several months, and then the result is supposed to prove the truth of the diagnosis.

Absence of reflex from the sole of the foot is a very constant symptom in hysterical paraplegia. Where this coexists with normal electrical contractility of the muscles of the lower extremities and normal tendon-reflex the case may be looked upon with suspicion, although this is not of itself sufficient to exclude organic disease. A persistence in the application of a stimulus to the sole will, in hysterical cases, frequently, but not always, succeed in a few minutes in provoking a response.

Preservation of the roundness and firmness of a limb is often thought to be incompatible with paralysis. This is a dangerous error. In the case of Pott's disease, which I have referred to (the patient died a few weeks afterwards), the lower extremities were rounded, well nourished, and firm to the touch. In cases of localised myelitis of the dorsal region of the cord, followed by descending sclerosis of the lateral columns, there is frequently unusual firmness and tonicity of the lower extremities, which may appear, indeed, to be models of muscular development. This is important to remember, as hysterical imitations of lateral sclerosis are not uncommon. The most frequent, however, and at the same time the most difficult of distinction, is a condition closely resembling disseminated cerebro-spinal sclerosis. This must be reserved for future consideration.

A HISTORY OF THREE CASES IN WHICH A WARTY GROWTH WAS REMOVED FROM ONE OF THE VOCAL CORDS BY THE AID OF THE LARYNGOSCOPE.

BY GEORGE JOHNSON, M.D., F.R.S.,
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IN the 51st volume of the Medico-Chirurgical Transactions I have given the history of seven cases in which I removed warty or papillomatous growths from the vocal cords. In the present communication I propose to describe briefly three similar cases that have more recently come under my observation and treatment.

CASE 1.—Susannah M——, aged sixty-three, was admitted into Twining ward on Oct. 16th, 1875, on account of hoarseness and dyspnœa. The hoarseness began two years before, and had gradually increased up to the time of admission. About ten weeks previously she began to suffer from difficulty of breathing, especially on exertion. The breathing was attended with a rattling noise in the throat, and sometimes with a sensation as of something flapping about in the upper part of the windpipe. For some time the breathing had been more difficult when lying down at night, and her sleep had been much disturbed in consequence. There had been a feeling of uneasiness, but no actual pain in the throat. She had had but little cough, and no expectoration. There was no difficulty of swallowing. Since the breathing had been difficult she had lost flesh and colour. The voice was now (at the date of admission) reduced to a whisper, and both inspiration and expiration were attended with a moist, wheezy stridor. On looking into the larynx, the cause of the aphonia and dyspnœa was obvious. Attached to the anterior part of the left vocal cord there was a warty tumour of the size and shape of a small filbert. This wart-like tumour occupied at least two-thirds of the area of the glottis. Although it appeared to have a broad attachment to the vocal cord, it was moved by the current of air, so that it rotated in a downward direction during inspiration, and upwards in expiration. The left vocal cord was entirely concealed by the growth, but the right cord was plainly visible and appeared quite normal.

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[1] As the motor point frequently varies as regards its position from that indicated in works on electro-therapeutics, I am in the habit of testing in the following manner: The limb having been very thoroughly wetted and rubbed with hot water, and the induction machine arranged to give a somewhat stronger current than is necessary in health, one rheophore is applied to an indifferent part of the body (as e.g. the sacral region), and the other is moved about the skin of the limb at the part where the motor point is expected to be found. It will soon be perceived, by comparison, at what point of application the most energetic contraction is excited. The skin is then marked at this spot with a wetted aniline pencil, and the operation is repeated on the opposite limb, as well as for other muscles. The motor points having thus been ascertained, it is easy, by graduating the machine, to discover the weakest current which will cause contraction and compare it with that required in health.

On the 26th October I made an attempt to remove the growth by the laryngeal écraseur, but the patient was nervous, and her nervousness was increased by seeing a crowd of students surrounding her while watching our proceedings; so after one or two unsuccessful attempts to seize the tumour I determined to wait for a more favourable opportunity. Two days afterwards, on the 28th, I obtained the assistance of the house-physician, Dr. Batterbury, who held the patient's tongue, and I soon succeeded in removing nearly the whole of the growth. First, with the écraseur I pulled off a piece nearly half an inch long; then two smaller pieces by the same means; after which, with the laryngeal forceps I removed a piece as large as a horse-bean. There was not much bleeding—these growths are not very vascular, and they never bleed much,—but the little bleeding that occurred after the removal of the first piece increased the obstruction of the glottis and caused some temporary dyspnœa. After the removal of the last large piece she expressed a feeling of relief, and the breathing ceased to be stridulous. On the following day she stated that she had slept better than she had done for some weeks past. On inspection we found only a small nodule of the warty growth near the ridge of the glottis. This was afterwards touched on three or four occasions with solid nitrate of silver by means of the laryngeal porte-caustique, and it entirely disappeared. Her voice was completely restored.

The laryngoscope enabled us in this case not only to make an exact diagnosis, but also to remove a disease which ere long would have caused a fatal impediment to respiration. A few years ago, before that simple instrument had been brought into use, we could only have guessed at the nature of the disease, and we should most likely have guessed wrong. The result would probably have been that when the growth increased until it threatened life, tracheotomy would have been performed, and for the rest of her days the voiceless patient would have breathed through the artificial opening in her windpipe. How much happier is the result obtained by the aid of the mirror, not only affording relief from impending suffocation, but complete restoration of the voice.

We know from our experience of similar cases that when a simple warty growth of this kind has been completely removed there is little or no tendency to a return of the disease. I have lately seen two of the cases recorded in my paper in the Medico-Chirurgical Transactions—Cases 4 and 7, one ten years, and the other more than seven years after the removal of the growth. In both cases the larynx remains healthy, and the voice is perfect.

CASE 2.—Mr. G. M. S——, aged fifty, first consulted me on Sept. 7th, 1874. His voice had been feeble since the beginning of the year, and latterly had become more and more so. At the time of his visit the voice was reduced to a rough whisper. A few days before I saw him he had been examined by a laryngoscopist, who told him that he had a growth in his larynx which, if not speedily removed, would increase until it suffocated him. I found a simple warty (papillomatous) growth, about the size of a pea, attached to the right vocal cord near its anterior end, and I advised him to have it removed. He was then living in Scotland, and he said that he must return home at once, but he would come to London in November and submit to the necessary treatment. He, however, did not present himself again until February, 1875, when he stated that five weeks before he had caught a severe cold, which had greatly increased his hoarseness. He was then suffering from bronchial catarrh, limited, however, to the larger bronchi. There was much congestion of the palate and fauces. Inspection of the larynx showed that the growth had now attained the size of a large horse-bean. The patient was very nervous and anxious about himself, and the more so as a most unfavourable opinion of his case had been given by a country practitioner; but he had now come to reside in London, and was prepared to submit to any treatment that was thought necessary. The treatment was rendered unusually difficult by the patient's nervousness, and the extreme sensibility of the fauces. By degrees, however, and after several sittings, the greater part of the growth was removed, partly by the forceps, and partly by the écraseur, but there still remained a broad base of attachment to the vocal cord. This I touched several times with solid nitrate of silver. Each touch of the caustic appeared to cause a shrinking of the remaining growth, until at length, after about three months' treatment, the cord was left smooth and healthy, and the voice was completely restored. This gentleman continues in good health. I have seen him during this present month (Jan., 1881). His voice is quite clear and strong, and inspection by the mirror shows a perfectly healthy larynx. While under treatment he took great interest in my proceedings, and suggested to me a very ingenious metal guard which I had placed on one side of the forceps so as to protect the side of the larynx opposite to the tumour from injury when the forceps are closed. The cure of the preceding case was more troublesome and prolonged, although ultimately complete, than that of any other similar case that I have met with. On the other hand, in the following case I succeeded in effecting an unusually rapid cure.

CASE 3.—The Rev. F. R——, aged about fifty, consulted me first on the 2nd October, 1880. For about a year there had been more or less discomfort in the throat, which was much increased by the excitement of the late election, during which he talked much in spite of the pain and inconvenience it occasioned. The result was, as he states in a written history which he gave me, that his "throat became painful and the voice cracky," and he "felt sometimes as if he was being half strangled." At the time of his visit the voice was rather feeble, and had a reedy sound. He had been told by a laryngoscopist a few days before that there was a small growth on one vocal cord, the removal of which was recommended, but pronounced difficult and doubtful on account of its small size. I found a bright-red wart, about the size of a No. 4 shot, attached to the right vocal cord at its anterior extremity. Although of small size it was sufficiently movable by the respiratory currents of air to fall below the glottis during inspiration, while it was driven upwards and interposed between the cords during vocalisation. The patient was very anxious to have the growth removed, and on October 29th he called to make an appointment for the following day, when the attempt for its removal was to be made. Accordingly he came on the morning of the 30th. It appeared to me scarcely possible to seize so small a growth with the forceps, and I determined to use the écraseur. The first attempt was a failure, but at the second introduction of the instrument I succeeded in seizing and completely removing the entire growth, much to the delight of the patient, whose visit did not occupy altogether more than a quarter of an hour. I last saw him on Nov. 5th, when he called and expressed himself much relieved, and as regarded his throat quite well.

With respect to the kind of instrument best suited for the removal of such growths. When the tumour is of large size and has a broad base, as in the first and second cases here recorded, the laryngeal forceps is perhaps a better instrument than the wire écraseur. I found the forceps very useful in the first two cases, but for the removal of so small a growth as that in the third case I much prefer the écraseur; and I doubt whether this small growth could have been safely removed by the forceps.

The écraseur has this obvious advantage over any form of laryngeal forceps, that, unlike them, it very rarely tears the mucous membrane or seizes any other object than the growth to be removed. It is a perfectly safe and harmless instrument, whereas with the forceps an arytenoid cartilage might be seized and broken or dislocated. The secret of success in using the écraseur consists in bringing the fine steel wire loop exactly opposite the wart at the time when the contact of the instrument excites the sudden closure of the glottis, by which means the tumour is driven into the snare and caught by the sudden retraction of the wire. I have always found that any portions of the morbid growths that are torn off have been tightly held by the wire, which, partially cutting them through and embedding itself in their substance, thus brings them away. I have no reason to suppose that any detached bits of tumour have fallen into the trachea. If, however, this were to happen no harm would result from it; they would probably be expectorated as readily as small masses of mucus are expelled.

Savile-row, W.

CASES OF LARGE CALCULI REMOVED FROM THE BLADDER BY BIGELOW'S OPERATION.

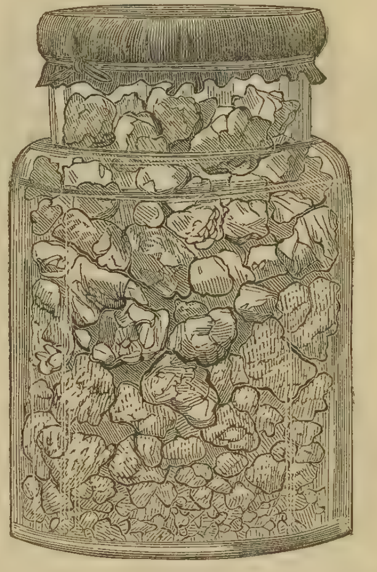
BY W. F. TEEVAN, F.R.C.S., B.A.,
SURGEON TO THE WEST LONDON HOSPITAL.

THE cases I am about to relate are, for many reasons, especially interesting, and prove what Bigelow's operation can accomplish even when the presence of stone is complicated by the existence of grave constitutional disease. The calculi were, I believe, the largest single ones recorded as ever having been removed in this country from the bladder by lithotrity at one sitting. If reference be made to the cases published by Sir Henry Thompson, it will be seen that the weight of the largest stone completely removed by him at one sitting was only 275 grains, whereas the calculi from my patients weighed respectively 486, 610, 880, and 890 grains. One of the patients was suffering from diabetes, another from paralysis. The youngest was fifty-six years old, the eldest seventy-seven. They all made good recoveries, which, with one exception, were very rapid.

I read the results of my first series of one hundred consecutive cases of operation for stone in the bladder at the annual meeting of the British Medical Association at Cork in August, 1879. That series did not include a single instance of Bigelow's operation, for I did not perform my first case of it till six weeks afterwards. Since the above date I have operated on twenty-six patients for stone in the bladder. One of them was a boy, whom I cut by the lateral method, and cured. Three of the adult males were submitted to fragmentation and median lithotomy. I should have preferred lithotrity and external urethrotomy, but the combination was not practicable. Of these, two gentlemen recovered, and one hospital patient, aged sixty-one, died three weeks after the operation from chronic interstitial nephritis. The remaining twenty-two adult males were all relieved of their calculi by lithotrity at one sitting. Of these two died. One of the deaths was that of a gentleman seventy-four years of age, a patient of Dr. Hubbard's, who died three days after the operation. I crushed the stone, which was not much larger than a hazel-nut, with a slender lithotrite, but was unable to pass any evacuating catheter over the very enlarged prostate. From the extent and nature of the hæmorrhage which occurred at times before the operation, and was started at it and persisted, I am led to the conclusion that there was a malignant growth in the bladder; indeed, a week before the operation I said to Dr. Hubbard that "I hoped there was nothing more than the stone." I have been informed by a hospital surgeon of a similar case in his private practice, terminating fatally. The other death was that of an emaciated, broken-down, dissipated man, sixty-nine years old, who died apparently from shock thirty hours after the operation. The post-mortem disclosed chronic cystitis and interstitial nephritis. The stone was phosphatic and weighed 220 grains. I would here wish to refer to the case of a gentleman, fifty-six years old, a patient of Dr. Lionel Beale's, upon whom I operated. He was suffering from asthma and chronic heart disease, and had had hæmoptysis. A week after the removal of a uric-acid calculus weighing 160 grains he was completely cured so far as the surgeon was concerned. He was absolutely free from all pain and could hold his urine, which was quite clear and healthy, for six hours. About a month after the operation his legs began to swell, then he was attacked with hæmoptysis, and died about six weeks from the date of the operation. The following is a copy of Dr. Lionel Beale's certificate:—"Old heart disease, asthma, congestion of the lungs, exhaustion."

CASE 1. *Large oxalate of lime calculus in a diabetic gentleman* (Fig. 1).—On July 20th, 1879, in consultation with Dr. Hewer, I sounded Joseph C——, Esq., sixty-four years old. The patient stated that five years ago he consulted Sir H. Thompson, who sounded him but did not find any stone. He was informed that he did not empty his bladder. The examination was followed by a rigor. Four years ago he began to pass blood freely after carriage exercise, and to be troubled with frequent and difficult micturition. For many years he had suffered from diabetes. I introduced a sound, which struck a hard and large calculus as it entered the bladder. As the urethra was of large calibre and the bladder capacious I advised Bigelow's operation. My examination was followed by a rigor. The urine was examined by Dr. George Harley and found to contain oxalates, sugar, and albumen. One year afterwards the patient made up his mind to be operated on, and I saw him on July 6th, in consultation with Dr. Hewer. He was a strongly-built man, with large abdomen. His face was pale and puffy, and there was much capillary congestion of nose and ears. He had habitually a loud, loose cough. The urine, as examined by Dr. George Harley, was acid, contained a little albumen, one grain of sugar to the ounce; the sp. gr. was 1025. There was "a great abundance of mucus corpuscles and vesical epithelium cells, with blood and pus cells and large crystals of oxalate of lime." The gentleman was born in London, but his father was a native of Suffolk. On July 10th at 2.30 P.M. the patient was put under the influence of ether by Mr. Mills. I introduced a large English lithotrite, but was unable to fairly grasp the stone, which slipped away every time I caught it. I then passed Bigelow's lithotrite, and seized the stone, which was 2⅛ inches in diameter. I then let it go, and having grasped it in its shorter diameter of 1¾ inches, succeeded, in the course of a short time, in breaking it into large pieces, which I further reduced to small fragments and dust with flat-bladed lithotrites. So hard was the calculus that it broke up with loud cracks, distinctly audible to all present. The evacuation of the débris was carried out with No. 26 (F) tube. The operation lasted one hour and a half. The patient was put to bed and his abdomen covered with a large poultice. His diet consisted of milk and barley-water. There was no rise in temperature after the operation, nor was there the slightest hypogastric tenderness. For fifty hours the urine was tinged with blood, and micturition was painful. The patient's progress was rapid and continuous. Five days after the operation he was walking about his garden, and two days later he went for a drive. The weight of the stone, when dried, was fourteen drachms and forty grains. Dr. George Harley pronounced the calculus to be composed of oxalate and carbonate of lime. Dr. Hewer, in a letter recently received from him, thus describes the patient's condition *six months after operation.* "Mr. C—— is quite a different person; able to walk or drive some distance without any discomfort; has lost all his pains. Urine still slightly saccharine. His health is very good. He has a little bronchial irritation occasionally, but that is an old habit of his in the winter." It is worthy of remark that, though the examinations of Sir H. Thompson and myself were followed by rigors, none occurred after the operation, which lasted one hour and a half, during which period numerous instruments were introduced a great many times.

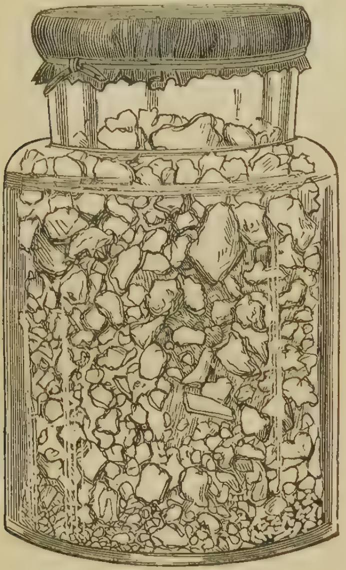
FIG. 1.



CASE 2. *Large phosphatic stone* (Fig. 2).—George W——, a turner, fifty-six years old, was admitted into St. Peter's

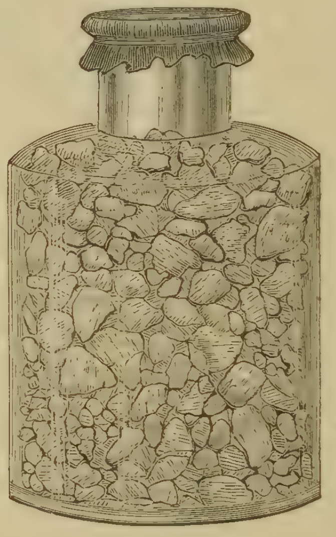
Hospital, on Sept. 21st, 1880, suffering from a stone in his bladder, which I had detected. From notes taken by the house-surgeon, Mr. Whitehouse, it appeared that about two years ago the patient began to be troubled with frequent and painful micturition. The pain was of a scalding character, and extended from the anus to the tip of the penis. He was very pale, and looked much older than he really was, but his body was well-nourished. The urine was rather turbid, acid, and contained oxalates, albumen, and hyaline casts; its sp. gr. was 1016. The man and his parents were all natives of Suffolk. On Oct. 14th at 4 P.M. he was put under the influence of ether by Mr. Knott. As I suspected the stone to be a large one, I incised the meatus externus, and introduced Bigelow's lithotrite, and found the calculus to be 2 in. by $1\frac{3}{4}$ in. After I had fairly broken it to pieces, I pulverised them with slender flat-bladed lithotrites. The evacuation of the débris was effected with a No. 26 (F.) tube. The operation lasted three-quarters of an hour, when the bladder was examined by Mr. Coulson and Mr. Heycock, and pronounced free of stone. The weight of the stone, when dried, was ascertained by Mr. Whitehouse to be fourteen drachms and fifty grains. The next day the patient had a rigor, the temperature rising to 104·4°, but there was no hypogastric tenderness; the urine was but faintly tinged with blood. On Oct. 17th, the temperature was normal, and the water quite clear; the patient had no pain of any kind, and felt quite well; two days later he left his bed. On Oct. 28th he quitted the hospital in all respects quite well, able to hold his urine for six hours; it was acid, and contained neither albumen nor phosphates. He resumed work shortly afterwards, and has pursued it uninterruptedly to the present time.

Fig. 2.



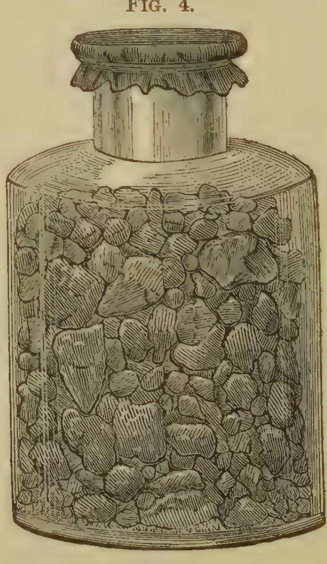
Case 3. *Large uric-acid stone* (Fig. 3).—Robert C——, formerly a farmer, seventy-seven years of age, was admitted into St. Peter's Hospital on Oct. 4th, 1880, suffering from a calculus which I had detected. From notes taken by the house-surgeon, Mr. Whitehouse, it appeared that for some years past the patient had suffered great pain whilst making water. For the last eighteen months his urine had dribbled away night and day. He had a florid, healthy look, but had lost all his teeth, and was feeble and bent. He had a chronic cough. The urine, which was neutral, contained some albumen and phosphates; its sp. gr. was 1012. He was born in Lincolnshire, but did not know where his parents came from. On Oct. 13th, at 2.30 P.M., the patient was put under the influence of ether by Mr. Knott. As the urethra would not permit of the introduction of Bigelow's lithotrite, even after the meatus externus had been incised, I passed a strong fenestrated instrument, and seized the stone, which was apparently spheroidal, and one inch and a half in diameter. Having broken the calculus, which was excessively hard, into fragments, I effected their further reduction with slender flat-bladed lithotrites. The evacuation of the débris was carried out through a No. 24 (F.) tube. The bladder having been examined by Mr. Coulson, Mr. Heycock, and myself, and pronounced free from stone, the patient was put to bed, the operation having occupied an hour and a quarter. The weight of the dried débris, as ascertained by Mr. Whitehouse, was ten drachms and ten grains. No rise of temperature took place after the operation. The patient was usually drowsy, although he passed a large quantity of urine slightly tinged with blood. The variations in the temperature were carefully recorded by Mr. Whitehouse night and morning. On the evening of the 14th it had risen to 102°, and there was a little shivering, but it gradually fell to 98° on the 18th. The urine was slightly tinged with blood for thirty-six hours after the operation. A soft catheter was passed night and morning, and in about a week all dribbling had ceased. On Oct. 20th he first left his bed. The further progress of the case was uninterrupted, and he left the hospital on Oct 24th quite well. A month later the patient called at the hospital to say that he was quite well, and able to hold his urine.

Fig. 3.



Case 4. *Medium-sized uric-acid calculus in a paralytic man.* (Fig. 4).—John K——, formerly a farmer, seventy-two years old, was admitted into St. Peter's Hospital on Dec. 2nd, 1880, suffering from stone in the bladder. From notes taken by the house-surgeon, Mr. Neale, it appeared that for three years the patient had suffered from pain at the tip of the penis when making water, which he was obliged to do every quarter of an hour. For about two years he had

Fig. 4.



not been able to walk, and had suffered from partial incontinence of urine and loss of speech. There was a great deposit of mucus in his urine, which was alkaline, and of a specific gravity of 1022, it contained triple phosphates, but no albumen or casts. The patient had been a large well-built man, but the muscles of the lower extremities were very shrunken and flabby. The man and his parents were all natives of Suffolk. Dr. Althaus, who was kind enough to examine the patient for me, stated that he was suffering from "paralyis dementia, from chronic inflammation of the cineritious substance of the hemispheres." On Dec. 8th at 4 P.M. the man was put under the influence of ether by Mr. Knott. I introduced a Bigelow's lithotrite without having to incise the meatus externus, and seized the stone, which was apparently round, and one inch and three-eighths in diameter. The calculus was exceedingly hard, and I had great difficulty in breaking it up. I used fenestrated and flat-bladed lithotrites for the reduction of the fragments. A No. 26 (F.) evacuating tube was employed to remove the débris. The operation lasted fifty minutes. The bladder was sounded by Mr. Coulson, Mr. Heycock, and myself, but not a fragment could be found. The weight of the dried débris, as ascertained by Mr. Neale, was eight drachms and six grains. Hot poultices were applied to the abdomen, and as there was great smarting when making water a suppository of a quarter of a grain of morphia was administered. For three days after the operation the urine was bloody, but afterwards it contained only some mucus. The patient's recovery was retarded for a fortnight by œdema of the lungs, but he gradually improved and left the hospital on Dec. 29th, absolutely free from all pain, and having a certain amount of control over his bladder and rectum.

Portman-square, W.

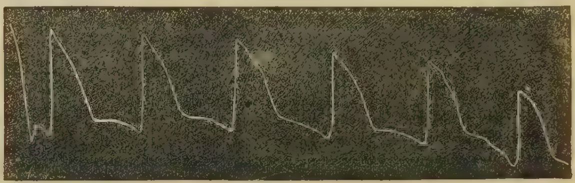
THREE CASES OF SUDDEN OBSTRUCTION OF THE ABDOMINAL AORTA BY ANEURISM; WITH REMARKS.[1]

BY J. S. BRISTOWE, M.D., F.R.C.P.

CASE 1. *Aneurism of lower part of thoracic and upper part of abdominal aorta, with complete obstruction of vessel on level of superior mesenteric artery; paraplegia; gangrene of feet; inflammation of bladder, with albuminous urine, &c.; death.*—T. D——, aged forty-two, a gardener, was admitted under Dr. Harley's care on the 31st March, 1880. He had followed his present occupation for a year, previous to which time he had for eighteen years been a railway guard. Five years ago he was laid up with "lumbago and gravel." A year and a half ago he had a severe shaking in a railway tunnel; and about a year since he had "rheumatism" in his back, and gave up work for seven weeks. In all other respects he was healthy and strong, but he has drank freely. He has had no pain or dyspnœa, and has been able to do hard work during the last six months. On the 27th of this month, while returning from work, he suddenly lost the use of his legs and fell down, but neither lost consciousness nor was giddy. Immediately before he fell a pain "took him like a flash of lightning" round the waist. This pain continued for an hour. By the time he reached home (an hour after the onset) he found that his legs were cold and without sensation. On the 28th he began to pass his evacuations involuntarily. Hot water was applied to his legs, and on the 30th bullæ appeared on the back of his thighs, inside the calves, and on the feet.

On admission he appeared to be a well-nourished healthy man. His face was not expressive of pain or anxiety. There were several superficial sores on the thighs, scrotum, and legs, due to the hot bottles that were applied before admission, and there was a huge shallow bedsore over the sacrum. He was in no pain, but complained of a sense of "deadness" in the lower extremities. There was complete paralysis of both lower limbs, with anæsthesia and loss of reflex excitability, and they were cold from the crests of the ilia downwards. No pulsation could be detected either in the abdomen or in the lower extremities. The heart's apex beat in the sixth interspace four inches and a half below and two inches outside the nipple; its action was heaving, and its sounds (which were free from murmur) were loud and ringing. The radial pulse was large and collapsing. Lungs healthy. There was no abdominal tension or tenderness. He passed his motions unconsciously. Urine alkaline, with a trace of albumen. Had frequent hiccough. During the next few days his general condition underwent little change. His appetite was fair, but he still had hiccough. His paralysis, anæsthesia, and incontinence of urine and fæces continued. But warmth gradually returned to the lower extremities from above downwards, so that by the fourth the only parts which remained actually cold were the toes of the left foot, and pulsation could just be detected in the course of the abdominal aorta. There was no return of pulsation, however, in the lower extremities, and the sacral bedsore was extending. The urine, moreover, continued alkaline, of about 1024 sp. gr., and contained much diffused blood and a quarter albumen, but no visible casts. On the 5th the temperature rose to 100·2°.

On the 6th of April he was still in much the same condition. His legs were fairly warm, but this was due mainly to their being thickly encased in cotton-wool. The toes were cold and cyanotic. His appetite was fair, but he was very thirsty, and still troubled with hiccough. His temperature was normal, his pulse 105, full and throbbing, and its trace much like that of aortic regurgitation. He had passed 46 oz. of urine during the night; smell of slough very offensive.



April 7th.—Slept well under the influence of morphia. This morning complained of pain in the back. Sensation extended to four inches below the iliac crests. Tongue thickly coated; no hiccough. Feet had become livid, more especially toes. A new bedsore had appeared on left buttock. In the afternoon he was for a time strange in manner, and partially unconscious. In the evening his temperature rose to 100·6° F., and his pulse was 132.

8th.—Rational; no particular change; temperature in the morning normal, in the evening 101·4°.

9th.—Complexion cadaverous, face sunken, and offensive odour from body; very drowsy. Has not had hiccough for several days. The sloughs on back, scrotum, and thighs are spreading. The toes are becoming more discoloured, and the left foot is blue and cold. Pulse 120, very weak. The temperature was 98·4° in the morning, and 100·8° in the evening.

10th.—Remained much the same during the earlier part of the day, his temperature being normal. But at 6.10 P.M. he had a rigor, lasting for ten minutes, during which his temperature rose to 102·8°. This was preceded by vomiting, and was followed by profuse sweating. Later in the evening his respirations were 48, his pulse 140.

From this time he gradually sank. He got weaker, and inclined to ramble at times. His pulse was rapid, feeble, and occasionally irregular, and the gangrene of his feet became more pronounced. His temperature went up once or twice to 101°, but it was more frequently normal or subnormal, and just before death it was 96°. He died on the evening of the 14th.

Post-mortem examination, April 15th.—Body emaciated; dry gangrene of toes and other parts of both feet; huge sloughy ulcer over sacral region. Head: Membranes of brain healthy; brain generally healthy, but a largish fairly recent hæmorrhage into left corpus striatum. Chest: Pleuræ and lungs healthy; pericardium healthy; heart enlarged; valves healthy and competent. Abdomen: Liver, spleen, stomach, and bowels healthy. Kidneys: right large, pale, and somewhat translucent; left smaller, but in same condition; both apparently healthy. Bladder much inflamed with tendency to slough. The aorta generally was atheromatous. Behind the heart and just above the diaphragm, at a distance of three inches from th cœliac axis, was a globular aneurism two inches and a half in circumference, arising from the back of the aorta, and communicating by an oval orifice an inch and a quarter long with that vessel. It had eroded the vertebræ, and was filled with old laminated clot. A second aneurism, as large, perhaps, as a filbert, involved the orifice of the superior mesenteric artery. This also was completely full of clot; and at this point the continuation of the clot into the aorta completely occluded that vessel, so that no water could be forced along it from above, either into the part below or into the superior mesenteric or left renal artery. The aorta between the two aneurisms was irregularly dilated, and three-fourths filled by a tough clot semilunar in transverse section, which was adherent to the posterior and lateral aspects of the vessel, and was continued into the clot which below obstructed the aorta. A somewhat sinuous channel remained in front leading from the aorta above the first aneurism to the cœliac axis and right renal artery, of which vessels the former was quite free, the latter was slightly obstructed. The trunk of the superior mesenteric was filled with adherent clot. The aorta below the superior mesenteric was empty and fairly healthy.

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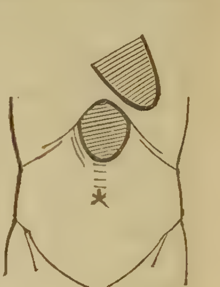
[1] A paper read at the West Surrey District Meeting of the South-Eastern Branch of the British Medical Association, held at Dorking on Thursday, Oct. 21st, 1880.

CASE 2. *Aneurism of aorta on level of cœliac axis and superior mesenteric arteries; complete aortic obstruction; partial paraplegia; suppression of urine, followed by albuminuria; congestion of kidneys and bladder; inflammation of rectum; death.*—B. D——, a policeman, thirty-two years of age, was admitted under my care on June 5th, 1880, at 8.40 P.M. He had enjoyed good health, with the exception that two years ago he had some pain in the lower part of the left side of the chest, which was supposed to be pleuritic. It lasted only a short time, and did not confine him to the house. He had never been subjected to ill-usage. On the morning of the day of admission he went on duty in Palace-yard, Westminster, at 6 A.M., and remained on duty till 10. He was then in his accustomed good health, with the exception that during the morning he had a slight attack of diarrhœa. After this he rowed to Wandsworth and back with a friend, then had dinner, and in the evening went for a walk. When close to the Elephant and Castle Railway Station he had a second sudden and severe impulse to go to stool, attended with a sense of coldness in the legs and flushing of the face. He ran up the stairs at the station to the closet, but he had some difficulty in doing this, for his legs were weak, and he was compelled to help himself by taking hold of the balustrade. He had a copious stool; but when he attempted to rise from the seat he found that he had lost completely the use of his legs, and he believes that he had lost feeling in them also. He called for assistance, and was at once put into a cab, and sent to the hospital.

On admission he complained of great pain at and within the anus. While in the taking-in room he seemed unable to move his legs; but when removed to bed he moved them slightly, and could bend them at the knees by voluntary effort. Sensation was impaired in them, they were cold, and no pulsation could be felt in them. A third of a grain of morphia was injected subcutaneously, soon after which he vomited. His temperature at this time was 97·8°. He had a very restless night, only sleeping for a few minutes at a time. His breathing was not unnatural, except that every now and then it became deep-drawn and sighing. He was sick after everything that was given to him, and complained of great thirst. Occasionally he had a return of pain at the anus, and at those times discharged a little blood, together with a small quantity of fæcal matter. He passed no urine; but at 10 A.M. on the 6th three ounces (all the bladder contained) were removed by the catheter. This had a specific gravity of 1020, contained no albumen, and appeared to be healthy.

I saw him for the first time at 1 o'clock the next day. He was a remarkably well-built, muscular, healthy-looking man. But he was evidently suffering from much anxiety of mind and bodily distress. Especially he complained of frequent severe pain at the anus, a gnawing pain down the muscles of both thighs (mainly the left), and abdominal tenderness. He could move his legs very slightly, and sensation in them was generally impaired. In some parts he could not feel the prick of a pin. But he had recovered both sensation and voluntary power in some degree since admission. The feet were cold, and no pulsation could be felt either in the arteries of the lower extremities or in the abdominal vessels. Neither could any abdominal tumour be felt. The heart's action was regular, 106 in the minute, and its sounds, which were free from murmur, were loud and ringing. The pulse was full and bounding. A well-marked murmur was audible over a limited area in the scrobiculus, and could be traced down to the umbilicus. It commenced with the systole of the heart, but was prolonged into the cardiac diastolic period, with some alteration of character. The respirations were not rapid, and every now and then were of a sighing character. The tongue was clean. The skin perspiring slightly. The temperature, which had been 100·9° about 9 A.M., was now 100·4°.—9 P.M.: Has vomited frequently since the last note, but the bowels have not been moved, nor has he passed any urine. He has had little pain, and is drowsy from the influence of morphia. Has some tenderness over seat of left femoral artery, but not over that of the right. No return of pulsation. Legs less cold to touch; natural in colour. The temperature has fallen to 98·7°.



June 7th.—Not much change. Restless, distressed, but no material pain. Constant sickness, and this morning a little hiccough. Tongue coated. The bowels have not been relieved. He passed a few ounces of urine during the night into the bed, and during the morning about an ounce was drawn off by the catheter. This contained three-quarters albumen, but no blood. There was visible pulsation in the brachials and carotids, but none in either femoral. Pulse 78; respirations 24. The temperature, which was 97·7° in the morning, rose to 99·1° in the evening. The surface temperature of the right thigh was 95·8° and of the left thigh 94·6°.

8th.—10 A.M.: Dozed during the early part of the night, and vomited after everything he took until 6 A.M., when it ceased. At that time his breath began to get short and gasping in character, and he commenced to expectorate a quantity of blood-stained mucus. Has had no return of hiccough. Bowels not open. But he passed six ounces of urine voluntarily into a vessel; this had a specific gravity of 1020, was alkaline, offensive, contained much albumen, and microscopically displayed pus-cells, phosphates, and bacteria; but no blood or casts were seen. At the time this note was taken his pulse was 72; his respirations 36, and somewhat gasping; he had occasional cough, with mucous expectoration; there was much crepitation over the front of both sides of the chest, mainly the right, which was also hyper-resonant; and he had pains in the chest. The legs were not apparently colder than other parts of the body; he could feel fairly well in them, and could move them pretty freely, but the right better than the left. — 1 P.M.: Much distressed; great dyspnœa; respirations 48; rattling in the throat; constant hacking cough, with expectoration of frothy, blood-stained, watery fluid; abundant moist crepitation over whole of front of chest; pulse 128; temperature 100°. Has passed three ounces and a half of urine, and a little blood from the bowels. He is very restless, and moves his legs freely.—2.30 P.M.: Face pale and livid; surface cool; temperature 96·8°; respirations rapid and sighing, and expectoration of blood-stained mucus continuous; much crepitation over both lungs; pulse 192, regular, but feeble. Complains much of pain in the rectum, and has passed a little more blood by stool. Quite sensible.

From this time he gradually sank, and died at 5 P.M.

Post-mortem, June 9th.—A well-built, muscular, healthy-looking man. Chest: Pericardium healthy, heart weighing seventeen ounces, uniformly enlarged, otherwise healthy; a little atheroma in thoracic aorta; old pleural adhesions; lungs very œdematous; some patches of broncho-pneumonia. Abdomen: Peritoneum healthy; liver, spleen, stomach, and bowels generally healthy. An aneurism rounded but somewhat lobulated in form, and measuring two inches and three-quarters in diameter, opening from the back of the aorta by an orifice one inch and a half long, the lowest point of which was opposite the cœliac axis. The sac of the aneurism wound round the right side of the aorta so as to project nearly an inch in front of it, and it extended down for about an inch behind so as to intervene between the aorta and the vertebræ. The aneurism was completely full of clot, and the pressure exerted by the part last referred to on the aorta immediately in front had completely flattened and occluded that vessel, so that water could not be forced past the seat of obstruction. The occluded portion of aorta included the superior mesenteric and both renals, the orifices of which were consequently totally obstructed. Direct communication between the cœliac axis and the heart still existed. The bodies of the adjoining vertebræ were eroded. Veins of rectum dilated, and general inflammation of the mucous membrane. Kidneys very large and much congested. Bladder: Some ecchymoses beneath mucous membrane.

(To be concluded.)

A CASE OF AXILLARY HÆMATOMA.

BY SURGEON-MAJOR K. M'LEOD, A.M., M.D.,
PROFESSOR OF SURGERY, CALCUTTA MEDICAL COLLEGE.

History.—Saroda, a Hindoo male, aged forty-five, was admitted into the first surgeon's ward, Calcutta Medical College Hospital, on the 16th of September, 1880, with a large tumour in his left axilla. Two months before he noticed a small swelling in his left axilla. It was soft, painless, and freely movable. It increased somewhat during the next fifteen days. At this time he made a journey of fourteen miles in a cart, and on his return home he observed that the tumour had somewhat shifted its position. He now consulted Surgeon G. C. Ray, who punctured the wound, and found that it contained blood. Dr. Ray, who persuaded him to come to the hospital for relief, furnished the following note regarding the history of the growth: "He presented himself about six weeks ago with a soft tumour filling up the left axillary space. I at first thought it to be of a fatty nature. It shifted its place in the course of a night to the back, the axillary tumour becoming smaller. This confirmed me in my diagnosis of a migrating fatty tumour. After two days the axillary tumour filled up again suddenly, in the course of a night. It had a soft, fluctuating feel. I then thought it to be a hæmatoma. It got tense, painful, and exerted pressure over the brachial plexus. Application of lead and opium relieved the pain, and the tumour hardened. It gradually got smaller in size, when again there was a sudden increase, and it doubled in size. Exploring with a needle brought only fluid blood. It has got harder since then, and is attended with some burning pain." The patient states that its growth during the last month has been very rapid. No history of injury of any kind can be elicited, and the man states that he has always enjoyed good general health.

Condition on admission.—The patient is a well-developed, stout, healthy-looking man. He has a large soft swelling in the left axilla. The tumour as large as a good-sized cocoanut, and occupies the whole of the axillary space, the floor of which is convex and bulged downwards. There is also a distinct bulging of the infra-clavicular and mammary regions, and the swelling extends as far as the axillary border of the scapula down to its inferior angle. The apparent swelling measures about eight inches vertically, and about a foot transversely. It is smooth and evenly globular, and the skin subcutaneous. Areolar tissue and pectoral muscles are freely movable over it. It is less movable deeply, and appears to be wedged in between the scapula and chest wall, and firmly fixed to these parts. There is distinct fluctuation; no pain, œdema, heat, pulsation, or bruit. It cannot be emptied by pressure. There is slight deficiency of sensation in the upper and outer half of the left arm, but no œdema of the extremity, nor impairment of muscular power, and the movements of the shoulder-joint are impeded to no greater extent than the situation and size of the tumour explain. The left brachial and radial pulses are normal. The tumour was explored by a fine trocar and cannula, through which a free flow of dark venous blood, apparently undergoing disorganisation, took place. The swelling was diagnosed to be a tumour containing blood; and as the man's general health was good, and the mass, as far as could be ascertained, distinct and separate from the surrounding parts, its removal was considered feasible and justifiable.

Operation.—On Sept. 19th an operation was performed for the removal of the tumour. The patient was chloroformed, and the removal conducted under strict antiseptic precautions. Measures were adopted, in the first instance, to command the circulation. A loop of six strong catgut threads was carried beneath the axillary vessels and brachial plexus by entering a Wood's hernia needle opposite the inner border of the coracoid process of the scapula, carrying it inwards along the lower border of the first rib, and making it emerge about an inch from the sternal end of the clavicle below that bone. It was ascertained, on depressing the handle of the needle, that the radial pulse was obliterated, the pulsation returning on removal of the pressure. The eye of the needle was threaded with three strong catgut threads, and these were pulled through its track, the six ends being knotted together and passed through the loop, and a pad of antiseptic gauze was placed between the noose thus formed and the skin to prevent nipping. By tightening this noose the radial pulse disappeared, and its management was entrusted to an assistant. An Esmarch's india-rubber cord was placed on the arm to command the venous circulation, and by these means the circulation of the region occupied by the tumour was thoroughly abolished, except in so far as it might be supplied by anastomosis from the pectoral and scapular regions. A long horizontal incision was now made along the lower border of the pectoralis major muscle, and another at right angles to it from its middle to the inferior angle of the scapula across the floor of the axilla. The surface of the tumour was thus exposed, and it was found to present a bluish colour, and to be capable of easy separation by the fingers from the surrounding muscles and fasciæ. The mass was in this manner enucleated as far as possible. In endeavouring to separate it posteriorly the finger broke through the cyst wall and a flood of venous hæmorrhage—the contents of the sac—was the result. The deep attachments of the tumour were now caught, tied firmly with stout catgut, and then divided. After the strongest and deepest of these, springing from the inner side of the apex of the axillary cavity, had been thus dealt with, it was found that the axillary vein had undergone division, and a catgut ligature was placed on its proximal and distal orifice. The subscapular vein also required a ligature. The tumour having been removed in this manner, except a small portion of the cyst wall in the angle between the subscapularis and serratus magnus muscles, which was scraped and left behind, the loop and india-rubber band were loosened and several bleeding points removed. The hæmorrhage from these was inconsiderable. The catgut loop was pulled from within the wound and left *in situ* to provide against possible secondary hæmorrhage. The ends of the ligature were utilised for drainage. Two fenestrated caoutchouc tubes were placed in the wound, the edges of which were accurately brought into apposition by iron wire and horsehair sutures. The wound was carefully dressed antiseptically. It was found that a thorough dissection of the axillary space had been made.

Progress and result.—There was considerable shock for several hours, succeeded by reaction, which gradually subsided. The temperature reached a maximum of 101° on the evening of the 20th, and became normal on the 24th. The wound healed by the first intention, except when the drainage-tubes and threads emerged. The tubes were removed on the 21st, the catgut loop on the 22nd, the catgut drain came away on the 27th and 28th, and the stitches were taken away on the same days. The discharge which came from the interior angle of the wound was found to be offensive on the 21st, and continued so for a few days. This seemed to be due to the sulphur in the tubes, for the rest of the wound remained sweet, and the whole of it underwent physiological repair in the same manner as wounds do under antiseptic treatment. Inflammation was absent throughout, and no pus appeared, except from one of the orifices of the loop, where the tissues had been nipped, and at the inner angle of the horizontal wound, where the knot of one of the ligatures caused irritation, and finally came away. The angles of the wound were firmly cicatrised on Oct. 20th, and the patient left hospital on the 22nd, with a thoroughly sound cicatrix. The axillary hollow was deeper than on the opposite side, and the movements of the shoulder somewhat constrained by the cicatricial contraction in the wound cavity. The left pulse was equal to the right. The innervation of the extremity was normal, and no œdema existed. The man's general health was thoroughly sound.

Description of the tumour.—The following description of the tumour, extracted from the museum catalogue, was written by Dr. J. F. P. McConnell, Professor of Pathology and Curator of the museum:—

"*Venous aneurismal sac removed from a Hindoo male, Saroda, aged forty-five.*—This sac or cyst is about the size of a fœtal head. A small portion of it was cut away during the operation (the rent has now been stitched), and at one part is a rounded opening capable of admitting the little finger, which is the orifice of communication of the sac with the axillary vein; the latter was above and below this spot on the separation of the tumour. The cyst contained only fluid blood—no coagula. On examining the interior there is found a layer of reddish grumous soft material, two to three lines in thickness, unequally distributed over the cyst wall; this material is easily scraped away, and consists of blood coagulum, showing no lamination or decolorisation, and presenting under the microscope only altered blood-corpuscles (broken up and shrivelled), with much dark amorphous pigment matter and some hæmatoidin crystals. When this material is scraped away, the inner surface of the sac or cyst is seen to be smooth and shining — i.e., has a distinct lining membrane, the flattened tesselated and nucleated epithelial cells composing which can quite readily be recognised under the microscope. The rest of the cyst wall consists of well-formed fibro-elastic tissue, with also smooth muscular tissue—in fact, it seems quite identical with the ordinary structure of the walls of a vein; so that there can be no doubt that the sac was an aneurismal-like expansion from the axillary vein, and is not an adventitiously formed cyst. There are no dissepiments or indications of such in the interior of the sac."

Remarks.—The ascertained history does not throw much light on the origin of this remarkable growth. The result of examination after removal points to its being a sacculated venous aneurism, springing and developing primarily from the axillary vein, and not a cyst, serous or angiomatous, which had somehow contracted a secondary communication with the veins. Assuming it to have been caused by a sacculated expansion of the vein, it must have existed in the axilla long before it was noticed. Its existence was probably discovered only when from its size the tumour began to bulge and press uncomfortably on the surrounding parts. Similar tumours are alluded to in the works of Paget and Billroth, but they appear to be rare, and their etiology is undoubtedly obscure. The present case deserves record on account of (1) the size which the cyst attained; (2) the evidence which is afforded of the nature of the growth, which appears to have been a venous aneurism; (3) the expedient which was adopted to prevent hæmorrhage; and (4) the successful removal of so large a tumour from so important a locality with so little disturbance, constitutional or local. This result I am inclined to attribute to the employment of antiseptic precautions (Listerism); and I venture to assert that so easy and complete a cure could not have been obtained in any other way.

Calcutta.

EXCISION OF THE WHOLE TONGUE BY THE GALVANIC ÉCRASEUR.

BY F. A. PURCELL, M.D.,

SURGEON TO THE CANCER HOSPITAL, BROMPTON.

IN THE LANCET for July 5th, 1879, I described the operation "for the painless and bloodless method of excising the whole tongue," affected with epithelial cancer. I need not go over the same ground again, but suffice it to say that I have had no reason to deviate in the slightest degree from the operation I there described; I have performed it several times since successfully, but it may be interesting to record a case in which a fatal result has taken place.

On Oct. 12th T. C——, aged thirty-eight, suffering from epithelioma of the entire right side of the tongue, ulcerated, with ichthyosis extending into the opposite side. Glands only slightly enlarged in the submaxillary region. It was decided to remove the entire tongue by the galvanic écraseur. The patient being put under the influence of the anæsthetic I introduced the nozzle of the cannula through a vertical submental incision (after Nunneley) into the floor of the mouth, and, proceeding exactly as I have previously described the operation in THE LANCET of July 5th, 1879, excised the whole tongue, having got well behind the disease. The patient came to without losing during the operation any blood. The submental incision was brought together by one horsehair suture, and he was removed to his bed. Within two days he was up and about the ward, and on October 19th I examined his mouth and found the root and floor of the mouth beginning to show granulations and the slough detaching itself; all seemed well; however, during our operations, the house-surgeon was requested to see him, as he had some hæmorrhage (now eight days after operation). He went to him, and applied some ice and iron solution, which seemed to restrain it. Hæmorrhage again recurred about eight o'clock. The amount was so profuse that our house-surgeon, Dr. Bourns, thought it wise to send for me. I arrived and found my patient very exhausted, with a very feeble pulse, and a clot of blood, blackened from the solution of perchloride of iron that had been applied, hanging out of his mouth, conscious and able to write his wishes and requirements on a slate. Although hæmorrhage seemed to have ceased, I thought it wise to ask for a consultation of my colleagues, who all arrived at the hospital about 11 o'clock P.M. We still found him in the same condition as before described. The advisability of tying the linguals, which should have been done on both sides, was deferred, and instructions to leave the clot *in statu quo*, and feed the patient by enemata of beef-tea and milk, with a half-drachm of tincture of opium every second hour, as also to exercise digital pressure on the carotid of one side first if any hæmorrhage should again appear, and if this did not stop it to try the same on the carotid of the other side. Fortunately the patient passed the night without the recurrence of the bleeding. During the next few days the mouth was left untouched, and the same enemata assiduously continued.

On the 22nd the mouth was cleansed, and he took some iced drinks, much to his relief, cold tea, and nourishing drinks; the tincture of opium was not discontinued. On reflecting light by means of a looking-glass into his mouth, the slough is observed to be detached, and the red granulations appearing. He talks now fairly well, but cautioned not to do so. His pulse has regained its beat; in fact, his heart, which has a systolic murmur with violent palpitation, troubles him much, so that he is ordered a mixture of solution of perchloride of iron and tincture of digitalis every four hours, cold drinks and nourishing enemata every four hours. All seemed favourable towards recovery.

On the 23rd the patient, having discontinued the laudanum in the enemata, did not sleep so well during the night, but otherwise much improved. Diarrhœa set in during the afternoon.

Oct. 24th.—The patient now refuses his food, and is troubled with violent palpitation of the heart, the floor of the mouth granulating nicely, and looks clean. He remained in this condition until he died on Tuesday night, the 26th of October, fourteen days after the operation. He suffered from an aortic and mitral murmur, with a very rapid small pulse. At the same time the heart palpitated violently.

The heart alone was removed after death, and showed great hypertrophy and dilatation of the left ventricle, with incompetent aortic and mitral valves.

Manchester-square, W.

RUPTURED SPLEEN FROM A FALL.

BY HENRY TOMKINS, M.D.,

MEDICAL OFFICER, MONSALL FEVER HOSPITAL, MANCHESTER.

RUPTURE of the spleen, though not of very uncommon occurrence, is yet sufficiently rare to warrant the following case being placed upon record, the more so as it presents one or two features peculiar to itself—firstly, the fatal issue did not take place until three weeks after the receipt of the injury; and, secondly, so little importance was attached to the injury that at the time of death suspicion was aroused that the patient had died from the effects of medicine obtained from an unqualified practitioner.

On Oct. 21st, by order of the coroner, a post-mortem examination was made on the body of Mary M——, aged twenty-five, unmarried, who had been found dead in bed ten hours previously. The body was fairly nourished; no external marks of violence, but very anæmic; lips, conjunctiva, &c., quite bloodless. The abdomen was somewhat distended; dull on percussion. On opening it the peritoneal cavity was found filled with dark sanious fluid and numerous large soft clots. Beneath the edge of the ribs on the left side, extending across the epigastrium, was a huge dark mass, which proved to be the spleen. In size, speaking roughly, it was as large as the liver, and weighed at least four pounds, probably more. On the under-surface the organ was ruptured, and on cutting into it, it was found to be hollowed out into a large cyst filled with soft coagula. All the other organs of the body were healthy and bloodless.

The history given was this :—Three weeks before she had been standing on a box some three feet high, from which she fell, striking her left side against a corner of it. She complained at the time of having hurt herself, but not severely, and in a few minutes after resumed her work. From that time onward she complained more or less of her side, saying it "caught her breath," and that she felt as if she had "a lump there," but her friends could detect nothing abnormal by sight or touch. There was no bruising after the fall.

The night before she died she complained still more of the pain, referring it chiefly to the epigastrium, and called that evening on an unqualified practitioner, who gave her some medicine, of which she took about an ounce and a half, went to bed, and was there found dead the following morning.

At the inquest the medicine was proved to be only a simple antispasmodic mixture.

The blood was unfortunately not examined, so that it is somewhat uncertain whether this was a case of leucæmia; no glandular enlargement was detected, and the previous history pointed to good health, but impoverished circumstances, and shortness of food. If the spleen were normal in size at the time of the accident, the above is certainly a very unusual case. The length of time also that elapsed between the receipt of the injury and the fatal termination is much longer than any I can find recorded.

Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium

GREAT NORTHERN HOSPITAL.

A CASE OF TELANGIECTASIS.

(Under the care of Mr. GAY.)

A VERY remarkable case of this disease was admitted during the last summer. The patient was a girl eight years old, otherwise healthy. The disease was an entirely new growth, and consisted of a cluster of distended veins so convoluted and coiled on each other as to form a compact venous tumour. It occupied the whole of the right side of the cheek, and seemed to be a teratological development of the venous at the expense of the muscular elements, especially that of the buccinator muscle; for before the growth of the tumour the muscular tissue receded and disappeared; so that the tumour bulged outwards on the cheek very considerably, showing its blue colour in patches through the skin, which was extremely thin. On the inner side of the cheek it also bulged as a closely packed mass of large convoluted veins, which at length protruded so far as to incommode the child in talking and masticating by getting between the teeth. From the cheek the growth extended in a broad and irregular band across the back of the mouth and the hard palate, the mucous membrane of the entire half of which was thickened and discoloured by it, and to the lower lip, the half of which was also occupied by large veins, which exalted themselves considerably above the normal level. The tumour on the cheek was defined and impressible, so that the blood could in great part be expressed from it, but not without leaving behind a considerable amount of dense doughy material, that consisted no doubt of the thickened walls of the veins and their intervening connective tissue; and that the whole was enclosed in some tough limiting envelope there could be no doubt, for on expressing the contents and instantly relaxing the pressure, the blood rapidly distended the mass again, but the latter did not exceed its ordinary limits.

The mother could give no trustworthy history of the tumour, but it was unquestionably of congenital origin, and allied to the ordinary nævi of this class. It seemed to have the ordinary supply of nerves and arteries, for its sensibility and temperature were normal, and none but the usual arteries or veins could be found in any part of the healthy bordering structures. The mass was growing but had not bled spontaneously.

After discussing several plans of treatment, and notwithstanding the fact that cauterisation by red-hot needles had been tried elsewhere without any appreciable result of any kind, Mr. Gay determined to cauterise by means of large blunt needles made red hot by benzine vapour.

The child having been placed under the influence of chloroform by Mr. Eastes, the portion of the cheek containing the tumour was thrust out of the mouth as far as possible. The mass having been in this way fairly exposed, Mr. Gay pushed a thick red-hot needle, a line in breadth, deep into the tumour at several points. The blood was not squeezed out of the mass before the needle was used because it was feared that though the cautery would seal the openings in the vessels the needle had made, the reflux of the blood would reopen them, and bleeding would ensue. No bleeding took place, although the openings were as large as a six- or seven-sized catheter. The whole tumour immediately swelled, but subsided again after the escape of a quantity of bloody muco-serous fluid from the burnt aperture and mucous membrane. The results, however, were not satisfactory, for after the healing of the wounds the tumour was left much as it was before the operation. After an interval of three weeks Mr. Gay determined on repeating the cauterisation, but confining the punctures to a limited portion of the swelling. He therefore selected the most vascular portion, and made five punctures within an area of about three-fourths of an inch square. On withdrawing the needle two of these punctures bled copiously, throwing out jets of dark with some crimson blood of the same size as the orifices. The bleeding was, after trying several futile plans, ultimately stopped by passing ligatures deep into the tissue below the bleeding parts, by means of an eyed tenaculum, armed with thick silk, and tying them across the apertures. This procedure was followed by consolidation of the whole of the portion of the tumour that had been brought within its scope, but beyond this the tumour was as active as before. It then became clear that complete obliteration of the mass could only be gained by a series of similar procedures, each being limited to a small portion only of the diseased mass. A portion was now selected full of large vessels nearer the back of the mouth, between the cheek and the palate, and three punctures were made in it. Again the bleeding was very profuse, and as there was some difficulty in using ligatures Mr. Cripps suggested that the openings should be forcibly plugged with lint moistened with the solution of perchloride of iron. In this way the bleeding was stopped, the plugs being allowed to remain until released of themselves. Suffice it to add that the united portion of tissue that was thus brought under the influence of the cautery solidified, but no more, and that it required several other like operations to bring the whole into a like condition. The portion that passed across from the cheek to the palate was exceedingly troublesome, and required several applications of the cautery, each of which was followed by profuse hæmorrhage. Eventually, however, every portion seemed to have succumbed, and the vascular tissue was reduced to a consolidated mass, first of clot and vessels, and ultimately of compact nævoid tissue, minus its blood. Such was the vital tenacity of the growth that the large outlying veins on the lip had to be ligatured in order to bring about their consolidation.

The child presented herself at the hospital a week ago. By far the largest portion had consolidated, but not the whole. There was an island just within the mouth, and another at the extreme back part of the cheek, which presented not only large venous coils, but were in a state of growth. These will require at no distant period the renewed use of the cautery. Mr. Gay prefers the cautery to other modes of treating these nævoid tumours, but he would feel little hesitation in the event of such treatment being unsuitable in a given case to extirpate it by the ordinary knife, or, if found necessary, by red-hot knife, for the supplying artery as well as the receiving veins did not appear to be of abnormal distribution or size.

CLAYTON HOSPITAL, WAKEFIELD.

CASE OF GLOSSITIS.

(Under the care of Mr. Fowler.)

For the following notes we are indebted to Mr. R. L. Williamson.

William H——, aged thirty, was admitted on July 17th with glossitis. The tongue was protruded two and a half inches beyond the teeth, and could not be retracted. The whole organ was very greatly enlarged and of a brawny hardness, due to exudation. A deep ulcerated fissure existed where the tongue rested on the lower incisors. There was difficult, hurried respiration, the breath was fetid, and saliva constantly dribbled from the mouth. Only fluids could be swallowed, and these with difficulty. The dorsum of the protruded portion of the tongue was parched. The patient said the affection began twenty-eight days before, that he was nearly suffocated at first, and that an abscess had formed at the root of the tongue, and burst with only slight relief of the symptoms a week from the commencement of the attack. On admission the temperature was 101° F.

The mouth and all its contents were thoroughly cleansed with a strong solution of chlorate of potash in glycerine and warm water, and a piece of lint frequently wetted with water was kept over the protruded part of the tongue. The mouth was frequently syringed out. No perceptible improvement followed. Four days after admission a gutta-percha support was made for the tongue, and fitted to the lower incisors. This afforded great relief to the patient, and the exudation began to disappear rapidly, so that forty-eight hours afterwards he could retract the tongue within the teeth, after being unable to do so for more than a month. The fissure caused by the pressure of the lower incisors simultaneously disappeared. The patient shortly afterwards could keep the tongue within the teeth permanently, and the case progressed so rapidly that a week from the time the gutta-percha support was first used he was almost well. He was discharged cured seventeen days after admission.

He had not had syphilis nor had he the characteristic signs of scrofula, though this affection, accompanied by abscess, generally occurs in scrofulous subjects. The case is unusual in that the exudation did not tend to disappear after the evacuation of the abscess. It would seem that this persistence of the exudation was due to hyperæmia of the organ, caused mechanically by the pressure of the teeth.

ROSS COTTAGE HOSPITAL.

LOOSE CARTILAGE IN KNEE-JOINT; REMOVAL.

(Under the care of Dr. C. C. Cocks.)

H. G——, aged forty-two, was admitted on Sept. 1st, complaining of pain in his right knee-joint, which had troubled him at times for twelve or eighteen months. On examination a loose cartilage was easily felt. Removal of the body was advised.

On Sept. 2nd, chloroform having been given, and with strict Listerian antiseptic precautions, an opening was made on the outside of the knee-joint, about an inch and a half long, through which a loose cartilage, weighing three drachms and a half, was easily removed.

The patient made an uninterrupted recovery, and was up on the twenty-first day, and at the end of eight weeks followed his work as a labourer.

After removal the substance was examined, and found to be made up of an oblong flat piece of bone-like material, with a thick corrugated fringe of cartilage all round.

Lincoln County Hospital.—The annual meeting of the Board of Governors of this institution was held on the 13th inst. The financial statement showed the receipts during the past year to be £4295 4*s.* 1*d.*, and the expenditure £5565 1*s.* 7*d.* Various propositions were made to remedy this unsatisfactory state of things, but ultimately it was decided to issue a special appeal to well-to-do persons in the neighbourhood who were not already subscribers—a step which we hope may meet with the success desired.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Acute Myositis.—Abscess of Liver.—Cirrhosis of Liver and Tuberculosis.—Thrombosis of Innominate Vein.—Stenosis of Tricuspid Orifice.—Fibro-cyst of Uterus.

The ordinary meeting of the Pathological Society of London was held on Tuesday last, Dr. Wilks, the newly-elected President, in the chair. There was a very small attendance of members. On the motion of Dr. Pye-Smith, seconded by Mr. Morrant Baker, the President was requested to postpone his introductory address until the next meeting, as there were many members of the Society anxious to hear it who were prevented from being present by the extremely inclement weather. Dr. Wilks consented to this proposal, and the ordinary business of the Society was proceeded with. In addition to other communications of interest, Dr. Fenwick made a careful and valuable communication on Stenosis of the Tricuspid Orifice of the Heart.

Dr. Payne showed a specimen of Acute Myositis, and read an account of it, sent to Dr. Greenfield by Dr. Bevis, of the Hereford Infirmary. A woman, aged thirty-three, three days after her confinement got up and went downstairs into a cold room, where she had a shiver, and on attempting to return to bed found she had to crawl on hands and knees, on account of severe pain in the right thigh. The pain increased for the next two days; and on the third day there were tenderness, rapidly increasing swelling, and redness of the skin. She was then admitted to the hospital. She had chills, but no sweats; temperature about 100·4°; pulse 132; tongue dry, with sordes on the lips; no cardiac bruit. The right thigh was much swollen, hard, brawny, very tender, hot, and there was pitting on pressure. Next day the pain was less; there was great tremor, and she died. At the post-mortem the bone and periosteum were healthy. A section of the muscles showed the vasti and crureus to be yellowish in colour, resistant, the fasciculi separated so as to present a granular surface, the fibrous septa being infiltrated with serum. The fibres of the vastus externus were found to have lost their striæ, and to contain granular débris and very few cell elements. The adductor magnus muscle had its striæ well marked, with many cells, and both red and white blood-corpuscles. The rectus femoris was healthy.

Dr. Norman Moore showed a specimen of an Abscess in the Left Lobe of the Liver in a girl, aged three years and a half, who died in St. Bartholomew's Hospital. She had been ill ten months with intermittent diarrhœa and pains in the belly. During her stay in the hospital her temperature varied from 102° to 105°; at the end of a month she died from sudden collapse. After death this abscess at the surface of the left lobe and another larger one in the substance of the right lobe of the liver were found. The whole of the large intestine was extensively ulcerated. The points of interest in this case were the early age of the patient, and the fact that the child had never been out of London; although he had known of dysentery occurring in Londoners, he had not been able to meet with any case occurring in so young a child.

Dr. Norman Moore also showed microscopical sections of a Liver affected with Cirrhosis. A girl ten years of age, under Dr. Gee's care at St. Bartholomew's Hospital, had enlargement of the belly for some time; she was tapped twice for the ascites. At the autopsy the whole liver was found to be dense, with great elastic bands of fibrous tissue running through it, rough and nodular; there was tuberculosis of the peritoneum, but none of the liver. There was no history of spirit-drinking, and Dr. Moore thought this was an example of interstitial hepatitis in association with general tuberculosis, as described by Cornil and Ranvier, and more fully by Dr. Payne.—The President asked if the patient had the usual appearance of patients with cirrhosis of the liver, and whether the diagnosis was made.—Dr. Moore replied that the child was very emaciated, and with a big belly; after one of the tappings it was noted "liver certainly not enlarged."—Dr. Pye-Smith had recently a young man under his care at Guy's Hospital with great ascites and no symptoms of any lung affection; he was tapped two or three times, and eventually died. Slight cirrhosis of the liver, with considerable tuberculosis of the peritoneum and right pleura, were found. The diagnosis was difficult; he had thought the ascites due to cirrhosis of the liver from drink, but now had no doubt it was occasioned by the inflammation of the peritoneum.—The PRESIDENT asked for information on the collateral circulation of the liver. The enlargement of the superficial veins of the belly had been long noticed and variously explained, and he had read that it had been shown by German observers to be connected wieh enlargement of vessels in the suspensory ligament of the liver, and particularly with reopening of the obliterated umbilical vein. It would be very interesting if any member could demonstrate such a condition, which would be best done by injection from the portal vein. If this be the correct explanation, the blood circulating in the dilated vessels is portal blood, and possibly that could be demonstrated by microscopic examination. There must be a very free collateral circulation in some cases, for with extreme cirrhosis and narrowing of the portal vessels there may be no ascites.—Dr. N. MOORE mentioned the case of a woman who, thirty years ago, had severe hæmatemesis, which was repeated from time to time, until recently during an attack in St. Bartholomew's Hospital she died. There was found complete occlusion of the portal vein, the spleen was greatly enlarged, no ascites; Dr. Gee could not find any opening out of the obliterated umbilical vein, showing that this was not the sole collateral circulation.—Dr. STURGE stated that two years and a half ago he had under his care a man with cirrhosis of the liver, with not very marked ascites, who had a well-marked caput medusæ at his umbilicus, and a vessel as large as his forefinger running upwards from it to the sternum. During life it was doubtful whether the swelling contained blood or serous fluid, but he inclined to the former view. The ascites disappeared, and he saw no more of the man till three months ago, when he heard of his death. He made an examination, and found a vein large enough to admit his little finger passing from the portal vein through the suspensory ligament, a vein in the round ligament as large as a probe, and others intermediate in size between these two around the ligament. All these veins entered the caput medusæ, from which the large veins seen on the surface passed to the internal mammary vein.—Dr. GILBART SMITH had under his care now a man with phthisis affecting the left apex, and irregular enlargement of the liver; there is very little fulness of the abdomen, but the veins passing from the umbilicus to the chest are distinctly enlarged; he thought this was a case of tubercular peritonitis, with cirrhosis of the liver.—Dr. PAYNE thought the case of his that Dr. Moore referred to was one in which many small fibroid nodules were found in a liver, possibly tubercular. He had many times injected the portal vein in cases of cirrhosis, and had sometimes found a vein running up the round ligament, but never the whole way, and many other veins running from the liver to the umbilicus outside the round ligament. This collateral circulation was first described by Sappey. Dr. Champneys had published in the "Journal of Anatomy" a description of a case of reopening of the umbilical vein. There are also many other anastomoses of the portal and systemic veins in the peritoneal cavity.—Dr. O'CONNOR mentioned the case of a woman who, when she lay on her face, had no œdema of the feet, but the superficial veins of the belly became distinct; but when lying on her back the veins were empty, and the legs became œdematous.

Dr. WILBERFORCE SMITH brought forward a specimen of Thrombosis of the Right Innominate Vein. It was removed from a woman forty-two years of age, who had some severe respiratory affection ten years ago, which left her subject to cough. Eight months ago she had a transient attack of dropsy, commencing in the left arm, and two months ago another attack of dropsy, which commenced in the feet. Four weeks later he found she had great swelling of the right arm up to two inches below the shoulder, lividity with enlarged superficial veins of the right side of the head and neck, œdema over the right side of the chest, dulness at the right apex, especially at the inner side. The case had then the appearance of serious cardiac disease, but there was no orthopnœa. At the autopsy several pints of fluid were found in the right pleura. The right innominate vein was occluded by firmly adherent partially organised clot, which extended into the superior vena cava, and the ends of the subclavian and jugular veins were contracted and full of soft clot. The pleura was very thick and adherent to the apex of the lung and to the thrombosed vein. In the apex of the lung was a cavity, but no other disease. In the right side of the dilated heart were two or three smooth old clots the size of orange pips. The order of events he believed to have been—1. Respiratory affection. 2. Dilatation of the heart, and weak circulation. 3. Thrombosis favoured by the languid circulation, and especially by the thickening and adhesion of the adjacent pleura.—Dr. COUPLAND had seen the post-mortem examination in this case, and agreed with Dr. Smith's view. He asked if this form of thrombosis is common; if not he was surprised, as the pleura is so near the veins and so often inflamed. The pleura in this case was very firmly adherent to the vein.—Dr. T. C. WILLIAMS had often seen thrombosis of the lower extremities in phthisis, but seldom, if ever, in the neck.

Dr. FENWICK showed two specimens of Stenosis of the Tricuspid Orifice of the Heart. The first case occurred in a single female-servant, aged twenty-nine, who had very good health till eighteen years of age, when she had an attack of acute rheumatism. Four years afterwards when carrying a very heavy child she was seized with severe pain in the side and great dyspnœa, which passed off under rest. Five years later she entered the London Hospital for jaundice, and was found to have a loud presystolic murmur, most distinct at the apex, and a soft whiff at the base. She had two other attacks of acute rheumatism, and after the last a harsh systolic murmur at the base was detected; and last autumn, when under Dr. S. Fenwick's care at the hospital, there was a harsh presystolic murmur distinctly audible at the xiphoid cartilage, apex thrill, great distension of jugular veins, œdema, and orthopnœa. After death the heart was found greatly dilated, especially the right auricle; the tricuspid valve agglutinated by the edges of the cusps, which were also thickened, and the orifice narrowed; mitral valve also thickened. The other case was also under Dr. S. Fenwick's care: a girl, aged twenty-six, single, enjoyed good health up to the age of twenty-three, then had acute rheumatism and ever afterwards dyspnœa, cough, and palpitation; harsh presystolic murmur at apex, presystolic thrill, tumultuous cardiac action with throbbing of the whole side; soft systolic murmur at base, great orthopnœa, cough, and ascites. The heart was found to be very dilated, especially the right auricle, mitral cusps thickened, rough, and adherent; tricuspid valve agglutinated, with only a very small aperture; pericardium adherent. From a review of forty-six cases of tricuspid stenosis recorded since 1825 he gleaned the following facts: That the disease is not excessively rare, as seven are recorded in the Transactions of the Pathological Society and eight in the Transactions of the Pathological Society of Dublin, and three had recently occurred in Dr. S. Fenwick's practice at the London Hospital. Forty-one of the patients were females to five males—a preference for the female sex not shown by congenital disease of the heart, for of thirty-one of such cases shown to this Society, seventeen were in the male and fourteen in the female sex. The youngest female was seventeen, male twenty-one, oldest female fifty-eight, male sixty-four; average duration of life in the females 31 years, in the males 36·4 years. In Dr. Peacock's case of congenital or tricuspid stenosis, which lived only three months, the child was perfectly livid from birth, and became black on coughing; but in only one of these forty-six cases was dark colouration noticed during early life, and the health was good until the fatal illness came on. Thus there are many facts opposed to the view of the congenital origin of this form of disease. In twenty-three cases there is a history of antecedent acute rheumatism, and such a history was obtained in one hundred and fifty-two out of three hundred and four cases of all cardiac diseases, the same proportion. In all the forty-six cases the mitral orifice is also stenosed, and in nearly all more diseased than the tricuspid; in twenty-five cases the aortic valves are diseased too, in twelve cases stenosis; in all save a very few the right auricle is greatly dilated. He therefore maintained there is positive evidence of its being an acquired disease.—Dr. N. MOORE had found thirteen cases of this disease recorded at St. Bartholomew's Hospital, and they bore out completely Dr. Fenwick's views. Twelve of the patients were females, the youngest nineteen, general age thirty; in all mitral disease; in nine aortic disease; and in one disease of all the other valves. In one only was there any trace of congenital malformation, a partial septum across the right auricle. Thus there was evidence that in these cases the endocarditis was general rather than local, and tended to adhesion rather than outgrowth and pucker-ing of the valves.—Dr. **GILBART SMITH** asked if cases of double stenosis live longer than those suffering from mitral stenosis only, because the double obstruction might save the heart and pulmonary circulation and regulate the distribution of the blood.—Dr. **HORROCKS** observed that in congenital mitral stenosis the left auricle does not hypertrophy sufficiently to overcome the obstruction and so carry on the general nutrition, and the patients look younger than their age. Were any recent vegetations found on the valves in Dr. Fenwick's cases?—Dr. **COUPLAND** thought the question was as to the etiology of mitral disease, because it was always present in these cases; mitral stenosis is more common in females; in some cases there is no history of acute rheumatism to be elicited. He had found vegetations on the tricuspid valve more common in acute rheumatism than supposed, but never present without being also on mitral valve.—Dr. **STURGE** recently made an autopsy in which he found two cusps of the aortic valve agglutinated together, all the cusps being uniformly thickened; the mitral valve was in the same condition, and he thought this case supported Dr. Moore's view of their being a special agglutinative form of endocarditis.—The **PRESIDENT** reminded the Society of some Gulstonian lectures of the late Dr. Barlow, in which he pointed out that disease of the right side of the heart, lessening the blood on the left side, caused imperfect growth on that side, and the mitral orifice remained small. Presystolic murmur over the xiphoid cartilage was taught as the sign of tricuspid obstruction, but he knew of no case on record where by this sign it had been actually diagnosed.—Dr. **FENWICK** had not observed any marked relation between double stenosis and duration of life. In neither case were there recent vegetations. He had recently seen very numerous vegetations on the tricuspid valve; they were present on the mitral valve also. Both his patients were well nourished and fully grown; in his table two only are mentioned as stunted.

Mr. **MEREDITH** showed a recent specimen of a large Multilocular Fibro-cyst of the Uterus, removed three days previously by Mr. Thornton from a patient in the Samaritan Hospital, aged forty-three. The existence of uterine fibroid disease had been first recognised ten years ago, but only within the past three years had the tumour, which up to that time had apparently presented the usual features of an ordinary fibroid growth, begun to enlarge at all rapidly. The total weight of the mass removed was twenty-three pounds, of which the fluid contents constituted about eighteen pounds. On examination the main portion of the tumour was seen to have consisted of smooth walled cystic cavities, eight to ten in number, and of varying capacity, seated on a solid base, which sprang from the fundus of a much enlarged uterus, by an extremely thick pedicle, partly fibrous, partly fleshy in structure. This pedicle at the operation was divided by means of Paquelin's blunt cautery knife. The cyst contents in most of the cavities consisted of a perfectly clear limpid fluid, of a deep amber colour, which did not coagulate spontaneously on subsequent exposure. Its sp. gr. was 1020, and on boiling a dense coagulum was formed, which proved to be incompletely soluble on being heated with an equal quantity of strong nitric acid. The microscope showed but few cell elements of any kind; among these were a number of large granular cells, resembling those found in ovarian fluids, a few squamous epithelial cells, and occasional examples of the so-called "fibre-cell," which is said to be characteristic of the fluid contained in these fibro-cysts.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Traumatic Hydronephrosis.—Myxœdema.

THE annual general meeting of this Society was held on the 14th inst., Dr. E. H. Greenhow, F.R.S., President, in the chair. The usual business was transacted during the first part of the evening, after which the election of officers, the reception of the Council's report, and the customary votes of thanks to the retiring officers took place. Two papers were read—one on a case of hydronephrosis of traumatic origin, cured by repeated tapping, by Mr. Croft, and one on two cases of myxœdema, by Dr. Lloyd. The latter paper excited some discussion, Dr. Andrew Clark relating his experience of the affection, which he stated he had met with most frequently in males. Drs. Dowse and Mahomed were appointed scrutineers of the ballot.

Mr. **CROFT** read a paper on a case of Traumatic Hydronephrosis. The patient, a lad aged twelve, was admitted into St. Thomas's Hospital on June 3rd, suffering from hæmaturia, with pain in the left loin, following an injury to the left side received on the previous day. There was no swelling, but there was deep-seated tenderness in the loin. The urine had a dark port-wine colour from admixture with blood. The boy was delicate and anæmic, and was the subject of psoriasis. Under treatment by rest in bed and the local application of ice, the hæmaturia gradually subsided, and on the fourteenth day from the accident he was discharged as convalescent, no tumour having appeared. On July 9th—twenty-two days after he left the hospital—he was readmitted, suffering from a swelling which had appeared in the left side. The swelling occupied the left lumbar and hypochondriac regions, and extended forwards into the epigastric and umbilical regions. It was fluctuating, but there was no redness of skin over it. The urine was free from blood, and of normal specific gravity. During the next two days he became worse; the swelling increased, extending across the median line, and he became drowsy, the temperature falling below 100°. The urine was still free from blood or albumen, its quantity varying from fourteen to twenty ounces. The case being thought to be one of hydronephrosis, an aspirating trocar was passed into the swelling, and seventy-nine ounces of brown, urinous fluid, acid, sp. gr. 1008, and containing a trace of albumen, were drawn off. During the next three days he passed twenty-five ounces of urine each day, and on the fifth day twenty-one ounces. There was immediate relief after the tapping, but at the end of a week a re-accumulation of fluid necessitated a second tapping; which was repeated for the second time nine days later, when sixty-two ounces of similar fluid, acid, sp. gr. 1005, and containing a trace of albumen, were withdrawn. Between July 29th and October 15th the swelling was tapped five times; and on the last occasion the fluid contained much albumen, since when no further collection has taken place. There had been no constitutional disturbance, and no sudden variation in the quantity of urine passed. Mr. Croft thought that there had been a severe contusion of the pelvis of the kidney, followed by adhesive inflammation and obliteration of the ureter, which led to accumulation of the urine in the pelvis and the formation of the hydronephrosis. The case could not be one of a congenital cyst which had enlarged in consequence of the injury, for such a cyst would contain serous fluid. The cure probably took place by obliteration of the sac and atrophy of the kidney. A similar case is recorded by Mr. Stanley in the Med.-Chir. Trans. for 1844, where six weeks after an injury to the right side a large swelling appeared from which fifty ounces of urinous fluid were drawn off. The tapping was repeated at intervals, only six ounces being withdrawn at the final tapping, and the patient left the hospital at the end of nine months with a fluctuating swelling still present. A second case recorded in the same paper appeared rather to be one of retro-peritoneal extravasation of urine. The present case showed the value of repeated tapping by the aspirator.—Mr. **HEATH** thought Mr. Croft's explanation hardly accounted for the complete disappearance of the swelling. Might not the hydronephrosis have been due to an impacted calculus? The accident might have shaken a calculus into the pelvis, where it would have caused an obstruction to the outflow of urine, and the repeated tappings might have caused the dislodgment of the calculus. Were there any bladder symptoms, and does the patient now pass a normal quantity of urine?—Mr. **CROFT** said the idea of calculus had occurred to him, but his inquiries failed to elicit any confirmation of this view. As the tumour subsided he passed a normal quantity of urine. If a calculus had been dislodged there should have been some symptoms of it in the bladder.

Dr. **LLOYD** read notes of two cases of Myxœdema, one of which was shown to the Society. Case 1.—A female, aged forty, whose mother had been subject to rheumatism. She menstruated regularly. Five years ago she experienced severe pain in both her legs, and then all her movements became slow and deliberate. She also suffered from pain in the head, and her face became puffy. Three years ago she began to complain of weakness in the neck, which was painful; her voice became rougher, her memory impaired, and her expression listless. There seemed to be general swelling of the skin all over the body, and especially puffiness of the eyelids. The skin, which was dry and rough, never perspiring, had a translucent œdematous appearance; and she came to present the characteristic aspect of the disease in the heavy puffed features, with congested cheeks contrasting with rest of face, which was void of expression. Her voice is thick and nasal. She is low-spirited at the menstrual period, and has had delusions. The urine has contained some albumen, but is now free from it, and of specific gravity 1022. Case 2.—A laundress, aged sixty-five, came under care in 1879, with the signs of myxœdema marked by cardiac disease and ascites, from which she died shortly afterwards. The post-mortem examination showed great swelling of the lower extremities, the skin of the abdomen tense and shining, and the seat of purpuric patches. The superficial vessels of the face were injected. The peritoneal sac contained twelve pints of fluid, and about a pint of effusion occurred in each pleura. The kidneys were cirrhosed; the heart was hypertrophied, mitral and aortic valves thickened. The brain and spinal cord were examined, but showed nothing very distinctive. — Mr. **Hulke** inquired whether, in the second case, any chemical tests had been applied to distinguish the character of the fluid distending the tissues from the dropsical effusion ordinarily present in a subject of long-standing heart disease?—Dr. **Ord** had seen both the cases. The first was a well-marked example of myxœdema, exhibiting general swelling of the integument, which was translucent, dry, and inelastic. There was thinness of the hair—usually met with in these cases; and there was the vivid carmine colouration of the cheeks contrasting strikingly with the extremely pale eyelids. When he saw the case there was no œdematous pitting at any part. She also had the characteristic slowness of speech. The urine contained a slight quantity of albumen, but was not otherwise altered. He asked if Dr. Lloyd could give any information as to the temperature, which is nearly always subnormal. Her gait was characteristic, walking slowly with a tendency to trip, and to give way especially at the knees. The second case was, when he saw it, in the last stage; and after a time these cases lose their characteristic swelling, so that the skin becomes wrinkled and movable; and fresh symptoms, cerebral or renal, supervene and predominate. This patient had manifestly damaged kidneys, cardiac hypertrophy, and much ascites. Dr. Ord was still engaged in examining the tissues of this case, especially the spinal cord, for the nervous symptoms of the disease pointed either to altered relations with the exterior from impairment of the peripheral nerves or to changes in the nerve centres themselves. At first he had thought that the change in the skin was sufficient to account for the impaired activity of the nervous system, and in the first case he had examined no lesions were found either in the brain or cord. In the present case, however, there was general increase in the connective tissue of the cord, especially around the vessels and the central canal; but he had not found any evidence of destruction or degeneration of the nerve elements. — The **President** hoped that Dr. Ord's report would be added to Dr. Lloyd's paper, and at the former's suggestion Dr. Savage was asked to draw up the report in conjunction with Dr. Ord.—Dr. **Andrew Clark** said that for the past ten years he had been more or less familiar with this class of cases, which had been principally brought into notice by Drs. Ord and Duckworth; and with Dr. Burnet's assistance he had been engaged in collecting these cases—in none of which, however, had he obtained a post-mortem examination. His experience of them agreed with Dr. Ord's descriptions, except that he had seen the affection far more often in males than in females. They had a striking resemblance to one another; they speak in the same way, move in the same way, act in the same way. Their well-marked characteristics consisted in the white, dry skin, pink cheeks, broad lips, swollen eyelids, and puffy hands; and they complain of being "bound," as if the muscles of the limbs, and sometimes of the face, were hindered from acting. The urine was of low density, nearly always below 1014. As to nervous symptoms, the majority are noticed to be dull, to have a certain hebetude, and to speak with peculiar deliberation and nasal intonation; the voice in males being low-pitched and rough; in females it reaches falsetto. The last common characteristic is that they nearly all have exhibited nervous symptoms resembling the early stages of ataxy; many are unable to walk in the dark, and many cannot stand with their feet close together. The first impression he had of the nature of these cases was that the disease commenced in the nervous system, then attacked the kidney, producing "renal inadequacy," so that these organs became incapable of excreting a healthy urine, and that subsequently the blood was affected. He proposed shortly to bring these cases before the Society.—Dr. **Ord** said that in four cases in which the urine had been daily analysed, the quantity of urea was found to be much below the average.—The **President** had seen cases, but did not understand their nature until Dr. Ord elucidated it. One case was undoubtedly combined with sclerosis of the nerve-centres, and another, which was under his care fourteen or fifteen years ago, was, he believed, the same as that brought before the Society lately by Dr. Duckworth.—Dr. **Lloyd**, in reply, said the temperature in his case never exceeded 96° or 97°; once it was only 94°.

The business of the annual general meeting was then proceeded with, after which the Society adjourned.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Hyposcleral Cyclotomy.—Rare Form of Muscular Asthenopia.—Ophthalmoplegia Interna.—Detachment of Retina.—Tumour involving Optic Chiasma. — Epithelioma of Orbit.

At the meeting of this Society, held on the 13th inst., W. Bowman, Esq., F.R.S., in the chair, several communications were read, that which gave rise to most discussion being a paper by Mr. Hulke criticising Mr. Hutchinson's hypothesis that cases of total immobility of the pupil combined with loss of accommodation was due to disease of the lenticular ganglia. Mr. Hulke suggested the ganglionic plexuses in the choroid and iris as the probable seat of disease, whereas Dr. Gowers suggested that in these cases there was affection of the centres themselves.

Mr. **Higgens** read a paper on Hyposcleral Cyclotomy, in which reference was made to Mr. J. E. Walker's "Essays on Ophthalmology," where this operation is described and its results in several cases given. The expectation raised by perusal of the essays in question were scarcely realised. Seven cases were reported by Mr. Higgens, and the experience of these cases led him to believe that hyposcleral cyclotomy as a means of reducing ocular tension is inferior to iridectomy.—Mr. **Walker**, replying to the criticisms passed on the operation, stated that in acute glaucoma its superiority over iridectomy was marked, and in chronic glaucoma it often gave a good result. It was founded on the view that the tension in glaucoma was due to changes in the ciliary muscle, and that the habitual strain of this muscle in hypermetropic eyes predisposed them to the disease. This hypothesis seemed to him confirmed when he noticed that in certain cases of astigmatism the ciliary muscle appeared to act unequally, an occurrence which seemed to harmonise with Dr. Brailey's observations on partial sclerosis and atrophy of the ciliary muscle in glaucomatous eyes. The success of iridectomy or sclerotomy in glaucoma depended on the escape of fluid through a scleral fistula; but by division of the ciliary muscle only in cyclotomy the tension was remedied without this taking place. He hoped that Mr. Higgens would not abandon the operation, but give it a fair trial. At the request of Mr. Spencer Watson, he briefly described the method of operating.

Dr. **Brailey** read a paper "On a Rare Form of Muscular Asthenopia," describing a case in which with normal power of both internal and external recti, and with very abundant accommodative power, though unaccompanied by spasm, there was great irritation, with pain, on any use of the eyes. The patient, a very intelligent gentleman, aged thirty, had a low degree of myopia, with a little myopic astigmatism. When, however, these were fully corrected, the symptoms of asthenopia were even more pronounced than before; nor did correction of the astigmatism by cylinders alone give any material benefit, though when these were for near work, combined with weak convex sphericals, he obtained some temporary relief. But a permanent and far greater beneficial effect was produced when a prism, apex downwards, before the left eye was added to the cylinders. He has worn this combination during several hours daily for many months, and its beneficial effect still continues. With its discontinuance the symptoms return.—In reply to Mr. Nettleship, Dr. Brailey said that since using the glasses the patient had worked more than before. In fact, he had been almost compelled to abandon his pursuits prior to treatment; and in reply to the President he said that the affection was of many years' standing.—Mr. **COUPER** said that he had found it useful in muscular asthenopia to employ prisms for a certain time each day to force the weaker muscles into play, instead of in the opposite direction, for the purpose of relieving the affected muscles. In cases of weakness of the internal rectus he had found great benefit from thus using gradually stronger and stronger prisms.

Mr. **HULKE** read a paper "On Ophthalmoplegia Interna" (paralysis of the ciliary muscle, and of both the circular and radiating fibres of the iris), which he stated is not pathognomic of disease of the lenticular ganglion, but is with great probability referable to disease of the ganglionic plexuses within the eyeball in immediate relation with the intraocular muscular apparatus. The hypothesis that these symptoms are caused by disease of the lenticular ganglion rests on the assumption that the iris and ciliary body receive all their nerves through the lenticular ganglion. This assumption can no longer be maintained, since (1) it has been experimentally proved in dogs and rabbits that after removal of this ganglion the radiating (dilating) muscular fibres of the iris still contract if the sympathetic in the neck be stimulated, and (2) pupillary dilating nerve-fibres have been proved to accompany the first division of the fifth nerve, and to reach the eyeball without traversing the lenticular ganglia. Ganglion cells were shown to be present in the choroid and ciliary body many years ago by Schweigger and the author, and their presence has since been verified. It is suggested that they may be immediately concerned in the movements of accommodation and pupil.—Mr. **HUTCHINSON** was indebted to Mr. Hulke for the criticism of his paper, written two years ago, recording four or five cases of a very rare condition, in which the iris remained incapable of dilatation or contraction, combined with paralysis of accommodation, but no paralysis of the external muscles of the eye. But he was disappointed at the scope of Mr. Hulke's paper, which dealt only with certain familiar points in anatomy and physiology, for he hoped that Mr. Hulke would have produced facts upon the affection from his great fund of clinical experience. He held, however, in the main to the belief stated in his paper, which he had carefully considered before publishing; and he had not overlooked the fact that the parts involved received other sources of sympathetic supply than by way of the lenticular ganglia. He would have been glad if Mr. Hulke could have shown that the ganglionic plexuses were the seat of disease, for such a fact would have lent great support to a point of speculative pathology upon which he had dwelt in his lectures at the College of Surgeons—viz., that "trophic" changes were due to the association of vaso-motor fibres with sensory nerves, and not to any special trophic influence in certain sensory nerve fibres. Although the view sketched by Mr. Hulke was probable, yet was it not less probable than that which he had suggested—viz., that the conditions were due to disease of the lenticular ganglion. The fact that experiments showed that the pupil would dilate under atropine, or stimulation of the cervical sympathetic after extirpation of this ganglion, did not disprove his hypothesis. It is quite likely that galvanism of the sympathetic, could it have been practised, would have influenced the pupil in the cases he had described. What would be the symptoms of disease of the lenticular ganglion if not such as these? Neither hypothesis had been proved; but it was at least improbable that the disease should involve so large an extent of surface as must be the case if Mr. Hulke's theory be correct; and it would be more likely that it should involve so compact a body as the lenticular ganglion. That atropin and eserin act on the pupil after removal of this ganglion was rather in favour of his own view, for they so acted in his cases; and it might be doubted if they would cause any effect were the peripheral nerves involved. He did not mean by ophthalmoplegia interna that the pupil does not respond to any influence. The subject was one of great interest, and possibly there might be other causes at work—e.g., disease of the nerve-centre; for one of his cases was associated with locomotor ataxy. But he maintained that his own interpretation was more consistent with the facts of the affection than Mr. Hulke's.—Dr. **GOWERS** interpreted Mr. Hulke's theory to be that degeneration of the ganglionic cells destroyed the mechanism by which reflex action works. Each theory supplied an adequate explanation of the phenomena. Stimulation of the sympathetic might possibly afford some means of distinguishing the true seat of disease; for in that case no effect should follow were the ganglionic cells diseased (as the sympathetic fibres do not pass through the lenticular ganglion). But if the ganglion were diseased slow dilatation of the iris should persist in stimulation of the sympathetic. And in man such excitation of the sympathetic could be effected by simply stimulating the sensory fibres. But both these theories failed in having any direct or indirect proof. The evidence was much greater in favour of central disease. In the floor of the third ventricle there were a series of nuclei close together, influencing respectively accommodation, the pupil, and the muscles of the eyeball; and they were so far distinct as to be capable of separate stimulation, and from disease of each might arise (1) ophthalmoplegia externa, (2) loss of reflex action of pupil to light, (3) loss of accommodation. Loss of reflex action of the pupil to light is very frequent in locomotor ataxy; and also in syphilitic subjects without ataxy, which had been mentioned by Erb, and Dr. Gowers had seen three cases. Ophthalmoplegia externa occurs occasionally in constitutional syphilis. Ophthalmoplegia interna was met with by Mr. Hutchinson, associated with ataxy in one case, and with syphilis in all his cases. There could hardly be loss of reflex action of the pupil, except from central disease. He thought it then very probable that ophthalmoplegia interna was due to disease in the situation of the nuclei. The selection of so limited an area by a lesion was not more surprising than occurred in other diseases of the nervous system—e.g., locomotor ataxy, or labio-glosso-pharyngeal paralysis.—Mr. **HULKE**, in reply, said that so far as he could judge of the matter, he still held that if—in the absence of the lenticular ganglion—the movements of the pupil still remained unaffected, and the mechanism of accommodation uninjured, there was no proof that the condition in which these actions were destroyed was due to disease of that ganglion.

Dr. **DAVIDSON** exhibited a specimen and drawings of Detachment of the Retina in a case of Bright's disease. The patient was admitted into hospital with right hemiplegia and aphasia a day after an apoplectic seizure. The urine contained albumen, and there was a systolic bruit at the heart's apex. There was complete paralysis of the right external rectus, and severe neuro-retinitis, with hæmorrhages. Blindness gradually supervened, and detachment of the retina was discovered. Death took place about seven weeks after admission, and, in addition to cerebral hæmorrhage, the kidneys were found to be granular, the right extensively atrophied, and the left ventricle of the heart hypertrophied.

Dr. **FITZGERALD** (of Dublin) communicated a case and drawing also of Retinal Detachment in Bright's disease. The patient was a female, admitted with much dropsy, under the care of Dr. F. B. Quinlan, and renal albuminuria. There was considerable impairment of sight of the left eye, where, in addition to albuminuric retinitis, there was an extensive detachment of the retina. She died from uræmia nine days after admission, and the kidneys were found to be of the large white form.

Mr. **McHARDY** exhibited a specimen of a Tumour involving the Optic Chiasma, from a woman thirty-five years old, who had been ill for seven months and had complained of failing vision for three months. At the same time she suffered from pain in the head, and especially in the occipital region, with deafness and a gait suggestive of cerebellar disease. There was also great thirst. Vision was much impaired, and examination showed appearances of white atrophy of both discs, but no evidence of neuritis. After death the optic commissure was found to be involved in an irregular tumour lodged between the crura cerebri, extending in front to the longitudinal fissure and involving the root of the right olfactory nerve and the right optic tract and nerve.

Dr. **GOWERS** had seen a case of tumour in this situation which was associated with optic neuritis. He had also observed a case where pressure at the back of the orbit had produced an atrophy of the optic nerve resembling that of locomotor ataxy.

Dr. **LEDIARD** (Carlisle) communicated notes of a case of Epithelioma of Orbit in a man seventy-four years of age, who had previously suffered from epithelioma of the lip. The orbital growth was of four years' duration, had destroyed the lower eyelid and partially involved the eyeball. The diseased structure was removed.

HARVEIAN SOCIETY OF LONDON.

THE annual meeting of this Society was held at the Stafford Rooms, Edgware-road, on Thursday evening, Jan. 6th, 1881, for the election of officers and the President's address.

It is usual, in addition to the ordinary routine business, to hold a conversazione on the occasion of the annual meeting, but the council recommended that this year the soirée should be on a larger scale, and be held at the South Kensington Museum in the summer, in consequence of the Society having reached the age of fifty years. Mr. Henry Power, the president, delivered a most interesting address. He commenced by thanking the members for the honour, unprecedented in the history of the Society, that they had conferred upon him in electing him for the second time to fill the office of President. He referred to the ready assistance he had at all times received from the secretaries, Mr. Field and Dr. Fothergill, and attributed the great increase in the numbers of the Society and the corresponding improvement in the finances to their unflagging activity and zeal. He then gave a short account of the several papers that had been contributed in the course of the past session, including those from Dr. Broadbent, Dr. Ferrier, Mr. Knowsley Thornton, Dr. Meadows, Mr. Teevan, Mr. Field, and many others. Mr. Power then proceeded to point out the circumstances which were gradually effecting improvement in the general status of the profession, and the estimation in which it was held by the community at large. He thought that this was due to several causes—first, to the younger members of the profession being more uniformly drawn than formerly from the middle or better classes; secondly, to the circumstance that the education afforded to them was very superior to that given to the last generation, the time being more prolonged, whilst the subjects were taught in a more practical manner; lastly, the methods adopted in physiological research were evidently being adopted in the practice of medicine, rendering it far more precise and accurate in the present than in the past.

The following is a list of the names of gentlemen elected as officers of the Society for the year 1881:—President: Mr. Henry Power. Vice-Presidents: Mr. F. J. Gant, Dr. W. H. Day, Dr. Milner Fothergill, and Mr. H. Sewill. Treasurer: James E. Pollock. Hon. Secretaries: Mr. George P. Field and Mr. Malcolm Morris. Council: Drs. G. C. P. Murray, W. Squire, G. Danford Thomas, J. W. Langmore, T. T. Whipham, J. F. Payne, F. A. Mahomed, and Messrs. Alfred Cooper, Osman Vincent, Robert Argles, W. Towers Smith, and W. Rayner.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

AT the third meeting of this Society, held on the 3rd ult., Dr. Hitchcock (President) in the chair, Mr. S. OSBORN, F.R.C.S.E., read a paper on Phimosis as a cause of Hernia in Infants. Having, in his capacity as Surgeon to the Surgical Appliance Society, to examine and apply some hundreds of trusses in the course of the year, the frequency of phimosis in combination with rupture in infants had struck the author repeatedly. The phimosis in all these cases he was certain was the undoubted cause of the rupture, and might be thus explained: After the descent of the testicle into the scrotum has been accomplished the vaginal process of peritoneum, through which it descended, begins to close and become converted into a fibro-cellular cord. But the testicles having but lately descended (the left coming down between the seventh and eighth month of fœtal life and the right between the eighth and ninth month), the uniting medium is but yet young, and not being sufficiently organised is easily broken down by any strain thrown upon it. Phimosis occasions that strain from the impediment which it offers to the outflow of urine. For the mechanism of ordinary micturition is effected by the contraction of the muscular coats of the bladder and urethra, but in cases of obstruction to the outflow of the urine extraordinary force is called into action, and this is effected by the contraction of the abdominal walls pressing upon the bladder, whilst the diaphragm is also at the same time in a state of tension. By this means pressure is exerted over the whole of the abdominal wall, and the apertures by which the testicles have descended to the scrotum being always the weakest points of the abdominal surface, they naturally give way under the strain thrown upon them. In other words, the child, straining to pass his water, forces the abdominal contents downwards upon the weak points at the inguinal canals, and rupture on one or both sides results. It might even be said that the canal which has been the last to close, or, in other words, that side on which the testicle was the last to descend, is the side on which the rupture usually occurs; and, knowing that the right testicle is generally the last to descend, we naturally find that hernia in infants is also met with with greater frequency on this side. That the rupture occurs on the side on which the testicle was the last to descend is only what might be expected, for the uniting medium which is effecting a closure of the canal on this side is not in so advanced a condition of organisation as on the other side, where the testicle has taken its place prior to the other. It is thus easily seen how a single truss frequently produces a double rupture. The cause of the obstruction to the outflow of urine is still present in the phimosis, and one inguinal canal being guarded by the single truss, the abdomen gives way at its next weakest point—viz., the other inguinal canal, and a double rupture is the consequence. Such a result might have been prevented by early circumcision. The hernia in these cases is generally scrotal, or, if not, it soon becomes so by the wedge-like projection of the intestine; and as to whether it be congenital or infantile in variety depends upon the amount of the funicular process of peritoneum which becomes converted into fibro-cellular tissue, or which has been broken down by the aforesaid propulsion of intestine. The operation of circumcision, as performed upon young children, and which was done in all of the cases the author had spoken of, is both easy of performance and effective in its results. No sutures are ever required, children bear the pain well, and the parts are usually well in a week or ten days. The hernia then stands every chance of being effectually cured by the application of a truss, the exciting cause having been removed; at all events a double rupture is prevented by its early adoption. He would suggest that whenever an elongated or contracted prepuce is present in infants, the sooner circumcision is performed the better; thereby the more serious complaint of rupture will be prevented.

Reviews and Notices of Books.

The Quarterly Journal of Microscopical Science. No. LXXXI. Jan. 1881. London: J. & A. Churchill.

THIS part contains the following memoirs:—1. Notes on a Peculiar Form of Polyzoa, closely allied to Bugula, by George Busk. 2. On the Germination and Histology of the Seedling of Welwilischia mirabilis, by F. Orpen Bower. 3. Notes on some Reticularian Rhizopoda of the *Challenger* Expedition, by Henry B. Brady. 4. On the Head Cavities and associated Nerves of Elasmobranchs, by Milnes Marshall. 5. Contributions to the Minute Anatomy of the Nasal Mucous Membrane, by E. Klein. 6. Histological Notes, by E. Klein. 7. On the Intra-cellular Digestion and Endoderm of Quinocodium, by E. Ray Lankester. 8. On the Micrometric Numeration of the Blood-Corpuscles and the Estimation of their Hæmoglobin, by Mrs. Ernest Hart. 9. Preliminary Account of the Development of the Lampreys, by W. B. Scott. 10. On Some Appearances of the Red Blood-Corpuscles of Man and other Vertebrata.

The chief paper of interest to professional readers is that of Dr. Klein on the Minute Anatomy of the Nasal Mucous Membrane, in which he particularly describes the organ of Jacobson. The structure known under this name is found in a rudimentary state in man at the lower part of the nasal septum; but it is highly developed in the guinea-pig, in which animal Dr. Klein has chiefly examined it. It is a tubular structure, flattened from side to side, and leading in front into the ductus Stenonianus, which opens into the oral cavity. It terminates behind cæcally. It is surrounded not by the bone of the septum, but by hyaline cartilage, which forms a more or less complete capsule for it, separate from the cartilage of the septum and below the septum. The lateral wall of the organ of Jacobson consists of the epithelium lining the cavity, a subepithelial fibrous layer, a layer of cavernous tissue, and a layer of glands. The epithelium resembles that of the nasal mucous membrane, generally consisting of ciliated columnar cells, with some goblet cells. The glands consist of more or less branched and convoluted tubes. The *median* wall is covered with a thick sensory epithelium, and presents many fine nerve fibres, chiefly derived from the olfactory nerve, but in part also from the naso-palatine nerve. Dr. Klein describes these cells very minutely.

Surgical Lectures delivered in the Theatre of the Westminster Hospital. By RICHARD DAVY, M.B., F.R.C.S., Surgeon to the Hospital. London: Smith, Elder, & Co. 1880.

MANY of the lectures collected in this volume have been already published in full or in abstract in one or other of the medical journals. They each and all bear the impress of originality, especially perhaps in the manner in which the subjects are treated, which is slight, dogmatic, and frequently humorous and quaint, though some may think it hardly advisable to have crystallised in this manner all the pleasantries of the lecture-room. The lectures to which most interest attaches are those on the treatment of talipes by excision of the tarsal arch, and on the compression of the common iliac vessels by a lever passed per rectum. The latter method is an established practice now in amputation of the hip-joint, and is certainly a valuable surgical acquisition, for which we are solely indebted to Mr. Davy. His method of applying Sayre's plaster-of-Paris jackets to patients suspended in hammocks has many advantages over the extension plan of Dr. Sayre, and is hardly so widely known as it deserves. Mr. Davy gives a table of twenty cases of excision of the knee-joint, all of them followed by recovery, but only two of these patients were adults, the other eighteen ranging from two to fifteen years of age. This operation is not generally performed so frequently at such an early age, and it would be exceedingly interesting to know the ultimate result of the operation in these cases, whether the limbs are so shortened as to be but of little service. In two of the cases of complete excision, only fibrous anchylosis was obtained, and in one of the cases amputation of the limb was afterwards performed. Mr. Davy makes a contribution to the discussion of the best means of treating wounds, which he considers to be to leave them without any dressing at all.

Lectures on the Surgical Disorders of the Urinary Organs. Delivered at the Liverpool Royal Infirmary. By REGINALD HARRISON, F.R.C.S., Surgeon to the Infirmary, &c. Second Edition, considerably enlarged. London: J. & A. Churchill. 1880.

THIS edition is double the size of the former one, twelve new lectures being added, and the old lectures variously improved. The subject of Stone in the Bladder in particular is more fully dealt with both from its theoretical and practical points of view. Mr. Harrison supports Drs. Carter and Ord in their view of the influence of colloids in the formation of calculi, and he advances the suggestion that irritation of the urinary organs, causing an increased secretion of colloidal mucus, leads to concretion of the solid constituents of the urine. While we may admit that there is some evidence in favour of this view, we cannot lose sight of the important influence of the composition of the urine in the deposit of calculous material.

The present edition is considerably increased in value by the new matter added; and even if we cannot agree with all the views expressed, it is impossible to read these Lectures without profit and interest.

Transactions of the Pathological Society of London. Vol. XXXI. London. 1880.

AS we furnish so full a report of the meetings of the Pathological Society, it is hardly necessary to do more than mention the publication of the annual volume of the Transactions. Like its predecessors, it is full of careful descriptions of interesting pathological conditions, and, although it does not contain any "discussion," or "report" similar to that of the Pyæmia Committee last year, it is worthy to rank with any of its predecessors. There are a large number of well-executed engravings, and a few coloured plates, the Council having spared no pains or expense in the preparation of the volume. The descriptions of the specimens exhibited "by card" are printed in small type.

ABSCESS OF THE BRAIN IN A FŒTUS.

To the Editor of THE LANCET.

SIR,—The following case seems to me a rare one. I was called in to attend a multipara, who had engaged a midwife. The latter, finding something wrong, sent for me. The patient had been suffering much pain for several days, but true labour pains had only been present for five or six hours. She had not felt the child for ten days, and was convinced that it was dead. On digital examination a finger-like pouch was found projecting into the vagina. The finger being carefully passed up to the neck of the womb, it was found to be dilated to the diameter of about two inches. The finger encountered a detached bone, evidently one of the parietal bones, and could be passed on both sides of the bone. During the progress of the labour the pouch became larger, and when the membranes broke it was found to consist of the loose scalp filled with some fluid. When the child was born it had apparently been dead for the period supposed by the mother. The skull was collapsed, and contained about a third of its usual contents; the bones were all loose, and several completely detached from their articulations, and entirely denuded of pericranium and dura mater. I had no knife with me at the time, and was only able to make a very incomplete examination next day, but I made then an incision through the scalp, when a quantity of pus discoloured with dark blood gushed out; pus of the same kind was found to have filled the mouth and nostrils; but little brain tissue could be detected, and that appeared to consist entirely of the convolutions; the whole of the base of the brain was broken up. On passing a finger into the skull the bones of the base were felt bare and loose, and with one finger in the mouth and another in the skull the palate and sphenoid bones could be lifted up and moved about quite freely. The rough edges of the sphenoid could be felt distinctly.

The patient attributed the death of the child to two frights she had received during pregnancy; the first when she had just quickened, and the second six weeks before the birth. Could the first have caused hydrocephalus, and the second have set up acute inflammation, ending in suppuration? I forgot to state that the placenta was small, and had numerous hard fibroid masses in it. There was an offensive discharge from the uterus for a few days after the labour, and carbolised injections were freely used; but there were no bad symptoms, and the temperature never rose above 101° F. Perfect and rapid recovery took place. There was no trouble with the breasts.

I am, Sir, yours, &c.,
R. H. BAKEWELL, M.D., &c.
Hokitika, New Zealand, Nov. 1st, 1880.

THE BRITISH MEDICAL BENEVOLENT FUND.—At the annual meeting of the above Fund, held on the 18th inst., the following resolution was carried :—"That the best thanks of this meeting be given to the Editor of THE LANCET for the kind services rendered by him to the Fund."

THE LANCET.

LONDON: SATURDAY, JANUARY 22, 1881.

WE have recently on two or three occasions foreshadowed a new and hopeful departure in the movement for Medical Reform, the principal aims or provisions of which we may now more particularly indicate. It is reasonable that, with a new Parliament, this question should be put into its best form, and presented under conditions calculated to make the strongest impression on the Government and the Legislature. This is what we mean by a new departure. Let us briefly sketch the more prominent features of this fresh demand for medical reform.

In the first place, it is to have for a basis the general judgment of the profession. It is not to be the work of one association or of another, but of the profession itself. Associations, however large, are not the profession. There is a feeling that they can be manipulated by cliques and committees and wire-pullers. We share that feeling, and we participate in this movement only on the understanding that the profession is to take the leading part, and that the demands made are to be based on the judgment of the profession, so far as that can be ascertained. To accentuate this essential feature of the new effort an appeal to the profession will be made, in the name of a Conference in which various associations were represented, but in which none were predominant, and the chairman of which (Dr. ANDREW CLARK) has shown himself to be most deeply and disinterestedly in sympathy with the profession. It is refreshing to find a physician of the highest standing who believes the profession to be greater than its corporations, and who does not think so meanly of it as to be afraid of giving its experienced and hard-working practitioners representation in the Medical Council. So much for the basis and the new executive of this movement.

We now come to the essential features of the reform embodied in the Bill of the Conference, which it must be clearly understood is to be a measure framed by the Conference, and not by any one of the bodies represented in the Conference. The chief provisions may be briefly stated thus:—

1. It is to provide for the establishment of a Conjoint Board in each division of the kingdom.
2. It is to reduce the number of corporations in the General Medical Council by three.
3. It will give direct representation to general practitioners in each division of the kingdom.
4. It will make the General Medical Council a responsible body, with authority over curricula, examinations, &c.
5. It will require equality in curricula, examinations, and fees for examination in each division of the kingdom.
6. It will recognise the claim of universities to have their graduates or candidates for their degrees exempted from all but the clinical or practical part of the examinations of the Conjoint Board.
7. It will strengthen and amend the clauses which punish fraud on the public by false pretences to being qualified to practise medicine.

Any Bill that fails to ensure these points of reform must be an imperfect measure, and our interest in it will abate or cease with any serious unfaithfulness to these principles. The establishment of Conjoint Boards is, of course, simply an indispensable step. The "nineteen competing bodies" must cease to compete, and, barring the three which it is proposed to relieve from further public duties, must co-operate in the formation of a Conjoint Board in their respective divisions of the kingdom.

Everybody feels that there are too many Corporations, and that their influence in the Council is hindering and injurious. The difficulty has been to know how best to diminish it. Mr. SIMON'S proposal is to consolidate the representation of the corporations. "If," he said in his evidence before the Select Committee, "the authorities were consolidated for licensing and examining purposes, I do not see why they should not be consolidated for Council purposes, and why the Council should not be reduced to one-half its size." This is almost precisely the proposal of THE LANCET Bill in 1870, which gave a Council of twelve, four elected by the Crown, four by registered practitioners, and four by the consolidated and co-operating authorities—two for England, and one respectively for Scotland and Ireland. And there is still much to be said for this kind of Council. Meantime we must be content with relieving a corporation in each division of the kingdom of its public duties—namely, the Apothecaries' Society in England and in Ireland, and the Faculty of Physicians and Surgeons in Glasgow. If any worthy licentiate of these bodies thinks he is going to lose anything by this reform, let him be undeceived. He has no more part or lot in the representation of these bodies than he has in the thriving drug trade carried on by the two former societies. The representative of the Council of the London Society in the General Medical Council is appointed by 24 persons, called mysteriously the master, the wardens, and the assistants. The representative of the Apothecaries' Hall of Ireland is elected by 31 persons, called the General Court or Council. The representative of the Faculty of Glasgow is elected by 170 persons, known as Fellows of the Faculty, differing from their humbler associates, the licentiates, not in having passed any higher examinations, but in having paid two additional sets of fees—the main care of Corporations. It is high time that room was made for the direct representatives of general practitioners by the abolition of the representation of 24, 31, and 170 persons respectively. The modest disfranchisement of the Conference Bill leaves two Royal Colleges in each division of the kingdom, while it gives a vote to every registered practitioner for representatives that will view questions in the broad light of the profession, instead of the narrow light of small and almost commercial corporations. Another serious reason for relieving these superfluous corporations of the duties of medical authorities is to keep down the conjoint fees. These bodies are not needed. As Sir JAMES PAGET said, no one with the diploma of two Royal Colleges will care to ask for the diploma of the Faculty of Physicians and Surgeons. Still less will he care to have the licence of either of the Apothecaries' Companies. In the name of all that is reasonable, then, let us not entail on future generations of medical men a tax for their superfluous and injurious maintenance.

We must defer the further notice of the Conference Bill. Meantime we urge on every practitioner to give prompt and immediate consideration to its proposals.

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THE highest form of statesmanship does not wait until questions of public interest have so "matured" as to be mischievous, before it begins to legislate. Government, by or in consequence of agitation, has many drawbacks, not the least of which are the disturbance and final withdrawal of confidence which have to be produced before a Ministry will move. This is a consideration which may be worthy the attention of our rulers in regard to not a few of the questions of reform which have been persistently pressed upon their notice session after session during a long series of years! It is not the fault or weakness of one party in the State more than of another to plead that questions are not "matured" until agitation has done its utmost to compel legislation, and at the same time wrought mischief by disturbing and destroying public confidence in the system it is deemed necessary to reform; but it is a very serious fault, and one from which the community at large severely suffers. The particular manifestation of this evil to which we are at the moment desirous of directing attention is the provoking delay of Lunacy Law Reform, until not only is agitation drifting into bad courses, but, as a fruit of the shaking of confidence it has produced, the public is resorting to a policy of concealment at once disastrous in itself and fraught with new and personal dangers. Let us at once say that we have nothing to urge against the *treatment* of lunacy or mental disorder in private houses; the evil to which we point is concealment—a concealment forced on the friends of the insane by the fears excited by agitation, and which the Legislature will not allay.

The proportion per cent. of lunatics in private asylums and of persons known to the Commissioners as insane is decreasing. What does this mean? With that shortsightedness common to public officials, the Commissioners in Lunacy and their friends and supporters interpret the figures as indicative of a decrease, or, at least, a diminished rate of increase, in the number of occurring cases of insanity. They are oblivious to the fact that the long vexing of this question of reform, and the opposition offered to a satisfactory settlement of the issue raised in the mind of the public, have had the effect of destroying confidence in the asylum-system and the protective power of the Commission; and that, in consequence of this altered feeling, the friends of the insane do not—unless driven to take the justly dreaded step—bring their patients under the official cognisance of the Commissioners. Never before, perhaps, was the practice so general as at this moment of keeping persons of unsound mind in the houses of members of their own families under the care of "trained nurses" and attendants. The Commissioners know absolutely nothing of these cases. The law, as it stands, gives them no jurisdiction in the matter. It is only when some person makes profit by taking charge of a lunatic the poor sufferer from mental disease comes under the *protection*—such as it is—which the Commissioners are able to afford. In this case, as in many others, there is practically one law for the rich and another for the poor, but in the present instance the rich fare the worst. Patients among the fairly well-to-do classes are kept at home in carefully padded rooms under mechanical—or irritable muscular—restraints, or are farmed out under the care of persons who have no special fitness for, or the experience which sometimes does duty for fitness, in the management of the insane. In this latter case, as some one *does* "make a profit" by them, the lunatics ought to be known to the Commissioners, but as a matter of fact they are not. Patients of this class are described as "nervous," "weak-minded"—anything except "insane or of unsound mind,"—and practitioners in mental disease can scarcely be blamed for lending their sanction to the secrecy.

All this, and it cannot be disguised that it constitutes a most perilous state of affairs, is the direct and inevitable fruit of agitation without legislation. The public have lost confidence in the management of private asylums, and while the Government is too busy to attend to the real needs and grievances of the community, the friends of the insane resort to the only expedient open to them—namely, keeping them under their own personal observation. It is not improbable that the larger part, if not the whole, of the seeming decrease of the total of "private patients" upon which the Commissioners in Lunacy are disposed to congratulate themselves and the public, may be accounted for by the measure to which the growing distrust of the public is driving the relatives of the mentally diseased. This is a gigantic evil, and we must hold successive Governments responsible for the consequences which are beginning to ensue. There is something so ludicrous in the state of the law which allows private patients treated in their own families to remain unregistered, while it makes the process of registration by "certificates" a terror to every sound mind, that if it were not a very grave matter the predicament in which the Commissioners are involved might be regarded as making them and their official work a laughing-stock. It is, however, impossible to look at the matter in this irreverent light. The gravest consequences are certain to be entailed on the community if legislation is not hastened, even at the cost of distracting the minds of our representatives in Parliament for a moment, from the more "interesting" questions of Irish "Boycotting" and land-law reform.

We are not alarmists, and we have certainly no wish to hamper the hands of the Ministry at this conjuncture, but it is a public duty to speak out; and—in the presence of certain serio-comic efforts of the Commissioners in Lunacy to search out and prosecute a few isolated cases of secret "farming," and, in consequence of facts known to ourselves—to show that the practice of evading the miserable law which exists is becoming widespread, and the perfunctory and sensational discharge of duty by the legal guardians and protectors of the insane is degenerating into a farce—a more conspicuous farce than the proceeding of registering a long catalogue of names, and professedly watching over the persons who bear these names, without having the means or power of even identifying them! The time has come to deal plainly with the subject of Lunacy Law Reform, and if there is, as would seem to be the fact, a settled determination in official circles to play with the question, then we must press it upon their consideration more forcibly, and with greater earnestness than we have hitherto deemed necessary. It cannot be endured that official apathy, and the misconstruction placed on official figures by incompetent statisticians, should bring down on the community evils which it will hereafter cost a world of trouble and expenditure to cure. If once the practice of *concealing* lunatics in private families is allowed to become general, as we affirm it *is* becoming general, it will be impossible to eradicate the evil by any tardy change in the law. Our own strong leaning is, as we have said, towards a policy of placing mental disease on the footing of ordinary disease, and leaving it to be treated by the medical profession on general principles, and, in the case of private patients, in private houses, without — except in cases of special necessity — their being taken out of the protection of their own families. We think the best results would be gained by this method of dealing with the question, the legal process of imposing social disabilities upon lunatics being left to the lawyers, as a matter totally apart, and entirely distinct and different in its nature. Meanwhile, all are agreed that the *hiding* of lunatics in upper and back rooms where they are subjected to nameless cruelties under the guise of kindnesses is a wrong of the greatest magnitude; and it is this hiding and this secrecy which the reckless or perverse delay of reform encourages, and which the Commissioners in Lunacy mistake for a "decrease" of lunacy in the class of private patients. It is time that public opinion should be moved to protest.

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M. Richet, in a lecture delivered as one of a course auxiliary to that of the Faculty of Medicine of Paris, has just given a very full and complete *résumé* of the present state of our knowledge of Rigor Mortis, which has engaged the attention of observers from the time of Louis, who in 1752 wrote an essay upon it, in which he pointed out that it was one of the principal signs of death. Nysten, in the early part of the present century, demonstrated that cadaveric rigidity is due to the condition of the muscles, since if the ligaments of the joints, the fasciæ, and the aponeuroses, are all divided, rigor mortis persists, whilst it is removed or prevented by division of the muscles or by the separation of them from their attachments. Brown-Séquard and Kühne next examined the phenomena in question minutely, the former showing that it could be removed by the injection of blood into the vessels, and the latter demonstrating that it was essentially a chemical action. It may be stated generally that rigor mortis is never absent; the few cases in which reliable authorities have believed that it has not occurred having probably been instances where it has occurred extraordinarily early or late. It occurs in all animals, both vertebrated and invertebrated. In fishes it takes place almost instantly after death, whilst in frogs, if due precautions be taken, it does not occur until after the lapse of eight or ten days. It has no relation, therefore, to the temperature of the blood of the animal. The first muscles to undergo rigor mortis appear to be those raising the lower jaw, as the masseter, temporal, and pterygoid, which are very irritable muscles. M. Niderkorn finds that in 113 subjects rigor mortis was complete at the fourth hour in 31, at the sixth hour in 20, at the fifth in 14, at the third in 14, at the seventh in 11, at the eighth in 7, at the tenth in 7, at the ninth in 4, at the thirteenth in 2, at the second in 2, and at the eleventh in 1. It commences about two hours after death, and in the human subject is usually complete about the fourth hour. It may supervene whilst the animal is still warm, as is seen in those which have been hunted to death. On the other hand, its appearance is retarded by cold, whilst its duration is almost indefinitely retarded by it. A muscle which has become rigid after death becomes still more rigid if exposed to a temperature of 120° F. This increase, according to Kühne, is due to the coagulation of the serine and caseine contained in the muscular juice. Mere congelation of a muscle does not cause it to lose its irritability, but it very rapidly becomes rigid when thawed.

The remarkable positions sometimes assumed by men killed on the field of battle have been described by many observers, and demonstrate that rigidity may supervene at the moment of death. Brown-Séquard has, indeed, recorded a case of adynamic typhoid fever, in which the jaws and limbs became fixed, whilst the heart still continued to beat; and quite lately the same thing has been recorded by M. Bochefontaine in dogs poisoned with salicylate of soda, and M. Richet has observed it in animals poisoned with medium doses of strychnia. In these cases all the muscles were rigid and unexcitable, with the exception of the heart; and artificial respiration could only be maintained with difficulty owing to the rigidity of the chest. Division of the nerves supplying a muscle appears to have little or no effect in accelerating the occurrence of rigor mortis, and, according to Hermann, neither exposure to oxygen nor to the vacuum of an air-pump exerts any influence.

In becoming rigid, muscles slightly diminish in volume; they shorten less, at least with moderately heavy weights, than muscles in contraction; they entirely lose their irritability, and their elasticity is greatly impaired. Heat is eliminated whilst rigor is being established.

In regard to the cause of rigor mortis, which is an extremely interesting point, M. Richet is of opinion that, as Kühne originally maintained, it is a chemical process; but this process is a phenomenon not of life but of death. The myosine of the muscle coagulates. The acids, which are constantly being formed and as continuously removed during life, accumulate after death in the muscle, and gradually effect the solution of the myosine, and then the azotised matters undergo decomposition and develop ammonia, which, in its turn, dissolves the myosine, and thus occasions the disappearance of the rigor. Speaking generally, rigor mortis is a chemical phenomenon, characterised by the coagulation of the myosine, and may be considered as the commencement of the death of the elements of the muscle.

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The recent correspondence in *The Times* on the restraint of scarlet fever furnishes another and most striking illustration of the injudiciousness, and even mischievousness, of medical men discussing in the general press questions of a strictly technical nature. In this case it may be said that the subject under consideration is of great interest to the public at large, even greater than to the profession. In other words, that it is both a public and a professional subject, and that it is indifferent whether it be made matter for general or for professional discussion. But so far as the general public is concerned, this presupposes that the strictly technical questions from which the public considerations have to start have been fairly settled by those who are presumed to possess special opportunities of, and the particular training for, judging them, and that there is some reasonable accord among these skilled individuals as to the judgment formed. Let us see how this stands in the correspondence referred to, and ask in what light it must present the medical profession in perhaps the most familiar disease it has to deal with in this country.

First, Dr. Wynter Blyth writes to *The Times* stating that it is "possible, by a very simple process, to render scarlatina convalescents absolutely harmless." In support of this he sets forth a theory of the duration of the infectiveness of scarlet fever peculiar to himself, and, as yet, unconfirmed and untested by other medical observers, and then proceeds to show that, notwithstanding the prettiness of the theory, scarlet fever may continue to be infective as long as other medical observers have found it to be. Further, he proceeds to illustrate his position by so-called "experimental" proof; and then he proceeds to qualify his recommendation by adding that, "providing the process in its minutest details is carried out thoroughly, a patient may mix with impunity with healthy people as early as the eighth day, if free from fever"; and, again, "it is only in those cases in which the process recommended has been followed out thoroughly, under skilled supervision, that I would dare to recommend the exposure of a convalescent at so early a period. In any other case such a procedure would be fraught with great public danger." Setting aside the technical questions which are here raised, it must be obvious that this qualification neutralises the public-health aspect of the case, and reduces the application of Dr. Blyth's proposed extension of the late Dr. Wm. Budd's plan of "laying" the contagious dust scattered from the skin of a person sick with or convalescent from scarlet fever, by anointing with oil or glycerine or other unctuous material, pretty much to the practice of it now in vogue. Dr. Blyth's proposition of establishing "disinfecting halls" for convalescents from scarlet fever does not much mend the matter as a practicable public-health suggestion.

A proposition of this sort addressed to the general public seemed to us at the time of its being made to be so obviously contradictory in the terms in which it was made that the technical elements scarcely called for remark, and the public might have been credited with sufficient judgment to determine for themselves how it would affect them. But this was not to be. Dr. Alfred Carpenter comes to the front to say that "he had never had reason to doubt the efficacy" of the process advocated by Dr. Blyth. Next Dr. Broadbent points out, from his exceptional experience, that the "process" is practically unattainable, except in hospitals and the houses of the wealthier classes, and even there is apt to fail in making the convalescents harmless. Then Dr. Mahomed follows in the same vein as Dr. Broadbent, and insists, also from exceptional experience of scarlet fever, upon the prime necessity of "isolation" of cases. Lastly, Dr. W. Squire steps into the fray, refusing to be content with anything short of a quarantine (and a *real* one, to boot) of forty days for convalescents from scarlet fever.

What but bewilderment to the public can arise from a discussion of this sort? They can form no correct judgment of the respective values of the several statements of the writers, and what must be the general result but to engender a doubt both in households and among sanitary authorities of the value of "isolation" as a precaution against the extension of scarlet fever. To the householder it suggests an escape from an extremely irksome measure, and to the sanitary authority an escape from expenditure upon infectious disease hospitals. In the latter case it is difficult to exaggerate the mischievousness which might thus arise from the hasty publication of a suggestion which, at least, should have been supported by evidence having some proportion to the magnitude of the issues it involved. At present the suggestion, as a public health one, is directly opposed to existing experience. If subsequently it should be shown that there are stronger grounds for its acceptance than are now apparent, no one would welcome it more than ourselves. But there are pathological and clinical considerations to be dealt with which must be discussed in other places than the public press before we can reasonably indulge in such a prospect. The question as to the "laying" of scarlatinal dust as a mode of preventing the extension of scarlet fever still remains as it was stated in the well-known memorandum of the Local Government Board, issued first under the signature of Mr. John Simon—viz., "It is believed that the dispersion of contagious dust from the patient's skin is impeded by keeping his entire body (including limbs and head and face) constantly anointed with oil or other grease; and some practitioners also believe this treatment to be of advantage to the patient himself. When the patient's convalescence is complete, the final disinfection of his surface should be effected by warm baths (with abundant soap), taken on three or four successive days, till no trace of roughness of the skin remains. Not until this has been done, nor without the greatest care that the clothes are clean and free from infection, should the patient, however slight may have been the attack, be allowed to associate with persons susceptible of scarlatina."

It would be hard to say whether the Council of the Royal College of Surgeons or the profession is to be the more congratulated on the announcement we were able to publish last week—namely, that the Council has resolved to discontinue, from and after the 31st of December next, the preliminary examination at present conducted under its authority by the College of Preceptors, and also to improve the professional examinations for the diplomas of Member and Fellow by extending the examination in medicine and making midwifery a compulsory subject of examination on and after the 1st of next January. The importance and significance of these resolutions can only be properly appreciated by those who have studied the behaviour of the various Corporations throughout the United Kingdom towards all questions of medical education and reform. The Council of the Royal College of Surgeons, though long unyielding and at times resentful, has, more perhaps than any other similar institution during the past ten years, manifested a susceptibility if not a readiness to be influenced by outside opinion. The formation of the Board of Examiners in Anatomy and Physiology, separate from the Court of Examiners in Surgery, was an enormous concession to the spirit of modern times, and in its turn smoothed the way for the further adaptation of dividing the Board into examiners in anatomy and examiners in physiology. This was well as far as it went; but, in spite of what the Council had done, there were still two serious grounds of complaint. The preliminary examination was notoriously inadequate, and the chief professional examination was seriously incomplete in so far as the diploma acquired through it was held to be sufficient to place anyone upon the Medical Register as a legally qualified practitioner. A person furnished with the diploma of Member of the College might legally engage in general practice, though he had been submitted to the most meagre examination in medicine, and had not been examined at all in midwifery. Had it not been for the long-cherished hope of a Conjoint Scheme it is difficult to imagine that such a scandal would have been allowed to continue. All this is now to be changed. The responsibility of the preliminary education of the medical students will henceforth devolve entirely upon the General Medical Council. It, therefore, becomes imperative upon this body not only to see that the wish expressed by the Council of the Royal College of Surgeons is carried out—namely, that the preliminary examinations should be held at the most convenient times and places,—but also to take special pains that the examinations accepted in lieu of those held by the College shall be thorough and comprehensive. The profession and the public alike will have cause of complaint if the largest and most important corporation should in the interests of education give up its preliminary examinations while minor ones are allowed to continue theirs. It is quite as important to guard the side entrances as the main portals. There can be no uniformity in the requirements of preliminary education until these examinations are conducted under the authority and supervision of one central body, like the General Medical Council. The general educational and examining bodies should be entrusted with the management of the examinations, and the General Medical Council should define the regulations and requirements relating thereto. In this way the General Council may control preliminary education, and indirectly prescribe and determine its character.

THE occasion of the distribution of prizes at the Ceylon Medical School, on Nov. 29th last, was rendered additionally interesting by its being made the celebration of the completion of the Koch Memorial Clock Tower, which now stands prominently forward in front of the De Saysa Museum and Hospital. Shortly after the lamented death in 1877, from accident, of Dr. Koch, Principal of the Medical School and Surgeon to the General Hospital, the members of the Civil Medical Department determined to raise a subscription among themselves to found prizes for operative surgery in memory of their deceased friend. Funds for these prizes having, however, been forthcoming from another source, the sum collected was increased by contributions from the general public, with the result of obtaining sufficient for the erection of the Clock Tower above named.

Annotations.

"Ne quid nimis."

DUNDEE COLLEGE AND ST. ANDREWS UNIVERSITY.

MUCH support is given on all hands to the proposal to which we adverted two weeks ago, that Dundee College and St. Andrews University should be amalgamated; and it is not simple affiliation which is aimed at, but actual migration of the University, in the literal sense of the word, to Dundee. It is urged that St. Andrews is unable to keep up its state respectably, and this is not untrue. The salaries of its professors in 1876–77 ranged from £160 to £585, and since that time, owing to sundry unfavourable circumstances, these emoluments have greatly fallen off. The liberal endowment of the College would renew the youth of our venerable University—a benefit which the latter would repay by the prestige which it would certainly impart to the younger institution. St. Andrews men are specially indignant at another scheme which has been hinted at—that the new college should be affiliated to Edinburgh University; this would mean total extinction for "little St. Andrews" at no very distant date. It is pointed out by some in support of the scheme for simple affiliation with St. Andrews, that such a project would only restore that University to its former dignity; as from 1537 to 1747 the University of St. Andrews contained three colleges, while at present it possesses but two. Unlike the other Scotch Universities, St. Andrews Colleges form distinct corporations from the University, have their own principals, and administer their own property—an arrangement which would favour the connexion of the proposed College with the University. After all the hard wooing that has been going on it would be singular if Dundee men preferred single blessedness, and a house and name of their own.

RESPONSIBILITY AND DISCRETION OF CORONERS.

PENDING the completion of the case, and the decision in the matter of the important application to the Lord Chancellor to dismiss the coroner for West Surrey, it is eminently undesirable to discuss the personal aspects of the case. One of the points raised by the inquiry is, however, of general importance in connexion with the present unsatisfactory state of legislation affecting coroners and their duties. The regulations which guide or control the responsibility and discretion of coroners in their decision as to the necessity for holding inquests, if any exist, are so loose and unsatisfactory as seriously to diminish the value of the coroner's office as a social protection from various forms of crime and criminal neglect. The very remarkable variations in the proportions of inquests held in different towns and counties, so often alluded to by the Registrar-General in his periodical returns, sufficiently point the different interpretation which different coroners put on the present state of the law with regard to holding inquests, even in case of deaths resulting from violence. This uncertainty in the practice of coroners creates innumerable apparent hardships for the public, apart from the manifest dangers arising from the possible neglect to hold necessary inquests. It is evident from the discussion which took place on this point, on the first day's hearing of the application above referred to, that in the opinion of the Lord Chancellor a coroner should have the weightiest of reasons for refusing to hold an inquest in the case of a death from violence which is brought under his notice. The well-known case of Sir Charles Lyell somewhat added to the difficulty and uncertainty in the exercis of the discretion of coroners in those cases of death from violence in which a certificate of a registered medical practitioner is forthcoming. While, however, a legal certificate of the cause of such a death may afford ground for the decision that an inquest is unnecessary, it would be impossible to accept such a certificate as a necessary bar to the holding of an inquest. The responsibility of refusing to hold an inquest in the case of a death relating to which no medical certificate is forthcoming is, however, so grave, that we doubt whether it should rest with coroners. An examination of the death register for some parts of England and Wales, especially in some of the home counties—Kent, for example—should carry conviction that the time has come for some more definite legislation limiting the discretion of coroners as to the necessity for holding inquests. It may be hoped that the present inquiry may help in this direction.

THE CONTAGIOUSNESS OF GLANDERS.

GLANDERS is now so prevalent throughout the country, and exists to such an alarming extent in London, that any additional evidence we can obtain as to the manner in which it is propagated must be of value. It is not, perhaps, going beyond the mark to assert that not one-half of the cases of this horrible and fatal disorder are reported to the Government; nor is it the less true that proper sanitary measures are very seldom adopted for its suppression. And it is greatly to be feared that the malady is mistaken for other diseased conditions, especially pyæmia, and that sick animals are allowed to live for weeks or months among others, to the great danger of not only these, but their human attendants. It has long been known that glanders is an inoculable disease, and that it could also be produced by transfusing blood from a diseased to a healthy horse or ass, as well as by introducing the virus contained in the nasal discharge into the stomach. It is possible that all the secretions and excretions are more or less infective, the peculiar muco-purulent fluid thrown off by the Schneiderian membrane probably being most active. This discharge has been blamed as rendering the public watering-troughs a source of danger, the fluid passing into the water when glandered horses are allowed to quench their thirst at these valuable conveniences. It has been objected to this notion, that the discharge being heavier than water, falls to the bottom of the trough, and not being readily diffusible, is not likely to be swallowed by other horses watered there. This argument had a certain amount of plausibility, and the friends of the public water-trough movement availed themselves of it when the troughs were accused of being largely instrumental in disseminating the disease.

From a note presented to the Académie des Sciences by Professor Galtier, of the Lyons Veterinary School, it appears that he has been successful in transmitting the disease to an ass, by the hypodermic injection of saliva from a glandered horse. We know that the virulent germs find admission not only through a wound or abrasion, or a thin mucous membrane, such as the conjunctiva, but also by the digestive organs. Saliva readily mixes with water, and those who have watched horses drinking will have remarked that some of the water taken into the mouth escapes by the commissures of the lips and falls back into the trough or bucket; and when drinking has been completed, a certain quantity which has not been swallowed is also returned; so that a glandered horse may largely contaminate the water in a trough with his saliva. Not only this, but when horses drink greedily, it often happens that a portion of the water is returned through the nostrils; so that the nasal, as well as the salivary secretion, may find its way into the mass of water which healthy horses subsequently swallow.

Galtier's experiments also go to show that the glander virus loses its activity when the matters which contain it, whether liquids or tissues, have been completely desiccated for fifteen days. Thorough ventilation of buildings which have been tenanted by glandered horses is, therefore, a very effective means of purifying them.

The diagnosis of glanders is sometimes very difficult, if not impossible, without having recourse to test inoculation; and the animal usually inoculated is the ass, that creature being not only less costly for this purpose, but also more easily infected than the equine species. It is still costly, however, and being large and somewhat expensive to keep during the experiment, other more convenient animals have been proposed for substitution. The rabbit is one of these, but, as M. Colin has shown in the experiments which we described a fortnight ago, it cannot be relied upon as a test animal.

THE CLINICAL SOCIETY.

The meeting of the Clinical Society on the 14th instant was very numerously attended. The ballot for the election of officers and Council for the ensuing year took place, and the following gentlemen were duly chosen:—President: Joseph Lister, D.C.L., LL.D., F.R.S. Vice-Presidents: Drs. William Henry Broadbent, Thomas Buzzard, and Andrew Clark, and Messrs. Brudenell Carter, George Lawson, and Thomas Smith. Treasurer: Mr. Christopher Heath. Council: Drs. Julius Althaus, Thomas Barlow, John Cavafy, James Frederick Goodhart, William Richard Gowers, William Smith Greenfield, George Vivian Poore, Edmund Symes Thompson, Alfred Wiltshire, I. Burney Yeo, Leonard William Sedgwick, and Edwin T. Watkins, and Messrs. Marcus Beck, William Bartlett Dalby, Henry Greenway Howse, Charles Macnamara, F. Howard Marsh, Edward Nettleship, William F. Teevan, and William Spencer Watson. Honorary Secretaries: Dr. Frederick Taylor and Mr. J. Warrington Haward.

The report of the Council was read by the hon. sec., Mr. Howard Marsh, and its reception moved by Dr. Douglas Powell, seconded by Mr. Barker. The President announced that the Council had passed some regulations regarding the preparation and reading of papers, which would shortly be in the hands of the members. Dr. Andrew Clark then proposed a vote of thanks to the retiring President, Dr. E. Headlam Greenhow, F.R.S., for his invaluable services during his term of office. Dr. Clark's motion, which was prefaced by some highly eulogistic remarks, was seconded by Mr. Morrant Baker, and carried by acclamation. Dr. Greenhow, in acknowledging the vote, said that the success of the meetings of the Society was largely owing to the admirable manner in which the hon. secretaries, Dr. Taylor and Mr. Marsh, had performed their duties. He added that he had endeavoured to encourage reports by committees, two of which had still to be presented, one of which—viz., that on the Treatment of Hip Disease—was on the point of completion. On the motion of Dr. Ord, seconded by Mr. Godlee, a vote of thanks was accorded to the retiring Vice-Presidents and other members of the Council, which was acknowledged by Mr. Hulke. Mr. Macnamara then proposed, and Dr. Burney Yeo seconded, a vote of thanks to Mr. Howard Marsh, the retiring secretary, which was cordially carried.

THE KINDERGARTEN SYSTEM.

AMONGST those interested in the education of children, there are probably not two opinions as to the merits of this system, which is gradually becoming known and appreciated in this country. There is, however, a practical difficulty in its application. The education of a child should begin from the moment it takes notice, and for this purpose it is, of course, necessary that those who have charge of the infant should possess the requisite knowledge. When we reflect upon the position of the nurse in regard to our children, the sway which she exercises over them for many hours in the day and night, we must feel how little is ordinarily known of the competence of those we employ for so responsible a charge. It is not so much the willingness of the nurse to do right that is in question as her knowledge of the principles upon which the early education of a child should be conducted. It is not so long since any old woman, who was too decrepit to do anything else for her living, was considered to possess in perfection the requisites for a sick nurse. The art of cooking was apparently supposed to be inborn in individuals who aspired to the culinary department of domestic service. A tradesman who had failed in his business was as certain to set up a preparatory school as a military man on quitting his profession took to the wine trade. And so, even at the present day, any woman who declares her proficiency is supposed to be endowed with the power of directing the education of a child, the right conduct of which will probably have more influence upon its future happiness than any other circumstance, except the qualities which it possesses by inheritance. It is time that something was done to arrest the present anomalous state of things.

THE MUSCLES IN PHTHISIS.

TWO years ago Fränkel, observing how many patients with phthisis presented hoarseness without any corresponding laryngoscopic changes, investigated the condition of the laryngeal muscles in order to ascertain whether any changes in them explained the symptom. In a considerable number of cases, both those in which there were ulcerations in the mucous membrane and those in which the naked-eye appearances were normal, he found constantly an atrophy of the striated muscles. The contractile substance was broken up, the striation indistinct, and a granular opacity had replaced the normal translucence, while in the fibres in which the process was more advanced there was an actual molecular destruction, and ultimate disappearance of the proper tissue. The connective tissue between the primitive bundles also presented a marked cell-formation, and the muscle nuclei were so increased in number as to constitute cellular sheaths to the fibres. This increase seemed to have produced additional damage to the muscular fibres, since these in places were apparently destroyed by the pressure of the groups of cells.

These observations have been confirmed by a series of investigations on forty phthisical subjects by Dr. Posadsky of St. Petersburg, which show that the changes found by Fränkel in the muscles of the larynx exist also in other muscles examined—viz., those of the upper and lower limbs, flexors and extensors, the intercostal muscles, and the diaphragm. The muscular fibres were pale, and exceedingly friable, so that they broke across with undue readiness, and could with difficulty be separated into longitudinal fibrils. This was found in two-thirds of the cases; in the remaining third the muscles were perfectly healthy. The microscope showed a granular degeneration of the fibres in all cases in which the naked-eye changes were observed. In many cases the transverse striation had entirely disappeared. Many of the fibres were strikingly narrowed, and some empty sarcolemma sheaths were seen. Fibres which were not degenerated also showed the tendency to break up into transverse segments which had been noted in the naked-eye examination. Why these changes should be so conspicuous in some cases of phthisis and absent in others it is difficult to say, since the cases with and those without the change presented nearly the same conditions and nearly the same visceral changes. The changes in the interstitial connective tissue described by Fränkel were not found by Posadsky.

FOREIGNERS IN THE MARSEILLES HOSPITALS.

AT the recent sittings of the Marseilles Municipal Council an important discussion arose from the increased expenditure due to the very large proportion of aliens who sought and obtained medical assistance and treatment in the town hospitals. The question suggested itself as to whether it was fair to tax the inhabitants of Marseilles for the maintenance of these numerous strangers. It is estimated that as many as half the patients treated in the Marseilles hospitals are foreigners, and these latter, for the most part, are Italians. On the other hand, it is argued that as the Marseillais cannot, or will not, do the heavier work, and prefer inviting Italian labourers to toil in the docks and at the new buildings which embellish the town, the consequences must be patiently borne. Further, so long as the Italian labourer preserves his health, he aids, by his work and his consumption of taxed provisions, to the wealth and income of the town. There is an Italian benevolent society, as well as an English sailor's home, at Marseilles, and both have rendered great services, but as yet neither nationality has been able to open a hospital for its own people, nor should this be necessary if a true system of reciprocity existed amongst nations. It is precisely the presumed absence of such reciprocity which in any way justifies the complaints of the French against the Italians. It was averred before the municipal council that while it suffices for an Italian to prove that he is ill to obtain admittance to a Marseilles hospital, a French sailor or workman would have considerable difficulty in obtaining similar assistance in an Italian port. This is due, not to any lack of generosity or hospitality on the part of the Italians, but simply that their hospitals are in many instances constituted on a totally different basis. Many of the Italian hospitals are endowed by pious founders, who imposed regulations which, though in no way controlled by the Legislature, must be observed. These charters sometimes exclude strangers from the benefits of the charity, and it can be readily understood that the State has not created national hospitals where there are private hospitals that answer to nearly all the requirements of the locality. These old foundations, many dating back some centuries, no longer meet the exigencies of international intercourse brought about by modern civilisation. They must either be reformed or new wings added free from the trammels imposed by the original donors. But to ensure perfect reciprocity an international treaty should be concluded between the two countries, and its provisions might probably be extended with considerable advantage to other nationalities. That the claims of humanity override all frontier divisions is a principle that the impressionable and poetic people of Italy will readily admit.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

WE are glad to be able to state that the guarantee fund for this exhibition shows every sign of being sufficient, and there can be little doubt that the scheme will be proceeded with. Among the chief guarantors are Messrs. Barron, Squire, and Co., and Messrs. Maw, Son, and Thompson, who, as well as Mr. Twining of Twickenham, and Mr. Noble of Henley-on-Thames, have each guaranteed £50. Among the other guarantors are Messrs. Doulton and Co., W. Eassie, Esq., C.E., the Sanitary Assurance Association, the President of the College of Surgeons, Captain Douglas Galton, Mr. Rogers Field, Dr. Steele of Guy's, Dr. Corfield, Mr. G. Godwin, Messrs. Benham and Son, and many others. The amount already guaranteed approaches £700. Many of the guarantors have advanced various sums towards the preliminary expenses, and it is hoped that others will do the same, as these expenses are necessarily not trivial in an undertaking of such magnitude. It is not the intention of the Exhibition

Committee to appeal to members of the profession to assist the guarantee, because it is felt that the expenses of the Congress itself have been, and will be, considerable, and that it would be unfair to make any further appeal to them. Any voluntary assistance, however, will be gladly received, and it is trusted that all who feel disposed to help the committee will do so, for it is evident that the larger the sum guaranteed the less will be the proportionate part to be paid by each guarantor in case the exhibition should not be a success financially.

The exhibition will be divided into a medical section and a sanitary section. The medical section will include whatever is of use in the treatment of the sick and wounded, and in the detection of disease, as well as a class devoted to appliances used in teaching medicine — such as books, diagrams, models, &c. The sanitary section will comprise domestic and hospital architecture; ventilation, lighting, warming; water-closets, &c.; water supply and filtration; health resorts and sanatoria. It will be seen therefore that the scope of the exhibition is wide, and it is highly probable that the 70,000 square feet of area which is the maximum that can be obtained at South Kensington will be found to be none too much. The Exhibition Committee is not yet complete, but at present it is composed of Mr. Erichsen as chairman, Mr. Berkeley Hill as treasurer, Dr. Corfield, Mr. Eassie, Mr. R. Field, Mr. G. Godwin, F.R.S., Mr. W. A. Meredith, M.B., M.R.C.S., Dr. Poore, Mr. E. C. Robins, F.S.A., Mr. Roger Smith, F.R.I.B.A., and Dr. Steele. Mr. Mark H. Judge is the secretary; and we are asked to state that all communications should be addressed to "The Secretary of the Exhibition Committee, Parkes Museum of Hygiene, University College, Gower-street, W.C."

THE CATGUT LIGATURE.

There is no part of the surgical practice instituted by Mr. Lister that has excited more interest and attention than his reintroduction of an animal ligature. In spite of many experiments, and much clinical experience, the opinion of the profession is far from unanimous in favour of carbolised catgut. Imperfections in its preparation, and its use in unsuitable cases, may explain a part, if not all, of the failures and accidents that have attended its employment, but its most ardent advocates, we believe, will grant that some improvement in its preparation is still demanded. A recent contribution to our knowledge of the action of catgut ligatures is found in a memoir entitled "Contribution à l'Étude de la Ligature dans le Traitement des Anévrismes," by Dr. G. F. Arnaud. Dr. Arnaud ligatured the carotid or femoral artery of dogs fourteen times, using carbolised catgut, and examined the parts from four to sixteen days afterwards. In nine cases the ligature had entirely disappeared, or was only scarcely appreciable; in two it was partially absorbed, with destruction of the knot; and in three it was little altered. In one of the latter only four days had elapsed from the application of the ligature, which may be held to account for the fact; in the other two, examined on the ninth and sixteenth days respectively, there was an absence of inflammatory reaction and clot, and the ligature was encysted, while for its absorption a rather abundant outpouring of lymph, or development of "granulations," is held to be necessary. In twelve of these cases the outer coat of the artery was found quite unaltered, not having been severed by the ligature; in two it was partially ulcerated, in neither case completely. In twelve cases, the inner and middle coats of the vessel were completely divided, as happens in the use of a silk or hempen thread; in one they were entire, and in one other it was doubtful whether they were partly divided or not. The clot, where not absorbed, was very small, and the obliteration of the artery was complete and firm. Senftleben has stated that internal clot rarely forms with catgut ligatures, but the evidence of these experiments, as well as of others, points to an opposite conclusion. Arnaud concludes that the effect of catgut on the artery is like that of hemp, except—a most important exception—that the outer coat is not ulcerated, the knot of the ligature softening before that occurs. It was noticed, in cases where a strand of catgut was left in the tract of the wound, that there was much more active cell-growth round the ligature than around these strands, with corresponding difference in the rate of absorption. The "absorption" of catgut is thus again fully corroborated, and still more the fact that the use of catgut ligatures is not necessarily followed by the complete severance of the artery, with the attendant risk of secondary hæmorrhage, as always follows the use of hemp or silk.

THE SNOW.

A contemporary complains that, while objecting to the measures commonly adopted in dealing with a heavy fall of snow, we do not suggest a specific method of procedure. It is our function, as the organ of medical opinion, to point out dangers to health and life or limb, and it seems decorous to leave the initiation of social reforms to our lay coadjutors. If, however, a suggestion be desired, here is one. On the next occasion of a heavy fall of snow, which seems likely to continue or lie, let the experiment be tried of simply rolling it with a moderately heavy and rough roller, so as to make a firm and roughened road. This will furnish an easy surface for wheels or runners, and the roughed shoes of horses will be, at the same time, able to obtain a hold of the ground sufficient to prevent their slipping. Moreever, when the thaw takes place it will be gradual, and instead of making the whole roadway a quagmire, it will be only commonly wet. As to the foot-paths, let them either be wholly and properly cleared by the able-bodied poor of each parish, or simply strewed with sand or ashes. The present mode of partial scraping produces a surface which is so treacherous as to occasion most of the accidents that occur to the unwary pedestrian.

PEPTONE IN PUS.

Peptone was once supposed to be exclusively a product of digestion. Whether it is so or not, its distribution has been found to be very extensive through the body. Its presence in pus has just been demonstrated by Hofmeister. A litre and a half of fresh pus removed from the thorax by paracentesis was taken, the albumen was removed by heat and oxide of lead. The lead was separated by hydrochloric acid and the peptone precipitated from the acid filtrate by phospho-tungstic acid. Thus obtained and separated, it was found to be in all respects identical with ordinary peptone, and when heated to 160° C. it passed into albumen. In composition it appeared to be nearly identical with casein peptone. In order to estimate the amount of peptone, the albumen was removed, and the polarising action of the liquid was ascertained. The peptone was found to vary between ·367 and 1·275 grammes in 100 cubic centimetres, and to be greater, the thicker the pus. In one instance it was found that the amount of peptone in the upper layers of pus was less than in the lower layers. In another case it was ascertained that the serum contained no peptone, while the pus-corpuscles contained abundance. A similar result was obtained with pus diluted with saline solution, and then filtered. The residue contained from two to seven times as much peptone as the filtrate. But if the process of filtration lasts a long time, it may happen that the amount of pus in the filtrate is as great as in the original pus. This is explained by the circumstance that the pus-corpuscles, in their death, give up their peptone. The same effect is produced by dilute caustic soda. By the destruction of pus cells large quantities of peptone may be liberated, and thus pepton-uria may arise.

STREET-VICTUALLING.

It would be a seasonable enterprise for any purveyor of food and drink to send into the public thoroughfares, for the convenience of the working classes and the industrial community generally, hand-carts fitted with apparatus for the supply of hot coffee, tea, and food suitable for hasty dinners. If hot food and drinks could be sold in the streets at a small cost in London, as they are in many of the provincial cities and towns, a good trade might be carried on, and a considerable personal service rendered. At present hot chestnuts by day and hot potatoes in the evening are the only eatables to be purchased. Hundreds of hurried or poor foot-passengers would hail such appliances as a means of health, and they would form one of the most direct, and, as we believe, effective, agencies for the avoidance of a common form and cause of drunkenness.

POST-MORTEM EMPHYSEMA FROM GASTRIC ULCER.

Among the causes of subcutaneous emphysema ulcer of the stomach is one of the rarest. An instance has, however, lately been reported by Poensgen in the *Deutsches Archiv für Klin. Med.* The patient was a man aged thirty-seven years, who had for three years presented the symptoms of gastric ulcer. He had been treated by washing out the stomach by a douche, and was relieved. A fresh attack of vomiting occurred, and he died suddenly on his way to the hospital. A short time after his death, the abdomen, chest, neck, head, face, arms, and the left leg were gradually invaded by enormous subcutaneous emphysema, which was also found after death in the connective tissue of the mediastinum and beneath the peritoneum. In the smaller curvature the wall of the stomach was perforated by an ulcer, and on the inner surface of the abdominal wall was another ulcer, which had apparently corresponded to the perforation in the stomach, and through it the gas from within that organ had seemingly escaped into the cellular tissue.

SUDDEN ILLNESS AMONGST THE POOR, AND MEDICAL ATTENDANCE.

There is a very comfortable doctrine abroad that doctors are at everybody's service in an emergency, and that they are bound to rise from their beds and go to a distant alley to save a life or ease a pain, without the least prospect of recompense. But why is such mercy to be shown only by doctors? Why does not the public share with doctors the cost and the credit of such service? It is society's duty, not that of any single profession, to see that no human creature, however poor, dies without medical aid. A country like this should make provision for the emergencies of its poor, and not throw the whole onus on the much enduring and little paid members of our profession.

We are informed that the Oxford Examination for the Radcliffe Travelling Fellowship will be holden in Lent Term, commencing on Tuesday, February 8th, at 10 A.M., in the Medical Department of the Museum. Candidates are requested to send their names to the Radcliffe Librarian, Museum, on or before February 1st.

We are glad to hear that Her Majesty's Office of Works has entrusted Mr. Waterer with the providing and planting of a large number of Rhododendrons and Azaleas in Hyde Park during the approaching season.

Professor Huxley has been appointed to the Inspectorship of Fisheries, vacant by the death of Mr. Frank Buckland. The duties connected with this post are not, we understand, of so engrossing a character as to necessitate his withdrawal from the more important of his other scientific engagements.

The following resolution was passed at a meeting of the Norwich Medico-Chirurgical Society on Jan. 4th, 1881:—"That this meeting, reprobating the systematic exclusion of the medical officers from the government of hospitals, tenders its sympathy to the staff of Guy's Hospital in the present crisis."

A meeting of Convocation of the University of London was summoned for Tuesday last, but in consequence of the inclement weather it was decided by the few members present to adjourn the business on the agenda-sheet until the meetings, which will be held as usual, in May.

At Rome, on the 16th inst., the new Anatomico-Physiological Institute in the Via Quattro Fontane was opened before a numerous and distinguished audience by Professors Tommasi-Crudeli and Moleschott, of whose addresses we shall give some account next week.

The president, vice-presidents, and council of the Royal College of Surgeons have just issued invitations for a large party of distinguished visitors to the Hunterian festival to be held on the 14th prox. after the delivery of the biennial oration by Mr. Luther Holden.

The death is announced of Dr. David P. Smith, Professor of Surgery in the Yale Medical School, and one of the most distinguished surgeons in the State of New York.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

THE "METROPOLITAN" AND "THE LANCET."

Our esteemed contemporary, the *Metropolitan*, has taken us to task, in no unkindly spirit, for having spoken somewhat disparagingly of local self-government in the metropolis with reference to small-pox and vaccination. He objects to our phrase, the "genius of muddle," as applied to the local bodies in this respect, and thinks it unwarranted; and he evidently thinks that the hard language which we apply to the Local Government Board for its doings in the present small-pox crisis is irreconcilable with our observations on the local administrative bodies. If, in face of a growing epidemic of small-pox, its own reports of the shortcomings of the vaccination authorities in the East-end, the want of proper co-operation between the vaccination authorities and the sanitary authorities, the state of question as to small-pox hospitals and the relations of the sanitary authorities thereto, our contemporary objects to the term "muddle," we shall not quarrel with him so long as the facts and the causes productive of them are recognised. But our contemporary, we think, furnishes an illustration of our observations last week of people having been led astray from the fundamental element in our means for preservation from small-pox on the by-path of hospital-isolation in small-pox, by the prominence which has been given of late to this question. He had probably not in mind, as we had when we wrote, the primary importance of vaccination as *the* safeguard against small-pox. Now, as far as public vaccination is concerned, the local poor-law authorities are responsible for the due and efficient carrying out of vaccination. In this respect, we gather from the columns of our contemporary several of the Boards of Guardians in the East end of London have been peculiarly remiss in the interval between the last epidemic extension of small-pox and the present. We know well what the difficulties in carrying out vaccination in London are, particularly those enumerated by the Local Government Board; but we draw a somewhat different lesson from them than our contemporary appears to do. These difficulties call for greater and more unremitting care in the administration of the Vaccination Acts in London than they do elsewhere—than in places where they do not exist in the same magnitude; and they involve greater responsibility in the exercise of care. Local self-government has not fully justified itself in the metropolis in this matter, and until the citizens more generally see the grave concern, so far as small-pox is concerned, they have in exacting from their poor-law local representatives a somewhat higher conception of their duties as to vaccination *at the intervals of epidemics* than has hitherto prevailed, we must take our recurring small-pox epidemics, great and small, with such grace as we may.

PUBLIC HEALTH IN SCOTLAND.

The section devoted to public health of the "Thirty-fifth Annual Report of the Board of Supervision for the Relief of the Poor and of Public Health in Scotland, 1879-80," recently published, is devoted to a bare summary account of the particular administrative actions (mainly formal) which the Board has had to undertake during the year, to which the report refers. One of the causes which called for the action of the Board is novel: it refers to the refusal of a sanitary inspector (an equivalent to our inspector of nuisances) to enter a room in which a patient lying ill of "fever" lay, and into which it was presumably necessary that he should enter for the due performance of his duties, on the ground that he did not consider it his duty to do so. On this the Board called for a report from its medical officer, Dr. Littlejohn, on the subject; and observes, "We are aware that in some parts of the country an unreasonable and exaggerated dread of infection is entertained by the population, and we deemed it especially necessary that in places where such feelings exist the sanitary inspector should know what his duties are, and should discharge these duties faithfully. We transmitted a copy of Dr. Littlejohn's report to each local authority for their information and guidance; and we intimated that we were of opinion that every person holding the office of sanitary inspector must be prepared, in the due discharge of his duties, to enter the house or room in which cases of infection exist, as pointed out by Dr. Littlejohn." A copy of Dr. Littlejohn's useful report is given in the appendix to the Board's report.

THE SALE OF FOOD AND DRUGS ACT.

Dr. John Clark has published in a separate form the excellent lecture he gave on "Adulteration and the working of the 'Sale of Food and Drugs Act'" at the opening of the present session of the Glasgow Royal Infirmary School of Medicine. He describes briefly, but clearly, the results of THE LANCET Analytical Sanitary Commission, of the legislation which followed upon them in 1860, and of the various amendments of that legislation to the present time. He illustrates his lecture from the experience of Glasgow, shows the shortcomings in the administration of the Sale of Food and Drugs Act, especially in Scotland, and generally presents us with a readable and most interesting and instructive account of this important subject.

THE HAMPSTEAD SMALL-POX HOSPITAL.

The hearing of the appeal, Hill and others *v.* The Metropolitan Asylums Board, came before the House of Lords this week. The arguments were concluded, but their lordships took time to consider. We reserve comment until the judgment is made known.

A serious localised outbreak of scarlet fever is reported from Halifax, believed (but we learn on insufficient evidence) to be due to dissemination of the contagion of the disease in a milk-supply. A milker, it is reported, had pursued his duties of milking in one of the sources of supply to the implicated dairy while several of his children were suffering from scarlet fever.

The report of Mr. Peter de la Motte of the West London District School for the year 1880 shows on the whole a favourable condition of health among 700 and odd children there, and a comparatively low mortality (7·2 per 1000 per annum). Ophthalmia is spoken of as "the malignant enemy of the school," but is stated to be decreasing under present arrangements. Granular eyelids, however, are reported prevalent, and as requiring constant and careful watching in order to eliminate relapsing cases. The plan of isolating slight cases of ophthalmia is carefully carried out.

From a recent meeting of the Rural Sanitary Authority of the Isle of Wight we gather that the Authority begins to scent trouble from the Local Government Board in its existing arrangements for inspectors of nuisances and medical officers of health. Dr. Ballard's recent visit to the island has no doubt left a pretty clear impression upon the mind of the Authority there that the Local Government Board cannot permit the present arrangements to stand without somewhat peremptory interference. Dr. Ballard's report has not yet been made public.

The Local Government Board take exception to the payment of vaccination officers by fixed salaries, and not by fees per case. The Board state that in their experience the payments of these officers by results has produced the best effects. A proposition of the City of London Union Guardians to give their Vaccination Officer a yearly salary of £75 has not met with the approval of the Local Government Board, and the Guardians have been requested to reconsider the subject, with a view of fixing his remuneration on the fee system.

A Bill has been submitted to the House of Commons by Messrs. Magniac, Dodds, and others, to make provision for the better prevention of floods, and for the conservancy of rivers, but as it is rumoured the Government will bring in a Bill on the subject, we postpone comments until this Bill sees the light.

A Bill has been introduced into the House of Commons by Mr. Edmond Gray and others, to provide for the better Notification of Infectious Diseases in Ireland.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The unusually severe cold which prevailed during the latter part of last week did not seriously affect the recorded death-rate; the effect of this cold will appear in subsequent returns. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5093 births and 3444 deaths were registered last week. The births were 93 below, while the deaths exceeded by 187, the average weekly numbers during 1880. The deaths showed an increase of 336 upon the low number in the previous week. The annual death-rate, which had been equal to 23·7 and 21·3 per 1000 in the two preceding weeks, rose again to 23·6 last week. During last quarter the death-rate in these twenty towns averaged only 21·5 per 1000, against 25·0 and 24·2 in the corresponding periods of 1878 and 1879.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 398 and 401 in the two preceding weeks, declined last week to 383; they included 99 from scarlet fever, 90 from whooping-cough, 74 from measles, and 35 from fever, principally enteric. The annual death-rate from these zymotic diseases averaged 2·6 per 1000 in the twenty towns, among which it ranged from 0·7 both in Plymouth and in Newcastle-upon-Tyne, to 3·4 in Bristol and 3·8 in Salford. Scarlet fever showed the largest proportional fatality in Oldham, Norwich, and Bristol; measles in Salford and Brighton; and whooping-cough in Nottingham and Leeds. The deaths from fever (principally enteric) in the twenty towns, which had been 48 and 39 in the two previous weeks, further declined to 35 last week. Of the 19 fatal cases of diphtheria in the twenty towns, 12 occurred in London and 2 in Portsmouth. Small-pox caused 28 more deaths in London and its suburban districts, whereas no fatal case of this disease was recorded in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 447 in the eleven preceding weeks, further rose to 476 on Saturday last. The new cases of small-pox admitted to these hospitals, which had been 146 and 85 in the two preceding weeks, rose again to 118 last week. On Saturday last 27 patients were under treatment at the Highgate Small-pox Hospital, showing an increase of 3 upon the number at the end of the previous week.

The deaths referred to diseases of the respiratory organs in London, which had been 290, 353, and 363 in the three preceding weeks, further rose last week to 371; this increase, however, was remarkably small, considering the severe cold, and the number was no less than 111 below the corrected average for the corresponding week of the last ten years; 236 were attributed to bronchitis, and 95 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was only equal to 5·2 per 1000 in London, whereas in Liverpool the rate from the same diseases rose to 9·1 per 1000, and in Salford it was equal to 13·2.

In the twenty towns last week the causes of 101 deaths were not certified, either by a registered medical practitioner or by a coroner; these were equal to 2·9 per cent. of the total deaths. The proportion of uncertified deaths was equal to 2·0 per cent. in London, while it averaged 3·7 per cent. in the nineteen provincial towns. No uncertified deaths were registered either in Brighton, Portsmouth, Plymouth, Wolverhampton, Leicester, or Sunderland; while their proportion was largest in Norwich, Oldham, Sheffield, and Hull.

HEALTH OF DUBLIN.

The rate of mortality in Dublin again showed an increase last week. The annual rate of mortality from all causes in the city, which had been equal to 35·8 and 31·8 in the two preceding weeks, rose again to 35·1 last week. During last quarter the death-rate in the city averaged no less than 32·6 per 1000, against 20·9 in London and 21·8 in Edinburgh. The 224 deaths in Dublin last week showed an increase of 21 upon the number in the previous week, and included but 12, or little more than 5 per cent., which were referred to the seven principal zymotic diseases; the number of deaths from these diseases in the previous week was 28. The 12 deaths from zymotic diseases in Dublin last week included 8 which were referred to fever (comprising typhus, enteric, or typhoid, and simple continued), and a fatal case each of small-pox, scarlet fever, whooping-cough, and diarrhœa; no death resulted either from measles or diphtheria. The annual death-rate from these zymotic diseases did not exceed 1·9 per 1000 in Dublin last week, while in London it was equal to 2·9, and in Edinburgh 4·0; so low a death-rate from zymotic diseases in Dublin has not occurred for many months. The deaths referred to fever in Dublin, which had steadily increased from 7 to 13 in the four previous weeks, declined to 8 last week; these, however, were equal to an annual death-rate more than five times as high as the average rate from the same causes last week in the twenty large English towns. The deaths of elderly persons (aged upwards of sixty years) in Dublin, which had been 43 and 47 in the two previous weeks, further rose to 66 last week.

GROWTH OF POPULATION IN ENGLISH TOWNS.

Within three months the Census of 1881 will have been taken, and before the end of June we shall know with some approach to accuracy what is the present population not only of the whole country, but also of its chief towns. In the mean time, however, the Registrar-General has been at the necessity of estimating the population of our large towns to the middle of 1881, for the purpose of calculating the annual rates of mortality published in the Weekly and Quarterly Returns. It is needless to say that these estimates are based for the most part upon the assumption that the rate of increase of population since 1871 has been the same as that which prevailed during the ten years 1861–71. The estimated population of the twenty towns, in the middle of this year, amounts to more than seven and a half millions of persons, and exceeds by nearly 120,000 the estimate for the middle of 1880. The excess of births over deaths in these twenty towns during last year was scarcely more than a hundred thousand, and it becomes a matter of conjecture whether the population in these towns was raised during the past year of commercial depression by the aggregation of nearly 20,000 immigrants. The probability is that the Census returns for many of our large towns will show that the increase of population during the decade just ended has been at a lower rate than that which prevailed in the preceding ten years; this would cause the Registrar-General's estimates of their present population to be in excess of the true numbers. In Sheffield, for instance, based upon the rate of increase during the ten years 1861–71, it is estimated that the gain to the population during 1880 was more than 8000, of which little more than 4000 is accounted for by excess of births over deaths. Those who know the severe period of depression from which Sheffield has recently suffered will scarcely be inclined to believe that the population of that borough was increased by nearly 4000 persons during 1880 through the excess of immigration over emigration. The population of Bristol and of some other towns is probably also over-estimated from the same cause. These doubts will be set at rest by the approaching Census, but it is much to be regretted that the value of the vital statistics for our largest towns, which are very properly attracting increased attention year by year, should be depreciated by the want of more trustworthy information as to population than can be derived from a decennial Census.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE SEWAGE OF PARIS.

Dr. Guéneau de Mussy has presented to the Society of Public Medicine of Paris, in the name of a commission of the Society, a report on the removal of night-soil from the habitations of Paris. The report recommends that it be made obligatory to introduce a water-supply into each house proportionate to the number of occupants; that properly constructed *cabinets d'aisance* should be required; that water should be readily accessible in the *cabinets d'aisance*; that wherever possible the *cabinet d'aisance* should communicate directly with a sewer; that where this is not practicable a movable receptacle should be had recourse to with a disinfectant to accompany each dejection; and, lastly, that "slops," as dejections, should pass directly to the sewers, a syphon-trap intervening. All the recommendations but that relating to "slops" were adopted by the Society. The modesty of the recommendations give a remarkable illustration of the shortcomings of Paris in these matters.

The Committee appointed by the Municipality of Paris to consider the question of the recent offensiveness of odour in the streets of that city, formed two sub-committees to consider respectively the question as it concerned sewers and cesspools (fixed and movable), and as it concerned depôts of offensive filth and manufactories concerned with the filth. The second sub-committee has reported, M. Aimé Girard, member of the Consultative Committee of Arts and Manufactures, acting as reporter. The recommendations of the sub-committee would do away with all depôts of filth within the city and its suburbs, and would subject to strict regulation the manner of dealing with filth in manufactories and the effluvium from the filth, so as to withdraw it from the free air, deodorise the solid matters, and destroy by fire offensive vapours.

PUBLIC HEALTH IN AUSTRALIA.

Although Australia has hitherto escaped the infection of cholera, it has not escaped the infection of Congresses. Melbourne has been having its "Social Science Congress," and, after the fashion of the home-bred examplar, a "health section" formed an integral portion of the Congress. According to our contemporary, the *Australian Medical Journal*, this section fell far short in its proceedings of what it had projected to do, and did not compare well, whether in material or in the exhibition of business capacity, with other sections. The address of the President, Dr. M'Crea, was not of a sort to put good heart into the meetings, and if, as he argued, the pioneers of public health in the Old World took a too warmly-coloured view of the public advantages to be derived from sanitary works and the labours of sanitary workers, he erred in the opposite direction in taking a too desponding view. It should have been obvious to him that his reference to the mortality statistics of Great Britain, and the vast expenditure of money in the last forty years, and the asserted inappreciable results therefrom, bristled with fallacies. A very different picture might have been drawn of the results of sanitary work in this country, at least equally free from too great hopefulness or too great despondence, and which would have given heart to the efforts now being made for the sanitary administration of Melbourne, and furnished the reasonable grounds upon which such efforts should be based, and which justify and incite Great Britain to add other millions to the millions already expended in the sanitary works and administration of the United Kingdom.

FEVER HOSPITAL FOR EDINBURGH.

No fever hospital worthy of the name exists at present in Edinburgh. It is true that the Infirmary managers, by arrangement with the Town Council, provide seventy-two beds in the old infirmary buildings for the accommodation of fever patients, no cases of this nature being treated in the new infirmary; but while this provision just serves to meet the requirements of the city for the moment, there being now sixty-five fever patients under treatment, it would prove very inadequate should an epidemic of even moderate dimensions break out, an event for which no great city can afford to be unprepared. A proposal has lately been made to purchase definitely the old infirmary buildings and convert them into a hospital for the treatment of infectious diseases. Many are of the opinion, however, that such hospital accommodation should be erected outside the city. Meanwhile Dr. Littlejohn, the medical officer of health, is preparing a report on the whole subject, which will soon be made public. This is clearly a matter which the Local Authority should undertake, as the Royal Infirmary has no funds of its own available for the purpose.

Diphtheria is reported to be raging at Mohilev, in Podolia. The Red Cross Society has organised seven sanitary detachments to meet the epidemic, each detachment consisting of a physician, two sub-surgeons, two sisters of charity, and numerous assistants.

Animal lymph has been introduced into Madras, and a regular depôt has been established, for the maintenance of which the Government has sanctioned a monthly allowance of 100 rupees.

Small-pox is stated to have broken out in the General Hospital of Halifax, Nova Scotia, and the majority of the patients in one ward had been attacked by the disease.

THE SERVICES.

MEDICAL REINFORCEMENTS FOR THE TRANSVAAL.

In addition to the medical officers who are now on their way to the Cape, to strengthen the staff at the disposal of Deputy Surgeon-General Holloway, C.B., the Indian authorities have detailed twelve officers of the Army Medical Department to accompany the troops embarking at Bombay for service in the Transvaal. These should reach Durban, the port of disembarkation, early in February, and will be a welcome addition to the medical staff.

Brigade-Surgeon William Skeen, M.D., and Surgeon Espine C. R. Ward are with the force under Sir Owen Lanyon, at Prætoria.

Brigade-Surgeon Sampson Roch was unable through ill health to proceed to the Cape last week, for service in Natal.

Deputy Surgeon-General J. Crerar succeeds Deputy Surgeon-General J. B. St. Croix Crosse as medical officer of the Royal Military Asylum at Chelsea. Dr. Crosse having attained sixty-five years of age is placed on the retired list.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of Feb. 22nd, 1870, Surgeon William Sale Sandham has been placed on the retired list from the 7th inst. The following appointments have been made:—Staff-Surgeon Bradley Gregory to the *Druid*, vice Bett, deceased; Staff-Surgeon A. B. Trousdell, M.D., to the *Phœnix*, vice Gregory; Surgeon Henry Scanlan, to the *Rifleman;* Surgeon Robert M'Ivor, M.D., to the *Asia*, vice Scanlan.

THE Metropolitan Hospital Sunday will be June 19th; February 7th and 13th are fixed as the Hospital Sunday and Saturday for the Manchester and Sheffield medical charities; the 9th inst. will be the Liverpool Sunday Fund; and on the 30th collections will be made in all the churches in Sheffield and the neighbourhood for the local medical charities.—*Charity Record.*

Correspondence.

"Audi alteram partem."

AN EXPLANATION OF THE NATURE OF THE CONNEXION BETWEEN THROAT AFFECTIONS AND ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—In his paper on the "Association of Affections of the Throat with Acute Rheumatism" (THE LANCET, Dec. 11th, 1880), Dr. Fowler offers no theory to account for the undoubted connexion between the two, further than to state that it is not "to be explained on the hypothesis of a merely casual connexion," and that he believes "that not unfrequently it [the tonsillitis] is an early manifestation of the same [rheumatic] diathesis."

Pending the publication of a paper which I have in course of preparation upon the same subject, in which I have independently observed the same fact during the last few years, I would like to point out briefly that *all rheumatic fever cases* are, in my opinion, of truly pyæmic origin. By adopting this theory, which to me seems the true explanation of its nature, both from a clinical and pathological point of view, we can at once understand why a suppurative affection of the throat is followed by so-called rheumatic fever.

My experience accords pretty closely with Dr. Fowler's in placing the proportion of cases of acute rheumatism preceded by an affection of the throat at from 70 to 80 per cent., and it follows most frequently, if not only, upon the throat affection, that may be called, for want of a better name, acute follicular tonsillitis, in which a kind of purulent exudation is formed in the tonsil, and struggles out through the follicular openings on its surface.

By the prevention of its free exit, absorption of the pus is facilitated through the lymphatic vessels passing between the tonsil and the lymph gland at the angle of the jaw. The lymphatic gland resents this intrusion, inflames, enlarges, and endeavours to arrest the passage of the poisonous material in its onward course to the blood. In the discharge of this function the gland is sometimes completely successful, and hence many cases (though the first step towards infection of the blood is taken) never produce the affection of the joints or other organs. In other cases this function of the gland is less completely successful; the gland being unable to render the absorbed pus innocuous, or extrude it by inflammation, it passes onward to join the general circulation, after being arrested in its passage for a period of from one to three or four weeks, or, as I have some reason to think in some rare cases, for a considerably longer period; whilst in other cases still, that occur in constitutions of a more lymphatic diathesis, in which the lymphatic vessels may be wider or more active in their absorptive powers, or the glands less discriminative or resentful of the intrusion of effete or poisonous matter, the blood infection is accomplished, if not *pari passu* with the throat affection, at a very short interval after its declension.

The remaining 20 to 30 per cent. of acute rheumatic cases which do not claim this particular origin, may be brought about by absorption of pus elements at other mucous membranes, such as in the ear in acute or chronic otorrhœa, in the urethra in acute or chronic gonorrhœa, at the anus (as in fistula); and failing these particular localities, the absorption of any collection of pus, however small and apparently trivial, situated either in the mucous lining of organs, or on the cutaneous envelope of the body, is sufficient, in my experience, to accomplish the same result.

The last case I attended followed upon a small abscess under the finger-nail, the whole of which was absorbed, to be followed at the interval of a fortnight by affections of both ankles, knees, wrists, and the right shoulder in succession, producing what would be called a typical case of rheumatic fever.

Thus it will be seen that absorption of pus elements may take place in localities very likely to be overlooked, at least so far as its connexion with the after-production of rheumatic fever is concerned, and this occurrence not being followed *immediately* by the usual symptoms of purulent infection of the system, but the after sequences following at a considerable interval in point of time, easily accounts for the connexion between the two, which is really of a *post hoc, propter hoc* nature, remaining thus far unrecognised.

My experience further goes to prove that following upon the absorption of the throat, or at the other localities indicated, the absorbed *materies morbi* in passing the round of the circulation may entirely miss the joints, and the force of the poison may then spend itself upon other fibrous and connective tissues, such as the parenchyma of the liver, producing icteric complications; of the lungs, producing patches of consolidation; upon the fibrous envelope of the heart and its valves, causing pericarditis and endocarditis; and more rarely upon the fibrous covering of bones, causing thickenings of the periosteum, and even necrosis of bone. As a result of this absorption any one of these sequences may occur separately in a given case, or any two or all of them may be combined together in the same case. Sometimes one joint only is affected, at others all the joints and the heart as well. I have also observed a few joints, the liver, and the heart attacked, on other occasions the liver and the lungs; and even the heart only, producing what might have been called idiopathic carditis; and in a rare case I have known the joints, the liver, the lungs, the heart, and spleen all involved.

In conclusion, I would remark that the beneficial action of such remedies as alkalies, salicylates, iron, &c., in rheumatic fever, goes far to render probable the truth of the theory that pus cells (modified or unmodified) in the blood is its real cause, and that by adopting this theory the beneficial action of these remedies is, I think, placed upon a more scientific basis.

I am, Sir, your obedient servant,

WM. STEWART, F.R.C.P.E.,

Barnsley, Dec. 21st, 1880. Honorary Surgeon, Beckett Hospital.

CHIAN TURPENTINE IN CANCER.

To the Editor of THE LANCET.

SIR,—I trust you will allow me space in your valuable journal to call the attention of your readers to the following case, in which Chian turpentine was administered daily for nearly four months with marked benefit, as shown by the relief obtained from all distressing symptoms, and in the fact that the poor sufferer's path to the grave was deprived of pain. In justice to Prof. Clay, I feel bound to record my experience.

Mrs. C——, aged fifty-four, the mother of a large family, consulted me in August last. She informed me that about five years previously a "tumour" (probably cancerous) had been removed from the top of her head by Mr. Pridgin Teale of Leeds. A year and a half after the operation she noticed that a similar growth was forming behind the right ear. This had gone on increasing in size until the time she put herself under me. On making examination I found she was in a frightful condition. There was a medullary cancer of a fungoid type behind the ear, about the size of a hen's egg. It had begun to break down, and there was a very great discharge of pus and blood; from the base of the ulcerated portion cauliflower-like growths were springing. The right side of the face was very œdematous, the eyelids so swollen that she could not open the eye. All the lymphatics of the neck, thorax, and right arm were thoroughly infiltrated with cancerous matter, and over the upper part of the sternum was a large suppurating patch the size of the hand. She had a severe cough, and expectorated pus freely, often dreading lest she should be suffocated. Her general health was quite broken down. Slept badly; appetite poor; suffered much pain, especially in the neck and chest; very weak; had much palpitation. I gave her relatives an unfavourable prognosis. Treatment adopted: a five-grain pill of Chian turpentine (made according to Prof. Clay's formula) three times daily, after meals. Finding that she could take this quantity well, at the end of three weeks I increased it to double—viz., two pills three times daily. I also prescribed a mixture containing in each dose three minims of solution of strychnine and five minims of solution of perchloride of iron twice daily, as suggested by Prof. Clay. She improved in general health, felt so strong that she was able to visit me until within five days of her death. Her appetite increased, and she was able to take plenty of nourishment. She slept well most of the night, lost the palpitation and suffocative breathing, and, most remarkable and pleasing of all, the pains left her and never returned. All her friends considered the last result of the treatment to be marvellous. The turpentine never produced nausea or diarrhœa. The local symptoms on the whole remain unchanged.

Now I am persuaded that this poor woman's life was prolonged and her sufferings relieved by the use of the Chian turpentine. I never expected to cure her, as all the lymphatics were so thoroughly affected. If, however, the case had been treated four or five years previously by the above method there would perhaps have been no return of the disease. Even supposing Prof. Clay has not introduced a remedy which will cure cancer, yet if a sufferer's life can be prolonged and all distressing symptoms removed and death robbed of terror and pain, surely he has done something to earn the gratitude of the profession and the public! Meantime I would advise a still more extended trial of this remedy. I am, Sir, yours truly,

Leeds, Jan. 10th, 1881. H. A. ALLBUTT, M.R.C.P.E.

STATISTICS OF OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—Although it may be, as a rule, undesirable to refer in your columns to statements made in the discussions which take place at any of our Societies, yet there are occasions when there is no escape from such a course for the sake of truth and justice. Such a one is the present.

At the last meeting of the Royal Medical and Chirurgical Society I submitted to the judgment of my professional brethren a question of professional etiquette. After referring to the fact that, at a former meeting, Mr. Thornton quoted my results in ovariotomy in the Samaritan Free Hospital for the year 1880 for the purpose of comparing them with his own, I used these words: "I think it is a most unusual proceeding, and one that, I am sure, will not meet with your approval, but rather deserves to be censured, when anyone refers to the statistics of a colleague before they have been published either by the hospital or by the operator himself." To this Mr. Thornton is reported by you to have replied that "the statistics he then quoted from Dr. Bantock had been *mostly* (the italics are mine) published by that gentleman in a letter to one of the medical journals." As I was obliged to leave the meeting almost immediately after I had spoken, I did not hear Mr. Thornton's remarks, and, therefore, now ask him, through you, for the reference to the particular letter on which he relies. I wish to put myself right with those of my professional brethren who may have read your report, but more especially with the Society, whose guest I had the honour and privilege of being on that occasion.

I am, Sir, your obedient servant,

GEO. GRANVILLE BANTOCK.

Granville-place, Portman-square, W., Jan. 15th, 1881.

THE NEW FORM OF GAG.

To the Editor of THE LANCET.

SIR,—Will you kindly allow us, in your next issue, to explain the reason why we claim any credit for the "improved ring catch," in Mr. T. Smith's new combined mouth-gag and tongue-depressor. Mr. Rose was certainly kind enough to leave with us one of his gags as a pattern; but the gag was found unnecessarily long, and projected from the mouth, so as to be inconveniently in the way in operating, and on any side movement of the patient's head against the pillow being unexpectedly made, it was likely to be knocked from between the teeth. To do away with the likelihood of this occurring we have made the *levers* or *arms considerably shorter*, and with a larger space between them; this has been found a great advantage, as there is no *loss of power*. This alteration required a different arrangement of the catch than that of Mr. Rose's, which is simply a ring passing over the plain steel arms, the contact with the plain metal surface only preventing slipping. To our gag, therefore, we added a series of notches, or hollows, into the catch, thus doing away with any possibility of any slipping, and the gag unfortunately collapsing during an operation. We shall be happy to show the advantage of the gag to anyone calling, or it can be seen in use at the Children's Hospital.

As regards Mr. Rose's remarks regarding the utility of the tongue-plate, Mr. Smith informs us, "that it answers exactly in depressing the tongue, leaving nothing more to be desired in the many cases it has been tried, and is sure it will be found satisfactory in mouth operations."

We are, Sir, your obedient servants,
Great Portland-street, Jan. 19th, 1881. Mayer & Meltzer.

To the Editor of The Lancet.

Sir,—Mr. Rose objects to the addition of the tongue-plate in Mr. T. Smith's new form of gag (for use in removal of tonsils and in staphyloraphy) on account of its being liable to cause inconvenience when an anæsthetic is used. In the operation for the removal of tonsils, where an anæsthetic certainly is not required, I have never found a gag desirable. A child does not generally give trouble in the removal of one tonsil if there be no previous display of instruments, and should it tightly close its mouth during the very short time occupied in putting the guillotine in order for the second tonsil, it is only necessary to compress its nostrils, and immediately the mouth is opened to push the instrument in sideways; then turning it round one has a gag and at the same time the guillotine in position. In this way and with a good light a troublesome child's tonsils take very little over the ordinary time of eight seconds for removal.

I am, Sir, yours faithfully,
W. Pugin Thornton.
Devonshire-street, Portland-place, Jan. 14th, 1881.

THE FELLOWSHIP OF THE EDINBURGH COLLEGE OF SURGEONS.

To the Editor of The Lancet.

Sir,—It is time that public attention was drawn to the disgraceful traffic going on in this sham qualification. Time was when it was given to a few, and conferred at least a social distinction in Scotland, and when the income of the college was but slightly enhanced by it. Now I am told they draw about £2000 a year from this source alone. This town and district are being flooded by the bogus distinction, and its holders sign themselves "F.R.C.S." or "F.R.C.S.E.," thus leaving it to be inferred that they are Fellows of the London College. It is getting as bad as the "L.R.C.P." of 1859, and can be stopped in the same way, by an expression of professional opinion.

I am, Sir, yours truly,
Birmingham, Jan. 15th, 1881. F.R.C.S. Eng. (exam).

To the Editor of The Lancet.

Sir,—I fear the statements respecting the regulations in force at the Royal College of Surgeons of Edinburgh alluded to by your correspondent, a "Disinterested Medical Reformer," in The Lancet of the 15th inst., are substantially correct.

The present regulations of the College as regards its Fellowship are a great injustice to the interests of the profession, to its own acknowledged respectability, and to those of its Fellows who have, like myself, many years since obtained the diploma by regular examination. I trust the Royal College will see reason to make such alterations in its rules as will restore its prestige.

Believe me, Sir, yours faithfully,
A Fellow by Examination of
Jan. 17th, 1881. 25 Years' Standing.

Preliminary Examinations of the Royal College of Surgeons.—The Council of the Royal College of Surgeons has just given notice that from and after the 31st of December next these examinations for the diploma of Fellow and Member of the College, at present conducted by the College of Preceptors, under the authority of the College, will cease, and that from and after the date of this notice candidates for the diploma of Fellow will not be required to undergo any preliminary examination beyond that required for the diploma of Member of the College.

GLASGOW.

(*From our own Correspondent.*)

Govanhill, a burgh on the outskirts of Glasgow, has at length secured the services of a medical officer. His duties are that "he should consult with the magistrates and officers of the burgh in all matters requiring a medical opinion, make examinations, submit reports, and attend courts when required, at a salary of *twelve pounds* per annum, the engagement to be terminable on a month's notice on either side." Well might one of the Commissioners present make the remark that he "could scarcely think that any medical gentleman would be willing to accept such an amount of work at such remuneration." The circumstances under which Dr. A. J. Hall, the previous holder of this office, surrendered his appointment are sufficiently remarkable, and should be known to every health officer in the country. Dr. Hall worked for three years as "medical officer of the burgh of Govanhill," imagining that his appointment was under the Public Health Act, a view in which he was supported by the fact that the authorities, in their annual returns, represented his salary as paid under that Act. In the course of last summer, however, he was asked to examine and report in a case of assault; this he did, and charged a small fee. The Commissioners agreed to pay this fee, but intimated that in future no such extra charges would be allowed. The Board of Supervision decided, after some correspondence had passed, that the differences of opinion to which these circumstances had given rise could be settled only in a court of law. The burgh of Govanhill thus appears before the professional public in a very discreditable light; they ask an officer, whom they employ in their capacity of local authority, to perform the duties not only of medical officer under the Public Health Act, but also of police-surgeon, the Police Act being one of a separate nature, and one for which a special tax is levied. They do this with their eyes open, as witness the statement made by their clerk at a recent meeting. Mr. Robertson Sair, in reference to the proposal that, in advertising for a new officer they should specify his duties, said "that it was dangerous to enter into particulars. Their last engagement was drawn in such an indefinite way that they could scarcely conceive any duty which it would not cover."

IRELAND.

(*From our own Correspondent.*)

The outbreak of fever in Tandragee, county Armagh, to which you alluded last week, has attracted considerable attention, and as I have received reliable information on the subject, a few remarks may not be out of place. The epidemic, it appears, broke out on the 10th December last, and since then 120 cases have occurred; the cause of the outbreak being the contamination of one of the water supplies of the town with dejections from a typhoid patient who was first seen by the medical officer of the district three days after the outbreak in an almost convalescent state. The excretions of this patient were thrown into a small river which at flood-time communicates with the water-supply above referred to, and in this way the disease was spread. Dr. James Taylor, the medical officer of the district, had the water-supply cut off on the 13th December, and only three fresh cases occurred during the week ending the 13th instant. The number of cases which took place since the epidemic broke out, as relieved by the dispensary, is as follows: First week (10th to 17th December), 22 cases; second week, 38; third week, 31; fourth week, 26; fifth week, 3. Thirteen deaths had taken place up to the 13th inst., and not seven, as mentioned by Mr. Forster, Chief Secretary for Ireland, in reply to Mr. E. D. Gray's question in the House of Commons last week.

The Registrar-General for Ireland has made two changes regarding the areas adopted in his returns for the Dublin Registration District. The area has now been extended so as to embrace the registrars' districts of Clontarf and Howth No. 1, Coolock and Drumcondra No. 1, and portions of the districts of Finglas and Glasnevin and Palmerston. The other change relates to the provincial town districts, for which statistics are given, and consists in the substitution of the "Urban sanitary district" for the "Registrar's district," or group of Registrars' districts. These changes have been made with the view of supplying more accurate information regarding the mortality in towns; and, I may add, with the hope of reducing the city death-rate by including in the Dublin Registration District outlying regions whose inhabitants possess a higher standard of health.

Dr. Cameron, President of the Metropolitan Officers of Health Society, at a meeting held at the Royal College of Surgeons last week, delivered the annual address. He stated that the death-rate of Dublin, which during the decade ended in 1877 was 26·2 per 1000 persons living, rose in 1878 to 29·5, and in 1879 to 34·6 per 1000, and continued at the latter high rate in 1880. It was difficult to account for the marked increase in 1879–80, unless it was the result of the destitution which existed in the city during these years, caused by the bad harvest, which reacted upon the town population. The increase in the registered deaths in 1879–80 was to the extent of about 10 per cent., accounted for by the fact, that in these years the registration was corrected by means of returns from the cemeteries, for before 1878 it was found that, owing to defective registration, the burials exceeded the registered deaths by 11 per cent. Making every allowance, however, the increase of registered deaths was in 1879 15 per cent. over the average of the ten previous years. The increase was not due to the greater prevalence of zymotic diseases, compared with the other classes of maladies, all kinds of disease showing an increase. The causes of the high death rate may be attributed to the bad tenement dwellings, the existence of slaughter-houses and dairy-yards in crowded localities, the prevalence of much poverty and intemperance amongst certain classes, and the relatively larger proportion of the poorer classes which distinguish Dublin from English towns. The condition of the tenemental dwellings was very bad, but an improvement in them is being effected, there having been 604 houses unfit for habitation and 197 cellar dwellings detenanted and closed between August 1st, 1879, and Dec. 31st, 1880.

Dr. J. W. Busteed of Tralee has been placed on the Commission of the Peace for the County Kerry.

The annual general meeting of the Dublin Branch of the British Medical Association will be held at the College of Physicians in Ireland on the 27th inst., when the President, Dr. Robert McDonnell, F.R.S., will deliver an address.

PARIS.

(*From our own Correspondent.*)

A MOST promising young physician, Dr. André Poulin, met with his death last week under very painful circumstances. The *concierge* of the house in which he resided had received notice from the landlord to quit, and suspecting Dr. Poulin of having been instrumental in obtaining his dismissal, he determined to have revenge. The delay which had been granted to him to obtain another situation would have expired on the 15th of January, but two days before he put his long premeditated project into effect. Concealed in a bedroom which has a small window commanding the principal staircase, the murderer quietly sighted his victim as he was leaving his apartment at ten o'clock in the evening, in company with several guests, and discharged the contents of one barrel of his gun, wounding him mortally in the groin. The contents of the second barrel were distributed amongst those who had come to the rescue. Dr. Poulin had only recently completed his medical studies and obtained his degree. He had been house-physician for four years at the Paris hospitals, terminating as prize medalist a brilliant curriculum. He was a member of the Anatomical and Clinical Societies, and had been named a short time since to the important post—the first step to the Professorate—of *chef de clinique*, under Professor Hardy.

The death returns of Paris show a great increase of mortality for the last week, which is mainly due to typhoid fever, of which ninety-five cases terminated fatally. This is very nearly four times as much as the average of the corresponding weeks of the last four years (twenty-two), and half as many again as during the preceding week (sixty-three). Pulmonary diseases of all kinds also gave an increased mortality, which brings up the total to 1185, a figure which represents an annual death-rate per 1000 of 30·1.

M. Landrieux, of the Hôpital St. Louis, made a communication to the Société Médicale des Hôpitaux concerning five Esquimaux whom he had recently occasion to treat for small-pox. Of these two died before the period of eruption with hæmaturia, two more died after the exanthem, which was confluent and hæmorrhagic, had appeared. Neither of the patients had been vaccinated. On post-mortem examination the livers and mesenteric ganglia were found to be much hypertrophied, a condition which depended upon the fatty nature of the food used during life.

A discussion has been carried on at the same Society on the Effects of Ear-piercing in Scrofulous Subjects. From a large number of cases quoted by different speakers, it would appear that this trifling operation, usually performed by the jewellers, is often followed by disagreeable consequences. In a strumous person it very frequently sets up ulceration, which persists as long as the earring is worn, and ends by a fissure of the lobule. At other times a troublesome eczema is produced, which cannot always be cured by the removal of the exciting cause.

Dr. Seure has published a memoir which was presented some six months ago to the Academy of Medicine, on the Electric Properties of Dried Collodion. He finds that thin leaves of this substance, which may be detached from glass or metal plates, are negatively electric in the very highest degree, sulphide of copper and gutta-percha being positive in respect to them. In the dark they become luminous by friction, and when rubbed with the fingers they give rise to a sensation of numbness. If the outside of a bottle be covered with collodion, and then rubbed, small sparks can easily be obtained. Dr. Seure thinks that some therapeutic effects may be obtained from this substance. He suggests that leaves of dried collodion should be sewn on the inside of the garments worn by hemianæsthetic subjects, or that they should wear under-sleeves or leggings of collodionised silk. Hemianæsthesia is such a refuge for destitute therapeutic methods that it would be almost a pity to commence operations there. If collodiono-therapy is really an efficient means of applying static electricity, there are other conditions in which it might be tried. Its "æsthesiogenic" power can always be fallen back upon as a last resource.

An ingenious philanthropist proposes to diminish the mortality amongst the wounded in war by tattooing on the soldiers' bodies the principal points where compression may be made in cases of hæmorrhage. Life may be lost in a few minutes by a wound of a large artery, and it is thought that the soldier might often escape if he knew where to command an artery whilst waiting for help.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, 13th inst., a petition was presented from Thomas Robinson for inquiry into the East India Medical Service. The Medical Appointments Qualifications Bill, brought in by Mr. Errington and Mr. A. Moore, was put down for second reading on the 20th.

On Friday, upon the motion of Mr. Secretary Childers, the select committee on the Contagious Diseases Acts was appointed in the following terms:—"To inquire into the Contagious Diseases Acts, 1866–1869, their administration, operation, and effect:" Mr. Massey, Mr. Stansfeld, Mr. Cavendish Bentinck, Colonel Alexander, Viscount Crichton, Mr. Burt, Mr. O'Shaughnessy, Mr. Osborne Morgan, Mr. Cobbold, General Burnaby, Sir Henry Wolff, Mr. Ernest Noel, Colonel Digby, Mr. William Fowler, and Mr. Hopwood. Power to send for persons, papers, and records; five to be the quorum. Ordered, that all reports and returns relating thereto be referred to the said committee; that it be an instruction to the committee that they have power to receive evidence which may be tendered concerning similar systems in British Colonies or in other countries, and to report whether the said Contagious Diseases Acts should be maintained, amended, or repealed. A Government Bill to revise the constitution of endowed schools and hospitals in Scotland was brought in by Mr. Mundella.

On Monday, in reply to Mr. H. B. Sheridan, Mr. Courtney (the new Under-Secretary for the Home Department) stated that it was not intended to recommend the remission of any portion of the sentence passed upon the chemist Titley. Further petitions for inquiry into the Medical Service of the Indian Army were presented from Thomas Beaumont and George Burn. According to the order-book of the House of Commons, as printed on the above day, the second reading of the Medical Appointments Qualification Bill is fixed for the following Thursday; the Endowed Schools and Hospitals (Scotland) Bill stands for second reading on the 27th instant; the Medical Act 1858 (Amendment) Bill is the first order for Wednesday, February 2; Mr. P. A. Taylor's anti-vaccination motion has the first place for Tuesday, Feb. 8; the Infectious Diseases Notification (Ireland) Bill stands for Wednesday, March 30th; Mr. Dillwyn's Lunacy Law Amendment Bill is put down for Wednesday, May 25th; and the Contagious Diseases Acts Repeal Bill is fixed for second reading on June 15th. The following is the text of Mr. Cubitt's notice for which no day has yet been fixed with regard to London fogs:—"To move for the appointment of a Select Committee to consider to what extent the fogs of London are injurious to life, health, and property; whether they have increased and are increasing from causes which are controllable; whether the existing Acts of Parliament relative to the consumption of smoke are applicable to the present state of the metropolis, and can still be enforced; and whether alteration and extension of this legislation would be beneficial."

On Tuesday, the Government withdrew their Endowed Schools and Hospitals (Scotland) Bill, and a fresh Bill was introduced, "To Reorganise the Educational Endowments of Scotland." The second reading of the River Floods Prevention Bill was deferred to Tuesday next. Mr. Healy gave notice that he would ask leave to introduce a Bill to amend the law relating to coroners in Ireland. Mr. Moore gave notice of a question as to the production of the evidence taken at a recent inquiry by Inspectors Bourke and Brodie at Belfast Workhouse.

On Wednesday, a petition was received from C. E. Raddock for inquiry into his case. A Bill for the Appointment of a commission on local boundaries was brought in by Lord E. Fitzmaurice. Mr. Sexton gave notice that he would move for particulars of a recent inquiry at Dromore Workhouse.

On Thursday, Mr. Warton asked the Secretary of State for the Home Department whether it was the fact that, acting under the advice of the Lunacy Commissioners, such advice being supported by the report of a medical superintendent of asylums, he declined to sanction the enlargement of the Joint Counties Asylum at Abergavenny; whether he did not subsequently reconsider his decision, being influenced so to do by the advice of Dr. Gover, the Medical Inspector of Prisons; and, whether the recommendation of the Lunacy Commissioners was set aside in consequence of the opinion of a medical man unconnected with their body. Sir W. V. Harcourt said the facts were these: The Committee of Visitors wanted to enlarge the asylum. The Commissioners in Lunacy thought there ought to be a new building on a new site. It was left to the Secretary of State to settle the point; and when he (Sir William) came into office he carefully investigated the matter. It was finally reported to him that, although a new building on a new site would be ideally the most perfect thing, still an additional building on the old site would do well enough; and the consequence was that he declined to force the local people to go to an unnecessary expense. He desired to add that, with the present heavy burden of the rates, he did not wish to use the central authority to compel the local authorities to enter into expenditure which they felt to be unnecessary, and which could not be proved to be necessary. Mr. Errington asked the Vice-president of the Council whether he would agree to the appointment of a Select Committee to continue the inquiry commenced in 1878 into important questions of medical reform. Mr. Mundella stated that last year there was a Medical Bill of the Government before the House. It was referred, with other Bills, to a Select Committee. The Government did not see any probability of a Medical Bill being discussed and receiving proper attention this session, and they therefore had no intention of introducing such a Bill. But they thought it probable that some advantage would result from a continuation of the inquiry. The whole question was under consideration, and he would confer with his hon. friend about it.

Obituary.

WILLIAM ALEXANDER WHITE, M.D.

THE death of Dr. W. A. White, late of the Army Medical Service, is announced as having occurred at Duncan-street, Edinburgh, on the 29th ult. Dr. White, who was a graduate of Edinburgh, obtained his commission as an Assistant Surgeon on the 18th October, 1853, and was shortly afterwards gazetted to the 47th Regiment, with which corps he served in the Mediterranean and throughout the Crimean Campaign, including the battles of Alma, Balaclava, Inkerman, and the Fall of Sebastopol (medal and three clasps and Turkish medal). He was promoted staff-surgeon in May, 1863, and was appointed to the Royal Artillery in January, 1864, serving in charge of a brigade in India for several years. He became Senior Surgeon-Major in 1873, and did duty in Dublin prior to his retirement in October, 1879, on half-pay, when he was granted the honorary rank of deputy surgeon-general. Dr. White was unmarried.

SURGEON-MAJOR WILLIAM IRONSIDE.

WE regret to announce the death on the 16th instant, in Edinburgh, of Surgeon-Major William Ironside, M.D., of the Army Medical Department. Dr. Ironside studied at Aberdeen, of which University he was a graduate, and entered the Army as an Assistant-Surgeon on the 1st April, 1861. He was shortly afterwards gazetted to the 71st Highland Light Infantry, with which regiment he served several years in India, being transferred to the Royal Artillery on the reduction of the junior assistant-surgeons of regiments in India. He was promoted Surgeon-Major in April, 1876, returned from a tour of service in India in 1878, and had been stationed in Edinburgh for the last two years. He leaves a widow and two children to mourn his loss.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 18th inst.:—

Carter, D'Arcy Bainbridge, Leeds.
Clarke, Walter James, Birmingham.
Evans, Thomas Jones, Llanybyther, Carmarthen.
Holt, William, Camberwell New-road.
Hooley, Arthur, L.R.C.P. Edin., Cobham.
Houghton, F. E. Caulfield, Dudley.
Jones, Robert Langford, L.S.A., Bangor.
Loynd, William, Gt. Harwood.
Matthews, Samuel Richard, Llandinabo.
Oates, John Harrison, Dewsbury.
Poett, Patrick Matthias, L.K. & Q.C.P. Irel., Teremire, Dublin.
Prendergast, Joseph Moran, L.S.A., Melbourne, Australia.
Sellers, William, M.D., Radcliffe, Manchester.
Sharples, William Henry, Preston.
Stanwell, William, Rochdale.

The following gentlemen were admitted Members on Wednesday last:—

Bell, William Taylor, Totteridge Park.
Bond, Richard Pratt, L.R.C.P. Edin., Cheltenham.
Brown Percy, L.S.A., Camberwell.
Chronnell, James, Manchester.
Field, C. A. E. Adolphus, Camden-road.
Gardner, James Clark, Newcastle-on-Tyne.
Lidiard, Sydney Robert, Dulwich-road.
Marshall, James, Plymouth.
Puddicombe, Francis Morgan, Dartmouth.
Roberts, Frank Ernest, Lower Norwood.
Shepherd, T. A. Jordan, L.S.A., Rotherhithe.
Voision, Alexander Bishop, Jersey.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 13th:—

Conway, Thos. Henry, New Burwell, Newcastle-on-Tyne.
Sumner, Joseph Henry Sturtees, Redburn-street, Chelsea.

THE salary of Mr. Ilott, medical officer of the Whitechapel Union Infirmary, has been increased from £200 to £250 per annum; and that of Dr. Knox, senior resident medical officer of St. Matthew Workhouse, Bethnal-green, from £200 to £250. The West Ham Board of Guardians have raised the salary of Dr. Scoresby-Jackson, Medical Officer for Walthamstow, to £150 per annum.

MANCHESTER MEDICAL SOCIETY.—At the annual meeting of the Society held at the Owens College on Jan. 12th, the following office-bearers and members of committee were elected for 1881:—President: Mr. Edward Lund. Vice-Presidents: Mr. John Broadbent, Dr. James Hardie, Dr. George Stevenson, and Mr. Walter Whitehead. Treasurer: Mr. F. A. Heath. Secretary: Mr. Chas. Jas. Cullingworth. Honorary Librarian: Mr. Thomas Windsor. Other Members of the Committee: Drs. Henry Ashby, Julius Dreschfeld, Arthur Gamgee, Charles Edward Glascott, Robert Hopwood (Stalybridge), Thomas Jones, John Dixon Mann, Henry Colley March (Rochdale), Siegmund Moritz, Joseph Chadwick Peatson, Edwin Rayner (Stockport), and William Yeats. (The above, with the past presidents of the Society and two representatives from the council of Owens College, form the committee.) Auditors: Drs. Abraham Matthewson Edge and Alexander Hodgkinson. Editor of the Society's proceedings: Dr. Charles Edward Glascott. The report stated that the number of members now on the roll is 219, as compared with 208 last year. 1357 volumes have been added during the past year to the library, which now numbers (excluding duplicates) 25,252 volumes.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting on Tuesday, Jan. 11th, the following list of officers and council was adopted, the newly elected being those proposed by the council for ballot:—President: Mr. Reginald Harrison. Vice-Presidents: Dr. Caton, Dr. Dickinson, Dr. Gee (newly elected), and Mr. Townson (newly elected). Hon. Treasurer: Dr. W. M. Campbell. Hon. General Secretary: Mr. Rushton Parker. Hon. Secretary, Ordinary Meetings: Mr. E. A. Browne. Hon. Librarian: Dr. Howie. Council: Dr. Barr, Mr. Banks, Mr. McCheane, Mr. Ransford, Dr. Rawdon, Dr. Waters, Dr. Burton (newly elected), Dr. Costine (newly elected), Dr. Cregeen (newly elected), Dr. Hicks (newly elected), Dr. Hoppey (newly elected), and Mr. Paul (newly elected). Microscopical Committee: Dr. Alexander, Dr. Braidwood, Dr. Briggs (newly elected), Dr. Glynn, Dr. Grossmann (newly elected), Dr. Hicks, Mr. Newton, Mr. Rushton Parker, Mr. Paul, and Dr. W. Williams (newly elected).

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The usual quarterly court of the Directors of the above Society was held on Wednesday, Jan. 12th, at 5 P.M. Mr. John Gregory Forbes, V. P., in the chair. A sum of £1270 was awarded to fifty-nine widows, fifteen orphans, and three recipients of relief from the Copeland Fund. The expenses of the quarter were £63 2*s.* 6*d.* There were no fresh applicants for ordinary grants, and one only for extra relief from the Copeland Fund. Two new members were elected and the death of one was announced.

MR. J. WHITE HOPKINS, of the Swinnerton District of the Stone Union, has received a first-class grant for successful vaccination.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

CASSON, H., M.R.C.S.E., has been appointed Medical Officer to the Stapleford District of the Wilton Union, vice Straton, deceased.

CUNNINGHAM, A., M.B., C.M., has been appointed Medical Officer of Health for the Oldbury Urban Sanitary District.

FARRAR, C., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer to the Fourth District of the North Witchford Union.

FURNIVALL, C. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the District of Acton.

HOOPER, A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of the Burton-on-Trent District and Workhouse of the Burton-on-Trent Union.

KAY, T. V., L.R.C.P.Ed., L.R.C.S.Ed., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer and Public Vaccinator to the Clay Cross District of the Chesterfield Union, vice Wilson, deceased.

MILLES, W. J., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

OGILVIE, L., M.B., B.Sc., has been appointed Extra Physician to the North West London Free Dispensary for Sick Children.

WILLIAMS, DAWSON, M.B., M.R.C.S.E., has been appointed Medical and Surgical Registrar to the Victoria Hospital for Children, vice Beckingsale, resigned. [In our last issue the Christian and surname were accidentally transposed.]

Births, Marriages, and Deaths.

BIRTHS.

ELLISON.—On the 13th inst., at Blythe House, Forest-hill, the wife of Frederick W. Ellison, M.R.C.S.E., of a son.

SHELDON.—On the 14th inst., at Cornwall-road, Notting-hill, the wife of Thomas Sheldon, M.D., of a son.

TICEHURST.—On the 8th inst., at Silchester House, St. Leonard's-on-Sea, the wife of A. R. Ticehurst, M.R.C.S.E. &c., of a son.

MARRIAGES.

DANIELL—KIRKMANN.—On the 19th inst., at St. Mark's, Kennington, by the Rev. W. Griffiths, M.A., Herbert E. Daniell, M.B., eldest son of the late Alfred Daniell, Esq., Surgeon, to Edith, youngest daughter of the late W. Kirkmann, Esq.

HOBSON—WATTS.—On the 13th inst., at St. John's Church, Broughton, Manchester, John Morrison Hobson, M.D., of Addiscombe Villas, Lower Addiscombe-road, Croydon (son of the late Dr. Benj. Hobson, of China), to Emily Ashton, eldest daughter of Joseph Watts, Esq., of Lower Broughton, Manchester.

DEATHS.

COOPER.—On the 8th inst., at South-hill-park, Hampstead, Thomas Henry Cooper, M.R.C.S.E., eldest son of Thomas Cooper, Esq., late of Well-walk, Hampstead, aged 33.

CRUCKNELL.—On the 14th inst., at Epsom, after a long illness, H. H. Crucknell, M.D., Fellow of Oriel, Oxford, aged 50.

GIBSON.—On the 29th ult., at Auteuil, Paris, Isa, second daughter of William Gibson, M.D., of Campbeltown, Argyll, aged 18. Friends are requested to accept this, the only intimation.

IRONSIDE.—On the 16th inst., at Edinburgh, Surgeon-Major William Ironside, M.D., Army Medical Department.

KERR.—On the 19th inst., suddenly, William Kerr, L.R.C.P.Ed., L.F.P.S.G., of 50, Vauxhall-walk, Lambeth, S.E., aged 37. Deeply regretted.

MOORE.—On the 17th inst., at his residence, 3, Queen-street, Lancaster, J. Daniel Moore, M.D., after a lingering illness, aged 46.

TIMS.—On the 8th inst., at North-street, Langport, Thomas Lamb Tims, L.R.C.P.Ed., M.R.C.S.E., L.S.A.L. Relatives and friends will kindly accept this intimation.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

INTERNATIONAL MEDICAL CONGRESS.

LONDON, AUGUST 2ND TO 9TH, 1881.

SECTION IV.—MEDICINE.

Sir WILLIAM WITHEY GULL, Bart., D.C.L., LL.D., F.R.S., President.

Professor W. T. GAIRDNER,
Dr. GEORGE JOHNSON, F.R.S.,
Dr. RICHARD QUAIN, F.R.S.,
Dr. WILLIAM ROBERTS, F.R.S.,
} Vice-Presidents.

Dr. DYCE DUCKWORTH,
Dr. WILLIAM M. ORD,
} Secretaries.

Proposed List of Subjects for Discussion.

1. Localisation of Disease in Brain and Spinal Cord, so far as pathognomonic and diagnostic.
2. Trophic changes of Nerve-origin.
3. Vascular changes, functional and organic, in Disease.
4. Primary diseases of the Lymph-system.
5. Gout, Rheumatoid Arthritis, and Rheumatism.
6. Forms of Renal Diseases (Bright's Diseases).
7. Methods of Physical Diagnosis.
8. Therapeutic Methods:—Revulsions, Blood-letting, Diet-cure, Uses of Heat and Cold, Drug-cure, &c.

All communications regarding Section IV. should be addressed to Dr. ORD, 7, Brook-street, Grosvenor-square, London, W.

SECTION I.—ANATOMY.

Prof. FLOWER, LL.D., F.R.S., President.

Prof. MACALISTER, M.D.,
Prof. ROLLESTON, M.D., F.R.S.,
Prof. TURNER, M.B., F.R.S.,
} Vice-Presidents.

Prof. CURNOW, M.D.,
Prof. THANE,
} Secretaries.

This Section will receive communications relating to any of the following subjects:—1. Human Anatomy, descriptive, microscropic, and topographical; 2. Embryology and Teratology; 3. Anatomical Anthropology and Anthropometry; 4. Comparative Anatomy in so far as it illustrates structural arrangements in Man; 5. Improved Methods of Instruction in Anatomy, and of preparing and preserving Anatomical Specimens.

Medical Diary for the ensuing Week.

Monday, Jan. 24.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M. ; on Tuesday, 9 A.M.

Medical Society of London.—8½ P.M. Second Lettsomian Lecture: Sir Joseph Fayrer "On Tropical Dysentery and Diarrhœa."

Tuesday, Jan. 25.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Royal Institution.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

Royal Medical and Chirurgical Society.—8.30 P.M. Dr. Ransome, "On Further Observations on the Value of Stethometry in the Prognosis of Chest Disease."

Wednesday, Jan. 26.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital. — Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital. — Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations, 2½ P.M.

Association of Surgeons practising Dental Surgery. — 8½ P.M. Annual General Meeting.—Mr. W. A. N. Cattlin, "On the Imperfections of the Dentists Act, with suggestions as to the Alterations required to protect the interests of qualified Surgeons."

Hunterian Society.—8 P.M. Mr. Waren Tay, "On a case of Colotomy."—Mr. Gilbert, "Notes on Cases in General Practice."

Society for the Encouragement of Arts, Manufactures, and Commerce.—8 P.M. Mr. Edmund Johnson, "On Five Years' Experience of the Working of the Trade Marks' Registration Act."

Thursday, Jan. 27.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital. — Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Royal Institution.—3 P.M. Mr. Francis Hueffer, "On the Troubadours."

Friday, Jan. 28.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Royal Institution.—9 P.M. Dr. Schuster, "On Modern Spectroscopy."

Quekett Microscopical Club.—8 P.M. Mr. B. W. Priest, "On Sponges."—Dr. T. S. Cobbold, "On Filariæ."

Clinical Society of London.—8½ P.M. Dr. Sutherland, "On a Case of Chronic Vomiting, in which no food except Koumiss was taken for sixteen months." –Mr. Hulke, "On the Results of a Trial of Chian Turpentine as a reputed Remedy for Cancer of the Female Genital Organs, conducted during several months of 1880 in Whitbread Ward, Middlesex Hospital."—Mr. J. W. Teale (Scarborough), "On a Case of Quiescent Scirrhus."—Mr. Heath, "On a Case of Gangrene of the Arm from a Poisoned Wound; Amputation at the Shoulder, and Recovery."—Dr. Whipham, "On a small Round-celled Sarcoma of the Dura Mater encroaching on the Left Temporo-sphenoidal Lobe of the Brain, and producing Extensive Softening in its neighbourhood; Absence of Aphasia, the Patient being Left-handed."

Saturday, Jan. 29.

Royal Free Hospital.—Operations, 2 P.M.

Royal Institution.—3 P.M. Mr. Sidney Colvin, "On the Amazons: A Chapter in the Study of Greek Art and Mythology."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, January 20th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 14	29·85	N.E.	24	..	..	27	20	..	Foggy
„ 15	29·85	W.	17	..	..	28	10	..	Foggy
„ 16	29·79	S.W.	20	..	..	29	18	..	Foggy
„ 17	29·85	S.E.	23	..	..	32	16	..	Foggy
„ 18	29·32	E.	32	..	..	32	27	..	Overcast
„ 19	29·27	E.	28	..	..	29	25	..	Overcast
„ 20	29·97	E.	22	..	..	31	18	..	Foggy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Theology and Medicine.

The *Echo* gives currency to the following singular statement:—"The parish priest of Sendomi, in the diocese of Lerida, Spain, has declared from the pulpit that the last absolution, extreme unction, and Christian burial will henceforward be refused to any parishioner who allows himself, or whose kindred allow him, to be treated by any but duly qualified medical practitioners. All men, women, or children who are treated homœopathically will be deprived of the rites of the Roman Catholic Church, and treated as Moors or Jews."

SEWERS AND MILK.—DIPHTHERIA.

To the Editor of The Lancet.

Sir,—In the last number of The Lancet it is stated that the recent outbreak of diphtheria at Surbiton may be attributed to "foul water" from a well "occasionally used," which, it is inferred, "was reserved for dairy purposes." When first called in I warned the dairymen against using the well-water, and he assured me that it was never used "for dairy purposes." In the scullery, close to the door of the dairy, I observed a large sized earthenware pipe in direct communication with the soil drains running into the main sewer, which had been overlooked by the sanitary officials, and from this drain-pipe the deceased girl complained of having "swallowed the smell," of which she sickened immediately afterwards.

I am informed now that another dairy is supposed to be spreading this disease. How is it that the diphtheria should be confined to Surbiton, while the dairymen are supplying all the surrounding neighbourhood, including the Metropolitan Convalescent Institution for Children, without infecting any of them?

I have attended many cases, in all of which I can prove that the disease originated from the drains, and not from the milk, which was supplied from a variety of dairies, added to which I have treated every case as arising from drains, and none of the casualties have been amongst my patients, for the death in the dairyman's house was not from diphtheria.

There is only one ventilator in the drains throughout the populous part of Surbiton, and these drains are at times poisonous. Their condition was thus described by a resident on the 24th December last:—"I had three servants ill with gastric fever. I called in the inspector of nuisances, and he at once saw that I was ventilating the entire neighbourhood, and advised that a trap should be placed at my junction with the main sewer. I shall never forget the rush of foul air that took place when the junction was broken. The workman was driven backwards, and his candle put out, and I was made quite sick by the stench." This gentleman disconnected the sewer from his own house, and as there was no extra ventilator provided, the neighbours are the sufferers.

It is evident that with the drains of Surbiton in the condition above described—charged with "stench"—we cannot hope to escape diphtheria and other contagious diseases at certain periods; and it appears an absurdity to me to ascribe the existing sickness to milk. I have suggested that the Government sanitary engineer should be consulted as to the propriety of introducing ventilators into the drains, but the local authorities do not appear willing to adopt this measure. Some years ago ventilators were introduced into the drains of Kingston at my suggestion, with satisfactory results.

It would be interesting to know the opinion of the profession as to the necessity of burning the bedding and stripping the paper from the walls of a house where there has been a case of diphtheria.

I am, Sir, your obedient servant,
Robt. Collum, M.D.
Sutherland House, Surbiton, Surrey,
Jan. 5th, 1881.

"THE CUP" AT THE LYCEUM.

MR. IRVING as Synorix in this tragedy, after having swallowed the fatal draught at the hands of Camma, and feeling death approaching, says:—

> "I pray you lift me,
> And make me walk awhile, I have heard
> These poisons may be *walked down*: my feet
> Are tons of lead."

He is then partially raised by one of his retinue, but dies apparently in convulsions, with marked opisthotonos; on the contrary, Miss Ellen Terry as Camma, who has also swallowed the same draught, but less of it, lives long enough to see Synorix die, and then expires herself *quietly* in the arms of one of her handmaidens. The phrases "I have heard these poisons may be walked down" and "My feet are tons of lead" are certainly indicative of opium poisoning, but why the death convulsions? and why the difference in the mode of death in the two victims?

INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The leading article in your issue of October 2nd, 1880, on the above subject, while it draws attention to its genuineness as a service, does not sufficiently note the harm which will come of the recent orders in a professional point of view—that aspect which it most concerns a purely medical journal to keep an eye upon. Nay, it even intensifies one of the mistakes. There has been no complaint, so far as I am aware, that sanitary commissioners are not fully recognised, but rather the reverse. By the recent orders, whereby the prizes of the service are given to sanitary officers, it is lamentably clear that high professional qualifications are at a discount. Those very qualifications for which we are educated, selected, and imported into India at great expense to ourselves and to the State, and which it "pays" the State to secure and to utilise, are apparently not held in such high estimation or deemed so worthy of reward as a vague general knowledge of what is good for health. If a sanitary commissioner is to be promoted to the rank o deputy surgeon-general after twenty-six years' service, it seems strange to withhold it from the principals and professors in the presidency colleges of the same standing, or in fact from any man of acknowledged ability and professional skill.

Far be it from me to undervalue sanitary science, but sanitary science as required in India cannot for a moment be compared in value or in scale with good professional knowledge and practical skill. It is in a most elementary state. A man need not have much medical knowledge or any special education at all to be a sanitary officer in India. Before now sanitary commissioners have been "laymen," and though perhaps such a thing may not occur again, yet sanitary commissioners cannot even now lay claim to any high special knowledge. They are liable to be contradicted, or differed from, or involved in an argument with any omniscient administrator who "fancies" himself in sanitary matters, and the professional man does not always get the best of it, as witness many points during the late famine.

And even now, after the dismal experiences of that time, so little is medical opinion regarded in State affairs or scientific sanitarianism, that the late Famine Commission, which has been roaming about and deliberating in various parts of the empire, at an enormous expense, the prime object of whose cogitations was the saving of human life, was composed entirely of "laymen." The results of their labours have just been given to the world, and for this very reason, however important they may be generally, are in great part shorn of their worth and value.

But Government in India is eminently unscientific and rather see-saw, and this is a notable instance of it. At one time the amount of medical knowledge in a sanitary commissioner is thought so little of that a layman is appointed to the office; at another it appears to be so much appreciated that not only is he to be a medical man, but he is to be held worthy of high reward among his own brethren. And here it is, I think, that medical journals should point out the mistake that is being made, and should not fail to insist that if honours are to be given to medical men, it should be primarily for high professional ability, and not for such qualifications as an Indian sanitary officer need have.

Hitherto the Indian Medical Service has not been wanting in skilful and well-accomplished men, but it is inevitable that professional knowledge would decline where it was not properly recognised and rewarded. At all events, men who possess it in high degree, and who are distinguished in the practice of their profession, should not be liable to departmental supersession.

I am, Sir, yours, &c.,

India, Oct. 28th, 1880. SURGEON-MAJOR, I.M.D.

The Littlehampton Provident Dispensary.—We have frequently expressed our disapproval of dispensaries conducted by one medical officer at very low fees.

Dr. Rae's paper is marked for insertion.

A Young Practitioner.—The case is probably a neurotic one. Morphia, chloral, and all such remedies are to be shunned as likely ultimately to make matters worse. Tonics, change of air and circumstances, and the expression of a hope that with advancing years pain will be less, are the principal measures to be recommended.

M.R.C.S.—We think our correspondent is right on both points. To absolutely refuse consultation with a qualified practitioner would be doubtful ethics, and would certainly be bad policy. It would excite a charge of "trades unionism," &c. Consultations should be taken only on dignified terms. The scheme adopted is a bad one, and has frequently had our disapproval. Working men and their wives are not likely to be long satisfied with a doctor chosen by others and on terms unremunerative to the surgeon appointed and disrespectful to practitioners of standing in the town.

Mr. Hilles.—It would be better, we think, to postpone the publication of the description until the instrument has been tested.

Mr. C. C. Burman.—Soon.

A Pupil is referred to the article on Books in our Students' Number.

Mr. G. A. Warren should consult his usual medical attendant.

ORCHITIS AS A CONCOMITANT AND SEQUEL OF MEDITERRANEAN FEVER.

To the Editor of THE LANCET.

SIR,—Among the remittent fevers that in almost every part of the globe affect the health of our imperial forces on land and sea there is none probably that cause so high a ratio of invaliding and individual inefficiency as that peculiar type best known under the name of Mediterranean fever. Seldom fatal in its result, but insidious in its approach, it too often leaves its victim a mere wreck of his former self, and when at last, after vainly endeavouring to shake it from him, he seeks a remedy by returning home to breathe his native air, he finds for months his limbs attacked by neuralgic pains, and his movements crippled by rheumatic joints. As it has been often noted that these remittent fevers differ one from another in some respects according to the localities in which they have been contracted, and have many of them a certain individual stamp, so we find in this particular variety to which I am alluding a marked tendency to rheumatic affections of the different organs and tissues of the body.

During the early part of this year I had the honour of serving on board of one of Her Majesty's ironclads in the Mediterranean, and spending some months lying in the harbour of Caletta without moving, had an opportunity of studying a slight outbreak of this fever among her crew.

Invaliding from foreign stations naturally removes from under the eye of the medical officer many of his worst cases, and their sequel is consequently lost to him, but out of twenty-three cases occurring on board, four suffered from what I believe to be not a common complication, and one which is the subject of this letter—viz., a rheumatic affection of the testis and neighbouring structures. In two of the patients the affection ushered in the disease after a few days' premonitory symptoms, and in the others it followed as a sequel, in one case three months, in the other four, after the acute stage of the fever had passed away, and while they were still labouring under the debility consequent upon the attack. In all of them the body of the testis was the first part affected, the organ rapidly enlarging, and testicular sensation being much impaired after two or three days. Subsequently the inflammation extended to the epididymis, and in one of the cases a hydrocele made its appearance on the same side, and was tapped. The disease was confined to one side. Under appropriate treatment the inflammation, which was very considerable in all of them, resolved, and the infiltration of the testes and epididymitis, which were great, disappeared in a rapid and marvellous manner, leaving the organs intact.

I will not even hazard an opinion on the nature of the *materies morbi* in this fever, which singles out the fibrous tissues of the body for its attacks, producing often excruciating neuralgia by affecting the neurilemma of the nerves, impairment of the joints by affecting their tendinous surroundings, and in a similar manner, is frequently the cause of effusions into the pericardia and pleuræ. Is it analogous to that of ordinary rheumatic fever? This is a question to be solved by those eminent pathologists the results of whose researches in all parts of the world are daily adding fresh knowledge to our craft. I am only a simple recorder of facts, and leave deductions to them.

I am, Sir, yours obediently,

H. M. ELLIS, R.N.

Royal Marine Artillery, Eastney, Dec. 17th, 1880.

Mr. J. S. Grubb.—As the question is put, we should say the guardians have no such power.

F.R.C.S.I. has not enclosed his card.

Mr. Malcolm Morris's lecture will appear in an early number.

THE TERMS OF ATTENDANCE ON ODDFELLOWS.

To the Editor of THE LANCET.

SIR,—I shall be much obliged if any of your readers can tell me of any lodge of Oddfellows which pays its medical officer more than four shillings a year for each member, also if the fee includes attendance in cases caused by intemperance, such as delirium tremens, and how long a distance from the lodge the medical officer is expected to attend. Information upon the above points will greatly oblige.

I am, Sir, yours faithfully,

Ben Regis, Jan. 19th, 1881. F. D. LYS.

STIMULANTS IN WORKHOUSES.

AT a recent meeting of the Prestwich Board of Guardians a discussion arose upon the subject of the consumption of stimulants in the workhouse, and Mr. Basil Cane, Local Government Board inspector, who was present, on being appealed to for his opinion, said he had seen good results follow the supply of drugs by the guardians themselves, because it relieved the medical officer of the inducement to do with wine and spirits—paid for by the union—what he would otherwise have effected with drugs. If the guardians supplied the latter there would probably be a reduction in the bill for stimulants.

"PREMATURE LABOUR INDUCED BY QUININE."

To the Editor of THE LANCET.

SIR,—I see in the number of your journal received last mail a short article on the above subject by Mr. E. Downes, and as lately I have had an exactly similar case, with an opposite result, I think it may be of some interest to record it.

The patient, aged twenty-seven, was seven months' gone in her fourth pregnancy, and was brought to an extremely debilitated and anæmic condition from repeated attacks of ague. Quinine was prescribed, at first in small doses, and subsequently increased to twenty grains per day, and continued for about three weeks. The attacks of fever disappeared under its influence, and she has now arrived almost at her full time, without any uterine disturbance of any sort, while taking the drug.

During a severe epidemic of malarial fever last year in Rangoon I had an opportunity of giving quinine in several like cases, and never saw any attempt even at the induction of labour, though I am aware that it is sometimes reputed to act in this manner.

I remain, Sir, yours faithfully,
H. A. FOGERTY, M.D., Surgeon, A.M.D.

Meerut, India, Nov. 8th, 1880.

To the Editor of THE LANCET.

SIR,—Mr. Downes's letter from Kashmere, published in your issue of the 16th October last, regarding the induction of premature labour by quinine, induces me to mention a case which occurred recently. I was called to see a lady in her eighth month of pregnancy. She had two severe attacks of the tertian type before I saw her. I tried arsenic in full doses, but without benefit. I then gave her three-grain doses of quinine twice a day with Fowler's solution and tincture of opium, but without effect. She had had by this time six attacks, and felt pain in the back, loins, and down the thighs. The last two attacks of fever were very severe, with delirium. I therefore decided to give a fairly large dose of quinine, and accordingly administered ten grains, with ten minims of tincture of opium, at 4 o'clock on the morning of the fever day. It was at once checked without a bad symptom. I repeated the dose in the morning of the next expected attack, and gave three grains, with eight minims of tincture of opium, on the intermediate day, with the best result.

Fever doubtless causes premature labour. I had a case last year in which, without quinine, the membranes burst during fever, but labour did not occur for a week after. The fever was then of eight days' duration (remittent, with insensibility), which on the eleventh day subsided. This patient was confined of a seven months' child, which did not survive its birth more than thirty hours. I have always given quinine, combined with tincture of opium, in all periods of pregnancy, and cannot call to mind any case where it produced abortion or premature labour. I believe that tincture of opium modifies, or entirely checks, any reputed or real ecbolic action of the alkaloid. Arsenic takes time to act, and the delay allows of the fever poison operating in the specific manner now generally admitted.

I am, Sir, yours faithfully,
W. J. LINCOLN, L.R.C.P., &c.,
Mysore, Nov. 17th, 1880. Civil Surgeon.

ON THE ASSOCIATION OF AFFECTIONS OF THE THROAT WITH ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—I have only just seen the paper of my friend Dr. J. K. Fowler on the above subject in THE LANCET of December 11th, and also the letter of my former colleague, Mr. Lennox Browne, in the issue of the 25th December. I should like to be allowed to bear corroborative testimony as to the apparent connexion, which I have frequently noticed, between rheumatism and certain throat affections, tonsillitis especially. My attention was first drawn to the point by Mr. Lennox Browne, some four years ago, when I was acting as his clinical assistant, and I have observed it in many cases since. In almost all cases of tonsillitis which I have treated since that time I have prescribed salicylate of soda, in combination with sulphate of magnesia, and sulphate or salicylate of iron, usually with very excellent results. Patients who have had tonsillitis several times before have assured me that they had never previously got over an attack so quickly as they did under this treatment. As far as my reading goes, I think Mr. Lennox Browne was the first to note—certainly the first to emphasise—the etiological, semeiological, and therapeutic analogy between tonsillar inflammations and the arthritic diathesis. It is valuable and interesting to have the corroborative independent testimony of such an evidently careful observer as Dr. Fowler.—I am, Sir, yours obediently,

DOUGLAS HEMMING, F.R.C.S. Ed.

Bournemouth, Dec. 31st, 1880.

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ABSTRACT OF

The Brown Lectures.

FURTHER INVESTIGATIONS ON ANTHRAX AND ALLIED DISEASES IN MAN AND ANIMALS.

BY PROF. W. S. GREENFIELD, M.D., F.R.C.P.

LECTURE IV.

BEFORE discussing the minute anatomy and the pathology of "woolsorters' disease," Dr. Greenfield gave an account of the cases of anthrax (splenic fever) in the cow and sheep, which had apparently arisen from drinking water in which infected wool or hair had been washed, and showed that these cases were proved by the microscope and by experiments to be really cases of anthrax. Moreover, they were of interest from the fact that the examination of the various fluids from these animals side by side with those from men showed the identity of the conditions in both.

Passing next to the microscopical anatomy of anthrax in the lower animals, he described the various appearances usually met with in splenic fever of cattle and in animals inoculated from them. The multiple ecchymoses found in various organs were shown to be usually due to thrombosis of vessels by masses of bacilli, not uncommonly the artery or vein being filled by a plug consisting entirely of bacilli, and the extravasated blood containing them only in very small numbers. This was especially the case in the heart, lung, and brain, but occurred also in other situations. It might be, however, that the bacilli, especially in the lung, were far more widely distributed, occupying in large numbers the pulmonary capillaries throughout a wide area of the lung. In the lymphatic glands and spleen they might be almost entirely limited to veins and venous sinuses, or more widely diffused. In the kidney the glomeruli, particularly those nearest the surface of the cortex, were their especial site, where they occupied and often filled the glomerular capillaries. He stated, however, that in some cases this general distribution of the bacilli was not observed, but they were almost entirely limited to certain organs, especially the lungs, and in one case to certain vessels supplying some of the bronchi, where they produced special changes.

Turning next to the subject of human anthrax, he described the changes found in the malignant pustule, following the descriptions of Davaine, Thiersch, Wagner, and Colin, and stating that he had had no opportunity of studying them for himself in man. He believed, however, from observations on the lower animals, that whereas in the majority of cases the infection of the general system occurred through the lymphatic glands, it was not at all improbable that the virus might enter the blood-stream locally through the capillaries of the affected part, and that this partly accounted for the great difference in the results of equally severe local affection. The theory of double parasitism of bacilli and micrococci, advocated by Buchner to account for the local phenomena, he did not think supported by the evidence.

The internal form of anthrax known as "woolsorters' disease" was next considered. Dr. Greenfield pointed out the far greater difficulty usually met with in the examination of the organs for bacilli in man, owing to their relatively small number and the length of time which must usually elapse before the post-mortem examination—a fact which always increased the difficulty in discovering them. After briefly adverting to the principal changes found in the organs as described in the previous lecture, these especially consisting of ecchymoses in the trachea and bronchi, great engorgement of the bronchial glands, mediastinal cellulitis, and pleural effusion, he described in detail the microscopical changes found in these cases. In two of the most complete cases, in which he was able to examine nearly all the organs of the body, he found the following conditions. In the lower part of the trachea and larger bronchi masses of bacilli were found occupying the lymphatic plexuses of the mucous and submucous tissue, and extending to near the surface of the mucous membrane. In some parts these were almost unattended by any marked change in the surrounding tissues; but where the change had proceeded to any extent, marked inflammation was present. Of the earliest changes observed, hæmorrhage into the mucous membrane and hæmorrhagic exudation upon its surface, leading to detachment of the epithelium, were the most common, in some cases the epithelial layer being raised entire, so as to form a sort of bulla on the surface. In the more advanced stages the entire mucous membrane was infiltrated with blood, so as to form a raised area, the deeper parts of the mucous membrane showing signs of inflammation, and being crowded with bacilli. No distinct ulceration was anywhere observed. Dr. Greenfield was also able to trace the course of absorption of the virus, as indicated by the presence of masses of bacilli along the lymphatics surrounding the arteries and bronchi, where they were found in some places in great abundance, whilst in other parts of the lung they could not be found at all, or only one or two here and there. In the bronchial glands, which in the majority of sections examined were completely infiltrated with blood, bacilli were found, but not in great abundance except in the bloodvessels of the cortical part, which were in many cases plugged by bacilli. The glands most especially affected were those situated at the bifurcation of the trachea, and might have become so by direct continuity from the larger bronchi. Hence Dr. Greenfield thought it probable that the primary affection was that of the bronchial mucous membrane, and that both the glands and the general system were secondarily involved. In the lung nothing special was found beyond some collapse, due to bronchial obstruction and to the pleural effusion, and in some parts commencing broncho-pneumonia. In other cases there were areas of hæmorrhage, corresponding with those seen in the lungs of lower animals when the arteries are obstructed. In the other organs no special changes beyond what are common to most febrile diseases were discovered, except where hæmorrhage had occurred in various organs. Bacilli were found scantily distributed in the blood in sections of vessels.

Passing, then, to the question of the source and mode of entrance of the virus, Dr. Greenfield described the mode of woolsorting and the conditions under which infection occurs. Neither microscopical examination nor experiments had been able to prove that the wool was the source of the infection, but the circumstantial evidence appeared conclusive that such was the case. Nor had experiments with the water in which wool had been washed been more satisfactory. But the difficulties in the investigation were so great that a negative result was not surprising.

As to the channel by which the virus enters the system, although the bronchi or lungs would appear most probable, from the origin of infection, course of symptoms, and results of pathological investigation, it could not on these grounds alone be conclusively adopted, for some cases of inoculation by the skin presented very similar pulmonary lesions. But skin inoculation in man gave rise to a definite local lesion; this might therefore be excluded. Inoculation in some part of the alimentary or respiratory tracts remained therefore for consideration.

Experiments by Böllinger, Pasteur, Toussaint, Feser, Chauveau, and others, have shown that even large quantities of anthrax virus may pass through the alimentary canal of susceptible animals without injury, unless some irritant particles capable of causing abrasion are present. Buchner has recently shown that large quantities of spores mixed with the food of white mice may pass unaltered through the greater part of the alimentary canal, being gradually destroyed by digestion, but producing no results, whilst inoculation with the contents of their intestines in small quantity causes fatal effects. Similar experiments which Dr. Greenfield had made by feeding with infected food had a like negative result.

On the other hand, it has been conclusively shown that inhalation of spores will give rise to infection, though Buchner's experiments seem to show that the result is very largely attributable to the material in which they are conveyed, and that powdered charcoal and talc are by far the most suitable. The short particles of hair found in the wool- or hair-dust would, Dr. Greenfield thought, furnish a similar irritant vehicle in inhalation of infected hair. Moreover, if inoculation had occurred through the alimentary canal the lesions produced would probably have had some resemblance to those in Wagner's cases of "intestinal mycosis." From these considerations Dr. Greenfield considered it almost conclusively established that the majority of cases of "woolsorters' disease" are a form of anthrax produced by inoculation through the mucous membrane of the bronchi, a "bronchial" as distinguished from an "intestinal" mycosis. Other cases might show that inoculation sometimes occurred through other channels. The subsequent course of infection was probably through the lymphatic and bronchial glands. Dr. Greenfield had not found any particles of hair in the alveoli in scores of sections of the lungs in these cases.

With regard to the other changes found, the pleural effusion might probably be due partly to an altered condition of the blood, but still more to the complete obstruction of the bronchial lymphatic glands. It did not appear in any case to be inflammatory, nor was any other obvious cause present. Probably this great pleural effusion was often the immediate cause of death.

As to the symptoms observed, these appeared to be closely related to the changes discovered; very probably the obstinate vomiting sometimes observed was due to implication of the vagus and phrenic nerves in the mediastinal inflammation, and this might also account for the rapid and irregular action of the heart. The convulsions had been attributed to asphyxia, but might equally be due either to direct affection of the brain, toxæmia, or uræmia, the latter being indicated by the condition of the kidneys.

The incubation period was next discussed, and the statistics from a large series of experiments by various observers, and by Dr. Greenfield himself, were collated, as well as cases in man. From these he concluded that in many cases a period of four and a half or five days elapsed between the exposure to infection and onset of symptoms in man, a longer period than usual in lower animals, but that there was probably great variation in this respect, and the known facts were not yet sufficiently numerous to justify an absolute conclusion.

As to the diagnosis of the disease; with our present knowledge it must largely depend on known exposure to infection, and this very probably accounted for its not having been recognised in regions where it almost certainly existed. From ordinary acute pneumonia it might be usually distinguished by the absence of early elevation of temperature, the absence of the usual physical signs, and of rusty sputum, the marked depression out of proportion to the local symptoms, and the rapid cyanosis, usually with signs of double pleural effusion. But in the very rapid cases death often occurred whilst the case was still regarded as one of ordinary bronchitis, and in the prolonged cases secondary bronchopneumonia might occur, and complicate the diagnosis. Moreover, it might simulate various unusual forms of latent pneumonia associated with renal and other diseases.

The diagnostic value of anthrax bacilli in the blood had been overrated, for very frequently they might be so limited to the affected regions until very near the time of death, or shortly after, that repeated examination of the blood would fail to detect them in the earlier stages of the disease. Hence it was but very rarely that their discovery would serve to establish the diagnosis. After death, before decomposition occurred, the presence of bacilli of the size and form of anthrax bacilli, without other bacteria, would be distinctive, but after decomposition had set in the presence of similar bacilli with other bacteria was inconclusive. The only certain test, inoculation, was also usually negative when decomposition had set in. But if on cultivation of blood in the warm stage the bacilli do not develop, but degenerate, they are probably not due to decomposition, as the bacilli formed in putrefying blood will, under these conditions, continue to develop in the presence of other bacteria. Dr. Greenfield also discussed other points relating to the distinction of anthrax bacilli.

In conclusion, he remarked that the observations which he had detailed, when combined with recent researches on the contagion of malarial fevers, relapsing fever, and fowl cholera, were of great suggestive value in relation to the pathology of contagion, making some of the difficulties hitherto felt in accepting the bacterial view of contagion much less than they had hitherto appeared. At the same time we ought not for a moment to allow any discovery, however important, to be extended beyond its own special and legitimate conclusions with regard to the particular disease in question. But these observations should lead to the investigation of other contagia along the lines indicated by determined facts.

It was now clearly shown that the diseases in question followed the same laws of non-recurrence or modified recurrence as other specific fevers; that they were attended by specially localised and specific lesions. The bacteria forming the contagium follow special laws of growth and distribution within the body, which are not explained by any mere chemical affinity or physical qualities. They must be regarded as parasites, which both within and without the body are selective as regards their host and the parts which they affect, and in the changes they undergo and produce, and are governed by definite laws specially related to the class of animals and the individuals which they infest. External to the body they may, under suitable conditions of growth, become modified in their properties, or even lose their morbific action. Within the body they may be innocuous, owing to the insusceptibility to their action, and may be simply destroyed or excreted. They may also be periodical in their times of diffusion, as well as selective in point of locality.

LECTURE V.

This lecture took the form of a demonstration, with remarks, of microscopical specimens, and of a series of microphotographs prepared by Dr. Maddox, which were shown with the limelight by Dr. W. H. Stone.

The series of photographs illustrated the changes undergone by the anthrax bacillus in its growth, and the continuance of the characters unaltered through a series of generations of cultivation. Together with these, photographs of the blood and the fluids from cases of human anthrax ("woolsorters' disease") were shown; and also organs of various animals dying of anthrax.

The microscopical specimens were also illustrative of the subjects of the lectures, upwards of sixty microscopes being shown. Complete series of cultivations of the anthrax bacillus under high powers were exhibited, and other bacilli liable to be mistaken for them. Other series of preparations showed the changes found in splenic fever in the lower animals, and those discovered by Dr. Greenfield in "woolsorters' disease."

Clinical Lecture
ON THE
DIAGNOSIS & TREATMENT OF RINGWORM.

Delivered at St. Mary's Hospital Medical School,

BY MALCOLM MORRIS, F.R.C.S. EDIN.,
JOINT LECTURER ON DERMATOLOGY.

GENTLEMEN,—Ringworm, no matter what part of the body may be affected, is essentially a localized eczema produced by a local cause. The local cause is a microscopic fungus which has a peculiar affinity for the epidermic structures of man and certain animals. There are some who deny that the phenomena seen on the skin to which we are accustomed to apply the term ringworm are due to this vegetable growth; but I will ask you to accept the theory as established, inasmuch as it is the opinion of the majority of dermatologists, both English and foreign.

During my observations I will ask you, then, to assume that this fungus—which is known as the Trichophyton tonsurans—is the primary cause of all the changes on the skin known as ringworm. It is found that these changes differ in appearance according to the part on which the fungus is deposited, and the fact is clearly due to the anatomical differences of the epidermic structures. But in spite of these differences the principle involved is the same—the fungus, as a foreign body, acting as an irritant and causing an eczema. The strongest argument in favour of the parasitic theory is the pre-eminently contagious character of the disease. We find that if a child suffering from ringworm be accidentally admitted into a school, after a short interval several of the other children give evidence of having been attacked in a similar manner. Occasionally, however, cases are met with in which children kept under close supervision develop ringworm, although there is apparently no history of contagion. In such circumstances I think there is little doubt that the disease has been caught from domestic animals, usually cats. As regards the physical characters of the parasitic plant, I refer you to the text-books on the subject, and especially to the excellent description by Kaposi in the fifth volume of Hebra, published by the New Sydenham Society. To-day I wish to call your attention to the various stages and changes produced by its presence, and to consider what are the indications for treatment in consequence.

In the initiation, fungus is carried in minute particles either in the air (Bazin) or by means of the clothes on to the epidermis; here it is deposited, and, if the soil is suitable and there is sufficient warmth and moisture, it commences to grow. Passing then between the horny cells of the epidermis, it finds its way into the deeper layers, where by the irritation of the more organised cells it sets up the first stage of a simple inflammatory process—viz., hyperæmia. A red spot, then, is the first subjective symptom in ringworm in every case, whether the part be covered with hair or not. Next in order comes the formation of a ring of inflammatory papules, the second stage of a true eczema, and the circle continues to widen with the growth of the fungus. The acute inflammatory symptoms may here cease, or indeed, as is the case in all eczemas, they may abort at any stage as a result of a removal of the cause. But should the condition become more intense, the papules will become the seat of vesicles; and although these vesicles have nothing peculiar in themselves, the fact of their being distributed more or less in a ring will lead to the suspicion that the disease is ringworm. Authors have recognised the three stages I have mentioned, and have given such descriptive names to the disease as tinea maculosa, tinea papulosa, and herpes tonsurans. As the ring spreads we shall find that the hyperæmia within the centre disappears, and in consequence of the interference with the growth of the cells a branny desquamation will be observed on the surface. In addition to the foregoing appearances, if the part attacked be hairy, the hairs themselves not at first affected speedily become diseased. The fungus may be deposited either on a hair or in the mouth of a hair-follicle. Thus it may grow downwards into the follicle or it may get there by extension from the deeper layers of the epidermis. As soon as it reaches the deeper part of the follicle it interferes with the nutrition of the hair, and thus causes it to break off a short distance from the mouth of the follicle, leaving a projecting stump. This stump is usually split or twisted, and has lost its natural healthy appearance; moreover, it lies but loosely in the follicle.

A recent patch of ringworm of the scalp, for example, can easily be diagnosed by the raised red ring of papules, some of which may be vesicular, with a more or less pale, slightly pigmented centre, covered with branny desquamation and short broken hairs that are readily extracted.

To pass now to the more chronic and obstinate forms of the disease. As far as English ringworm is concerned, the parts attacked are limited to the scalp, for the disease when found on non-hairy parts is quickly and easily cured; I am now speaking of English ringworm only. There is, I have understood from Indian medical officers and surgeons who have practised in China and other parts of the East, a variety of the disease which attacks the body, and is most inveterate and difficult to cure. Why this is the case I cannot tell you, but one would be inclined to imagine that the heat and the moisture on the skin would so favour the growth of the plant as to make it reach a higher state of organisation than it attains in this country. At all events, the eczema produced is undoubtedly the same, though of a more severe type, and the fungus is harder to destroy.

Acute ringworm may pass into one of two conditions:—1. It may become pustular. 2. It may become dry and squamous. Pustular ringworm of the scalp is a most important stage of the disease to recognise, as there is danger that the cause may be overlooked. It may also assume either a superficial or a deep form. If superficial, the appearance is that of pustules at the mouths of the hair-follicles, which burst and cause fresh pustules to be produced by the pus being transplanted to other parts of the head. Thus a contagious impetigo, or porrigo, is the result. As the pus dries large yellowish scabs are formed, from beneath which the pus exudes. When the scabs are removed some of the short broken hairs come away with them, and small bald patches are left in consequence. In the deep-seated variety the pus is formed in the substance of the follicle, and as it passes to the surface through the neck of it, by mixing with the sebaceous matter, it becomes somewhat thinner than ordinary pus. The effect of inflammation in the follicles is to cause the part to become raised and tender, and to have the appearance of a subcutaneous abscess. The condition is known as *kerion*. As the process continues the hairs fall out, oftentimes leaving permanent bald patches.

We now come to the second variety—viz., squamous ringworm. This is the commonest and the most chronic form of the disease. Sometimes it is seen in small localised patches corresponding in size to the original acute patch, at others it will cover the whole scalp. In the latter case it may be called by a term I have employed elsewhere—"diffuse ringworm."[1] In both these forms all signs of acute eczema have disappeared, but in their place has been produced a dry squamous eczema. The localised patches are easily recognisable, resembling, as Kaposi remarks, badly executed tonsures by reason of being covered with short broken hairs. The "diffuse" variety, on the other hand, is very often overlooked and treated as a simple eczema, in which case it will probably last for years. Gentlemen, I should advise you to be exceedingly cautious before you give a certificate that a case of ringworm is cured, for you may by carelessness in this respect cause endless trouble to a great number of people. It is when describing this variety that a word of caution needs to be spoken, for although you would not be likely to give a certificate if you saw a well-defined patch, you might very easily be led to agree with an anxious parent who had learnt to call the case simple eczema. "My child has had ringworm, and now we cannot get rid of the scurf on the head," is a remark I am told constantly, and as constantly after making a careful examination with a little patience do I succeed in finding fungus. The disappointment of the parents on being confronted with such a result can be imagined, for in many instances it has transpired that they have been told by other medical men that the case was well. In fact, even in cases where I have spoken with authority from the revelation of the microscope my opinion has been doubted, the former faulty but favourable view had so strongly possessed the parents. Diffuse ringworm is the most chronic and the most difficult to cure. In this I am supported by the opinion of the distinguished medical officer of Christ's Hospital, Dr. Alder Smith, who in an able article,[2] recently published, says, "Especially would I call attention to a variety I call 'disseminated ringworm,' one rarely diagnosed, and the most chronic and difficult to cure."

It is my wish to-day to make this troublesome condition clear to you, for I am certain that if it were recognised by surgeons generally, we should hear much less of ringworm in our schools. It is extremely contagious. I think I shall be well within the mark if I say that, if left untreated, it is a more contagious condition than any other stage of the disease. The reason is that the scalp is so dry that the particles are easily disseminated in the air, and settle on the skins of other children.

Here I would digress for a moment to consider the class of persons principally affected with this disease, as it will assist us both in our diagnosis and treatment. Children are much more prone to take it than adults, and especially on the scalp. I have seen only three cases so situated in adults. One was a governess who caught it from the children she had under her care. Occasionally in adults it attacks the beard, when it deserves the name of sycosis parasitica. It is not at all uncommon for adults to get it on the body, and it usually occurs when they are attending to children who have it on the head. As regards the children themselves, I believe it depends greatly on the character of the hair and epidermis—first, as to whether they get it at all, and, secondly, as to the length of its duration. To explain my meaning more clearly, I have grouped children into three classes:—

	Hair.	Eyes.	Epidermis.
1	Black or dark brown	Dark brown	Thick
2	Brown (medium)	Blue-grey, grey-blue, or grey-brown	Medium
3	Very light brown, golden or colourless	Light grey or blue	Fine skin with thin epidermis

The first class but rarely suffer from ringworm, the third take it easily and usually have it severely, very often the pustular variety. The second class, both as regards severity and readiness of infection, stand midway between the other two classes. If, therefore, you get a child answering to the description of either the second or third class with either a pustular or dry scaly disease limited to the scalp, I would advise you to suspect ringworm.

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[1] Manual of Skin Diseases, p. 269.

[2] THE LANCET, January 10th, 24th, 31st, 1880.

To return to the diagnosis of the diffuse squamous variety. The whole, or a greater part, of the scalp is covered with white powdery scales that fall off easily, the hair is thin, dry, and lustreless, while here and there a few short broken hairs are to be found, which are easily extracted. *These short hairs are often extremely difficult to find, and because, in a superficial examination, you cannot at once find them, it will not be right to conclude that they do not exist.* At times I believe they are so short that their ends are hidden amongst the loose epidermis. In order to find them, instead of picking with forceps, scrape the part gently with a knife. By this means you will be able to get some of the small stumps. Place the stumps, together with portions of the epidermis, in liquor potassæ, and examine microscopically, and you will find fungus.

(To be concluded.)

THREE CASES OF SUDDEN OBSTRUCTION OF THE ABDOMINAL AORTA BY ANEURISM; WITH REMARKS.

BY J. S. BRISTOWE, M.D., F.R.C.P.

(Concluded from page 133.)

CASE 3.—*Aneurism of upper part of abdominal aorta; rupture and subperitoneal extravasation of blood; aortic obstruction; albuminuria and infarcts in kidney; partial paraplegia; death.*—W. L——, an engine-driver, forty years of age, came under my care on June 17th, 1880. He had had clap and syphilis, but otherwise had enjoyed good health till the commencement of his present illness. In 1865 he went to India as an engine-driver, and continued well until eleven months ago, when he began to suffer from pain in the lumbar region, associated with constipation. The pain soon became so constant and severe as to wholly incapacitate him for work. He went first into some local hospital, where he was treated for lumbago, without relief; and subsequently into the General Hospital at Calcutta, where he was treated mainly with purgatives, and derived, as he thought, some benefit.

On admission, he was a florid, healthy-looking man. He complained of pain in the left lumbar region, not constant, but coming on in paroxysms at irregular intervals. It was always worse at night, and was aggravated by walking or even sitting up in bed. It was generally of a dull, aching character, but at times becoming acute and lancinating. He had also an occasional burning sensation running down the fronts of both thighs to the knees. The pain prevented him from sleeping. He had slight tenderness in the left lumbar region, and over the left sacro-iliac articulation, but no enlargement. Tongue coated; appetite poor; bowels constipated, the motions being hard and scanty; heart sounds and action normal; pulse 66; lungs apparently healthy, no cough; abdomen not distended, nor tender on pressure; no tumour detected in it; urine, sp. gr. 1018, phosphates, no albumen. Temperature 99°.

He remained much the same until the 26th. The pain continued off and on with extreme severity, and was generally referred to a region a little above the centre of the crest of the left ilium; but he had also pain in the back, and at times pain across the abdomen below the umbilicus; he also had an occasional sense of numbness down the front of both thighs to the knees. The symptoms were relieved by the subcutaneous injection of morphia, and the application of a blister. The urine continued in fair abundance, of rather high specific gravity, and free from albumen.

26th.—About 8 A.M. had a very severe attack of lumbar pain, lasting for about half an hour, and then relieved by a morphia injection. He rolled himself about in bed, buried his face in the bedclothes, and cried out in agony. The pain was referred to both lumbar regions, scarcely extending into abdomen, but running down both legs, mainly the left. No sickness during attack. The temperature remained normal.

27th.—No urine passed for twenty-four hours. During the morning about three ounces were voided. It was thick, contained two-thirds albumen, and, microscopically, large granular casts, blood casts, free blood cells, and dumb-bell crystals of uric acid. The temperature varied during the day from 100° to 101·4°.

28th.—Passed six ounces of urine in the last twenty-four hours. Temperature in the morning 98·1°; in the evening 98·6°.

29th.—Passed seven ounces of urine in the last twenty-four hours. It still contained albumen, blood, and free blood cells. No casts or crystals discovered. He does not complain much of lumbar pain; but he has severe pain extending down front of left leg, and seems to have some difficulty in walking. Temperature normal. Under the use of morphia he has been free from paroxysms of pain since the 26th.

30th.—In the morning it was noted that his tongue was dry and brown; that his bowels were confined; that he had much pain in abdomen and down left leg, with occasional numbness in both feet; and that he had only passed four ounces of urine in the previous twenty-four hours. The specific gravity was 1022; it contained half albumen and blood. Temperature 98·6°. Noon: Was attacked very suddenly with increase of lumbar pain, slight sickness, and collapse. When the house-physician, who was sent for, arrived, the following was the patient's condition:—"Deadly pallor of face and lips, and rest of body. Pupils equal, small. Respirations moaning; pulse 204, scarcely perceptible. Complains of great pain in lumbar region and down legs. A diffused tumour, which has appeared since the morning, is felt in the left iliac region. No pulsation or bruit detectable over tumour or in abdomen, and no pulsation to be felt in arteries of lower extremities. Legs cold, but not colder than rest of body. They are numb, and he can scarcely move them. Can move right better than left." A little later he complained of a burning sensation in feet and inner side of thighs. Temperature 97°. 1.15: Lips and face corpse-like. Cold sweats. Pulse 122, barely perceptible; respirations sighing, but not frequent. He has a little hiccough. No urine passed. Has had no pain since morphia injection given about an hour ago. 1.50: Eyes fixed; pupils dilated; pulse not to be felt; occasional spasmodic startings of arms. Died at 2.10.

Post-mortem, July 1st.—Body fairly nourished. Chest: A little serum in pleuræ; lungs healthy; pericardium and heart healthy, the latter weighed thirteen ounces; thoracic aorta healthy. Abdomen: On opening the abdomen a large effusion of blood, in the form of a dark, soft coagulum, was found in the subperitoneal tissue on the left side, chiefly abundant in the neighbourhood of the left iliac fossa, and extending thence beneath the peritoneum of the abdominal wall anteriorly. It was not very abundant immediately in front of the spine. A large tumour was now discovered mainly on the left side of the abdomen, but extending across the median line to the right, beneath the liver. It was somewhat like a kidney in shape and suggested a renal tumour. On careful examination, however, the left kidney was found simply pushed upwards and forwards and resting on a large soft mass behind it. The tumour consisted partly of an aneurism of the abdominal aorta and partly of effused blood, the consequence of its rupture. The aneurism was saccular and came off from the posterior aspect of the aorta just where it gives off the cœliac axis and superior mesenteric. Its orifice of communication with the aorta measured two inches longitudinally. The inner coat of the aorta could only be traced for a short distance into the sac, and ended by a free irregular edge. It was not possible to say exactly how far the aneurism extended, or where the clot due to the aneurism ended and that which resulted from the rupture commenced, for the old and new clots were a good deal intermingled. The quantity of hard partially decolorised clot showed, however, that the aneurism must have been a large one, as also did the extensive erosion of the vertebræ which was present. This involved the last two dorsal and upper three lumbar vertebræ. None of the arteries springing from the abdominal aorta nor the aorta itself was plugged with clot and indeed they were pervious. But the disarrangement of clot in the aneurism and the pressure of the accumulated blood around not improbably caused more or less complete obstruction to some, at any rate, of these vessels. The left renal artery, from the stretching and displacement which it had undergone, was especially likely to have been rendered impervious. Liver and spleen were healthy. Right kidney somewhat congested, otherwise healthy. The left kidney was large and contained several large well-defined hæmorrhagic infarcts; one, occupying one-quarter of the organ, was pinkish-white in colour, and not harder than the rest of the kidney. Around it was a rim of very slight congestion.

Remarks.—The opinion first entertained by those under whose care the patient came, with respect to the first of my three cases, was that he was suffering from heart disease, and that the aortic obstruction, which was manifestly present, was due to embolism. This view I could not accept, because, first, in my opinion there was no evidence of heart disease, at any rate of such heart disease as could give rise to an embolus sufficiently bulky to occlude the aorta; and, second, according to my reading and experience, such sudden obstructions are generally, if not always, owing to the presence of aneurism. My own belief was that the patient, suffering from aortic disease, had suddenly experienced rupture of the internal coat of the artery at its highest part, with the development of a dissecting aneurism, an occurrence which is not altogether unfrequent, and is productive of such symptoms as the patient presented. The actual cause of obstruction, however, was somewhat different: it was the gradual encroachment of the clotting which was taking place in the lower of the two aneurisms on the channel of the adjoining portion of the aorta, and either its subsequent displacement or the rapid coagulation of blood in the narrow chink which the older clot had left. Paraplegic symptoms have generally been observed in these cases; but here the paraplegia was as extreme and as complete as it would have been had the lower part of the spinal cord been the seat of general softening. There was total loss of muscular power, total absence of sensation, complete abeyance of reflex excitability, and involuntary discharge of fæces and urine. Moreover, nutritive lesions had appeared rapidly. Some of the sores, which ultimately became sloughy, were no doubt due to the application of hot bottles; but this was not the explanation of the large sacral bedsore, which was already extensive at the time of admission, or only four days from the commencement of his illness. The alkaline, albuminous, and bloody urine soon becoming offensive, was, doubtless, due to early inflammation of the bladder, which, increasing in intensity up to the time of death, induced at that time partial gangrene.

In the second case, as in the first, I was inclined to attribute the aortic obstruction to the sudden formation of a dissecting aneurism, commencing probably in the aortic arch, a view which seemed to me confirmed in some degree by the development as the case went on of bronchial symptoms. I thought in fact they might be due to obstruction of the bronchial arteries by the clot accumulated between the internal and external walls of the artery. As a matter of fact, the case, pathologically, was almost identical with the last. In this, as in the other, paraplegia was a striking symptom. But here the loss of power and of sensation was incomplete, and incontinence of the evacuations was present, if at all, in only a very slight degree. But other phenomena of much interest were observed. In the first place, it will be recollected that the patient had an attack of diarrhœa on the morning of the day on which he was taken ill; that this recurred in association with much pain at the anus at the very moment when from other symptoms we have reason to suppose that the aorta became blocked; that pain at the anus, with discharge of blood, continued to be one of the features of the case up to the time of death; and, further, that marked inflammation of the mucous membrane of the rectum was discovered post-mortem. There can be no doubt, I think, that the pain and discharge of blood which occurred latterly, and the rectal inflammation, were due directly to the impeded circulation through the vessels of the part. Is it not probable, then, that the diarrhœal attack which attended the onset of his fatal illness, and probably that which occurred in the morning, may have been the immediate consequence of circulatory default? In the next place, total suppression of urine seems to have succeeded to the accident for some hours, and during the remainder of the patient's illness the urine continued scanty, and underwent some remarkable changes of quality. Three ounces were withdrawn from the bladder at the end of the first ten hours, none having been voided meanwhile. This was absolutely healthy. During the next twenty-four hours he passed a few ounces into the bed, and an ounce drawn off at the end of that time by the catheter contained three-fourths albumen, but no blood. Subsequently he passed on two occasions collectively about nine ounces and a half of urine, which was not only albuminous, but alkaline and offensive, and contained pus-cells and bacteria. It will be recollected that at the post-mortem examination no passage existed between the renal arteries and the aorta above the seat of obstruction, and that, therefore, any circulation of blood through the kidneys could only have been effected circuitously through vessels distributed to their capsules; that the kidneys were large and congested, and that the mucous membrane of the bladder presented ecchymoses. From a consideration of the above facts, it will be admitted, I think, at any rate as probable, that in consequence of the renal arterial obstruction temporary suppression of urine took place, and that which was first removed, and was healthy in quality, was the urine already contained in the urinary passages and receptacles at the time of the accident; that later, owing to the partial establishment of collateral circulation, the secretion of urine began to be re-established, but that this (as might have been expected) was loaded with albumen; and that later still vesical inflammation arising, as in the first case, the effects of that condition in rendering the urine alkaline, purulent, and offensive became superadded.

The third case I confess I did not understand until the rupture of the aneurism took place and caused a series of symptoms the meaning of which was unmistakable. I was not misled by the history (which originally, much more than as I have placed it before you, suggested affection of the bowels), into thinking that the patient was suffering from any form of bowel disease. But I halted between renal calculus, malignant disease, either of the kidney or in its neighbourhood, and aneurism of the aorta. And when latterly the urine became scanty, and contained blood, albumen, and uric-acid crystals, the renal interpretation of the case began to acquire predominance in my mind. I acknowledge, however, that a careful consideration of all the facts of the case, as detailed in my notes up to the time of rupture, especially if interpreted by the light thrown upon them by the other two cases, might probably have led me to an accurate diagnosis. It will be recollected, however, that no abdominal tumour had been detected by myself or by others who had examined the patient. The points of chief interest in this case are, that (as in the other two) obstruction of the aorta, and cessation of circulation in the parts below, were attended with paraplegic symptoms; and that (as in the last case) obstruction to the renal circulation caused almost complete suppression of urine, such urine as was secreted becoming at the same time highly albuminous. In this instance it presented granular and bloody casts. There was no absolute obstruction of either the aorta or of the large vessels springing from it in the neighbourhood of the aneurism at the post-mortem examination; but the accumulation of blood around them was quite sufficient to have caused obstruction by pressure or stretching. The fact that before death his lower limbs became absolutely pulseless and partly paralysed renders it certain that the aorta was actually obstructed; the fact that the left kidney was congested, and presented large so-called "infarcts" of recent development (such as are only caused by arterial obstruction), render it certain that the left renal artery was actually obstructed; and both together make it not improbable that there was more or less obstruction also of the right renal artery, and may be of the cœliac axis and superior mesenteric also.

In conclusion, Gentlemen, permit me to make a few observations which suggest themselves to me from the consideration of these and of other like cases. Sudden obstruction of the aorta appears to produce not only arrest of circulation in all those parts which derive their blood-supply from the arteries which are given off at and below the seat of obstruction, but to cause also paraplegic symptoms, such as loss of voluntary power, loss of sensation, loss of reflex action, and incontinence of urine and fæces, closely resembling those of paraplegia arising from direct disease of the cord, and which, like them, vary in their severity in different cases. To what are these symptoms to be attributed? I suspect that the explanation is twofold: that it is partly due to sudden arrest of those nutritive processes on which the preservation of vitality depends throughout the various tissues whose functions are impaired or lost; and that it is partly due to the fact that there is direct interference with the nutrition of the lower part of the cord from obstruction of the arteries furnished to the cord from the aorta below the seat of obstruction.

But it is clear also, if the aortic obstruction be above, or involve the renal and mesenteric arteries, as happened in the three cases which I have adduced, that the organs which these vessels supply should suffer in their nutrition and innervation, and consequently functionally, just as the skin and muscles suffer, and that special symptoms might hence be looked for in connexion both with the intestines and with the urinary organs. My cases seem to show that it is so. Obstruction of the mesenteric arteries, though perhaps immediately inducing anæmia of the bowels, soon leads to congestion, stagnation of blood, inflammation, and gangrene. This seems to have actually occurred in my second case. Obstruction of the renal artery might also at first cause anæmia of the kidney; but soon through small collateral vessels blood finds its way into the organ, which becomes congested, and owing to impaired nutrition the seat of so-called "infarcts." That these phenomena were present, at any rate, in two of my cases seem certain. For suppression of urine in both cases followed the obstruction, and the urine which was subsequently passed was albuminous, and contained blood. Again, one would expect the bladder to suffer in the same way as the rectum, and from the same cause. In every case the bladder was actually inflamed, and the ammoniacal condition of the urine which supervened in two after a time was probably due to this circumstance.

I have referred in my comments on one of my cases to the supervention in their course of the nutritive lesions, which are apt to follow spinal disease, and suggested that the early appearance of bedsores and inflammation of the bladder might thus be explained. I need scarcely say, however, that here we have a complex problem to deal with, and that, although direct nervous influence may have had some effect in producing these conditions, it is at least as probable that they were due to arrested circulation and tendency to death of the parts.

Another matter to which I may refer is the duration of cases of aortic obstruction. It might be supposed that, as is warranted by the cases I have adduced, early death must in all cases ensue, and that anything like recovery would be impossible. That permanent recovery should take place is, of course, from the nature of the disease, impossible. But there is a tendency more or less pronounced for collateral circulation to be established, and thus for parts that were cold and moribund, to resume their normal state. That tendency for the re-establishment of circulation and the restoration of function was shown by my cases in respect of the kidneys by the tendency to the re-establishment of the urinary secretion which actually occurred. But it was shown even more plainly by the restoration of warmth to the upper part of the legs, and by the limitation of gangrene in one of them to the toes and other parts of the feet. But this reinstatement is sometimes complete. I recollect a case in point, which was put on record in the Pathological Transactions by Dr. Swayne some years ago, and impressed me very much. It was that of an elderly gentleman, who had sudden obstruction of the aorta in consequence of the formation of a dissecting aneurism, and who presented many of the symptoms which my cases also presented. The circulation became re-established by collateral channels, and he recovered so as to be able to drive about in his carriage. But he died of pulmonary complication at the end of three months.

The last points which I intend to bring under your notice concern the circulation. It was mentioned that in two of the cases the pulse was full and bounding, and felt much like that of aortic regurgitation. I bring the tracing from one; it was alike in both. In only one of the three cases was a murmur detected in the abdomen. It was observed at the apex of the epigastrium, and was prolonged feebly from that point for two or three inches downwards. It presented peculiarities, which I have observed before, and to which I have called students' attention. Murmurs at the cardiac orifices correspond either to the systole or to the diastole of the ventricles of the heart; a systolic murmur never being continued into the diastole, or conversely. And if, as not unfrequently happens, cardiac murmurs are heard in the course of the arteries, these murmurs, as the case may be, correspond also either to the cardiac systole or to its diastole. Now, in my case, as also is the case with many aneurismal murmurs, and, in fact, as one ought to expect, the murmur, commencing with the percussion wave, was continued not only through the whole duration of the tidal wave corresponding to the cardiac systole, but somewhat modified in character beyond even the aortic notch, and into that portion of the pulse which corresponds to the cardiac diastole. In other words, the murmur being due to the onward passage of blood, continues so long as the passage of blood is sufficiently rapid to evoke sound, and that does not necessarily cease when the cardiac systole ceases.

Old Burlington-street, W.

FURTHER RESEARCHES ON

ETHYLATE OF SODIUM IN THE TREATMENT OF NÆVUS AND OTHER FORMS OF DISEASE,

WITH OBSERVATIONS ON ETHYLATE OF POTASSIUM.[1]

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

THE introduction of sodium ethylate, like that of amyl nitrite, into the practice of medicine and surgery, was due to the researches on the amyls, ethyls, and alcohols, which I had the honour to carry out for my reports to the British Association for the Advancement of Science between the years 1863 and 1871. In observing the action of the more ordinary form of alcohol—the ethylic—on the blood and the tissues, it occurred to me to inquire what difference of action would occur if an alcohol was used in which sodium or potassium takes the place of the remaining atom of hydrogen which belongs to the water molecule present in the alcohols—that is to say, what would be the action of ethylic alcohol if the radical ethyl which replaces one of the hydrogens of the water was united with a metal like sodium or potassium, instead of hydrogen? The ethylates of sodium and potassium, sodium and potassium alcohols, were at that time well known as chemical substances; but they had not been used as medicinal agents, nor had their employment as remedies been suggested. It struck me, however, that they might come in as serviceable caustics, and at the same time as antiseptics.

To test their value in the last-named direction—I mean as antiseptics—I brought them into contact with fresh brain-substance taken from the newly-killed sheep, and found that they powerfully preserved the structure. I also noticed that when they were placed in contact with animal structures they were rapidly decomposed; they were oxidised. Soda or potash was produced, and absolute alcohol was *re*produced. When the ethylate thus employed was a concentrated solution, or when it was used in the form of crystal, the effect of the produced alkali was to maintain the softness or the fluidity of the structure acted upon. When the ethylate was much diluted with alcohol the effect was different; then the alcohol acted as an agent for producing rapid coagulation of the albuminous or fibrinous substance. This observation, which at first sight may appear of minor moment, turns out to be of considerable importance when the details of practice, in connexion with the ethylates, are under consideration—a fact which will be better seen further on.

The result of my experimental inquiry was to indicate that in the ethylates of sodium or potassium we had a substance which, brought into contact with colloidal tissue, would be decomposed into an active caustic in the nascent state, and into alcohol which, in the same state and at the same time, became an antiseptic, a styptic, and a pectiniser, or producer of coagulation.

Extending the inquiry to newly-drawn blood, I learned that by concentration of the ethylates I could hold the blood fluid, while by diluting them with alcohol I could cause immediate and firm coagulation. I learned, moreover, that I could change the character of the red corpuscle in the most determinate manner; that the corpuscle could be made to pass into a complete crystalline form by a strong solution; while by dilution it could be simply shrunken into a very minute and contracted condition.

The facts ultimately led me to think of applying the ethylates to living tissues as a method for removing vascular growths. I reasoned that when an ethylate was applied to a vascular growth the metal—sodium or potassium—would be oxidised and become a powerful caustic, while at the same time the alcohol that was reformed would fix the destroyed matter and the blood by the process of coagulation, and would at the same time prevent decomposition.

The choice of sodium or potassium alcohol was now before me, and ultimately I selected the sodium as the best for all practical purposes of the ordinary kind. The reason for this selection was based on the following experience:—My friend, Mr. Lord of Hampstead, had a patient who was suffering from three large vascular growths on the scalp, and in consultation with him I proposed to destroy one of these growths by means of potassium ethylate. The suggestion was adopted, and the destruction of the growth for the time was effective. The hæmorrhage which occurred was, however, so profuse and was checked with so much difficulty, that I determined in treating the other tumours to use the sodium ethylate preferentially. This acted well, and the destruction of tissue was accomplished without any trouble from loss of blood. The growths, in the end, assumed the malignant character, and the patient sank from the extension of the disease. The experience of the difference of action of the two salts, in respect to bleeding in this case, led me to propose the sodium ethylate as the safest, if not the most active, compound. It was in the first part of these inquiries that I used the ethylate of sodium with so much success in the treatment of a case of intractable nævus that had been under the care of my friend Mr. Gay. Mr. Gay was good enough to place that patient entirely under my charge and the recovery was perfect. As the Society is aware, a good many years elapsed before the employment of the ethylate came again under professional notice, through the admirable paper read before the Society, on the Treatment of Nævus, by our able colleague, Dr. John Brunton. From one occupation or another, the clinical use of the ethylate had, except on special occasions, passed out of my thoughts, until Dr. Brunton's labours revived it. Since then I have been more attentive to it, and have gained some further experience, which may, I hope, be useful to relate.

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[1] Read before the Medical Society of London, on Monday, Jan. 17th, 1881.

In the treatment of vascular nævus (cutaneous) I have had since my last report nine cases, each of which has done well. They have all been in children, and some of them have been cases in which other modes of treatment had, previously, been tried. It may be well to give a brief review of these cases in order.

The first was an instance of the common form of nævus on the scalp in an infant three months old. After perfect recovery from vaccination, the treatment commenced in the usual way by the application of the ethylate over the growth, by means of the glass-rod. The nævus was small, not larger than a fair-sized hazel nut. The first application caused a dense scale to form, which was loose and removable on the fifth day. The ethylate was then reapplied, and five days later, when the new scale was removed, the nævus was reduced to the size of a small bean. It remained in this state during three further applications of the ethylate, being much longer under treatment than I had expected after the second application. On the seventh application it was nearly removed, and one additional touch a fortnight later completely removed it. No constitutional symptoms interfered with the course of the treatment, and no scar remained.

In the next example the treatment was almost identical both in respect to mode and to result; but as the patient was very restive and screamed extremely when the ethylate was applied, advantage was taken to make the application when the infant was in a deep sleep. The plan succeeded so well that I venture to suggest its general adoption in young children whenever the nævus is in a situation where it can be easily got at, and whenever an intelligent nurse or parent can be taught to make use of the solution in a safe and efficient manner. In the case in question the nævus was quite removed in the course of six weeks, and it can scarcely be said that any pain at all was inflicted. No scar has been left.

The third illustration was not so favourable as the two above named, although in the end the patient did well. The nævus, again on the scalp, was near to the anterior fontanelle, the fontanelle itself being large. A cerebral pulsation, distinctly marked, extended to the nævus itself. I judged at first that there was a communication from the external nævus to another vascular enlargement within the cranial arch, but this turned out to be incorrect. The child was eight months old, was pale and feeble, with a large head. The nævus originally was of the size of a small walnut, and very prominent. The first application of the ethylate gave rise to a large and firm scale of the usual kind, which was removable on the fifth day. The second application caused a great deal of pain, and the crust which formed remained for a week immovable. When the crust was at last loosened and lifted up, the nævus was found to be reduced in size, but excessively red and vascular. It was freely treated with the ethylate, and again a dense and firm crust resulted. Four days after this the crust was quite firm, and on the eighth day, as the crust was still immovable by the ordinary method of lifting it up with forceps, I, forgetful for the moment of my own instructions, directed the nurse to apply a poultice and bring the patient to me again when the crust was softened. Two days later the child was brought very unwell. It was feverish; temperature 103°. There was an odour of decomposition from the nævus, and a dark sphacelus. I immediately dried the part most carefully with absorbent wool, and applied ethylate freely, covering with dry wool lightly. The good effect was immediate; the decomposition was arrested, a new and firm crust was formed, and from that time the recovery went on favourably, the nævus being destroyed, and scarcely a scar being left. The error I made in this instance consisted in the use of moisture from the poultice. It was this which set up the decomposition, and it was the decomposition and the secondary absorption which set up the febrile condition. I name the fact, and the temporary blunder involved in it, in order to re-enforce the point of practice that in using the ethylate water must never, under any pretence, be introduced as an adjunct. The mention of that example leads me to name the further practical suggestion that the removal of the crust, or the attempt to remove it too quickly, is not a good plan. It is best to let the crust come away of itself, or, at all events, to become so loose that it can easily be lifted away. We may take it as a general rule that so long as the crust is firm the nævus is contracting. Now, therefore, instead of removing the crust entirely, I am content to take off those parts only which are loose, and then to apply another touch of ethylate over the parts that have been removed. Certainly, all violence in removal is essentially mischievous. It causes pain; it often causes bleeding; and it prolongs, instead of expediting, recovery. When the crust is depressed in the centre it may be pierced with a needle, and a little ethylate may be introduced through the openings. This plan answers excedingly well.

The next four succeeding instances of nævus treated with the ethylate presented no special features, except that in one of them there were two growths on the same patient. The question here was raised, whether it was best to treat both the tumours at the same time, or one at a time. The last-named course was adopted, and with very good results. The nævus first subjected to treatment was removed in twenty-four days, and after a week the other one, which was smaller, was removed in a little less than the same period of time. The four cases did well, and in one only is there any appreciable scar. The patients were all young. The youngest was six months; the eldest a little under two years of age.

I now come to two cases in which the treatment with the ethylate, though successful, was not so facile. The first of these instances was sent to me by my friend Dr. Stevens, of Norfolk-crescent, Hyde-park. The patient was a beautiful little girl in her second year, and the nævus was situated over the left eye involving the lid. The nævus was of the dimension of a fair-sized strawberry, and various attempts had been made to remove it without success. I commenced in this case by applying the ethylate very freely to a lesser portion, or, I had almost said, segment of the growth, for it was, to a certain extent, divided into two parts. When a fair crust was established on the part treated I applied the ethylate to the remaining part. After four applications I succeeded in getting the whole mass under a firm encrustation, and from the beginning to the end of the treatment, which lasted seven weeks, I forbore from ever forcibly raising the encrustation. Whenever I found a portion of the crust quite loose I lifted it away and reapplied the solution. In this manner the nævus was destroyed, and although a little trouble was for a few weeks experienced with one small remaining spot, in the end the cure was complete, and I had the satisfaction of hearing a few weeks since from the father of the patient that the eyebrow was appearing, that there was no scar, and that some remaining redness, which I had feared might be permanent, was passing away, so that the parts were assuming a perfectly natural colour. The size of the nævus in this case and its position over the eyeball made the treatment more than usually troublesome; but the result was a fair reward for all the pains that were bestowed. The chief difficulty consisted in applying the solution in such a manner as to prevent it from affecting the eyeball itself. Once, during a short and determined struggle by the little patient, a small portion of the solution did touch the conjunctiva, but I removed it instantly by a pouch of cotton-wool, and no mischief followed.

The last case of nævus to which I have to refer was in an infant about ten months old. The nævus was in the fore-part of the neck, and immediately over the larynx. It was of the size of a half-crown piece, and not much raised. It was troublesome to treat on account of two complications. In the first place, after the vascular structure seemed to have been entirely destroyed, it reappeared in small points not larger than the head of a pin. In the second place, whenever the ethylate was freely used, so as to destroy a large surface of the growth, a very peculiar, sharp, croupy cough was set up, which indicated the necessity of limiting the application. These obstructions, combined with the desire not to produce a scar, caused the treatment to be very prolonged, and to extend over several weeks. Fortunately it has, I hope, ended successfully, and I apprehend without leaving evidence of scar, though that remains to be proved.

(To be concluded.)

SIX CASES OF PARACENTESIS THORACIS.

By A. W. MAYO ROBSON, F.R.C.S.,
DEMONSTRATOR OF ANATOMY, LEEDS SCHOOL OF MEDICINE.

SINCE the subject of paracentesis thoracis in pleurisy with effusion has been thought worthy of being discussed lately by the Medical Society of London, the following cases I venture to hope may prove sufficiently interesting for publication, especially as they bear on the possibility of cure by once tapping, and on the danger of rapidly drawing off a large volume of fluid at one operation. Moreover, the cases have not been selected, but are reported as they occurred, being the only pleuritic effusions which I have had to treat in my own practice during the last two years.

CASE 1.—Mr. C——, aged thirty-two, with a phthisical family history, consulted me, saying that he had been well up to three weeks before, when he began to suffer from a "stitch" in the left side, that he was now very short of breath, and had difficulty in ascending a hill; his appetite had become impaired, and he was losing flesh rapidly. I found the left side dull as high as the inferior angle of the scapula, with an absence of breath sounds and vocal fremitus, but there was no disease of the lungs or other viscera. I ordered a blister to the side, and gave digitalis and iodide of potassium, but after a fortnight the fluid had reached the spine of the scapula. I advised a dry diet, and that as little fluid as possible should be taken, at the same time giving small doses of elaterium. For a few days the fluid diminished a little, but after a week it remained stationary, and my patient became tired of his rigid diet. I advised paracentesis, but, before operating, asked Dr. Clifford Allbutt to see the case with me. He fully endorsed my recommendation.

By means of the aspirator I drew off two pints and a half of clear straw-coloured fluid through the eighth intercostal space. My patient was at once relieved, and forthwith began to improve. Although a little fluid collected again during the next ten days, under the use of an iodine liniment externally and iodide of iron internally it became absorbed; and at the end of five weeks he went to Torquay for change of air. On returning a month afterwards he had gained 10 lb. in weight, and the lung seemed to have fully regained itself.

CASE 2.—Mrs. K——, aged thirty, with a family history of phthisis, told me that she had caught cold two weeks previously, and had been suffering from pain at the side and shortness of breath ever since. She had lost flesh and was looking distressed and haggard. The right side was dull up to the fifth rib, and presented the usual signs of fluid in the pleura.

A blister was applied to the side and digitalis, iodide of potassium, &c., were given, but the fluid still increasing, the dry diet treatment was adopted. No improvement resulting, tapping was advised, but as the patient and her friends said that she should not undergo an operation if it could be avoided, medicinal treatment and iodine externally were tried for several weeks, at the end of which time the dulness had reached to the clavicle, and the heart was pushed to the left; the pulse was small and intermittent, the lips were livid, and the patient had to be constantly sitting up in bed in order to breathe. At last she consented, and I drew off by means of the aspirator four pints and a few ounces of a clear straw-coloured fluid. The pulse at once became fuller, more regular, and slower, the heart assumed its normal position, the lividity disappeared, and she could bear to lie in the recumbent posture. Vesicular breathing could now be heard in the infra-clavicular region, but not below. Although her condition improved daily, some fluid returned, and a fortnight afterwards the dulness reached the mammary line; however, under the use of iodine externally and iodide of iron internally it gradually disappeared, and six weeks after the operation she was able to go into the country for change of air, there being a little dulness and some falling in of the right thoracic wall. After being eight weeks in the country she called on me, and I found she had gained 9 lb. in weight There was vesicular breathing all over the right side, and but for the slight falling in opposite the eighth, ninth, tenth, and eleventh ribs, no evidence was left of her attack.

CASE 3.—The above patient, Mrs. K——, continued quite well for fifteen months, when she caught cold, was seized with pain in the left side, and was in every respect similarly affected as she had been in the previous attack, excepting that she could now only bear to be on the right (sound) side. Effusion came on very rapidly, so that a week after hearing a friction sound over the front of the chest the dulness had advanced as high as the clavicle, and the heart had become slightly displaced to the right; the distress in breathing, though severe, was not so great as when the effusion was on the right side. She begged to be tapped, and I at once drew off by means of the aspirator and a large needle five pints of clear fluid. She was seized with a violent fit of coughing before the needle was withdrawn, became livid in the face, and breathed with great difficulty; for a few minutes I was very anxious, as the pulse was small and fluttering, and she seemed to be in great distress. I gave one-sixth of a grain of morphia by injection, which soon relieved her. From this time she had not a bad symptom, was out of bed in a fortnight, and able to leave for the country in a month. Two months afterwards she called to see me, and appeared to be in very good health; both lungs were doing good work, and the left side of the chest had not become depressed in the least.

CASE 4.—A. B——, aged thirty-six, got wet through, shivered and felt a pain in the right side; the temperature reached 102·6° and 103° for several days in succession, and there were the physical signs of pneumonia of the right lower lobe. A distinct crisis never occurred, the temperature for nearly a month rising each evening to 100° and 101°, and night sweats coming on. At the end of a month the dulness still continued, but as vocal fremitus had disappeared and he could only bear to lie on the sound side, I feared an empyema was forming, and explored by means of the aspirator. Finding the fluid clear, I drew off a pint and a half, giving my patient great relief. Some fluid returned, and at the end of three weeks I again drew off a pint, and in a fortnight three-quarters of a pint more, after which recovery was steady but sure, and he was well in three months from the commencement of his illness.

CASE 5.—Mrs. H——, aged twenty-seven, with a family history of phthisis, became debilitated by suckling, and caught cold. She called to consult me for a pain in the side which had existed for a fortnight, and for shortness of breath. On examination I found signs of fluid in the left pleura as high as the fifth rib. After twelve days' medical treatment, there being no improvement, but rather an increase of the effusion, I drew off a pint and three-quarters of clear straw-coloured fluid. She was at once relieved. After a few days a little fluid returned, but under the administration of iodide of iron and cod-liver oil, with the external use of iodine, it gradually disappeared, and she was able to go out in a month. Some dulness, evidently due to thickened pleura, remained for some time, and the lung expanded slowly, but at the end of three months (she having in the meantime spent a month at the seaside) I found the lungs doing good work, and the dulness scarcely perceptible.

CASE 6.—Miss M——, aged twenty-one, called to consult me, saying she had been ailing for several months, but that during the last few weeks she had been suffering from pain in the side and shortness of breath. She had lost flesh considerably. On examination, I found the left side of the chest dull up to the spine of the scapula, with the usual signs of fluid. As the temperature was 101°, I advised rest in bed and poultices to the side, and gave ammonia and chinchona internally; the fever subsiding in four days, she was ordered to take iodide of potassium with the bark mixture. At the end of ten days, there being no further improvement, but a slight increase of the fluid, I aspirated the chest in the sixth intercostal space, and took away two pints of clear fluid. My patient was at once relieved, and able to lie in the recumbent posture, she having been only able previously to be semi-recumbent and inclined to the right side. She improved rapidly under iodide of iron, with the external application of iodine liniment, was up in six days, and able to go out a fortnight after the tapping, feeling quite well in every respect, the lung having fully expanded, and very slight dulness remaining.

From the foregoing cases, and from others which I have observed in hospital and in private practice, I am as fully convinced that paracentesis thoracis, properly performed, is the best treatment in pleurisy with effusion, if the fluid be in any quantity, as I am that the administration of medicine to cause absorption is for the most part only waste of time to the doctor and disappointing and dangerous to the patient; for every additional day during which the lung is exposed to pressure, and time is allowed for cells to multiply in the fluid, lessens the chance of a complete cure, tends to permanently impair the lung, and to give rise to empyema with all its dangers; besides which, where there is extensive effusion there is more or less interference with the action of the heart, and great danger of sudden death.

Leeds.

SOME REMARKS ON THE TYPES OF PNEUMONIA WHICH ARE MET WITH IN NORTHERN INDIA AND IN NORTH-WESTERN AFGHANISTAN, ETC.

BY C. P. COSTELLO,
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As regards the northern and north-western parts of India these remarks are founded on twenty-one years' experience, and are offered to the profession solely because many of the facts are not as generally known as could be wished, and are therefore likely to be of use to practitioners whose lot may be cast in India, and to whom, on first commencing practice there, some knowledge of the peculiarities of pneumonia as found in Northern India may be useful.

As generally met with, this disease both in Northern India and in Northern and Western Afghanistan presents an asthenic type, and is often "latent." Persons who have suffered much from intermittent fever are, as a rule, more liable to pneumonia than others, and, on this account, there may be a "malarious" cause in such cases; it may also be added that just at the end of the fever season, before intermittent fever has ceased to fill the hospitals—that is, about the latter part of September and in October—this disease becomes very prevalent indeed. As usually seen, it runs through the first and second stages pretty regularly, but rusty sputa are not always found, and often the stethoscope detects the disease when there has been no cough or expectoration, pain in chest, &c.; it is then, of course, "latent," and this, as a complication, is most usually met with in "remittent fever," or in enteric fever, &c. When not "latent," it does not always commence at the base of the lung and travel upwards, but often begins in the middle of the lung, or perhaps at the apex, although the latter is rare. Frequently it does not pass beyond the first stage. "Latent" pneumonia is, as a rule, found to be in the second stage when first observed; this may be, and probably is, due to the delay which occurs before it is observed. Pleurisy, to some extent, is not an uncommon accompaniment of the disease, and it has often occurred to me that the case under treatment might be correctly named pleuro-pneumonia. At first I expected that this pleuro-pneumonia was contagious, and, acting on the idea, I made it a rule to isolate all such cases. In 1875 an event happened which confirmed me in this idea as to the contagiousness of some forms of pneumonia, and especially, and almost always, of pleuro-pneumonia. This was when I had charge of the 1st Punjaub Infantry at Dera Ghasi Khan, and before proceeding further, I should state that pleuro-pneumonia was very fatal amongst cattle in the Punjaub, and in the north-western frontier districts—more markedly in the lower Derajat—in that year. The 1st Punjaub Infantry, on being relieved by the 5th Punjaub Infantry at Abbotabad, marched through many of the affected districts to Dera Ghazi Khan; and the latter regiment, which took the same course to Abbotabad, had an identical outbreak, with even more fatal results, with that which I have now to describe as having occurred in the former. On joining the 1st Punjaub Infantry at Dera Ghazi Khan towards the end of March in 1875, the regiment was in a state of consternation at the number of deaths which had within a short time prior to my arrival occurred from "pneumonia." It was then rather warm at Dera Ghazi Khan, and there was not much variation of temperature in the twenty-four hours, or much difference between the day and night temperature, which made the continuance of the disease all the more inexplicable. At least from thirty to forty men had died from it in a few weeks out of a strength of about 550—as well as I can now without my notes recollect. On inquiry into the particulars &c., of the outbreak, I found them rather peculiar—viz., it was confined, almost, to two companies; when it began in the married lines, it spread from one to another of each family; in the hospital other patients not previously affected took it; and even the hospital servants, including a hospital assistant, got it apparently from patients suffering from it on whom they were, at the time of becoming ill, attending. It spread quickly through each lung, and from one lung to the other; there was scarcely ever a second stage, as the disease ran from the first stage quickly into the third, and into gangrene of the lungs. In most cases the nervous system was from the outset prostrated; the tongue dry, brown, and hard, there were sordes about the teeth, and in fact all the usual symptoms called "typhoid;" and there was in each case a "catching" pain in one or both sides—generally in a line under the axilla. I commenced by having the regiment removed from their barracks to tents; all persons affected with the disease were removed to a separate camp, where they were isolated from all others except their attendants; the attendants were forbidden from all communication with other persons or cases; and the barracks, married lines, &c., were thoroughly disinfected. Besides, everything was made ready for a march from the station should the outbreak not disappear with the above precautions. Soon after—almost at once—the above measures were taken the outbreak ceased, no new cases occurring, and within a fortnight there was not a case of the disease in the regiment. The 5th Punjaub Infantry at Abbotabad lost, I believe, sixty men from a similar outbreak; and although it was attributed to the sudden change from the warm climate of Dera Ghazi Khan to the cold and hilly climate of Abbotabad, I think that the cause was the same in both regiments —i.e., infection caught when marching through districts known to be affected with the cattle plague—pleuro-pneumonia—as met with in the year 1875 in the Punjaub and north-west frontier districts. The 1st Punjaub Infantry being chiefly "Pathans," had a great objection to post-mortem examinations, but I have had frequent opportunities in gaols under my charge on the north-west frontier of examining fatal cases of pleuro-pneumonia, and the appearances in the lungs were pretty uniform—viz., almost complete disorganisation of each lung with numerous and separate abscesses, and often gangrene of parts of the lung affected. Both lungs were usually involved, and there was a good deal of dirty soft lymph on the pleura of the affected lung, with a sanguineo-serous fluid in small quantities in the cavity of the pleura. The blood found in the left cavities of the heart was generally dark and thin.

In the type of pleuro-pneumonia just noted I found that the most successful treatment was that which in erysipelas is found most effectual—i.e. quinine, chlorate of potash, and tincture of the sesquichloride of iron, in fifteen-minim doses, along with, in this case, expectorants, antispasmodics, &c. Stimulants and good nourishment were given from the outset, and with success. In the ordinary form of pneumonia, as met with in our part of India, &c., I find quinine in small doses combined with Dover's powder (one to two grains) and ipecacuanha the best internal remedies to begin with, combined with sinapisms, followed up by "jacket" linseed-meal poultices. Good nourishment has to be given from the outset. Very soon it is generally necessary to give ammonia, squills, quinine, and compound tincture of camphor, instead of the Dover's powder, quinine, &c., above mentioned, and port wine or brandy has to be administered more or less freely, according to the tongue and pulse. I have never met with a case of pneumonia in Northern India which was benefited by bloodletting in any form, although I used to employ leeching and cupping in my earlier treatment, and so had then sufficient experience of the injurious and sometimes fatal effects of such treatment. As far as I have seen, the above remarks regarding the symptoms and treatment of pneumonia apply to Northern and Western Afghanistan, in both of which I have served, and as much to Europeans as to natives of the country, with this exception, that stimulants can with Europeans be begun earlier and have to be given more freely, as a rule, than with natives. A routine administration of either medicines or stimulants is, of course, to be deprecated in all cases, especially as it sometimes happens that wine or spirits, when given without attention to the pulse, increase the inflammation of the lung.

Jagdallack Kotal.

CASE OF TRAUMATIC TETANUS TREATED WITH CALABAR BEAN; RECOVERY.

BY C. CLARK BURMAN, L.R.C.P. & S. ED.

ON Sept. 8th last I was called to see a boy, eleven years of age, who had received an injury to his foot whilst driving a reaping machine. On examination of the case I found an extensive lacerated wound of the left heel; a large flap of skin and subcutaneous tissue was reflected over the os calcis, laying bare the posterior, and part of the inferior surface of that bone, but not injuring its periosteum. The tendo Achillis was laid bare for about two inches from its insertion to the os calcis. A considerable portion of the flap was missing upon its inner side, and its only connexion to the sole of the foot was by a narrow strip of skin, not more than half an inch in width. After cleansing the wound I replaced the flap, and retained it in position by means of sutures; but, as I feared would be the result, the upper and outer part sloughed—due, no doubt, to the small vascular supply through the narrow neck connecting it to the uninjured skin. Otherwise the wound was progressing favourably; the boy was in good spirits, and complained of no pain, except during the dressing of the wound. At first cold-water dressings were used, but so soon as sloughing took place carbolic-acid lotion was substituted. Upon Friday the 17th it seems that he complained to his mother of a "stiff neck," but of so slight a nature as not to be mentioned to me upon my visit next day. On Sunday the 19th he complained of stiffness of the jaws and difficulty in mastication, which on the following day had developed into well-marked trismus, the sterno-mastoid muscles upon each side being in a condition of tonic spasm. The risus sardonicus was distinct; the teeth could be separated only about half an inch; no general convulsions, however, had been noticed; there was great nervous excitability and slight epigastric pain. The pulse was 120 and hard, as if the arterial coats sympathised with the general muscular contraction. I at once prescribed chloral hydrate and belladonna in full doses, kept the room darkened and quiet, ordered him milk and strong beef-tea, with small but frequent quantities of port wine. An enema of castor oil and turpentine was administered. Upon Tuesday, the 21st, the first convulsion appeared, which was, however, neither severe nor of long duration. The pulse was still rapid and hard, but accompanied with very little feverishness. The wound was doing well, the slough separating nicely. During the two following days his condition was much the same, a general spasm occurring upon any sudden start or exertion, such as moving to have the wound dressed, &c. To relieve pains that he experienced along the upper part of his spine, he was laid upon his abdomen, with a pillow under his breast, and in this position he remained until convalescent. Ice not being readily obtainable, I ordered india-rubber bags filled with cold water (frequently changed) to be kept constantly applied to the lower cervical and upper dorsal regions.

Considerable difficulty now began to be experienced in swallowing the chloral and belladonna mixture, almost every attempt producing a convulsion, in which the body assumed the characteristic arched position, and all the muscles became quite rigid. He was able, however, to take considerable quantities of milk, also wine well diluted. I now administered morphia hypodermically, but the nervous excitability had now reached such a pitch that even to do this produced a convulsion. The jaws being now almost completely closed, and the difficulty and danger of administering remedies had become so much increased, that I obtained from Messrs. Savory and Moore a supply of their gelatine lamels, containing one-sixtieth of a grain of extract of Calabar bean in each; and on Wednesday, the 29th, I prescribed one every four hours, continuing the stimulants and as much milk and beef-tea as could be taken. The lamels were slipped in between the teeth and allowed to dissolve in the mouth. On Sunday, the 3rd October, decided symptoms of improvement showed themselves; the convulsions, which a few days before were so frequent and so easily excited—even the sudden falling of the door-latch was sufficient to induce one—were now less frequent and not so severe. The jaws could be opened to a slight extent, and the boy could retain and swallow his saliva. The general improvement continued until, on Thursday, the 7th, he was able to take a little boiled bread and milk, only one or two convulsions having occurred since the 3rd. The lamels were continued until October 10th, and since then his progress towards recovery has been steady and uninterrupted.

Throughout the whole progress of the case the state of the wound was all that could be desired; the slough having separated it was granulating nicely, no pain or uneasiness being experienced. On my last visit (Oct. 25th) he was sitting up, dressed, and able to get about with the assistance of a crutch, the only drawback being a little stiffness of the ankle from prolonged rest, which, however, readily gave way under passive motion; and a few days ago I had the satisfaction of seeing my patient walking about, looking little the worse for the severe illness he had gone through.

Whether the recovery of my patient was due to his youth, good health, and ability to take so much milk, beef-tea, &c. —thus keeping up his strength and enabling him to live out the disease, or to the use of the Calabar bean, or both combined—is, of course, a moot question, but the marked, immediate, steady improvement that took place after the administration of the Calabar bean would seem to indicate that that drug played a serviceable and important part in the treatment of the case, as also to show cause for a further trial of the Calabar bean (in the form of gelatine lamels) in similar cases.

I must speak a word of praise on behalf of the gelatine lamels. Their portability is evident, but I scarcely think their usefulness, under the circumstances as above described, is sufficiently appreciated. It is usual to administer remedies for tetanus hypodermically, but, as I have stated, this simple operation in my patient, whose nervous system was in so excited a condition, proved objectionable, on account of its bringing about a condition of tonic spasm, which it was sought to avoid or prevent. On the other hand, the administration of *fluid* remedies by the mouth, even when available, as in the early part of the disease, is not without similar dangers, inasmuch as in this case it proved so irritating that a choking fit, culminating in a general convulsion, almost always followed the attempt to swallow them; whereas the lamels, having been slipped between the closed teeth, were slowly dissolved and absorbed without causing any spasm.

Belford, Northumberland.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.—At the meeting of the Executive Committee, held on Wednesday last, Mr. T. Greenish, the President of the Pharmaceutical Society, Mr. James Cantlie, F.R.C.S., of Charing-cross Hospital, and Mr. Edmund Owen, F.R.C.S., of St. Mary's Hospital, were elected members of the committee. The guarantee fund has been increased by more than £100 in the last week, and Sir James Paget has placed his name upon the list of guarantors for £10 10s. The forms of applications for space are being prepared, and will be forwarded as soon as ready to those applying for them. No application for space will be considered unless received by the last day in March. Means are being taken to advertise the Exhibition in France, Germany, Austria, Italy, Russia, Scandinavia, Canada, the United States, India, and Australia.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium

EAST LONDON HOSPITAL FOR CHILDREN.

CASES OF CONGENITAL SYPHILIS.

(Under the care of Dr. FRANCIS WARNER.)

THE following cases illustrate the occurrence of temporary enlargement of the spleen and of laryngitis in syphilitic infants.

CASE 1. *Spleen enlarging under observation; desquamation of skin.*—Ada B——, aged nine weeks, was seen as an out-patient on June 4th, 1879, on account of a rash on the skin, and running from the eyes and nose. She had appeared healthy at birth. When five weeks old little red patches appeared first on the feet; the skin then turned white, and blisters formed and broke, and the feet had never been healthy since. Similar spots appeared on the face, and the rash gradually spread to the whole body. As the latest development of the skin disease, the nates had become very sore a fortnight previously.

When seen there was very marked desquamation of the hands and feet; the child snuffled, and there was a thick yellowish discharge from the nose; no thrush and no disease of the nails; no thickening of the long bones of the skull; voice in crying fair; spleen and liver not enlarged. Ordered twenty drops of solution of perchloride of mercury, with a little iodide of potassium, three times a day. A week later it was noticed that she looked better, the skin healing, with less desquamation.

On June 19th the sores on nates had healed; there was less desquamation. Spleen now felt distinctly enlarged, extending almost up to the umbilicus; the enlargement had occurred under observation. The child was stronger and better. There were no signs of rickets.

The skin condition continued to improve. The spleen was very distinct. On July 9th the spleen was subsiding; rash gone; no desquamation; still discharge from nose. On the 17th the spleen could not be felt enlarged; the child was getting fat. On Oct. 9th there were no visible signs of syphilis, and on Dec. 18th the child was healthy-looking, fat, and well.

CASE 2. *Child voiceless; laryngeal disease; death; necropsy; large spleen.*—Florence T——, aged seven weeks, was seen as an out-patient on Nov. 28th, 1878. When born there were "bladders full of water" about its head, but otherwise she appeared healthy. At three weeks old she had a sore mouth and face with thrush. When first seen the voice was fair; there was disease of the nail of the first finger of the left hand; it was dry, hard, and dead; the mother said there had been a little matter under it, but there was none seen. No other nail was thus affected.

On December 5th, on crying, the voice was lost, or almost lost. Much staining of the skin around the mouth, and on the nates and around the anus there were abrasions and dark-stained patches; no sores between the fingers and toes; thrush in mouth; spleen and liver appeared normal. It was found that soreness of the nates appeared with thrush when the child was three weeks old.

On the 17th there were fissures at angles of mouth and eyelids; the skin of forehead was desquamating; some desquamation of legs. Desquamation had occurred where there had been redness; thrush had gone. She was made an in-patient, and died Dec. 25th.

At the necropsy on Dec. 26th, brain, meninges, and skull were normal; the lungs were the seat of lobar and lobular pneumonia; the liver and kidneys were healthy; the spleen was large, and had recent lymph on its surface, causing soft adhesions; no other peritonitis. Larynx presented marked signs of disease, showing an ulcerated surface with a papillomatous appearance both above and below the ventricles; bronchi healthy.

The mother was under treatment for constitutional syphilis, with ulceration of the tongue and laryngitis.

CASE 3. *Voice hoarse; condylomata; ulcers on tonsils; nasal discharge.*—Henry G——, aged ten years, was first seen on Oct. 16th, 1879. His voice was hoarse; this was said to be recent. Around the anus were large condylomata with ulceration; these had appeared about three weeks previously. Ulceration of both tonsils had existed two months, and there had been discharge from the nose five months. The bowels were costive, and defecation was often attended with bleeding. There seemed no doubt that the boy was syphilitic, but on the other hand there was no proof that the syphilis was inherited, nor any suspicion that it was accidentally acquired. There was no keratitis, no ophthalmoscopic changes, no bone thickening, and no deformity of head or nose. On inspecting the throat there was seen superficial ulceration of either tonsil, spreading to the uvula and soft palate. From the nose there came an unhealthy glairy discharge, causing excoriation. Hoarseness of the voice was marked, and attended with marked stridor on deep inspiration. Ordered thirty drops of solution of perchloride of mercury, subsequently increased to sixty drops, with iodide of potassium, four times a day. The condylomata soon became drier; the tonsils, larynx, and nose remained diseased much longer. Tonsils were noted as healed on Nov. 13th. At that time an ulcer was seen over the right arytenoid cartilage. On Dec. 4th the ulcers on tonsils had healed; nostrils did not discharge; the latter symptom, however, returned. The condylomata healed up, but reappeared in January. Finally, by February the throat and nose appeared healthy, and the laryngoscope showed no ulcers, but the voice was still hoarse.

The patient was the youngest of eleven births:—1, never healthy, died at twenty-one years; 2, girl, died at twenty-four years, weakly; 3, girl, died at twenty-two years, weakly; 4, stillborn, healthy; 5, twins, one wasted, other stillborn; 6, stillborn at full term; 7, stillborn at full term; 8, miscarriage at fourth month; 9, stillborn at full term; 10, boy, aged twenty years; 11, patient. The patient was considered healthy at birth, and never had any sores on the skin till October, 1879. There was no history, sign, or probability of infection of syphilis.

CASE 4. *Spleen large, subsiding; slight rickets.*—Thomas D——, aged nine months, was seen as an out-patient June 12th, 1879. The mother said he had been healthy and well the first three weeks after birth, but not very fat. Then a rash came out on the nates, legs, and feet. "Blisters came out and bled"; these died away in a fortnight, and nothing more appeared till two months ago. There was thrush at the same time as the rash. Patient was the first child; there had been no miscarriage. The mother had some rash on her body while pregnant. When seen there was thrush; brownish mottling of the face, especially on forehead. In the right temporal region an oval patch, dark-brown, smooth and dry edges, slightly raised; a similar patch on chin. An abrasion, the size of a threepenny-piece, was seen at the side of the anus. There was moderate rickety condition, with "beading" of the ribs. Fingers and nails heathy; no bone thickening discovered. Spleen large, distinctly felt. Glands in both Scarpa's triangles enlarged. Ordered mercury ointment to be rubbed in.

On the 27th the ulcer near anus was not healed, and there was much discharge from nose. Voice good. Ordered twenty drops of solution of perchloride of mercury, with iodide of potassium, four times a day.

On July 10th two grains of mercury and chalk powder given four times a day. On the 24th the ulcers were healing. Spleen still large. Very little discharge from nose; not getting fat. On Aug. 14th no rash; the child appeared healthy and well; fat. Voice good; spleen subsiding. On Sept. 2nd the spleen could not be felt. No running at nose. On Jan. 5th, 1880, the child was well and fat and had no sores.

Remarks.—These cases illustrate the occurrence of temporary enlargement of the spleen, of chronic laryngitis in syphilitic infants. As to the splenic disease, in Case 1 the enlargement of the spleen occurred under observation, and lasted about one month. It appeared as the exanthem was passing off. In Case 2 the enlarged spleen was found on autopsy, and was covered with recent lymph. In Case 4 the spleen was enlarged during the exanthematous period, and subsided under observation. The child was slightly rickety, and this might be supposed to be the origin of the splenic enlargement, but that the subsidence was more rapid than occurs in rickets. With regard to the laryngitis, in Case 2 the child was voiceless, and the laryngeal disease was seen after death. In Case 3 ulceration of the larynx was seen with the laryngoscope.

ROYAL BERKS HOSPITAL, READING.

SIX CASES OF OVARIOTOMY.

(Under the care of Mr. O. C. MAURICE.)

FOR the following notes we are indebted to Mr. C. R. Graham, house-surgeon.

CASE 1. *Antiseptic ovariotomy; rapid recovery.*—Elizabeth F——, aged forty-five, married, was admitted on December 6th, 1877. She had been in the hospital on several occasions, suffering from menorrhagia, with some uterine enlargement, but had never been actually incapacitated from following her household duties.

On admission she had a considerable tumour in the abdomen. There was fluctuation as well as dulness on percussion over the upper part of the abdomen, but the flanks were distinctly resonant. Measurements indicated an ovarian tumour. In order to verify the diagnosis the aspirator was used, and a small quantity of fluid drawn off.

On Dec. 23rd ovariotomy was performed antiseptically, the pedicle being ligatured. The case progressed so favourably that the patient was convalescent at the end of three weeks, and was discharged cured thirty days after the operation. The temperature on the morning of the 25th Dec. was normal, but rose to 102·2° in the evening, after which it gradually descended to normal. The pulse only once reached 105, that also being on the second day after the operation; it afterwards did not exceed 90.

CASE 2. *Antiseptic ovariotomy; recovery.*—Jane W——, aged forty-two, was admitted on Dec. 31st, 1878. She was married, and had had eight children, the youngest being born in February, 1876. The catamenia had been quite regular up to the time of admission. In February, 1878, she noticed a swelling on the left side about the size of an orange; it gradually got larger, but was not accompanied by much pain. Six months before admission ascites appeared, and continued to increase, giving rise to dyspnœa and great distress.

On Jan. 10th, 1879, paracentesis abdominis was performed, and nineteen pints and a half of ascitic fluid were drawn off, to the great relief of the patient. A hard, globular mass, about the size of the fœtal head, freely movable, could then easily be felt in the left lumbar region. An ovarian tumour was diagnosed, and on Jan. 23rd ovariotomy was performed under the spray. An incision four inches long was made in the mesial line. There were no adhesions; the cyst, which was multilocular, was tapped, and a small quantity of clear fluid and gelatinous matter were drawn off. The pedicle was secured by an ordinary double ligature, cut short, and returned into the cavity of the abdomen. The wound was brought together by deep silk and superficial wire sutures, and dressed with lint soaked in carbolic oil. Strapping, pads, and a binder completed the dressings.

On the 28th the dressings were removed, the wound looking well. Temperature 100°.

Two days later the four deep sutures were removed. A drop of pus escaped on taking out the lower one. Carbolic oil dressings were discontinued, the wound being simply strapped together with adhesive plaster and covered with oakum. Temperature 100·2°.

On Feb. 3rd the wound was dressed. With the exception of about half an inch at the lower part it was quite healed. Temperature 99·2°.

From this time the patient made a good recovery, although convalescence was somewhat delayed owing to the patient getting a small bedsore. She was discharged on April 1st.

CASE 3. *Dermoid cyst of ovary; ovariotomy; death.*—Jane P——, aged fifteen, was admitted on April 22nd, 1879. She gave the following history. About Christmas, 1878, she noticed a swelling on the left side of the abdomen, which gradually enlarged. It was occasionally painful. She admitted having had undue familiarity with her cousin, a lad of seventeen, six months before. On admission the tumour was irregular in outline, solid, and situated in the lower part of the abdomen, extending upwards as far as the umbilicus; it had a slight inclination to the left side, and was freely movable. On examination per vaginam a number of small hard tubercles could be felt through the posterior wall of the vagina; the os uteri was high up behind the pubes. On introducing the finger into the rectum it at once came into contact with a hard globular mass, resembling very much the fœtal head, there being also a well-marked suture. No material change took place in the patient's condition until May 16th, when morning sickness came on and lasted ten days. A diagnosis was a matter of considerable difficulty, as owing to the previous history of the case and condition of the parts pregnancy was very strongly suspected, but after some time had elapsed and none of the other signs of pregnancy made their appearance the case was considered to be one of ovarian growth, probably of a dermoid character. As the patient's health began to fail, it was deemed advisable to make an exploratory incision, and to be guided by circumstances.

On April 28th an incision two inches in length was made in the linea alba, and an ovarian tumour discovered. There were no adhesions, the pedicle was ligatured, and hæmorrhage, which gave some trouble, having been arrested, the wound was closed with carbolised silk sutures and then strapped with adhesive plaster. In the evening the temperature was 102·6°; pulse 140. The bowels acted. On the 30th she vomited. Temperature 98·6°; pulse 128. On May 2nd the pulse was very weak, 128; temperature 103°. Tongue dry and coated with a brown fur. Two grains of quinine were given every four hours and two teaspoonfuls of brandy every two hours. The wound was dressed. Next day when the wound was dressed the sutures were removed. The pulse was counted with difficulty, about 160 per minute. Patient had been sick twice. She gradually sank and died on June 4th. The post-mortem revealed diffuse peritonitis, the whole of the abdominal organs being matted together.

The growth was a characteristic dermoid cyst, consisting of bone, cartilage, &c. It sprang from the right ovary, was multiple, the smaller cysts containing a thick gelatinous fluid. The inner surface of the cyst was made very uneven by being scattered over with circumscribed elevations, and there were also several tufts of hair two or three inches in length, of a fair colour, contained in the cyst. The bones resembled those of the fœtal skull, being in some places nodular, others laminar, and presenting a well-marked suture. In places the cyst wall was composed of cartilage.

CASE 4. *Antiseptic ovariotomy; recovery.*—Eliza R——, a domestic servant, aged twenty-five, single, was admitted Aug. 26th, 1879. She had felt out of health all the summer, but was able to continue her work up to three weeks before, when she noticed a swelling at the lower part of her abdomen in the median line; this had rapidly enlarged, but was not painful. Sickness had occasionally occurred in an evening. She menstruated quite regularly up to two months before admission.

On Sept. 9th the tumour extended one inch above the umbilicus, and the circumference of the abdomen (opposite the umbilicus) was 32 in., but by Oct. 3rd this had increased to 33½ in.

On Oct. 17th ovariotomy was performed antiseptically. An incision four inches in length was made. The cyst was unilocular, and contained a large quantity of fluid of a purulent character. The pedicle was ligatured as in the previous cases. In the evening nausea and vomiting came on, and lasted until the following day; they were arrested on the administration of beef-tea enemata. The urine also became of a dark greenish colour, due to the absorption of carbolic acid from the dressings, and continued so for several days.

On the fifth day (Oct. 22nd) the dressings were removed, and it was found that, with the exception of a quarter of an inch at the upper part of the incision, the wound was quite healed. The sutures were taken out, and from this time the patient made an excellent recovery. She attended service in the hospital chapel on Nov. 2nd, and was discharged well Dec. 2nd, 1879.

Remarks.—Owing to the tumour beginning in the median line, the lubricated state of the vagina, and the soft and patulous condition of the os, there was at first some difficulty in diagnosing this case from pregnancy. Before the operation adhesions were expected to be found. As the patient appeared to suffer several slight attacks of peritonitis fortunately these expectations were not realised. The highest temperature registered after the operation was 99·6°, and the pulse never exceeded 98.

CASE 5. *Antiseptic ovariotomy; recovery.*—Susan H——, a barmaid, single and aged nineteen, was admitted Dec. 9th, 1879. She had previously (in 1877) been in the hospital for an abdominal swelling, when fluctuation was detected over the whole of the abdomen. An ovarian tumour was diagnosed, and she was tapped; but, owing to her fainting, only fifteen ounces of fluid were drawn off. During the next few days she passed an unusually large quantity of urine, and in a week the abdomen had returned to its normal size, leaving only a slight thickening in the left iliac region. The fluid removed was quite clear, not coagulable by heat or nitric acid; sp. gr. 1003, with a slight deposit on standing of epithelial cells and crystals of phosphate of lime.

The enlargement having reappeared it was decided to operate, and on December 12th ovariotomy was performed antiseptically. Twenty-three pints and a half of serous fluid were drawn off; sp. gr. 1010, slightly alkaline, and containing a small quantity of albumen. The cyst was unilocular, and sprang from the broad ligament on the left side. The pedicle was secured with a triple ligature. On the following day the temperature rose to 100·4°, but afterwards never reached more than 99·6°. The patient recovered without a bad symptom, and was discharged Jan. 6th, 1880.

CASE 6. *Antiseptic ovariotomy; recovery.*—Lucy A——, aged twenty-seven, single, had suffered from abdominal pains for three years. Eighteen months before admission she noticed a tumour in the right pelvic region. It had grown rapidly and become more painful during the last few months. She was admitted on August 17th, 1880, and on the 28th ovariotomy was performed antiseptically. The cyst was unilocular, and the pedicle was ligatured as in the previous cases. There was a large number of adhesions; posteriorly several coils of intestine were firmly attached to the cyst, whilst inferiorly it was bound down to the fundus of the uterus by a band of fibrous tissue, an inch broad and half an inch in thickness. The patient progressed very favourably, though her recovery was somewhat delayed owing to cystitis being set up by passing the catheter. Both pulse and temperature kept rather high for three weeks, the former varying between 100 and 132, the latter between 99° and 101°, but on the evenings of the tenth and seventeenth days after the operation the temperature reached 102°, it then came down to 99°, when it remained stationary for a time, after which it became normal.

The patient was discharged cured Oct. 25th.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Observations on the Value of Stethometry in the Prognosis of Chest Disease.

THE ordinary meeting of this Society was held on the 25th inst., J. E. Erichsen, Esq., F.R.S., President, in the chair. There was but a scanty attendance. Only one paper was read, which was a further contribution to "stethometry," by Dr. Ransome, detailing with great care the result of numerous observations made by him on the movements of the chest in pulmonary disease.

The following is an abstract of the paper, entitled "Further Observations on the Value of Stethometry in the Prognosis of Chest Disease," by ARTHUR RANSOME, M.D. The bearing of stethometry upon the prognosis of chronic bronchitis, asthma, emphysema, and pleurisy having been pointed out, this paper then deals more closely with the records of chest measurements of 102 persons affected with various forms of phthisis. Fifty of these cases were either chronic, or persons in whom the disease had become quiescent (twenty-five males and twenty-five females). Forty of these were acute (twenty males and twenty females), and twelve of them were exceptional cases, in whom the chest measurements could not be relied upon from their youth, and who had succumbed from accidental causes, such as hæmorrhage, &c. The points selected for the application of the stethometer were the middle points of the clavicles and the anterior ends of the third ribs, the movements measured being chiefly those in the (horizontally) forward and the (vertically) upward directions. In all cases the measurements were obtained in an interval of comparative quiescence of the disease, and cases complicated with extensive pleuritic adhesions were excluded from the tables. From these records it appears that—1. The respiratory movements are much smaller in acute than in chronic cases. In six of the acute cases no movement was perceptible in one or another of the directions of motion at one of the points examined. No such immobility was found in any of the chronic cases. The average forward push of the clavicle in acute cases, on the worse side, was 0·15 in., in chronic cases 0·29 in. This movement over the third ribs was on the average 0·25 in. in acute cases, and 0·54 in. in chronic cases. A similar contrast was remarked in the extent of the *upward* movements. The average upward movements of the clavicles in the male acute cases was 0·25 in. on the worse, and 0·30 in. on the better side; in females 0·26 in. and 0·38 in. respectively. In the chronic male cases the corresponding diminutions were 0·50 in. on both sides; in females 0·56 in. on the worse and 0·66 in. on the better side. The third ribs move upwards in acute male cases 0·36 in. on the worse, and 0·45 in. on the better side. In females the numbers are 0·38 in. on the worse, and 0·51 in. on the better side. In chronic cases these dimensions are for males 0·72 in. and 0·74 in.; for females 0·78 in. and 0·85 in. 2. There are certain peculiarities of chest movement in chronic and acute cases, arising out of the power of independent rib movements. This is shown (*a*) in the extreme restriction of motion of parts placed over an advancing softening of the lung in its comparative freedom over a quiescent vomica. The third stage of phthisis had been reached in thirty-three cases—twenty-one of the acute, and twelve of the chronic series. The average forward push of the clavicle in the chronic cases was more than double that in the acute series, and in half the former group there was actually a larger extent of motion over the site of a vomica than on the less affected side of the chest. The circumstance was not observed in any of the acute series. The third ribs show nearly three times the amount of forward movement in chronic than in acute cases, and in the former group the motion of the bone over the excavated lung exceeds that of the opposite side. (*b*) Efforts at compensation are made, by both clavicles and third ribs, in either an upward or a forward movement. When these efforts take place in the upward direction they must be regarded either as an unfavourable sign, or else as only a measure of the muscular power that the patient can bring to bear on the obstruction to healthy breathing. There were sixteen such cases of exaggerated upward movements amongst the chronic series, and six in the acute series. In the forward direction the effort at compensation has a distinctly favourable significance—it occurs fifteen times amongst the chronic cases and only twice doubtfully amongst the acute group. Much assistance may also be derived from repeated measurements of the same case, and instances are given of the kind of information thus obtainable. From the data afforded in this paper it was concluded—1. That a small amount of movement of the chest, especially in the forward direction, is of evil augury; and that when, in adults under forty, the forward push of the third rib is less than 0·35 in., there is reason to foretell a rapid course of the disease. 2. That we may usually give a favourable prognosis when in an adult there exists an inactive vomica, with a considerable extent of movement in the ribs overlying it; and the sign is still more favourable when the forward motion of the bone is greater than that of the corresponding point on the opposite side. 3. That an excessive or compensatory effort at *upward* movement tells us little as to the gravity of the disease, but a free compensatory *forward* movement is a favourable sign. 4. That stethometry must be regarded as only one of the elements of prognosis.—The PRESIDENT, in according the usual vote of thanks, remarked that the paper was one which required careful perusal, and that the author had extended into the domain of prognosis the precision with which pulmonary affections were now diagnosed.—Dr. BROADBENT said the value of the stethometer was that it directed attention to given points in chest disease, which might otherwise be passed by as of little importance. It would be of value if it did nothing more than help to form a prognosis in the early stages of disease, for it pointed out more accurately than the eye or hand the limitation of movements of the chest in such conditions. One point came clearly out—viz., that the greater comparative extent of upward movement was often compensatory for defective forward movement. All must recognise the scrupulous care with which Dr. Ransome had made his observations and laid the points of his paper before the Society, realising more fully than had been done before the aid obtainable by definite and precise measurement of thoracic movements.—Dr. **Douglas Powell** said that all must be grateful for any aid in the prognosis of consumption, the peculiarly intermittent character of which rendered prognosis so difficult. These observations, which required so much skill and patience, especially when the difficulty of obtaining trustworthy records of the movements of the chest is considered, would be of great value for reference and guides to others—like the researches of Dr. Hutchinson with the spirometer. Dr. Powell had found the most valuable indication of the respiratory power in phthisis to be the power of expiration rather than that of inspiration; noting, that is, the degree to which the patient can empty the chest of residual air. The author's observations were also of value in correcting previous notions—e.g., the localised diminution of movement was generally regarded as evidence of chronic disease, but Dr. Ransome had shown that the movement was more impaired in acute than in chronic phthisis—in other words, that fixity was a sign of activity of progress of the disease, mobility of chronicity. Of course, in the stage of consolidation the movement in an acute case is limited; but when softening takes place the movement is generally freer; whilst if the disease become arrested, the walls flatten and movement is diminished.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Treatment of Nævi and other diseases by Ethylate of Sodium.

At the meeting of this Society on the 17th inst., F. J. Gant, Esq., President, in the chair—

Dr. **John Brunton** exhibited a case of Nævus of the Scalp, successfully treated by sodium ethylate, and also showed a case in which some nævoid spots on the face had been similarly dealt with.—Mr. **Wordsworth** declared that in many cases nævi spontaneously degenerated and disappeared—even after temporary increase—rendering operative measures unnecessary. But where they occupied situations liable to produce deformity, and when they were very large, they should be destroyed. On the eyelids they should be dealt with early, to avoid visible scars and contraction; several punctures with the cautery needle into the nævus itself being sufficient.—Mr. **Spencer Watson** had used sodium ethylate, but was not satisfied with the result, except for superficial nævi.—Mr. **Edmund Owen** also said that he had given it an extensive trial, and found it answer well in small superficial cases, but it had failed for deeper growths, which he had finally to treat with Paquelin's thermo-cautery. For small nævi almost any method availed, even the friction of clothing sufficed for their obliteration. The case exhibited by Dr. Brunton had been one year under treatment, and had required twelve applications of the caustic. The thermo-cautery had the advantages of rapidity of action and certainty.—Mr. **Royes Bell** had also failed to get good results from sodium ethylate in larger nævi. He agreed with Mr. Wordsworth as to the advantages of leaving many of these cases to spontaneous cure. The length of time occupied in the treatment by the ethylate was an objection to its use.

Dr. **Richardson** then read a paper "On Ethylate of Sodium in the Treatment of Nævus and other forms of Disease," the text of which will be found at p. 168.

Dr. **Routh** thought that the injection of this agent would prove useful in uterine and other fibroids. He had seen, especially in mammary tumours, marked benefit from injection of iodine, but the procedure was always followed by severe inflammation. He asked if there was much inflammation in the case of goitre treated by Dr. Richardson.—Mr. **Owen** would like to hear from Dr. Richardson the exact and probable effect which would follow upon the solution being injected into the interior of a good-sized vessel in the thyroid gland. Would it, like the ferric solution, cause coagulation? If so, he would regard its use subcutaneously with the gravest apprehension. Looking to the effect which the ethylate had upon solid tissues, he should infer that its effect on the blood would be considerable, and its injection might not improbably be followed by thrombosis or secondary hæmorrhage. — Dr. **Woakes** thought the treatment promised to afford a new departure in the case of goitre, in which the methods ordinarily in vogue were more or less abortive. Apprehensions of danger from injecting fluids into solid organs were groundless. It was a daily practice at the Throat Hospital to inject goitrous tumours chiefly with tincture of iodine, and he was not aware of a single mishap accruing beyond an occasional superficial abscess caused by the escape of a portion of the fluid into the subcutaneous areolar tissue. Injection of hypertrophied lymphatic glands, with dilute acetic acid, was common, and the results most favourable. All the accidents seemed to have occurred with the injection of perchloride of iron; but this, diluted, was constantly used in the treatment of cystic goitre, the cyst being first emptied through a cannula, the injection taking place into the cyst cavity, which in a few hours became a suppurating surface. Probably tannin in solution would supersede the use of iron for this purpose, though, with the observance of proper precautions, the injection into such structures would prove to be a perfectly safe procedure; and on this ground it seemed probable that Dr. Richardson's suggestion would prove a valuable one.—Dr. **Crocker** referred to a case of death from abscess due to injection of perchloride of iron into a thyroid tumour.—Mr. **McHardy** also alluded to a case of cystic goitre, in which death resulted from a like injection.—Dr. **Brunton**, in reply, said that he had applied the agent about twelve times in the case of the child. He used a glass-rod, applying the ethylate whenever the crust was removed easily. He considered the remedy to act in a threefold manner—as a caustic, an astringent, and as a coagulator.—Dr. **Richardson**, in reply, said that he did not advise the hypodermic injection of ethylate of sodium, except in cases of extreme danger to life, and when other means had failed. It undoubtedly dissolved gland structures, and the addition of alcohol increased its coagulating effect. Nævi treated subcutaneously had not been so successful in result as when the agent was applied externally.

CAMBRIDGE MEDICAL SOCIETY.

Treatment of large Hydatid Cyst of Liver.

A meeting of this Society was held on Friday, January 7th, Professor Paget, M.D., F.R.S., in the chair.

Dr. **Grove** (St. Ives) gave an account of the Treatment by Aspiration and by Drainage of an unusually large Hydatid Cyst of the Liver. The patient was an unmarried woman, aged thirty-five, who had had symptoms for two years referable to the liver. When first seen on May 26th, 1880, the patient was suffering from acute pain in the right hypochondrium, where there was an increase in size. The pain and tenderness becoming more severe, she was seen by Dr. Latham in consultation. At this date (June 17th) the liver was found to extend as low as the crest of the ilium, it was hard and resistant, except just at the margin of the ribs, about two and a half inches from the median line, where there was a feeling of elasticity; on pressing at that point, and between the fourth and fifth intercostal spaces, there was a suspicion of fluctuation. Dulness on percussion from the lower margin of the third rib down to the level of the crest of the ilium, except over an area of about two inches in diameter (corresponding to the fourth, fifth, and sixth costal cartilages), which was distinctly tympanitic. The respiratory sounds were heard well only under the clavicle. Posteriorly a tympanitic note at lower angle of scapula and from that to the spine; normal resonance above that, and absolute dulness below. Over this posterior tympanitic area the respiratory sounds were feeble, and there was marked tremulous bronchophony. The patient, during the examination, felt much pain, especially at the tip of the right shoulder-blade, the whole right side being extremely sensitive. As she had occasionally profuse perspirations, this, with the other signs, made it not improbable that there was a suppurating hydatid cyst in the upper portion of the liver; but as the sense of fluctuation was very slight, it was considered advisable to wait a few days before proceeding to operative interference. To continue to take effervescing mixture and anodyne draughts. On June 21st the general condition was worse and the girth had increased four inches (to thirty-four inches). There was now an elastic distinctly fluctuating tumour to be felt below the margin of the ribs. In consultation with Dr. Latham it was resolved to perform paracentesis. The puncture was made two inches to the right of the middle line and one inch below the costal cartilages; evacuation of nine pints and a half (imperial) of offensive semi-purulent fluid, containing numerous empty cysts. The operation was performed with the aspirator with a full-sized needle and occupied upwards of an hour. In the course of the following days there was some diarrhœa, the stools being of pale colour. On July 9th (evening) a rise of temperature was noted, with dry tongue and little appetite. The girth had again gone up to thirty-two inches, and was daily increasing; pain and oppressed breathing. On July 14th aspiration was again performed; seven pints and a half of bile-stained fluid were removed. Next day potassa fusa was applied somewhat to the right of the puncture to form an issue. The motions were devoid of bile. On the 18th the cyst was tapped through the eschar with trocar and cannula, the fluid removed being very biliary. Cavity washed out with chloride of zinc solution. An india-rubber drainage-tube nine inches long was introduced through the cannula, the latter was then withdrawn and the tube retained. The cyst was washed out twice daily with 2 per cent. of carbolic solution; the discharges were deeply stained with bile; entire absence of bile in the stools. For several days from July 21st the patient became weaker, emaciated, with sickness and diarrhœa. Bile began to reappear in the stools, and for two weeks from August 1st there was a great improvement, the chief trouble being constipation, which was relieved by enemata. On August 14th Dr. Grove was called up, and found the patient suffering severe pain in abdomen, with furred tongue and loss of appetite; large flow of bile from cyst. The cyst had contracted considerably, and on August 20th it contained only one syringeful. The stools became natural, and she continued to improve until, about the middle of September, the tube, which had been shortened from time to time to about three inches, was removed; granulations had all but closed the orifice, and the wound was allowed to heal.—Dr. LATHAM, who had seen the case in consultation, remarked on the rapidity with which the cyst had enlarged, both in the first instance and after the fluid had been once removed. There was tympanitic resonance over the fifth, sixth, and seventh costal cartilages, and, on auscultation, distinct tremulous bronchophony. There was a certain amount of air in the cyst; and, at the second puncturing, there was a great rush of air. He had once before observed tremulous bronchophony where the fluid was not in the pleural cavity. The largest-sized aspirating needle was used, but even that became immediately blocked by the cysts, and it had to be cleared many times in the course of the operation. The amount of fluid removed on the two occasions was 340 oz., an unusually large, if not unprecedented amount. The discharge by the drainage-tube was almost pure bile, and it was probable that the destructive changes in the cyst had opened a communication with one of the larger bile-ducts.

(To be concluded.)

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A MEETING of the members of this association was held at Wakefield on Wednesday, Jan. 19th. The members of the association assembled at the Town Hall, and then proceeded to visit the Infectious Diseases Hospital recently erected by the Corporation of Wakefield, near Park Hills, and the West Riding Pauper Lunatic Asylum, where they were courteously received by Dr. Major, the medical superintendent. In the afternoon, a general meeting of the members was held in one of the committee-rooms of the new Town Hall. The proceedings, which occupied two hours, were of an interesting character. Mr. S. W. North, of York, the medical officer of health for that city, and the president of the association, occupied the chair, and there were also present the following gentlemen:—Mr. B. Kemp (Horbury), F. H. Wood (Wakefield), Mr. Wade, Dr. Scott (Ilkley), Dr. Farquhar (Pudsey), Dr. Hime (Sheffield), Dr. Butterfield (Bradford), and one of the Commissioners appointed to inquire into "the woolsorters' disease," Mr. J. Mitchell Wilson (Doncaster), secretary to the association, and Ald. Sellars, and Councillors Flower, Tattersall, and Sherwood, of Wakefield.—The PRESIDENT, in opening the proceedings, alluded to the great interest which is being taken at the present moment in regard to the prevention of infectious diseases. Referring to infant mortality, the President said that a very large number of deaths had taken place from diarrhœa and other causes, and arrangements were being made for a conference of medical officers of health to be held at Leeds or York in April to discuss the matter. The President also remarked that Dr. Barry, the late secretary to the association, had been appointed medical officer for the island of Cyprus, and during the meeting was elected an honorary member of the association.—Dr. WADE, the medical officer of health for Wakefield, then read a paper on the Sanitary Condition of Wakefield during the last Ten Years, and it was followed by an interesting discussion, in which the President and Dr. Butterfield (Bradford), Dr. Farquhar (Pudsey), Dr. Hime (Sheffield), and Dr. Wilson (Doncaster), took part. The last-named gentleman, in referring to a suggestion that schools should be closed as one means of preventing the spread of infectious diseases, said that this was a question in which teachers were greatly interested, because, if children were not permitted to attend school regularly, teachers lost a portion of the Government grant. He therefore thought that the matter was one which ought to be laid clearly before the Education Department. — Mr. BUTTERFIELD mentioned that a serious outbreak of scarlet fever had been caused at Bradford by two children who had had a mild atttack of it going to school before they had thoroughly recovered, and by other children in the school amusing themselves by picking the skin off the fingers of the children who had been infected. Mr. Butterfield then read some lengthy notes on "Woolsorters' Disease;" but as he and his fellow commissioners have not yet completed their inquiry, the representatives of the press were requested not to give publicity to the contents of his paper at present. Mr. Butterfield having replied to a few questions by Dr. Hime of Sheffield, the last-named gentleman exhibited a cheap and simple apparatus for testing the quality of milk.—A vote of thanks was given to the Mayor and Corporation for the use of the Town Hall, and subsequently some of the members dined together at the Bull Hotel.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

AT the fourth meeting of this Society, held on the 7th inst. at the Royal Kent Dispensary, Greenwich, Dr. Purvis in the chair, the following resolution was proposed by Dr. Purvis, and seconded by Mr. W. Lockhart, F.R.C.S.E., and carried unanimously:—"That the members of the West Kent Medico-Chirurgical Society tender to Dr. Habershon and Mr. Cooper Forster their cordial sympathy in the circumstances that have led to their resignation of the offices at Guy's Hospital, which they have so long filled with distinction and usefulness."

Dr. Galabin, Assistant Obstetrical Physician to Guy's Hospital, then read a paper on "Some cases of Tumours of the Abdomen simulating Ovarian Tumours." Dr. Galabin gave the details of several such cases which had come under his notice, which showed how very difficult it is to distinguish between such tumours, as several cases which were considered by himself and others to be ovarian, proved to be otherwise when operated on.

Reviews and Notices of Books.

Peruvian Bark: a Popular Account of the Introduction of the Chinchona Cultivation into British India. By CLEMENTS R. MARKHAM, C.B., F.R.S. London: Murray. 1880.

TO introduce into one country the cultivation of a plant which is a native of another might seem a problem of the simplest practical character; but how complex and difficult the task may be, what energy and perseverance are necessary to overcome its difficulties, is well known to the few who are familiar with the history of the introduction of the cinchona plant into India. To those who are not, we commend the story as told in this not too prolix volume of 500 pages, by Mr. Clements Markham, to whose labours the achievement is almost entirely due.

As the work is intended for popular perusal, Mr. Markham begins with a sketch of the history of the Peruvian bark. He describes what many of our readers already know, the origin of the name from the lady who, first of Europeans, owed to the bark her recovery from fever—a lady who had entertained our own Prince Charles and Duke of Buckingham, and the ruins of whose castle at Chinchon still stand at the village of the same name, not far from Madrid. The omission by Linnæus of the first *h* in her name, when he designated the plant after her, is regretted by Mr. Markham and by others, as obscuring its origin, but the Linnæan orthography is now stereotyped by almost universal custom, on which our own endeavour, for some years past, to influence by example, has had no effect. "Quina," it is hardly necessary to say, has nothing to do with the name of the plant, being only the Peruvian name for bark.

The story, from the first discovery of the value of the bark to its latest transplantation, is a long and interesting one, marked by incidents of social interest and personal adventure, by many an instance of self-sacrifice and heroism, and also by many an example of rapacity, injustice, and stupidity. Religion and science each had its share in assistance or obstruction; the use of the bark was condemned by Protestants because it was brought from Peru by Jesuits, and the discovery of the actual plant from which the bark came was an indirect result of an attempt to ascertain the shape of the earth.

Mr. Markham describes at length the natural history of the several species of cinchona, and the particulars of the discovery and geographical habitat of each of the five groups of valuable forms—Loxa, and its "crown" barks; the western slopes of Chimborazo, and their red barks; the Colombian region; Northern Peru, where the "grey bark" grows; Southern Peru and Bolivia, with their precious Calisaya bark. When the value of the bark became recognised, the supply was in time threatened with extinction. The cinchona-gatherers destroyed the trees in getting the bark; they simply stripped it from them, and the barkless trees quickly died, root and all. In some instances, relying on the abundance of the supply, after a tree was cut down they did not even take the trouble to remove the bark from the under-side of the trunk. Hence in time every cinchona plant was destroyed for ten or twelve days' journey from villages which were once surrounded by them.

The need for quinine in India, the remoteness of the South American source, and the similarity of the climate of many parts of India to that of the cinchona regions of South America, led to a suggestion for its introduction of being made as long ago as 1839 by an honoured member of our profession, Dr. Royle. Twenty years were to pass, however, before steps were taken to carry out the suggestion. The Dutch were before us in enterprise, for in 1853 they introduced the plant into Java. But the undertaking was ill-planned. The varieties chosen turned out to be of little value; and one, which, being the most hardy, was chiefly cultivated, was found to be of no value at all. Dr. Royle renewed his attempts to get the Government to take some steps with regard to India, but died in 1857, unsuccessful. His words, however, lived after him; and in 1859 Mr. Markham, who had travelled much, for geographical survey, in the cinchona forests of Peru, resolved, at the request of the India Office, to devote himself to the work. It could not have fallen into better hands. With his special qualifications for the difficult task, Mr. Markham evidently unites great personal energy and organising power. It was resolved to apply to the Government to carry out the work, but the help thus afforded was scarcely efficient. It was decided that five expeditions should be despatched, one to each of the regions in which the valuable bark grows, since it was doubtful which species would best bear cultivation in India with least loss of its valuable properties. The most difficult of these expeditions, that into the forests of Caravaya, in which the Calisaya bark grows, was undertaken by Mr. Markham himself. The narrative of his journey, given in detail, is full of vivid interest. The journey from the small coast town on the Pacific coast had to be performed on mules, along for the most part unfrequented paths. They started from Islay on March 6th, 1860, and it was not until May 1st that the mountain forests were reached. Many of the roads were at their best like "back-attic stairs after an earthquake," while swollen rivers added to the difficulties and even peril of the journey. When they reached the cinchona districts, 5000 feet above the level of the sea, they had to penetrate into dense tropical forests, where no European had ever been before, and search long before they found the plants. Having succeeded in securing the needed specimens and commenced their return journey they found that their perils were not yet over. The people of the district had been excited by rumours that the export of the plants would ruin their bark trade, and were resolved that not a single plant should be carried away. It was necessary to avoid all towns and villages and to shape a direct compass course across the Cordilleras. In their journeys they were only saved from starvation by an occasional meeting with a friendly Indian, but ultimately reached the coast in safety. The other expeditions were equally successful. One of the most important of these was the search for the red bark by Dr. Spruce, to whose scientific character, energy, and perseverance Mr. Markham pays a high tribute. By the efforts of Messrs. Ledger and Cross in the other expeditions all difficulties were overcome in the end. Plants and seeds of all the cinchona species known to commerce were brought to the coast, and the plants satisfactorily established in Wardian cases. In a sad chapter Mr. Markham tells a very dark story of the insufficient recompense to those who, at the risk of life, and, in several instances, at the loss of health, effected this work. The original agreements were for comparatively small remuneration, so that, if the attempts were unsuccessful, little money loss should be incurred by the Government, the generosity of which was trusted to, should success reward the attempts—a trust ill-placed in every instance.

The selection of the most appropriate sites in India for the cinchona cultivation required much care. They were chosen under Mr. Markham's own supervision, guided by his experience and observation in South America. The first and most important plantation was in the well-known Nilgiri Hills, the most delightful climate in the world, where "the warmth is not heat, and the coolness is not cold"; and the plantation was successfully carried out by Mr. McIvor, the Superintendent of the Government Gardens at Utakamund. The experiments and results here and elsewhere are graphically narrated by Mr. Markham. By 1866 there were 244,871 trees permanently planted out. "The old jungle had disappeared, and in its place were the rows of Peruvian bark trees with their graceful and beautiful foliage." Numerous private plantations have since sprung up; no less than 290,000 cinchona plants and 503 ounces of seed having been given to the public up to 1875. A very important and promising discovery was made in 1873—that of a spontaneous hybrid, which contained three times as much alkaloid as the ordinary species.

The other cinchona plantations of India are next described, especially in British Sikkim and Ceylon. The climate of the latter is well adapted for the purpose, and the extent of cultivation and amount of labour promised a fair trial. So rapidly has the cultivation spread that in 1877 there were no less than 5578 acres under cultivation, and the number of trees now planted out is about seven millions. The entire cultivation in Ceylon is now carried out by private companies and private proprietors; Government having, so far, only given its attention to the propagation, nursing, and classification of the plants.

The introduction of the cinchona plantation into India has been a financial success. The amount of quinine needed in India is very large, the yearly demand being about 10,000 lb., and the cost nearly £40,000. The total cost of the introduction and growth of the cinchona in India up to 1876 was £129,628, and by 1880 the whole capital amount had been paid off, and the plantations had begun to yield a clear annual profit. But this is not all. One of the objects urged from the first by Mr. Markham, and which has been partly attained, was the preparation of a cheap febrifuge for the use of the poor, and it has led to the manufacture of a similar febrifuge in Europe, and thus promises to be of immense benefit to the civilised world.

The East India barks have even entered the London market, and the position they take there is a very high one. In 1878–9 the Government bark sales showed a profit of £35,293. In 1879–80 the total yield of Peruvian bark from India and Ceylon was 1,172,000 lb., and it is now second in point of quantity only to Colombia, which exports six millions. But as regards quality the East Indian supply stands first; and some specimens have attained a higher price than has ever been reached by South American specimens. It is very depressing to learn that, in spite of this success, and promise of still greater success, the Government plantations have been neglected, and future prospects have been jeopardised, to secure large present results. This is the case chiefly in the Nilgiri plantations since the death of Mr. McIvor. In Sikkim more enlightened views have prevailed, and the true object of the cinchona plantation is understood and appreciated. It is probable that, under due management and fiscal regulation, the enterprise may in time come to be of vast financial importance to the Indian Empire. A writer in the *Pall Mall Gazette* of Sept. 18th, 1880, points out that it is probable that China will hereafter be among the largest and most constant customers for cheap febrifuge alkaloids from British India. Opium is now employed as the medicine which is cheapest and most readily obtained. If cinchona alkaloids should come into competition with opium, and obtain the preference by their lower price, their immense superiority would produce a revolution in the Chinese consumption of the two drugs. By this process a solution would be found for the dangers and uncertainties of the large opium revenue of India, and for the perplexing moral questions connected with it.

Hernia, Strangulated and Reducible. With Cure by Subcutaneous Injections, together with suggested and improved Methods for Kelotomy. Also, an Appendix giving a short Account of various new Surgical Instruments. By JOS. H. WARREN, M.D. Boston. London: Sampson Low and Co. 1880.

ALTHOUGH, in accordance with the title of the work, it embraces a good deal more, it is only the description of Dr. Warren's operation for the radical cure of reducible hernia that will prove of interest to most English surgeons. It will be remembered by some that many years ago an American surgeon, Dr. Heaton, visited London, and, under the patronage of Sir W. Fergusson and others, demonstrated an operation for the cure of hernia by means of a subcutaneous injection of a decoction of oak bark upon and around the hernial rings. Dr. Warren has devoted much attention to this subject, and professes to have improved, if not perfected, the original operation of Heaton. With a special syringe armed with a flat blunt oval needle spirally twisted he injects a few drops of a mixture of decoction of oak bark, ether, alcohol, and morphia along the hernial canal, and especially around the "rings." By this he excites an exudation of plastic lymph, which closes the rings and canal, and prevents the redescent of the hernia. There are of course many details of the operation and after-treatment that our space forbids us to notice fully here, which have in view the protection of the peritoneum and neighbouring vessels, and the complete organisation of the lymph before any strain is put upon it. Considerable success is claimed for this method by Dr. Warren, who says that he has cured as many as from 80 to 85 per cent. of cases operated upon; but unfortunately we have no statistics at all given us, and the statement is confessedly a merely approximative one. Dr. Warren visited this country last autumn, and operated on some cases of Mr. Bryant's at Guy's Hospital, and it would be interesting to know from an independent source what success he then achieved, and also whether Mr. Bryant has himself practised this method subsequently, and if so with what results. The benefit conferred upon mankind by anyone who would introduce a simple and effectual cure for hernia would be almost incalculable, and all will receive with cordiality any honest attempt to attain such an end. The author's spiral-ended or vermicular instruments were exhibited at Cambridge in August last, and have been noticed in our columns.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I note that in your last issue Dr. Byrom Bramwell somewhat unwarrantably couples Naunyn's name with mine in a statement he makes as to the chlorotic murmur, in which he quite mistakes my views.

To Naunyn belongs the great merit of first showing that a murmur often found in mitral stenosis in the neighbourhood of the pulmonary artery is not arterial, but auricular, in character. I am not aware that Naunyn has written anything at all about the chlorotic murmur. To myself alone belongs the merit or demerit of connecting together the observations of Beau, &c., as to the dilatation of the heart in chlorosis, with Naunyn's observation as to the dependence of a basic systolic murmur having a certain well-defined position of maximum intensity upon mitral regurgitation. I have endeavoured to show that the chlorotic murmur has this position of maximum intensity, and that the assumption that it depends upon curable mitral regurgitation is the only one which is consistent with the mode in which this murmur progresses from area to area, or which can explain and make intelligible the various views which have been held as to its origin. I have nowhere denied that the chlorotic murmur is ever arterial; I have only endeavoured to prove that in its earliest phase it is strictly cardiac in character, and that the arterial murmur in chlorosis is a late development, largely due, as Beau has pointed out, to the large blood wave sent on by the dilated and somewhat hypertrophied left ventricle. As my second edition is not yet ready, and the first is out of print, I may for the present refer Dr. Bramwell to a paper on "The Position and Mechanism of the Hæmic Murmur," published at page 383 of THE LANCET in September, 1877, where my views will be found fully detailed.

I only notice this misstatement in self-defence, but I had better guard myself against being supposed to homologate all the other doctrines propounded by Dr. Bramwell in the same paper, some of which I regard as inconsistent with fact, and others with physiology and with the physics of the circulation; in this respect I may specially refer to the theory that the aortic valves close first in the case of a reduplicated second accompanying mitral stenosis.

I am, Sir, yours sincerely,
Edinburgh, Jan. 20th, 1881. GEORGE W. BALFOUR.

PRESENTATION.—On Saturday, the 22nd inst., Dr. C. Swaby-Smith of Seaforth, near Liverpool, was presented with an appropriate address accompanied with a purse of money by the Committee of Management of the Seaforth National Schools, in recognition of his services as Honorary Secretary during the past seven years.

THE LANCET.

LONDON: SATURDAY, JANUARY 29, 1881.

Our readers will remember that a question, describable as one of etiquette, and arising out of the case of Regina *v.* Ingle, tried at the Central Criminal Court August 5th, 1880, was referred to the President and Censors of the Royal College of Physicians. The facts may be recalled in a few sentences. Louisa Morgan, a married woman, aged twenty-six, was admitted at Guy's Hospital, under the care of Dr. Pavy, on June 9th, with maladies which, either at that time or afterwards, were recognised as "old and quiescent phthisis, suppurating cyst in broad ligaments, acute inflammatory mass (tubercular) in cortex of brain." The case ended by the death of the patient on July 21st. On July 6th Louisa Morgan was found to have become suddenly worse, and it appeared that on the previous day she had, without the instructions of the physician, received "a very prolonged bath," with "almost cold water, remained in it for a considerable time," and seemed "to have suffered from a severe mental shock." Just at that time Guy's Hospital was in the height of its troubles under a "new system of nursing" which the medical staff did not approve, and Dr. Pavy believing that the death of his patient was accelerated by the use of the bath and the manner in which it was administered, an inquest was held, and the Nurse Ingle committed for manslaughter. The case was detailed, and its principal bearings discussed in these columns, on August 14th, 1880. The main features will be, therefore, as fresh as need be in the recollection of all who care to follow the issue. Sir William Gull, a consulting physician of Guy's Hospital, not having seen the patient during her life or her body after death, and therefore basing his judgment of the case on the evidence given by Dr. Pavy at the inquest, together with certain clinical notes and records of the post-mortem examination, arrived at the conclusion that the death was due to disease existing prior to the bath, and that, in point of fact, the nurse was unduly pressed. Acting on this view of the case, he appeared in Court and gave evidence which tended to show that the pathological condition of the deceased had not been fully recognised, and that the death might be fairly referred to natural causes.

Setting aside, for the moment, the terms and manner of this evidence, the question arose whether it was in accord with professional etiquette for a physician not concerned in the case, but connected with the hospital, to appear in opposition to a colleague, and publicly impugn the accuracy of his diagnosis without having himself seen the patient or even examined her body. It was obvious, and is admitted on all hands, that the presumption set up and maintained by Sir William Gull on behalf of the nurse rested on an assumption of error in the view taken of the disease by Dr. Pavy. If the physician in attendance was right, the death had been accelerated by the bath. If the physician *not* in attendance was right, the death occurred from the natural development of the disease. Both opinions could not be right; and inasmuch as one was formed at the bedside and in the post-mortem room, while the other rested on second-hand evidence, it became a question of etiquette referable to the College of Physicians whether the proceedings taken and the evidence given by Sir William Gull were strictly professional. The President and Censors of the College have replied as follows:—

"The President and Censors of the Royal College of Physicians, having carefully considered Dr. Pavy's complaint, and Sir William Gull's reply to that complaint, do not deem the character of the evidence which a Fellow or Member of the College has given on oath in a Court of Justice a proper subject to investigate when the Court has expressed itself satisfied in regard of the truthfulness and sincerity of the witness. They consider Sir William Gull, holding the opinions he expressed on oath, justified in going into Court. They are further of opinion that Dr. Pavy's diagnosis and treatment of the woman afford no grounds for any remarks calculated to disparage his well-deserved reputation as an eminent and skilful physician."

Could anything be more grotesque? After carefully considering the statements of Dr. Pavy in appeal, and Sir William Gull in rejoinder, the President and Censors "do not deem the character of the evidence which a Fellow or Member of the College has given on oath in a Court of Justice a proper subject to investigate when the Court has expressed itself satisfied in regard of the truthfulness and sincerity of the witness." If this is the principle on which the College acts, why did not the Board at the outset decline to consider the case? Or was it only after making an attempt to get to the bottom of the question they discovered that it was one into which they had no business to pry? Then, again, what in the name of common sense does the College mean by a court of justice expressing itself as satisfied of the truthfulness and sincerity of a witness? It must be perfectly well known to every member of the Board that it is not the practice of courts so to express themselves. Witnesses do not commonly make their exit with certificates of truthfulness and sincerity. There was no question as to the "truthfulness and sincerity" of the evidence given by Sir William Gull and Dr. Pavy. It would be an insult to these gentlemen to suppose they needed the expressed satisfaction of any court to accredit their testimony. Yet this is the ground on which the President and Censors declined to investigate the character of the evidence given! Having thus delivered itself, the same authority proceeds to declare that "Sir William Gull, holding the opinions he expressed on oath, was justified in going into court," but is "further of opinion that Dr. Pavy's diagnosis and treatment of the woman afford no grounds for any remarks calculated to disparage his well-deserved reputation as an eminent and skilful physician." Why the sole aim and purpose of Sir William Gull's evidence—the only effect it could have in the case—was to show that Dr. Pavy's diagnosis had been defective! A decision which decides nothing, which rests on contradictory propositions, and stultifies itself will not satisfy the profession, and we should be astonished to hear that it gave the least comfort to either of the gentlemen interested in the appeal. The President and Censors of the Royal College of Physicians have again signally proved the incompetency of that august body to act as a tribunal of etiquette. Whatever else it may be fit for, it cannot rule the practice of the profession or lay down principles of conduct by which the amenities of professional life can be governed, so that right may be done to all men, and a good understanding may prevail. The final appeal now lies to the profession, and we will not shrink from an expression of the opinion which, as we believe, the profession has formed.

Sir WILLIAM GULL, beyond question, acted with perfect sincerity and the high motive of sympathy with an accused person whom he believed to be unduly pressed. He conceived, on reading the reports of the case, that the death might have been due to the disease and not to the bath, and so feeling, he came forward, or consented to be called, in defence. In thus acting, we have no doubt, he intended to serve the cause of justice and scientific truth, but we are not the less on that account of opinion that Sir WILLIAM GULL was wrong. It ought to have been evident to him that, as consulting physician of the hospital, it was a duty he owed his colleagues to confer with them before acting. It cannot be forgotten that he knew nothing of the case except by report, or obviously imperfect and insufficient documentary evidence. It is at all times a grave step to impugn the accuracy of a diagnosis after the death of the patient, and we can scarcely conceive of circumstances under which a practitioner would be justified in so doing without something much more trustworthy, as the material of a retrospective judgment, than any evidence or testimony Sir WILLIAM GULL had before him. We are bound to say that the clinical report, which we publish in another column, does not appear to us to convey any definite information in the case. We think it was a mistake to produce such a report in Court. There is, or ought to be, a full and clear record of every case treated in a public hospital, on which reliance can be placed. If such reports do not exist at Guy's Hospital, it is impossible to think that hospital has progressed with the times. Such records were duly and diligently made by the resident officers of hospitals thirty years ago. Why are they not made now? Have modern improvements in clinical method rendered close and accurate observation unnecessary? We do not see that Sir WILLIAM GULL—once in the witness-box and committed to the error of appearing in reference to a case of which he had no personal knowledge—can be blamed for commenting on the clinical notes and reports before the Court, seeing that they had been legally put in evidence. We think he would have done wisely to decline giving any opinion on grounds so meagre, but the documents in question were legally part of the case for the prosecution. Dr. PAVY'S position in the matter is, of course, unaffected by what has transpired. No member of the profession —including Sir WILLIAM GULL himself—ever entertained a thought disparaging to that distinguished physician.

The *contretemps* has been one of a most regrettable character, and the sooner it is forgotten the better. Meanwhile, we must say that the course taken by Dr. PAVY in declining to give a certificate of the cause of death, and thus necessitating an inquest, was inevitable, and in the interests of simple justice and common humanity. With the legal issue of the case neither the physician nor the profession have any concern. It would not be tolerated that a nurse should administer a bath without the instructions of the medical officer in charge of the case. As death followed in a manner which was thought to connect the bath with the fatal issue, it was a plain duty to refer the facts to judicial inquiry. The only subjects of professional regret are those to which we have adverted—namely, that Sir WILLIAM GULL should have deemed it a matter of personal duty, and consistent with his position as a consultee and holding official relations with the acting staff of Guy's Hospital, to interpose, or, interposing, to base any critical and retrospective opinion of the case on such slender and manifestly untrustworthy reports as were at his disposal; and that the physicians of Guy's Hospital do not cause to be kept and preserved clinical records of every case treated in the wards of that institution, made by skilled and responsible qualified observers, analogous to the qualified and salaried house-physicians and house-surgeons of times past, and of a nature to be produced in evidence on any emergency, without question as to their value, or the possibility of their being either repudiated or impugned. Surely this should form part of the duty of a hospital staff. It cannot be that only private records are required? There ought clearly to be a hospital clinical register duly kept and officially preserved. The profession may now hope that we have heard the last of a case which it has been most painful to investigate, and from the consideration of which we retire with a sense of relief. It is a story that points its own moral; enforcing the need of *esprit de corps*, and teaching a lesson of fraternity which the profession should be careful to learn and refuse to allow its members to ignore.

SINCE the use of the Hampstead Hospital of the Metropolitan Asylums Board for the reception of cases of small-pox in 1871-72, the common belief of the population resident in the near vicinity of the hospital that the contagion of the small-pox patients accumulated there was diffused from the hospital buildings to susceptible people inhabiting adjacent houses has become firmer and firmer. Each successive use of the hospital for small-pox has appeared to them to lend support to this belief, and later events in connexion with the small-pox hospitals of the Asylums Board at Homerton, Stockwell, and Fulham have been held to add further confirmation to it. But although ten years have passed since the rumour of this belief first reached the public generally, and within that period has grown upon the public so as to form now a formidable impediment to the provision of proper hospital room for the accommodation of small-pox patients, not only in the metropolis, but also in the provinces, no sufficient investigation has been made by those whose duty we hold it was to make such investigation into the circumstances under which the rumour first arose, and into the degree of truth or error underlying it, and the belief which has now so generally grown out of it. There were two points to be considered—first, the strictly medical point of the conditions under which, and extent to which, the contagion of small-pox admitted of being diffused through the atmosphere; and subordinate to this the indirect means in which the contagion might be apt to be disseminated in the carrying of small-pox patients to a hospital, and their dismissal thence when convalescent. Next, and depending upon the answers to be given to the first question, there was that of the public policy involved in the accumulation of large numbers of small-pox patients in the near vicinity of inhabited houses.

With regard to the first question, at the time of the establishment of the Asylums Board Small-pox Hospitals all trustworthy medical evidence pointed to the conclusion that fear of diffusion of small-pox contagion through the atmosphere from a ward occupied by small-pox patients need not be entertained, and that the indirect means of dissemination of the contagion by patients conveyed to and dismissed from a small-pox hospital might be readily controlled. And these general conclusions were apparently fully confirmed by the results of the inquiry made by THE LANCET Sanitary Commission when the rumour of extension of small-pox from the Hampstead Hospital to neighbouring houses became alarming. The Commission was unable to ascertain any reasonable ground for the belief that contagion had been diffused from the wards through the atmosphere; and such evidence of extension as was discovered pointed to indirect but well-known ways in which small-pox is disseminated, and it was found difficult in all cases to say whether the extension came from patients in hospital or from patients among the general population outside the hospital, who had contracted the disease elsewhere in the metropolis. One thing, however, was made evident, that full light upon the subject could only be obtained by inquiry in detail into individual cases of asserted contraction of the disease from the hospital, and this alone could be done by the Central Government itself undertaking the inquiry.

And here we come to the initial misfortune of the whole of this troubled question. The Metropolitan Asylums Board at the time of the institution of the metropolitan small-pox hospitals was purely a Poor-law authority, and, acting strictly within its legal functions, it ignored almost wholly the general public health phase of these hospitals. In their establishment for Poor-law purposes, the principles as to infectious disease hospitals involved in the Sanitary Act, 1866, were overlooked, and in the whole of the discussions which took place upon these hospitals the department of the Government then concerned with the public health administration of the kingdom—namely, the Privy Council—was, we believe, never consulted! But, more astonishing still, when the Poor-law Commissioners and their functions were merged in the Local Government Board, which had entrusted to it both the Poor-law and Public Health administration of the kingdom, still the public health aspect of these hospitals was ignored, and, as a consequence, their usefulness is now gravely impeded, and, we learn on good authority, the erection of infectious disease hospitals throughout the kingdom brought practically to a standstill. In another column our readers will be glad to see that the Local Government Board appears at last to be recovering from the judicial blindness which in this respect has fallen upon them. It is known that Dr. THORNE THORNE has been for some time engaged in an inquiry on, and the results obtained from, the erection of infectious disease hospitals in various parts of the kingdom. It now appears that he is devoting his attention, among other things, particularly to the question of extension of disease from them. In continuation of that inquiry he has now been directed, in conjunction with Mr. W. H. POWER, to inquire into the reported extension of the contagion of small-pox from the Metropolitan Asylums Board's small-pox hospital at Fulham. As a first step in this important inquiry, Dr. THORNE THORNE has issued a circular to the medical practitioners residing within a mile of the Fulham Hospital asking for information as to *all* cases of small-pox falling under their observation during the next three months, and for their assistance in tracing these cases to their source. Here, then, we have an inquiry begun in the metropolis of a sort which can alone help to a full knowledge of the influence of the metropolitan small-pox hospitals in respect to the dissemination of contagion in their neighbourhoods. Having regard to the importance of the professional and public questions at issue, we sincerely trust that Dr. THORNE THORNE and Mr. W. H. POWER will receive from the medical profession in Fulham and the vicinity of the hospital the most cordial assistance.

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THE answer of Mr. MUNDELLA to Mr. ERRINGTON on the subject of Medical Legislation, which will be found in our Parliamentary notes of last week, seems to us as satisfactory as it could be in the most exceptional circumstances of the Legislature. Mr. MUNDELLA sees no probability of a Medical Bill being discussed and receiving proper attention this session, and therefore the Government did not intend to introduce a Bill; "but they thought it probable that some advantage would result from the continuation of the inquiry" by the Select Committee. The Vice-President said the matter was under consideration, and he promised to confer with Mr. ERRINGTON about it. To our thinking the evidence obtained already by the Select Committee of the last Parliament contains ground enough for a Bill amending the constitution and powers of the Council, and the constitution of the Licensing Boards of the kingdom. Without the Government accepting the responsibility of formulating a Bill, it may yet see its way to support a measure which is announced as being framed by a conference representing pretty fully the profession itself, and introduced by Mr. HARDCASTLE and others. This Bill will, it is stated, be very shortly before us and the public. If a satisfactory measure, it should be pressed on the attention of the House of Commons, and either adopted absolutely, or, if a Committee is to be appointed, it should be referred to the Committee with the other Bills which have been more or less considered. We consider the case ripe for legislation. If ever a public body has proved itself costly and incapable, it is the Medical Council, which is, unfortunately, the official source of all information to Government. The competing and complicated Examining Boards, with their half diplomas, are a scandal of fifty years' standing; and the imperfection of the means of distinguishing qualified from unqualified practitioners, with the consequent prevalence of fraud and imposture, are notorious public evils. So far we think the case for Reform "ripe and over-ripe." Still, we accept Mr. MUNDELLA'S language in perfect good faith. If he thinks that further opportunity should be given for developing the case for or against legislation, and that there is no probability of the Government accepting and helping forward a good Bill even prepared to their hand, then we shall acquiesce in the further inquiry, feeling that it can only go to confirm the case for legislation. Before finally deciding, after consultation with Mr. ERRINGTON, Mr. MUNDELLA should certainly consider the Bill introduced by Mr. HARDCASTLE, purporting, as it does, to represent all classes and interests of the profession.

WE lately described the interesting experiments of Dr. BROWN-SÉQUARD on the effect of the application of chloroform to the skin on the functions of the central nervous system. It has been objected that the effects might possibly be due to the inhalation of some of the chloroform vapour. He has therefore repeated his experiments, and with the precaution of making the animal breathe air from another floor of the laboratory than that in which the experiments were made, its head being placed within a tube. The results obtained were the same as those already described, the only difference being that the period of excitement which usually precedes that of complete resolution, was a little longer than in the experiments already published. During this period, which is frequent, although not constant, the respiratory and cardiac movements are more rapid and more energetic. The animal cries and is disturbed—it appears hyperæsthetic, and its rectal temperature is raised a fifth or a quarter of a degree Centigrade.

Dr. BROWN-SÉQUARD, in a fresh series of experiments, has ascertained that the influence of chloroform on the mucous membranes is, as a rule, much more rapid and energetic than when applied to the skin. In these observations also the animals (dogs, cats, rabbits, and guinea-pigs) were made to breathe, by means of a tube fixed in the trachea, air coming from a distant part of the laboratory. Inhibition of the heart and respiration was invariably produced in a very brief, though variable time. Moreover, the loss of sensibility, of reflex action, and general resolution, with arrest of the exchange between the tissues and the blood, were frequently observed almost immediately after the application of the chloroform to the mucous membranes of the nose and larynx, or when it was poured into the mouth of a guinea-pig or rabbit. But, strange to say, the application of chloroform to the posterior part of the mucous membrane of the mouth of the dog, or to the surface of the pharynx, always produced the opposite effect to the inhibition observed in the other animals. Respiration is greatly augmented, one dog, for instance, breathing 160 times a minute. Thus the effect in the same animal is altogether different when the chloroform is applied to the laryngeal mucous membrane, than when it is applied to the adjacent mucous membrane in the pharynx and mouth.

The influence of chloroform poured into one nostril upon the diaphragm and phrenic nerves is exactly the same as that produced when it is applied to the side of the thorax or to the shoulder. There is a loss of the equilibrium between the action of the two halves of the diaphragmatic apparatus; the phrenic nerve and the half of the diaphragm on the side corresponding to the nostril irritated become more energetic both in the degree and in the duration of their action, after the thorax has been opened, while those on the other side present the opposite condition.

Chloral hydrate, even in the most concentrated solution, when applied to the skin, does not usually produce any of the anæsthetic or other effects which follow its injection into a vein or beneath the skin. This is, however, not true when a large area of the skin is irritated by anhydrous chloral. The effects of this are perfectly analogous to those of the application of chloroform. The only differences are that the chloral acts more slowly, but causes death more readily; that it causes pulmonary, renal, and intestinal hæmorrhages more frequently than chloroform, and that it produces abundant secretions from various abdominal glands, and so causes diarrhœa, an effect which is never produced by chloroform. Chloral seems to cause glycosuria, which chloroform never does, and is apparently absorbed by the vessels of the skin to a much greater extent than chloroform. Inhalations of anhydrous chloral or its application to the skin, do not produce anæsthesia except at the moment of death. In the guinea-pig especially, which is rendered anæsthetic so readily by the inhalation of a very small quantity of the vapour of chloroform, the inhalation of chloral has very little anæsthetic effect.

WE observe, with regret, that before the promised Warrant regulating the conditions of service in the Medical Department of the Navy has been promulgated, the usual advertisement has been issued by the Admiralty of an examination of candidates for commissions, to be held on Feb. 14th and following days. We cannot but think that in adopting this course they have committed a serious mistake. It is true that an intimation is given that "new regulations giving naval medical officers generally the same relative pay, position, &c., with reference to Army medical officers, as formerly existed, will shortly be published." But this is surely much too vague a statement of benefits to be conferred to satisfy any of the class of young medical men who would be likely to prove desirable candidates, and it refers only to the relative position with regard to the Army medical officers. Nothing is said of any intended change in the regulations regarding compulsory half-pay, nor of the privilege of choice of cabins according to rank being assured to them, nor of the abolition of the obnoxious rule requiring five years' service in the rank of Deputy before being eligible for promotion to that of Inspector-General. We are unwilling to suppose that there is any reason for withholding the Warrant till after the examinations are over, but we cannot understand the delay. The failure to obtain candidates has been too long manifest. The Committee appointed to inquire into the causes of this has long since made its report. There has been abundance of time to consider this report and to decide upon the necessary measures, and the wording of the advertisement itself seems to imply that these have already been settled. Why, then, have they not been published? We are most reluctant to say anything that would even seem to be injurious to the public service; but a sense of duty to the profession, and an earnest desire to promote the best interests alike of the Department and of the Navy generally, compel us to advise any medical men who may be desirous of entering the Service to withhold their applications till the new Warrant makes its appearance. We can conceive few things more injurious than that men should engage to enter a Service on unknown conditions and vague promises, or more likely to create a discontented and inefficient Department should these prove to be less satisfactory than was expected. Up to the time of our going to press the Warrant is not, at least, in the hands of the profession. We would urge in the strongest manner upon the Admiralty the expediency of bringing out the Warrant at once if they desire to have a fair supply of well-qualified candidates. The delay which has taken place has already diminished the chance of an adequate number being obtained on this occasion; but, unless prompt measures are adopted, there is every probability of the intended examination proving as complete a failure as those of the last two years.

Annotations.

"Ne quid nimis."

FROST AND MORTALITY.

THE fatal effect of severe winter weather, called seasonable, upon the public health is once more exemplified in the Registrar-General's weekly return. During the six weeks of mild winter weather ending 8th inst. the weekly number of deaths in the twenty large English towns dealt with in that return averaged 2971, whereas in the two following weeks they rose to 3444 and 4199. This represents an excess of mortality in the two weeks equal to 1701 deaths in the twenty towns. It has often been shown in the reports of the Registrar-General that the effect of intense cold is fully as great upon the mortality of rural as upon that of urban populations. We may therefore assume that the effect of the severe frost which set in on the 12th inst. on the registered mortality of England and Wales up to Saturday, 22nd inst., was to add to the register the record of not less than 5749 deaths of persons who would have survived if the mild weather had continued. This simply represents the number of those killed outright by the first week of the frost, and affords but a slight indication of what the losses to the population would have been from a continuation of the intense cold. The above figures take no account of the wounded in the first week's conflict with the weather, who will the more readily succumb if the conflict be prolonged. It will be many weeks before it will be possible to sum up the total losses due to this arctic weather. It must not be supposed that the losses fall chiefly upon the weakly, the elderly, and infirm, as these figures show that the largest proportional losses were among male adults aged from thirty to fifty, upon those whose occupations entail upon them most risk of exposure.

PASSIVE CONGESTION OF THE SPLEEN.

AT the suggestion of Virchow, the histological changes in the spleen which result from passive congestion have been studied very carefully by Dr. R. Nikolaides. In the indurated organ, the naked eye can detect a thick white layer around the vessels, which renders the tint of the section a paler red than might be expected. Under the microscope the walls of the bloodvessels, and especially those of the arteries, are seen to be enormously thickened by an increase of the adventitia and the adjacent zone of tissue, which passes gradually into the neighbouring reticulum of the splenic pulp. The trabeculæ are thickened, and the contiguous cells of the pulp undergo atrophy, just as do the outer cells of the acini of the liver in cirrhosis. These changes are more or less marked in all congested spleens, and confer upon the organ its increased density. Their degree appears to depend upon the slowness with which the mechanical congestion is developed. Besides these changes, alterations occur also in the intima of the vessels. They are most marked in the arteries, and are only found in the veins in very chronic cases. In the veins the change consists in merely fatty degeneration; but the inner coat of the arteries presents an overgrowth of all the connective tissue layers—a true endarteritis, similar to that which Virchow has described in the veins of some other organs, as the lungs and liver, in passive congestion. It is difficult to say whether the muscular coat of the vessels is thickened or not; but Nikolaides believes that there is a considerable increase in the circular muscular fibres. Not only is this conclusion suggested by histological examination, but it is remarked that the mechanical congestion of the spleen never entails the degree of hyperæmia met with in other organs, as the liver and the kidney, in spite of the fact that the circulatory arrangement of the spleen is highly favourable to the occurrence of such hyperæmia. This fact is regarded as supporting the view that in congestion the muscular walls of the arteries contract, overgrow, and lessen the hyperæmia. The evidence on this point seems scarcely conclusive. Some share in this effect might be ascribed to an overaction of the muscular fibres proper to the splenic pulp, since it is difficult to understand, without such overaction, how the blood could be lessened in an organ, like the spleen, destitute of capillaries, by contraction of the arteries, if there exists an obstruction to the exit of blood. The splenic follicles, Nikolaides believes to take no part in the overgrowth of tissue which results from passive congestion.

SANITARY PROGRESS IN ARCHITECTURE.

A REFERENCE to the last number of our excellent contemporary the *Builder* affords conclusive evidence that the members of the architectural profession are gradually becoming fully alive to the necessity of attending to the sanitary arrangements of our public and private buildings. We find, in the first place, an extensive report of a debate at the Royal Institute of British Architects on the relations of sanitary science to civil architecture. The debate was *à propos* of a very able paper read by Mr. E. C. Robins, F.S.A., the Architect to the City Guilds, on November 29th, 1880; and as one evening was insufficient for so extensive a subject the discussion was resumed on the 17th inst., when, after a very interesting debate, it was found necessary to again adjourn it till the 14th of February next. We feel no little sympathy with those gentlemen who regard architecture mainly as a fine art (and who are furnishing us with edifices calculated to please the eye to a maximum extent), yet find that the requirements of civilisation and modern city life necessitate their directing attention to matters which are the very reverse of æsthetic. When we think of a genius like Michael Angelo turning his divine intellect to the contemplation of a soil-pipe, we confess that it seems like a "god kissing carrion." But the necessity has arisen; people feel that the most magnificent structure is but a whited sepulchre if sewer air gain access to it, and accordingly the heads of the architectural profession, led by the President of the Institute, Mr. Whichcord, are manfully facing the cruel duty imposed upon them, and we may soon look to having our buildings constructed with all the safeguards which sanitary science has yet suggested. It was not to be expected that architects would yield to sanitary exigencies without grumbling, and accordingly one architect was found to advocate the sending of "waterclosets, pipes, and plumbing of every kind outside the house" (as though such a course were possible in London), and another turned upon the sanitarians with a taunt that the whole of sanitary science was only tentative and experimental, and that it had no claim to be considered exact or finite. We trust not; we do not know of any branch of science which is finite. The word "progress" has a welcome sound in the ears of scientists, and we could only wish that architects were less content to copy Grecian or Venetian models for their houses, and by trying to adjust antique models to modern requirements, give us at the same time the diseases which depopulated Athens and decimated Europe in the Middle Ages. Alongside of the account of this debate is a verbatim report of a lecture delivered by Mr. Robins to members of building societies, at the Parkes Museum, the subject being ventilation, lighting, and warming. The lecturer, by his frequent quotations from Parkes, De Chaumont, Galton, Corfield, and other writers on the science of hygiene, showed he completely recognised that henceforth those who practise architecture as a fine art must be votaries at the shrine of Hygeia, if their edifices are to be altogether lovely. In addition to the foregoing we find an able editorial article on "the Campaign against Preventable Human Misery," in which the writer, after alluding to the sanitary associations which have lately arisen among us, devotes his attention mainly to the "*burning* question" of smoke prevention, and his remarks are tempered by suggestiveness and sound common sense. In bedrooms and dressing-rooms the writer is of opinion that some of the gas-fires which have already been invented will be found to answer the purpose. In the nursery, in consequence of the absolute necessity of a free supply of fresh air, he advises the retention of the ordinary open grate as we have it at present. In the kitchen the writer thinks that "culm," composed of anthracite-dust welded into balls with the aid of clay, a fuel much used in Pembrokeshire, would prove both smokeless and economical. For the drawing-room fires of the rich, wood or cannel coal should be employed, and this, the writer affirms, "is the very poetry of open fires." He appears to take the view that the main difficulty in the smoke question is to be found in the various domestic hearths, and that the tall chimneys of manufacturers may be reduced to reason without much difficulty.

BOOTS.

THE discomforts of an inclement season are mainly due to having to encounter it in unsuitable clothing, and we believe that the pleasures of out-door exercise are, to the young, enhanced rather than otherwise by boisterous weather, provided the apparel is calculated to resist it. Of all articles of clothing nothing is more important in weather such as we have been lately enduring than the boots, and the quality of these largely affects the power of the individual to avoid the risks attendant upon snow and thaw. A cheap pair of machined boots made of green absorbent leather, and stitched with unwaxed thread, are admirably calculated to eat up the saving in their initial cost with a bill for medical attendance, and it should be remembered that in purchasing boots it is of prime importance to see that the leather is properly tanned and well seasoned, that the threads are waxed and the stitches sufficiently close. At such a time some extra protection for the feet is commonly resorted to, and for those who need an overshoe to keep the feet clean and dry when paying visits of ceremony, there is nothing better than the American overshoes made of cloth and india-rubber, and popularly known on the other side of the Atlantic as "Jemimas." These keep the feet warm as well as dry, and are a great improvement on the old golosh. To keep the feet warm, however, there is nothing like brisk walking, and overshoes of all kinds are a great hindrance to exercise. How can we get exercise and keep the feet moderately dry as well? That is the problem to be solved. In very bad weather the boots should be greased or dubbed instead of being polished, and it will be found that water will run off upper leathers so treated. The absorbent sole, however, remains, and no matter what thickness of leather be used the sole gets to a certain extent saturated after a long walk in the damp, and the evaporation from a wet sole is the great cause of cold feet when the exercise is finished. It is a great object to keep the absorbent sole out of the damp if possible. To effect this there is no better contrivance than the very homely one of having a few hobnails driven into it, and since these may be quickly applied to any pair of boots, and do not (or need not) materially increase the weight or clumsiness of the boot, we think such a course is strongly to be recommended. The advantages of them are the following:—1. They keep the sole from one-eighth to a quarter of an inch off the damp ground. 2. They give a firm hold on snowy or greasy pavements when locomotion is almost impossible in ordinary boots. 3. They allow the sole to drain of such moisture as it picks up, and by keeping a layer of air beneath the sole and the damp ground they increase the warmth of a boot just as the familiar expedient of a wisp of straw keeps the foot warm when placed inside a boot. 4. They are very cleanly, and by giving fewer points of contact between the sole and the ground they prevent to a great extent the splashing which is caused by the sharp contact of a wide heavy sole with a sloppy pavement. There are undoubtedly disadvantages, the chief of which is the sound; but, on the whole, in damp weather hobnails are a rare luxury, and we believe that those who are tempted to follow our advice will not blame us for devoting a few lines to the hygiene of "clouted shoon."

THE CIRCULATION IN MARROW OF BONE AND CEREBRAL MENINGES.

KOLLMAN, in a series of investigations into the circulation in the medulla of human bone, has corroborated the statements of Hayer and Rindfleisch that this circulation is not continuous through vessels, but that the minute veins open into the interstices of the tissue. In spite of this interruption, the circulation goes on with perfect regularity. Aqueous solutions of Berlin blue find their way from the veins to the arteries as readily as from the arteries to the veins, and, what is still more remarkable, they find their way from the sub-arachnoid space of the spinal cord, to the spongy structure of the skull, into the sinuses of the dura mater, and into the veins of the skull and of the face. It is conjectured that the communication between the sub-arachnoid spaces and the veins is by means of the Pacchionian granulations. The sub-arachnoid and subdural spaces of the brain are not in direct communication, but the injection readily passes from the subdural space into the periphery of the Pacchionian granulations and so into the venous sinuses. There are also fissures in the inner surface of the dura mater which are openings into the lymphatic canals.

THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

THIS hospital is passing through a period of some difficulty. The funds are not in a flourishing state, and amongst the remedies proposed is an alteration in the out-patient department. At the recent annual meeting of the governors and friends of the institution it was alleged that many abuses exist, and that many persons get out-patient tickets who are able to pay for medical attendance. It was alleged also that the medical officers were sometimes late or absent in the out-patient department. With a view to meet these evils, it was proposed by the committee to establish a provident dispensary in connexion with the hospital, and at Southsea, and to expend a sum not exceeding £200 annually in remunerating the medical officers who may be appointed to attend the out-patients and the members of the provident dispensary. Further, it was proposed, in order to give effect to the first resolution, to suspend certain rules of the institution affecting the appointment and rights of the medical men. This proposal came upon the medical men unexpectedly, and was warmly objected to. Dr. Cousins therefore proposed, as an amendment, that the scheme should be examined and reported on by a special committee, to consist of the committee, the honorary medical officers, and eight subscribers, chosen from the members. A long and keen discussion followed. Dr. Cousin's amendment was carried by 16 to 8. We commend the subscribers for listening to the objections of the medical men, and for declining to adopt organic changes without the fullest examination of their merits and tendency. The warning of Guy's should suffice for all lesser institutions. It will be found impossible to work hospitals or dispensaries successfully without the concurrence of the medical staff. To the public of Portsmouth we would venture to say that no cause can be more worthy of their support than that of the hospital, and that no such community can relieve itself of the responsibility of upholding it. After all allowance for questions of management, or even abuse, there remains the great claim of painful and disabling suffering.

SICKNESS AND PAUPERISM.

IT is not only the present discomfort and distress occasioned by the severity of the weather that we have to contend against, but we must look forward to a considerable increase of what we may call unavoidable pauperism. Already the wards of the general hospitals and sick infirmaries of the workhouses are crowded to overflowing. At the same time a decrease is noticed in the attendances at the out-patient room. This is caused partly by the severity of the weather keeping the sufferers at home, but chiefly by the fact that the chronic cases which form so large a proportion of out-patient attendants have given up the struggle, and have been obliged to seek refuge in the workhouse. Amongst our working population there is always a large number suffering from chronic bronchitis, emphysema, and rheumatic affections, and who, if they can tide over the worst months of winter, can during the remainder of the year earn a fair wage and thus keep house and home together. In ordinary winters this is feasible, but with such a prolonged continuance of cold as we are now experiencing the struggle is too often impossible. The savings of the summer months are expended, the sufferer is unable to attend the out-patient room, and the wards of the hospital are too full to receive him; so the workhouse is his only refuge. Once there the chances are that he never ceases to be a burden on the rates. With his fellows outside he knows he has lost caste, and he also feels that the comfort and repose even of a workhouse ward are superior to those he can obtain at home. Feeling, therefore, that his old associates will shun him on account of the taint of pauperism he now bears, and shrinking from what he now thinks to be a useless struggle, he resigns himself to his fate. And so a man, who for years with a little timely assistance during seasons of illness might have supported himself, becomes a burden on the rates. If in becoming a pauper the disaster only concerned himself the mischief would be limited. But under the present system the man pauperises his wife and children. These latter, brought up under the grim shadow of the Poor Law, continue the pauper brood for generations. In this time of exceptional distress the great point to aim at is to prevent respectable families drifting into pauperism. At our great hospitals the claims for admission should be carefully investigated; this is no time for beds to be occupied by well-fed and pampered servants, or by the pensioners of the rich, when a bed may turn the scale between independence and pauperism for a whole family. The charitable, too, should use discrimination as to the institutions on which to bestow their charity; between those which have reserve funds and those which are struggling on from hand to mouth, depending only on daily and weekly subscriptions, and relying on the public to supply any deficiencies that may arise. Such advice might seem superfluous; but only to-day in the columns of a contemporary we saw an appeal from a hospital which possesses a reserve fund of over a hundred thousand pounds, and has land valued at ten thousand, stating that funds were urgently needed! Under the present exceptional circumstances hospitals with such a balance-sheet have no right to appeal to the charitable. To demand money in such a case, when there is so much suffering requiring immediate relief, is positively sinful.

COLLEGE OF PHYSICIANS OF IRELAND.

DURING the months of November and December last a large number of candidates presented themselves for the licence in Medicine of this College, and twenty-three, having satisfied their examiners, were duly admitted licentiates. This month one gentleman only obtained the licence, and the reason of this sudden decrease in the number of applicants is explained by a regulation in reference to fever certificates, adopted by the College in May last, and which came into operation the first day of the present year. By this regulation it is ordained that every candidate for the licence in Medicine shall be required to produce evidence that he has for not less than three months studied fever in a hospital recognised by the College containing fever wards, and recorded from daily personal observation at least five cases of fever to the satisfaction of the attending clinical physician. It seems that this by-law has created a good deal of inconvenience to intending applicants, and hence the falling off in the numbers, and the explanation that so many candidates underwent examination in November and December last before this regulation came into force. We believe, however, that we are correct in stating that any registered practitioner of five years' standing can be admitted, according to Regulation 7 of the College, to examination for the licence on producing his certificate of registration, and showing that he is exempted from producing the fever certificate, as well as from examination by printed questions.

BACTERIA IN THE CHOROID.

THE *Centralblatt für prakt. Augenheilk.* for October last contains a paper by the Duke Charles of Bavaria on the discovery of bacteria in the choroid coat of two eyeballs. The eyeballs, which showed neither naked eye nor microscopical evidence of disease, were preserved in Müller's fluid. On examination the vessels of both the coarser and the finer vascular network of the choroid were found closely packed with bacteria. They were especially abundant in the larger capillaries just before their ultimate division and in the finest capillaries themselves, and least numerous in the small arteries and veins. There was no sign of decomposition of the eyes, nor were any organisms found in the Müller's fluid, in which they had been immersed, while other globes contained in the same vessel did not present any similar appearances. These, together with the fact that the bacteria were only in small numbers in the veins and closely packed in the capillaries, negative the supposition that they had originated post-mortem. The bacteria were cylindrical rodlets about half the length of the nucleus of a leucocyte, with a clearly-defined outline, homogeneous, glistening, and structureless contents. Besides these, some bacilli from five to twenty times their length and some of the small rods undergoing division were found. They mostly resembled the forms of organisms seen in septic diseases and in decomposition, and they differed from the bacilli of splenic fever by their greater thickness and the slight rounding of their ends.

THE TRANSVAAL WAR.

THE Bearer Company of the Army Hospital Corps, commanded by Surgeon-Major William Johnston, under orders for the Cape, was inspected by Surgeon-General Fasson, on the Depôt Parade-ground, South Camp, Aldershot, on Monday last. The men were equipped with the white colonial helmets, and carried Martini-Henry carbines, with which they have been armed in preference to the revolver which was issued to the Army Hospital Corps in the late Zulu War. The Company paraded at an early hour on Tuesday morning, and marched to the Aldershot station, where a special train was in waiting to convey them to Southampton, where they embarked on board the Union Company's mail steamer *Danube*, which sailed for Natal that day. The marching-out strength of the Company was eight officers of the Army Medical Department, three officers of the Army Hospital Corps, two sergeant-majors, and 136 non-commissioned officers and men, with, for transport purposes, one conductor and twenty men of the Army Service Corps. The ambulance waggons, water-carts, surgery waggons, pack-saddles, stretchers, cacolets, litters, and other equipments had been previously sent from Woolwich arsenal and shipped on board the *Danube*. The War Office authorities decided that the horses and mules for the Bearer Company shall be obtained in Natal on arrival, an arrangement which economises the transport from England; but, looking at the known scarcity of baggage animals in the Cape Colony, it is a somewhat hazardous proceeding.

UNIVERSITIES (SCOTLAND) VOTING BILL.

THIS is a Bill introduced by Dr. Lyon Playfair and others, to amend the mode of voting in elections of representatives for the Scottish Universities. The chief provisions of this Bill are to the effect that electors are to vote by voting-papers only, that these papers and letters of intimation are to be issued by the Registrar of the University, and are to be returned by the voter to him, to be kept in safe custody till counted by the returning officer. Signature before a magistrate is to be dispensed with. The candidates are to be bound by Clause 15 to pay the expenses incurred in issuing the voting-papers, and in taking the poll. These arrangements seem calculated to promote the order and keep down the expenses of University elections, and to be worthy of support.

THE MUCOUS MEMBRANE OF THE ANUS.

IN the *Journ. de l'Anat. et Phys.*, G. Hermann has recently published some observations on the structure of the anal mucous membrane. He includes in this term a circular rim from 5 to 12 mm. in depth, reaching from the narrow white ano-cutaneous line pointed out by Hilton, to the ano-rectal line above—a portion corresponding to the internal sphincter and analogous to the red free border of the lips between the skin and true mucous membrane. After pointing out that with the exception of a serous coat on the outside, the structures of this region are the same as those met with in the upper part of the intestine—two layers of muscular tissue, mucous membrane, Auerbach's and Meissner's plexuses,—he enters into fuller detail as to the structure and development of the mucous membrane. The epithelium is squamous and stratified, but columnar in the depressions between the columnæ recti of Morgagni. At the sides he finds pouches and duct-like tubes lined with simple or stratified epithelium, which dip down to the depth of one centimetre into the subjacent muscle and there sometimes branch at their extremities. He considers these to be analogous to the glands found in this situation in animals. It is also suggested that these depressions, duct-like tubes, and the closed follicles found between them play an important part in the production of anal abscess and fistula.

DUBLIN HOSPITAL SUNDAY.

THE total amount obtained by the collections last November for this fund amount to £4050, which shows a decrease of £294, as compared with that of 1879. This decrease was expected, and is undoubtedly to be attributed to the land agitation and the depression in trade, circumstances which sufficiently explain the falling off in the receipts. Each charity which participates in the funds collected is assisted (1) according to the amount of voluntary contributions received by it, and (2) by the amount of work done. Among the donations was one which may be specially referred to—viz., a sum of nearly £40, being the proceeds of a football match, played by the Irish Football Union in November last.

THE ROYAL MATERNITY CHARITY.

THE annual report of this charity for delivering poor married women at their own houses is published. The institution is 124 years old. The committee report that 3595 females have been delivered in the year, the largest number since 1867. There were but eight deaths and few other serious results. The work is done chiefly by midwives, with the assistance of the medical officers in emergencies. The results compare very favourably with those of lying-in hospitals. It is significant that, notwithstanding the generally bad hygienic condition of the houses of the poor, and all the hard conditions of poverty itself, the process of parturition should be so much more favourable in such houses than in lying-in hospitals, however well conducted.

THE DEATH OF DR. ANDREW WOOD.

IT is with extreme regret that we announce to our readers the death of Dr. Andrew Wood of Edinburgh. It occurred suddenly on Tuesday. He had been ailing for some days, but on that day resumed his professional duties. On returning from his round, he was found in his carriage lying in a state of unconsciousness, from which he did not recover. The deceased gentleman was seventy years of age. We are compelled to reserve a further notice of this melancholy event and of Dr. Wood's life till next week.

LEGACIES AND THE HOSPITAL SUNDAY FUND.

THE Hospital Sunday Fund was wise in publishing a form of legacy for the use of those wishing to use the Council of the Fund as a medium for the distribution of their legacies to Hospitals. A cheque was received at the Mansion House a few days ago for 100 guineas from the trustees of the late Mr. James Drew, of Cornwall-terrace, Regent's-park.

SUPPURATION OF ENLARGED THYROID.

SPONTANEOUS suppuration of a goitre is one of the least common terminations. An instance in which this occurred during the course of an attack of typhoid fever has lately been recorded by M. Weill, from Jaccoud's wards. The patient was a man aged twenty-two, who had a goitre of moderate size and firm consistence. He had lived until within four months in a district where goitre is endemic. The attack of typhoid fever ran a normal and mild course. The day after the temperature had become natural, he complained of severe pain in the neck, and the surface of the goitre was observed to be reddened. During the next day the redness and size of the goitre increased, and its consistence diminished, until distinct fluctuation was perceptible. A week later it was incised, and a large quantity of pus escaped. A drainage-tube was applied, and the cavity washed out daily with carbolic acid. It gradually lessened in size, and was ultimately reduced to two or three small nodules by the side of the larynx.

CLINICAL SOCIETY.

THE newly elected President, Mr. Lister, will take the chair for the first time at the meeting of the Clinical Society this evening (Friday), and will deliver an introductory address, before the ordinary business of the Society is proceeded with. Mr. Lister will take for his subject, "the Catgut Ligature," and a discussion will probably follow.

TWO warders of the Menyflatts Lunatic Asylum are in custody in connexion with an alleged fatal assault on an inmate, Cornelius O'Leary. The patient, for nearly three weeks before his death, was very violent and needed constant attention night and day. On the morning of the 3rd inst., it was pointed out to Dr. Liddell at his usual morning visit, that there was something wrong with O'Leary's chest, and on examination it was found that at least one of his ribs was broken. In two days more the patient died, and the post-mortem examination, we understand, tended to confirm Dr. Liddell's suspicion that the injury was not self-inflicted. The two attendants, who are night warders and who were with O'Leary the night before the injury was discovered, have been before the Sheriff and were committed for further inquiry.

THE subscribers to the "Habershon and Cooper Forster Testimonial Fund" are already numerous, and it is not intended to delay the presentation for any length of time. We have been asked to state that the list will be closed on Feb. 28th. Guy's men who wish to subscribe will therefore do well to communicate at once with the Treasurer, C. A. Aikin, 7, Clifton-place, Sussex-square, W.; or with one of the Secretaries—H. Morris, 2, Mansfield-street, Portland-place, W., or F. Durham, 38, Brook-street, Grosvenor-square, W.

AT the meeting of the Epidemiological Society on Wednesday, Feb. 2nd, at 8 P.M., Dr. Squire will read a hitherto unpublished letter by Dr. Edward Jenner, containing "Instructions for Vaccine Inoculation," in the possession of Mr. Symonds, F.R.C.S., of Oxford. Surgeon-General Gordon will afterwards introduce the subject of Cholera and Fever, especially with reference to their occurrence in India and China.

MR. ERNEST CRAVEN LUNN, L.S.A., whose name appears this week in the list of gentlemen who obtained the Membership of the College of Surgeons on the 20th inst., whilst waiting at the doors of the Gaiety Theatre with a young lady, whom he was about to marry, was knocked down by a cab, and instantly killed; his betrothed at the same time sustaining a fracture of one of her legs.

A CONFERENCE of anatomical teachers will be held next Thursday evening (Feb. 3rd) at the Middlesex Hospital to consider the propriety of taking steps to remedy the prevailing scarcity of subjects for dissection.

AT the meeting of the Quekett Microscopical Club this evening (Friday) Dr. Cobbold will read a further communication from Dr. Manson, of Amoy, on Filaria.

DR. J. J. LUCE, the accident to whom we recorded on the 1st inst., is, we are glad to learn, recovering from the serious injuries he received by being thrown from his vehicle.

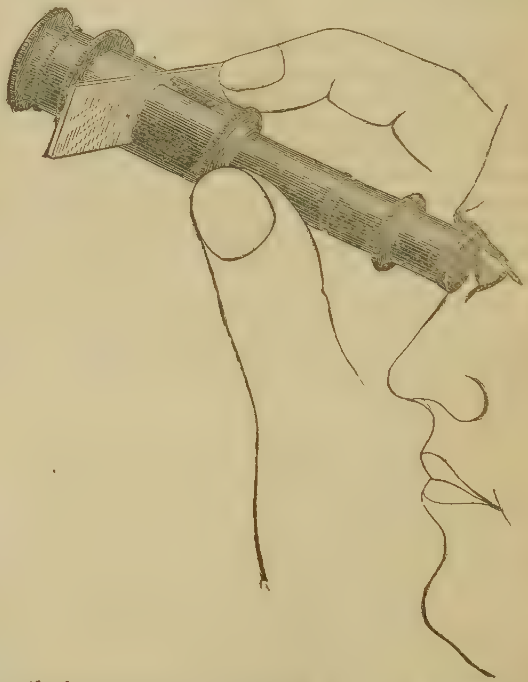
WE may remind our readers that at the meeting of the Pathological Society to be held on Tuesday next the President (Dr. Wilks) will deliver his introductory address, which was postponed from the last meeting on account of the severe weather having caused only a very small attendance of members.

JOHN HOUSLEY, M.D., and E. M. C. HOOKER, L.R.C.P. Lond., M.R.C.S. Eng., are candidates for the vacant Coronership of East Retford, Nottinghamshire, and have each issued an address to the freeholders.

New Inventions.

NEW POCKET MICROSCOPE.

WE have received from Messrs. Salt and Son, surgical instrument makers, Birmingham, a small pocket microscope for the examination of urinary deposits, blood, &c. The stand and mirror hitherto deemed essential in all compound microscopes are dispensed with. A lens is placed at the end of the microscope, which, when the instrument is held up to a window or lamp, concentrates sufficient light upon the slide to render all objects in the field distinctly visible. Even on a dull day in London we have found the illumination thus obtained amply sufficient. The microscope is a compound achromatic one, furnished with a quarter inch objective, having a magnifying power of 120 diameters, and a sliding tube of short range, for adjusting the focus. In using the instrument it is intended that a few drops of the suspected urine are placed between two small glass slides, which are then placed in a deep notch in the lower part of the microscope. They are fixed *in situ* by a sliding tube with a milled flange, which, when pushed up against the glass, holds it securely. The microscope is then applied to the eye, as shown in the engraving, and the focus adjusted.



It is an ingenious little instrument, very compact, measuring only five inches in length, and its case is scarcely bigger than that of a fair-sized urinometer. We can thoroughly commend it not only for convenience, but, when properly used, for efficiency also. It is well adapted for the examination of the blood; an excess of white corpuscles can be at once distinguished by its means. It is also, when properly employed, very useful for the examination of the urine, but used in the method recommended by Messrs. Salt, it is almost valueless for this purpose. It is true that if a urine were loaded with pus, this could no doubt be readily discovered in the manner above described; but if the urine contained a few blood-corpuscles or casts, they could not be thus discovered. The film of liquid held between two glass slides by capillary attraction is so extremely thin that objects sparingly contained in the urine would not be discovered. If, however, a small cover glass be used, and the movable tube be placed above the slide so as to clamp it from above instead of from below, and thus avoid pressing the cover glass against the edge of the notch, a thicker film of liquid is examined, and the instrument answers very well. But its utility would be greatly increased if a plain mirror were fixed in a removable tube at the end of the instrument, so that it could be used in the upright posture as well as, if desired, in the horizontal. All practitioners know how desirable it often is, in examining a urinary deposit, to have a very thick film of liquid, and this is impossible unless the microscope is vertical in position.

INSTRUMENT FOR APPLICATION OF WOOL &c. TO CAVITIES.

MESSRS. MAW, SON, AND THOMPSON have sent us a new instrument manufactured by them for the application of cotton-wool, &c. to the bottom of cavities or sinuses. It is a stout probe nine inches long, terminating at one end in two sharp prongs, which are spirally twisted. By this end cotton-wool is firmly held, and can be used to cleanse the bottom of sinuses or cavities, or, if desired, by rotating the probe in the opposite direction to the spiral, the cotton-wool is left at the bottom of the cavity. Surgeons will find it to be of use in many ways.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

THE METROPOLITAN SMALL-POX HOSPITALS AS FOCI OF INFECTION.

A LETTER, of which we subjoin a copy, is being very extensively circulated amongst medical practitioners in and about Fulham, Kensington, and Chelsea, by Dr. Thorne Thorne of the Local Government Board. The matter to which it relates is one of so much importance that we trust every one concerned will promptly comply with the request which is made.

"Local Government Board, Whitehall, Jan. 19th, 1881.

"DEAR SIR,—Under the instructions of the Local Government Board I am engaged in an inquiry relating to the use and influence of hospitals for infectious diseases, and in connexion with this investigation I am desirous of ascertaining whether such hospitals are, and if so by what means, instrumental in causing the spread of infection in the localities in which they are situated.

"At the present moment I am engaged, together with my colleague, Mr. W. H. Power, in procuring information on this point as regards the Metropolitan Asylums District Hospital at Fulham, where cases of small-pox are under treatment, and I shall feel much indebted to you if you will kindly give me the names and addresses of any persons whom you may have met with suffering from small-pox within a radius of one mile of the hospital since Christmas day last; and also if you will during the next three months give me similar information as regards any cases which may come under your notice, quite irrespective of any presumed source of contagion.

"I need hardly say that any such information will in every case be used with due regard for your own and the patient's desire for privacy.

"I am, dear Sir, very faithfully yours,
"R. THORNE THORNE."

THE DISSEMINATION OF INFECTIOUS DISEASE.

Here are some illustrations of modes in which infectious diseases are thoughtlessly disseminated. Dr. Sedgwick Saunders reports that the body of a child who had died of scarlet fever was removed from a house in Kensington to an undertaker's in the City, and kept on his premises unburied from Dec. 30th to Jan. 1st. It is reported that the corpse of a man dying of small-pox in London was carried to Cottenham in Cambridgeshire for interment. There the coffin was opened for the relatives and friends to view the deceased. As many as a hundred persons viewed the corpse, some even kissing it. Two of the relatives, it is known, subsequently were seized with small-pox and one has died. Inquiry is to be made by the Sanitary Authority (St. Ives) into the circumstances of the case and as to the extent of the mischief arising from it. The *Bucks Herald* records the following:—Scarlet fever attacks a child in a family of several children in London. The medical man recommends that the seemingly unaffected children (two) should be sent away. They were sent to an aunt in Buckinghamshire. On the evening of their arrival one was found to have the eruption of scarlet fever out upon him, the other sickened the next day. The first attacked died and an inquest was held on the body. We have still to learn whether these cases have proved the focus for a new extension of the disease.

ST. VEDAST'S CHURCH (CITY OF LONDON).

Dr. Sedgwick Saunders has presented a report to the City (of London) Commissioners of Sewers, which gives a curious account of the condition of the burial-places of the dead within this old structure. It appears that in process of time, from the deterioration of the structure of the vaults beneath the flooring of the church, the walls have yielded and cracked, the floor above also yielding, and the cracks extending through the floor into the body of the church. On an investigation of the state of the church in this respect it was found that certain builders were no better long ago than they are now, and that vaults which should have been "sealed" had not been sealed, and had been simply covered in, and even floored by old gravestones. An instance is mentioned of the wooden floor of a pew being found as constituting the only covering of a grave which contained five coffins. The congregation of the church had unwittingly for years been copying the habit of the monkish order, who are accustomed to preserve their dead and pray among them; but, unlike this order, without the corpses having undergone a previous desiccation. The Commissioners of Sewers have now taken the matter in hand with a view to secure a more decent and wholesome condition of the church.

THE POPLAR INFECTIOUS DISEASES HOSPITAL.

A deputation of the Metropolitan Asylums Board has visited and inspected this hospital, but the visit has tended to confirm the objections of the Board to either hiring or purchasing the building. Indeed, the deputation have reported somewhat disparagingly of it, averring that although the accommodation is said to have been erected for seventy-two patients, in reality it is only sufficient for forty-eight; and, in addition, they assert that the arrangements for the executive are deficient. For example, room is wanting for lodging servants. The Poplar District Board thought it bad enough for the Asylums Board to refuse to come to terms with them, but for the latter to depreciate the hospital, a brand-new one built at a considerable cost, is more than District Board nature can bear; so a "representation" is to be made to the Asylums Board concerning the injurious remarks of the deputation.

THE RURAL SANITARY AUTHORITY OF GUILDFORD.

We are glad to learn that the Rural Sanitary Authority of Guildford have decided that it is no longer desirable that the medical officers for the Union be reappointed medical officers of health, but that one medical officer of health who is not in private practice be appointed. We trust the Authority will further see the advantage of entering into the Surrey Combination of sanitary districts for the appointment of a medical officer of health. The evidence in favour of combined districts for such appointment would appear from the latest report of the Local Government Board to be almost overwhelming, and Guildford is so situated with respect to the Chertsey Union, Dorking Union, &c., as to appear to fall naturally into combination with them. We have little doubt that this view of the subject will receive the full consideration of the Authority.

The vaccination officer of Bethnal-green has asked his Board of Guardians for assistance to make a house-to-house visitation of his district, small-pox being still on the increase there. One member thought the request to be much too serious to settle offhand, and that it should be referred to the Dispensary Committee. Another thought that this talk about small-pox was "sheer nonsense." The disease was "simply nature righting herself." A third thought twenty assistants would be needed to do the work thoroughly which the vaccination officer wanted to be done (not seeing that the statement was a confession of the backward state of vaccination in the parish). A fourth thought that it would be unwise "to employ such a large staff without due consideration." So (the Local Government Board's advice notwithstanding) the Board of Guardians will pause to consider a question which ought to have been "considered" months ago, while small-pox steadily gains ground.

Dr. Bridges has been complaining to the Local Government Board of the physical condition of certain children in St. Olave's Workhouse. The Local Government Board transmitted Dr. Bridges' observations to the Board of Guardians. In their discussion of these observations, the Chairman of the guardians observed that the questions raised by Dr. Bridges had been considered by the visiting committee, and the statement with respect to insufficient dietary only related to a few of the elder children. Whereupon a Guardian observed that doubtless by the summer time St. John's churchyard would be in a condition to be used by the children. Does this mean for burial or for exercise?

An evening contemporary announces that, on the recommendation of the Metropolitan Asylums Board, the visiting of relatives and friends to the inmates of the metropolitan workhouse district schools and orphanages in connexion with the Poor-law administration has been prohibited in consequence of small-pox in the metropolis. Does this imply that the Metropolitan Asylums Board distrust the protective power of vaccination, or that the children in the orphanages and schools are imperfectly vaccinated? We commend the question to the attention of the Local Government Board.

We understand that the St. George's-in-the-East Vestry, as Sanitary Authority, has felt called upon to require the Blackwall Railway Company to *clean* its station at Shadwell, the persistent dirtiness of the stations on this line of railway not hitherto having been interfered with. The Company are aghast at this astounding interference with a right of uncleanliness which they had reason to believe had become vested by long immunity.

On a question of giving additional remuneration to the relieving officers for extra services in connexion with the vaccination work of the Union, before the Stepney Board of Guardians, several members spoke in forcible terms of the neglect of vaccination in the Union, and of the vaccination work of the guardians having been suffered to fall into arrear.

The Crewe magistrates have imposed a fine of £4 on a pork-butcher for keeping his premises in an uncleanly state, surreptitiously passing offal into the drains of his slaughter-house, not having provided proper receptacles for it.

The Court of Chancery has refused to enforce the specific performance of certain contracts for the purchase of dwelling-houses in which the drainage was found to be defective.

The report of a serious outbreak of scarlet fever having occurred in the neighbourhood of Lincoln is, we understand, incorrect.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The effect of the severe cold which set in on 12th inst. caused a marked increase in the registered mortality last week, although the increase was scarcely so great as might have been expected to result from the exceptionally low temperature recorded. In twenty of the largest English towns, estimated to contain in the middle of this year a population exceeding seven and a half millions of persons, 4582 births and 4199 deaths were registered last week. The births were 604 below, whereas the deaths exceeded by no less than 904, the average weekly numbers during last year. The deaths showed a further increase of 755 upon the low numbers returned in recent weeks. The annual death-rate, which had been equal to 21·3 and 23·6 in the two preceding weeks, further rose last week to 28·8, a higher rate than has prevailed in any week since the first week in February last, when it was equal to 37·0. During the past three weeks of the current quarter the death-rate in these twenty towns averaged 24·6 per 1000, and was 0·9 below the average rate in the corresponding periods of the five years 1876-80.

The deaths referred in the twenty towns to the principal zymotic diseases, which had been 401 and 383 in the two preceding weeks, were 390 last week, and included 103 from scarlet fever, 93 from whooping-cough, and 72 from measles. The annual death-rate from the principal zymotic diseases averaged 2·7 per 1000 in the twenty towns, among which it ranged from 0·7 and 1·0 in Wolverhampton and Hull, to 3·6 and 4·0 in Norwich and Salford. Scarlet fever showed the largest proportional fatality in Norwich and Sunderland, whooping-cough in Leeds and Nottingham, and measles in Salford. The deaths referred to fever (principally enteric) in the twenty towns, which had been but 39 and 35 in the two previous weeks, further declined to 32 last week, and were very considerably below the average. Nine of the 13 deaths from diphtheria occurred in London. Small-pox caused 44 more deaths in London and its suburbs, whereas no fatal case of this disease was registered in any of the nineteen large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 477 in the twelve preceding weeks, further rose to 516 on Saturday last. The new cases of small-pox admitted to these hospitals, which had been 85 and 118 in the two preceding weeks, further rose to 142 last week. The Highgate Small-pox Hospital contained 27 patients on Saturday last, against 24 and 26 in the two previous weeks.

The deaths referred to diseases of the respiratory organs in London, which had slowly increased from 290 to 371 in the four preceding weeks, rose last week, under the influence of the severe cold, to 617, and showed an excess of 141 upon the corrected average number in the corresponding week of the last ten years; 441 were referred to bronchitis, and 97 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 8·7 per 1000 in London, while the rate from the same diseases was 14·2 in Liverpool.

In the twenty towns last week the causes of 114 deaths were not certified, either by a registered medical practitioner or by a coroner; these were equal to 2·7 per cent. of the total deaths. The proportion of uncertified deaths was equal to 1·8 per cent. in London, while it averaged 3·6 per cent. in the nineteen provincial towns. The proportion of uncertified deaths was largest last week in Salford, Sheffield, Bradford, and Hull.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 31·1 per 1000 last week, against 22·5, 25·9, and 24·6 in the three preceding weeks; this rate exceeded by 2·3 per 1000 the average rate last week in the twenty large English towns. The rates in the eight Scotch towns ranged from 21·4 and 27·2 in Edinburgh and Aberdeen, to 35·5 and 38·1 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 105 and 102 in the two preceding weeks, were 107 last week, and were equal to an annual rate of 4·2 per 1000, against 2·7 in the twenty large English towns. In the eight Scotch towns the zymotic death-rate last week ranged from 2·1 and 3·0 in Paisley and Aberdeen, to 4·7 and 6·9 in Edinburgh and Leith. The fatal cases of scarlet fever in the eight towns, which had been 27 and 19 in the two previous weeks, were 28 last week, of which 10 occurred in Edinburgh, 10 in Glasgow, and 6 in Leith. The 25 deaths from whooping-cough showed an increase of two upon the number in the previous week, and included 15 in Glasgow, 5 in Edinburgh, and 4 in Dundee. Of the 19 deaths from diphtheria 12 were returned in Glasgow, as were

8 of the 12 fatal cases of measles in the eight towns. The 8 deaths referred to "fever" showed a decline of 7 from the number in the previous week; 2 occurred in Glasgow, 2 in Edinburgh, and 2 in Greenock. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns were 307 last week, against 161 and 191 in the two previous weeks; they were equal to an annual rate of 12·2 per 1000 of the population; the death-rate from the same diseases in London did not exceed 7·6. The greatest fatality from lung diseases in the Scotch towns occurred last week in Glasgow, Dundee, and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a further increase last week. The annual rate of mortality from all causes in the city, which had been equal to 31·8 and 35·1 in the two preceding weeks, further rose last week to 45·7, a higher rate than has prevailed since the end of January last. During the first three weeks of the current quarter the death-rate in the city averaged 37·5 per 1000, against 24·1 in London and 23·2 in Edinburgh. The 292 deaths in Dublin last week showed a further increase of no less than 68 upon the numbers returned in the two preceding weeks, and included 37, or nearly 13 per cent., which were referred to the principal zymotic diseases; against but 12 in the previous week. These 37 zymotic deaths in Dublin last week included 17 which were referred to fever (typhus, enteric or typhoid, and simple continued), 8 fatal cases of whooping-cough, 6 of scarlet fever, 3 of diphtheria, and one each of small-pox, measles, and diarrhœa. The annual death-rate from these zymotic diseases was equal to 5·8 per 1000 in Dublin last week, while it did not exceed 2·9 in London, and was 4·7 in Edinburgh. The deaths referred to fever in Dublin, which were 13 and 8 in the two previous weeks, rose to 17 last week, and were equal to an annual death-rate more than twelve times as high as the average rate from the same causes last week in the twenty large English towns. The eight deaths from whooping-cough also showed a marked excess upon recent weekly numbers, and the deaths from scarlet fever were within one of those returned in each of the two previous weeks. The deaths of infants were more numerous, but the largest proportional increase occurred among elderly persons; the deaths of persons aged upwards of sixty years, which had been 47 and 66 in the two previous weeks, further rose to 84 last week.

VITAL STATISTICS OF THE ISLE OF MAN.

Civil registration in the Isle of Man was, by recent legislation, nearly assimilated to that which has long prevailed in the rest of the United Kingdom, and the figures for the year 1879 for the first time afforded facilities for comparison and estimation of sanitary condition. The Isle of Man has an area nearly half as large again as that of Rutlandshire, and had in 1871 a population of 54,042, more than twice the population of that county; assuming that the population of the island since 1871 has increased at the same rate as that which prevailed between 1861 and 1871, the present population may be estimated at 55,653. During the year 1879 the births and deaths registered within the island were, respectively, 1569 and 1122, calculated upon the estimated population in the middle of 1879, the birth-rate was equal to 28·3, and the death-rate to 20·2 per 1000 persons living. The marriage rate was equal to 12·4 per 1000. Both the marriage and birth-rates were below the average rates in agricultural counties in England. It may be noted that 7·2 per cent. of the births registered were those of illegitimate children. The death-rate in the Isle of Man differed but slightly from the average rate in England and Wales in 1879, which was 20·9 per 1000. The fatality from the principal zymotic diseases, however, was remarkably small in the Isle of Man, as only 39 deaths in 1879 were referred to measles, scarlet fever, diphtheria, whooping-cough, enteric fever, and diarrhœa, and none to small-pox, typhus, or simple and undefined fever. The annual death-rate from these principal zymotic diseases in the Isle of Man during 1879 did not exceed 0·7 per 1000, against 2·4 in England and Wales. The low rate of infant mortality in the island also affords satisfactory evidence of its sanitary condition; the proportion of deaths under one year of age to births registered in 1879 was not quite equal to 105 per 1000, whereas the average proportion in England and Wales was 136 per 1000. One unsatisfactory feature in the figures for the year may be noted, and this is a high rate of puerperal fatality. We have said that 1569 births were registered in the island during 1879, and it appears that sixteen deaths occurred in childbirth, including five from puerperal fever; these show a rate of puerperal fatality equal to 10·2 per 1000 children born alive. In England and Wales the average proportion of deaths of mothers to 1000 children born alive did not exceed 3·8 during the three years 1877–8–9. It may be hoped that the rate of puerperal fatality in the Isle of Man during 1879 was exceptional. As the death-rate from zymotic diseases in the Isle of Man was so much below, and the rate from all causes differed so little from the rates in England and Wales, it follows that an excess must have occurred from some other causes; but from what diseases this excess mainly arose does not appear from the return before us. It may be noted, however, that the death-rate from phthisis and from acute diseases of the respiratory organs was equal to 3·4 and 3·1 per 1000 of the estimated population; both these rates were in excess of the average English rates from the same diseases. These statistics, if continued annually, will afford the best possible test of the varying sanitary condition of the Manx population.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DIPHTHERIA.

The continued attention which is being given by medical officers of health to diphtheria is interestingly indicated by two communications which have recently reached us. The one is an inaugural address delivered before the Birmingham and Midland Society of Medical Officers of Health by Mr. G. H. Fosbroke, medical officer of health for the urban and rural sanitary districts of Stratford-on-Avon, Evesham, and Alcester, President of the Association; the other contains brief "Notes on the Spread of Diphtheria," printed for private circulation by Dr. Edwyn Slade-King, medical officer of health for Torrington, Ilfracombe, and Dulverton. Mr. Fosbroke devoted his address chiefly to an account of the experiences he had had of diphtheria in his district, comparing these experiences with those of other persons with reference to the disease, and laying particular stress upon the greater prevalence of the malady in rural as compared with urban districts, its association with typhoid fever and with scarlet fever, which he holds to be much closer than is commonly believed, and its inaptitude, as he thinks, to extend in towns as contrasted with the country. Further, he expressed himself as having been unable to trace any definite relations between the prevalence of the disease and the geological formation of a locality, or between the fluctuations of the malady in a district where it was long prevalent and season; he commented on family susceptibility as a predisposing cause, and finally confessed that he had felt himself compelled to admit the spontaneous origin of the disease in certain cases. Dr. Slade-King holds the opinion that "the atmosphere becomes contaminated by contagia from the bodies of the sick [of diphtheria], and that currents of air carry the poison with them in their course"; and he relates several very curious and instructive outbreaks of the disease within his district of particular interest to the student of diphtheria.

SCARLET FEVER AT ROSENEATH AND CLYNDER.

An alarming outbreak of scarlet fever has taken place at Roseneath and Clynder, on the shores of the Gareloch. Many of the cases are serious, and several deaths have already been reported. The drainage of the whole district is extremely unsatisfactory; between the Glasgow sewage mud, brought down and deposited with each tide, and the local sewage, which is discharged usually between high and low-water marks, this locality, which was and is still a favourite summer retreat, is fast becoming unbearable. It is now difficult to find on the shores of the loch a clean spot for bathing; while the local smells and the frequent endemic prevalence of "influenza" are scaring off summer visitors. It is said, however, that the authorities are arranging a complete drainage system for the district, under the guidance of Dr. Yair. Perhaps this epidemic may give an impetus to their efforts. In connexion with this matter, the Rev. Dr. Story, at the close of a recent Sunday service, addressed some plain and sensible observations to his congregation. While regretting the distress prevailing in the parish, he advised the people not to give way to a feeling of panic, but to do all in their power to avert the threatened evil from themselves and their families. He counselled them to keep their houses clean both inside and outside, to clothe their children as warmly as possible, and to give them plain wholesome food, and no trash.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

The annual meeting of this Association was held on the 18th inst., the Bishop of Manchester presiding. We regret to see that the financial condition of the society is still not so prosperous as it should be in so wealthy a city as Manchester. It is a poor return for the benefits that this society has conferred upon the borough, and upon the sister borough of Salford, in keeping public attention alive to the importance of public-health questions, that it should be straitened for funds. A want of just recognition of the educational influence exercised by the Association in matters of health is here implied which is somewhat dispiriting. We also regret to see that from the increasing difficulties the Association has experienced in collecting records of sickness the weekly returns it has issued for twenty years have now to be given up. Considerable attention was devoted during the meeting to the excellent educational work of the Ladies' Branch of the Association.

Dr. Russell of Glasgow reports the occurrence of twelve cases of typhus among persons who had attended the "wake" of a man who had died of the disease in his own residence.

THE SERVICES.

Surgeon-Major R. W. Davies, Army Medical Department, has been appointed surgeon on the personal staff of Sir Donald Stewart, G.C.B., the new Commander-in-Chief in India.

Surgeon-Major James Hector, M.B., has been appointed to the medical charge of the 13th Hussars at Candahar.

Surgeon Henry Bradford, A.M.D., has been appointed Instructor of the Army Hospital Corps, Aldershot, vice Surgeon-Major T. Faris, who has proceeded on service to Natal.

ADMIRALTY.—The following appointments have been made:—Staff-Surgeon C. Harvey to the *Triumph*, for Esquimalt, sick quarters, vice Sharood; Surgeon H. B. Guppy to the *Ganges*, vice Fisher.

THE CASE OF LOUISA MORGAN

(GUY'S HOSPITAL).

THE following is the "Clinical Report" of this case, to which reference was made in the proceedings.

Ward and No. of bed: Mary, No. 2. Nature of case: Old and quiescent phthisis; suppurating cyst in broad ligaments; acute inflammatory mass (tubercular) in cortex of brain. Result: Death; tubercular meningitis. Name and age of patient: Louisa Morgan; aged twenty-six. Residence: 42, Charlotte-street, Old Kent-road. Date of discharge: Died July 21st, 1880.

Physician: Dr. Pavy. Clinical clerk: J. R. Veitch. Date of admission: June 9th, 1880.

Occupation.—Has been in the habit of working the sewing-machine. Is married; has been married ten years; has one child nine years old; never had a miscarriage.

Family history.—Parents both dead. Father was between fifty and sixty when he died. Does not know what he died of. Mother died of brain trouble, aged fifty. No history of phthisis in the family.

Personal history.—Had scarlet fever and measles when a baby. Seven years ago had gastric fever, for which she had medical advice for nearly two months. Has always had a slight cough in winter, but the last winter it was much worse than usual. Has lived regularly; accustomed to take beer and sometimes spirits with her meals. Ten years ago suffered very much from rheumatism in her arms and shoulders principally; was unable to use her arms without great difficulty. Does not remember any particulars of her illness.

Present illness.—Last September had great pain in the lower part of the abdomen; also great pain in her back and loins; was unable to take her food, but suffered from continual thirst. When she drank much she immediately suffered from diarrhœa, with great pain, and passed very light motions. The pain extended down her left thigh; was attended by Dr. Palmer for four months. She remained in bed for about a month, and then began to get about a little each day, but not for any length at a time on account of pain in her stomach and back. She got very much better, and remained so until February, 1880, when she was again taken ill. Was advised to come into the hospital. Three weeks ago her feet and legs began to swell from the ankle to the knee. The diarrhœa was bad, and she suffered from pain in her stomach and back.

Personal appearance.—Thin, delicate-looking, anæmic; complexion light; anxious expression; eyes light, pupil contracted; skin thin, hot, and moist.

Alimentary system.—Tongue clean; appetite bad; complains of great thirst, nausea, and sickness; motions not regular, and very light in colour.

Circulatory system.—Normal.

Respiratory.—There is slight bronchial breathing at the left apex.

June 9th.—Chop.—11th: Evening temperature, 100·4° F. Patient complains of severe headache; her breathing is regular and easy. Takes her food well. Bowels lax.—12th: Evening temperature 99·8°.—14th: Milk O. ½, soda water, and six ounces of wine; ferri am. cit., gr. 5; tinct. sumbul, min. 20; mist. am., ℥ 1; t.d.s.—16th: Still complains of headache; says it is worse after taking her medicine. A harsh sound is heard at the left apex. Appetite is not so good to-day; tongue rather furred, whitish-brown. Bowels open.—20th: Headache is rather less than it was, but still complains slightly.—25th: Headaches have left her, but she complains of pains in her back and loins; has a leucorrhœal discharge; takes her food well; pulse strong; breathing just the same as before; the bronchial breathing is still heard just below the angle of the scapula (left).—30th: Patient still the same; no headache, but pain in the back and loins. Discharge still continues.

[Note by the Registrar for July 5th.]—I saw her about two hours after bath. At first sight I thought her moribund. She was utterly collapsed, blue and cold. She took no notice of anything about her, and would not answer questions.—F. A. M.

July 6th.—Patient is much worse this morning. Yesterday had a very prolonged bath, almost cold water; remained in it for a considerable time; appears to have suffered from a severe mental shock. (Dr. Pavy.) There was considerable bruising over left shin, and several slight bruises on both arms.—7th: Patient still in same condition. Does not care to answer questions. Tongue furred, brownish colour; face much flushed. There is a nervous twitching at the bedclothes. Passes everything under her. Evening temperature 100·8°; pulse 120.—8th: Morning temperature 99·4°; evening temperature 101·4°.—9th: Still the same objection to speaking; lies quite still except for the twitching of the hands. Takes her food well when she is fed. Morning temperature 100·2°; evening temperature 101·2°; pulse 116; respiration 40.—11th: Morning temperature 99·2°; pulse 100; respiration 38; evening temperature 101·6°; pulse 120; respiration 40.—12th.—Slight bronchial breathing still heard at left apex, just below left of scapula. Does not answer questions; refuses to put out her tongue. Skin very hot, moist. Cheeks much flushed. Passes everything under her. Morning temperature 102·4°; evening temperature 102·6°; respiration 36; pulse 130.—13th: Mist. chinchon. co., ℥ 1, t. d. s. Morning temperature 102·4°; pulse 140; respiration 38; evening temperature 104° (10 P.M.); pulse 150; respiration 48.—14th: Enema saponis stet. Morning temperature 103·6°; evening temperature 102·4°; pulse 140; respiration 32.—15th: Still the same; temperature very high; appears hardly sensible; P. enema. Morning temperature 102·4°; evening temperature 103·2°.—16th: Glyc. boracis. Morning temperature 101·4°; pulse 150; evening temperature 103·2°; pulse 150.—17th: Patient still lying in a semi-conscious state; will not take food unless put into her mouth. Morning temperature 103·2°; evening temperature 102·6°; pulse 140.—18th: Morning temperature 102·6°; pulse 140; respiration 40.—19th: There is bronchial breathing at apex of right scapula; patient still in same condition. Morning temperature 104°; evening tem perature 104°; pulse 146.—20th : Patient perfectly unconscious ; appears to suffer acute pain when left arm is lifted in taking temperature ; swallows with difficulty. Morning temperature 105°; evening temperature 104·7° ; pulse 200 ; respiration 60.—21st : Morning temperature 105°; pulse 200; temperature 106° (2 P.M.)—22nd : Patient died at 11.30 last night. Post-mortem examination to-day.

The following is a summary of Dr. Goodhart's notes of the post-mortem examination :—

Post-mortem.—The convolutions of the right hemisphere along the longitudinal fissure, about the hinder part of the first frontal and the anterior central, were involved in a large mass of yellow tubercles, which dipped some way into the white matter of the cerebrum. The section of it was of an unusual appearance, being softer than usual and many-coloured, from changes in the blood pigment within and around it. At first sight it was not unlike a mass of red softening. But a more careful examination showed that it was a focus of yellow tubercle, in which other secondary changes, softening, and decomposition, or disintegration of blood had occurred. Behind this large mass was a second smaller one, also in the convolutions, bordering the longitudinal fissure, and having the usual fine yellow characters of yellow tubercle. In addition to these, the convolutions about them had a diffused layer of yellow tubercle uniting their edges, and spreading into the pia mater over them, while at the base there was a general tubercular meningitis. It was my opinion at the time that there had been a quiescent or slowly-maturing growth of yellow tubercle, probably existant for some time, and that the softening and tubercular meningitis were of recent date.

Correspondence.

"Audi alteram partem."

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

To the Editor of THE LANCET.

SIR,—As a licentiate of the above College I have been extremely pleased with the letters in your journal. At the same time I must say that it is somewhat extreme to designate the Fellowship of this college as a *bogus* diploma. No one can obtain it who has not passed an examination in surgery previously. You might as well say that the M.D. degrees of St. Andrews and Aberdeen are bogus degrees; still, I think no one will be bold enough to assert this. These degrees are given by promotion, after the M.B. has been two years in practice, which really means nothing, for a practitioner may be unfortunate enough to see very little practice in two years, or, may be, he practises homœopathy during that period. Edinburgh and Glasgow have only insisted on a *thesis* for the degree during the last few years, and a few years ago it was very seldom a thesis was rejected. It must, however, be remembered that they only promote their own graduates, and it is here where the Edinburgh College has sinned. It should only have promoted its own licentiates. If it had done so we should not have had this outcry.

I do hope, however, that good may come out of this adverse opinion as to the granting of the Fellowship, and hope the Edinburgh College will see its way to institute an examination for its higher qualification, even at the expense of another charter. If it cannot do this, then why not do like the university, have a thesis on a surgical or scientific subject, and also limit the promotion to its own licentiates? It would then compel aspirants to be examined, although they might have some other surgical diploma; and from what I know of the licence of the College, I can say that the examination will bear comparison with any of the other corporate, and even some of the university, examinations. One of your correspondents seems to make light of the examination for the licence; evidently he is newly fledged, or is not even tolerably acquainted with older surgeons who possess *only* the licence of the Edinburgh College as qualifying for practice. When I was a student, a few years ago, men were rejected who a few weeks after were capped for the degree of M.B. The older licentiates, however, will tell you that the Edinburgh College was, as it is now, with the exception perhaps of one or two corporations, the only college which gave a *complete* examination in all branches of medical science, and this certainly is a great thing to say, when we find our London College only *now* taking steps to do the same.

I am, Sir, yours, &c.,

Wigan, Jan. 24th, 1881. WM. BERRY, M.R.C.S. Eng., &c.

To the Editor of THE LANCET.

SIR,—Are you aware that the R.C.S. Edinburgh have had for some time under consideration a scheme for examination for its Fellowship?

I applied about three months since for admission (under examination), having seen that some of the "Fellows" placed the magic words "exam." after their names. I was in reply informed that this was under an "old" statute, and that I could only be admitted under the existing rules, but that they hoped very speedily to promulgate some new ones for holding examinations similar to the English College.

I think this should be generally known, and I should feel obliged if you would give this the same prominence as other letters upon this subject, in justice to the Edinburgh College of Surgeons, who have intended altering the present state of affairs, prior to your justly-merited leader upon the sale of "highest" diplomas.

I am, Sir, yours faithfully,
ARTHUR PRICE, M.R.C.S. Eng., &c.

Great Smith-st., Westminster, S.W., Jan. 25th, 1881.

STATISTICS OF OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—At the meeting of the Royal Medical and Chirurgical Society, to which Dr. Bantock refers in his letter of Jan. 15th, I entered a strong protest against the system of rediscussing in the journals papers which have been fully discussed before the Society. This is my reason for keeping silence under the battery of letters with which we have been edified, and in which my work has received its full share of attention. I intend to adhere to my resolution. When I have fresh facts to bring forward I shall publish them, and do not fear the verdict of the profession. Having written so many letters, Dr. Bantock is naturally in doubt as to which of them I referred to. The reference was to one which appeared in the *Medical Times and Gazette* in August last.

A suggestion has been made that a committee should be appointed to watch the results of Listerian and non-Listerian ovariotomy. I think the suggestion a good one, and if an impartial committee can be formed I shall not only be happy to facilitate their observations on my future practice, but shall be glad to give them access to all my case-books since I commenced abdominal section.

I am, Sir, truly yours,
J. KNOWSLEY THORNTON.

Park-street, Grosvenor-square, W., Jan. 26th, 1881.

THE NEW FORM OF GAG.

To the Editor of THE LANCET.

SIR,—Will you allow us to state that the "improved" ring-catch with notches, for which Messrs. Mayer and Meltzer claim credit, was the original form as made by us for Mr. Rose? The serrations, however, were found to do more harm than good, as they were apt to jam the operator's fingers and pinch the patient's face, as well as to prevent the ready adjustability of the instrument. They were therefore abolished, and the requisite fixation secured by "draw-filing" the opposing surfaces.

We were under the impression that Messrs. Mayer and Meltzer were aware of this, as we find in their Catalogue, Fig. 431, a woodcut of a double-ended gag, *with* the serrations now claimed as original, described as "W. Rose's double-ended gag." It is not for us to go into the question of the advantages or disadvantages of tongue-plates, but our experience as instrument makers has been in conformity with the wishes of our customers, to use them as little as possible. Indeed, the gags constructed by us for the late Sir W. Fergusson, Mr. John Wood, Mr. Francis Mason, and Mr. W. Rose, have been especially designed with the view of getting rid of tongue-plates altogether.

We remain, Sir, your obedient servants,
MATTHEWS BROS.

Carey-street, W.C., Jan. 24th, 1881.

MANCHESTER.

(*From our own Correspondent.*)

ON Wednesday last an experimental meeting of the Medical Society was held in the Memorial Hall, Albert-square, the outcome of a feeling amongst some of the members that a more centrally situated place of meeting should be provided than Owens College, where the Society's meetings have hitherto been held. The meeting was very well attended, and the cases presented were of unusual interest. The general feeling of the members, however, seemed to be that the very desirable advantages of the central position and greater accessibility of the new room were rather marred by its bad lighting and general dinginess. In this connexion we may mention that it has long been the earnest desire on the part of the medical profession here that our magnificent library should be housed in a building actually situated and specially designed for the purpose, and which would contain spacious rooms for holding the monthly and other meetings of the Medical Society. This scheme, however, has never been properly set on foot, owing to the large expenditure such an undertaking would entail.

A nucleus for a building-fund has just unexpectedly been formed by the generous donation of £150 by Dr. Humphreys, who, when he was with us, always took a lively and practical interest in the welfare of the Society. This sum was the amount (with a small addition by Dr. Humphreys) subscribed by the medical profession here as a slight token of the sympathy felt for him on his leaving Manchester. It is to be hoped that the small beginning will grow, and act as an example for others to do likewise, until a fund is established which will provide for the erection and maintenance of a building worthy of the medical profession, the medical library, and an ornament to the city.

The Edinburgh University Club had its annual gathering on Friday last at the Queen's Hotel, when forty-six members sat down to a most *recherché* dinner. The chair was occupied by Professor Gamgee of Owens College. The usual loyal toasts were proposed, and some excellent speeches were delivered on the occasion, the proceedings being enlivened at intervals by songs of a national character. It was a noteworthy feature of the meeting that no reference was made either to Robert Burns or Dr. Chalmers—a circumstance probably unparalleled in the history of Scottish assemblies.

I now pass to the consideration of a more serious subject and one more intimately bound up with the interests of the coming race of medical practitioners. I wish to draw attention to the great mass of good educational material which is going to waste in our midst. We have *inter alia* three large medical charities devoting themselves to the treatment of special diseases—viz., the Children's Hospital, Pendlebury, the large Gynæcological Hospital of St. Mary, and the Royal Eye Hospital, second only in size to Moorfields, institutions which draw their patients from the teeming population of the surrounding manufacturing districts. These charities are officered by men of capacity, undoubted talent, and teaching power, but the number of students who avail themselves of their privileges is very small. This may arise from a variety of causes. Pendlebury Hospital can never by its position (four miles from the town) become a teaching centre; the other two hospitals are, however, centrally placed, and close to one another. The student of to-day may be over-lectured and over-examined, but he incurs a serious responsibility should he commence practice without a good knowledge of special subjects, which can only be adequately obtained in hospitals where large numbers of selected cases can be brought under his observation. Be the causes what they may, I am certain that a vast impetus would be given to the diffusion of special medical knowledge were these institutions recognised in some way by the licensing boards, either by accepting certificates, or otherwise. A stimulus of this sort is wanted to make the medical officers take the initiative in the formation of clinical classes, in which work they would no doubt have the hearty co-operation of their respective boards of management.

However, it is certain that something should be done, and that speedily, to instil life into the project, and thereby open up these vast storehouses of practical experience and knowledge. To this important subject I will return on a subsequent occasion, when I shall be fully armed with statistics to support my thesis.

EDINBURGH.

(*From our own Correspondent.*)

AT one of the recent Health Lectures for the people some interesting statistics of infant mortality were given from reports furnished by Dr. Littlejohn, the medical officer of health. In the New Town the death-rate was 18 per 1000, the mortality above five years of age was 13 per 1000, that below five years was 67 per 1000. In the Old Town the mortality was 30 per 1000; above five years 19 per 1000, under five years 108 per 1000; while in certain localities of the Old Town the mortality was specially great, as, for instance, in the Grass market, where the mortality reached 137 per 1000.

The general meeting of the infirmary contributors was held in the City Chambers on the 10th inst. The report presented stated that the experience of the first year's occupation of the new infirmary had been highly satisfactory. It was found that on contrasting the expenditure of the past year with that incurred in the old building, say in 1878, when about a similar number of in-door patients were treated, the increase amounted only to £2688; and it was stated that the managers were taking steps to manage the heating and lighting in a more economical manner. The additional accommodation for students in the clinical lecture rooms has been supplied, and the expense has been already covered by the students' fees. Attention was also drawn to the fact that infectious cases were not treated in the new building, and it seemed to be the opinion of many present that a separate fever hospital should be established, since the revenue of the present infirmary did not admit of the support of such an institution. The suggestion that the Local Authority should purchase the old hospital for the benefit of the city, using part of it for paying patients, or for various sanitary purposes, and so being prepared for epidemics, was favourably received.

Mr. Spence lately trephined in a case where inflammatory symptoms appeared after an injury. On dividing the dura mater pus escaped. The patient is doing pretty well, but has become aphasic.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, the 20th inst., a petition was presented from Surgeon Malachi O'Dwyer, for redress of grievances in connexion with the Medical Service of the East India army. The second reading of the Medical Appointments Qualification Bill was deferred to Tuesday. A Bill to amend the law relating to coroners in Ireland was brought in by Mr. Healy, Mr. Gray, and Mr. Barry, and put down for second reading on Friday, 28th inst. Mr. Litton gave notice that he would ask leave to introduce a Bill to extend to Ireland some provisions of English and Scotch law as to the care of lunatics.

On Friday a further petition *re* the East Indian Army Medical Service was presented from Surgeon W. A. Manson for redress. On the motion of Mr. Pell returns of pauperism were ordered for every English county.

On Monday Mr. Barclay put a question with regard to the scheme for reconstructing Gordon's Hospital, Aberdeen, which Sir W. V. Harcourt was unable to answer, owing to the absence from London of the Lord Advocate. A Return was ordered of the report of a recent Poor-law Inspector's inquiry at Dromore Workhouse. Mr. Litton brought in his Irish Lunatics Bill, which was read a first time. The names on the back of the Bill are those of Mr. Findlater, Sir Thos. McClure, and Mr. Litton. A petition was presented from Samuel C. Amesbury for inquiry into the East India Medical Service. A return was ordered of a recent inquiry at Belfast Workhouse.

On Tuesday Sir H. Maxwell asked the President of the Board of Trade what steps, if any, were being taken, or contemplated, in order to protect British producers from unfair competition, caused by the importation from America of spurious compounds resembling, and in many cases sold to and by retail dealers as butter; and whether, in view of the rapidly increasing exports of oleomargarine, sulne, soapstone, &c., from America to Holland, and the rapidly increasing exports of dairy produce by the latter country to this country, any safeguards were maintained against the importation of such spurious compounds from Holland. Mr. Chamberlain said the subject had been for some time past engaging the careful attention of the Board of Trade, and very recently, as the hon. baronet might have seen, a paper had been printed and circulated which gave a considerable amount of information with respect to the manufacture of those compounds. It would appear from the statements of experts that in the majority of instances those manufactured butters were not unwholesome; and, under those circumstances, it was difficult to see how their importations could be prohibited. At the same time it was, no doubt, very desirable for statistical and other reasons that they should be imported under their right names. The hon. bart. referred in his question to cases in which he said those compounds had been sold to and by retail dealers as butter. He could only say in those cases that he imagined the Adulteration Act would afford a remedy for such malpractices. Sir H. Maxwell asked if the right hon. gentleman was quite sure with regard to the wholesomeness of the compounds. Mr. Chamberlain said he did not speak from personal experience in the matter, but merely from the reports furnished to him. Sir A. Gordon gave notice of a question for Friday as to famine in Southern Afghanistan, and Mr. Parnell gave notice of an inquiry as to "distress and misery" in Kanturk Union Workhouse. Mr. Warton gave notice that he will move the rejection of the Coroners (Ireland) Bill.

The usual Wednesday sitting of the House did not take place, owing to the "all night sitting" of Tuesday.

On Thursday Mr. Shaw Lefevre was questioned as to his refusal to allow snow from the streets to be carted into the parks, and gave as his reason that it spoilt the grass.

Obituary.

NATHANIEL HENRY CLIFTON, F.R.C.S. ENG., J.P., ISLINGTON.

SOME practices are the creation of one man. A larger number represent a principle of continuity, not to say heredity. The name of Mr. Clifton carries the people of Islington back more than a hundred years. And yet over all this time a large section of the people of Islington have enjoyed the privilege of being attended by Mr. Clifton or his immediate ancestors. It is not the least credit of the family that for this more than century of work only three successive members of the family have been necessary. The subject of our present notice was wont to tell how his grandfather took up his abode, lodging with a worthy baker, in Cross-street, Islington, over a hundred years since. Mr. Clifton's grandfather was born in 1751, and was in practice before 1778. He died in 1822 in Cross-street, and was succeeded by his son Nathaniel Clifton, who was born in 1786, and died in 1861 — all in Cross-street. Here too Mr. Nathaniel Henry Clifton was born Nov. 29th, 1818, and here, we are sorry to have to tell, he died on Friday, Jan. 21st, 1881, in his sixty-third year. There is an element of permanence, a faithfulness to groove and place, in most good families which is not to be unnoted. Cross-street, as it exists now, may not seem to passers through a romantic spot, to which to fix one's existence, but to a man of Mr. Clifton's character, with its historical baker's shop, which, by the way, still, we believe, survives, it had a claim and a charm to which the new-built villa has no pretensions.

Mr. Clifton was educated at the Charterhouse and at the Proprietary School, Islington. He entered Bartholomew's Hospital in 1837. He was made a governor of the hospital then or soon after. Subsequently he was put on the House Committee, and for thirty or forty years continued to take a very active personal interest in the work.

Mr. Clifton's character was one that compelled the respect of men of all parties, and especially of members of his own profession, by whom he was looked up to as a guide and friend in circumstances of difficulty and in questions of conduct. He himself was a model ot professional behaviour. His benevolence took varied and quiet forms, and will be greatly missed, not least by many who enjoyed, for little or no pecuniary consideration, his continuous and careful professional attendance. The Islington Dispensary, the Medical Benevolent College, and other kindred institutions, lose by his death a cordial supporter. He was for many years treasurer of the Islington Savings Bank, of which his father was one of the founders.

Himself a Conservative and an active member of his party, Mr. Clifton could conduct his political or even ecclesiastical contests without acerbity. So high did Mr. Clifton stand in public estimation, that a few years ago he was made a Justice of the Peace for Middlesex, a position in which his professional judgment and his long and extensive knowledge of the district stood him in good stead. Mr. Clifton was, we believe, the only member of the profession on the Middlesex Bench.

Mr. Clifton's practice was extensive and arduous, including a large number of obstetric cases. His labour was increased by the great kindness of his disposition, which induced him to wait long and well on patients or families that were in trouble or sickness, even when his professional services were not of immediate use. His professional judgment was good. He was very methodical in his habits, going out and coming in with the regularity of the clock. Some of his habits were peculiar, and showed that a great deal of strength underlay the genial kindliness of his nature. Pleasure was always subordinated to work. After qualifying in 1841 he took a week's holiday. Thereafter he went for thirty-seven years without twenty-four hours' holiday. His holiday, which consisted chiefly of a few hours' fishing, was always preceded by a day's work. Within these sharply defined limits he found time to dine with a friend or take part in public affairs. He made a point, in the late hours of the night, of making up his books and his list of patients for the morrow. If he were disturbed at night, as he was very often, he never went back to his bed on returning home, but took such rest as he could get in an easily extemporised position in his study.

For a few years past the large and powerful frame of Mr. Clifton had shown signs of impairment and failure, and for a few months past it had been only too evident that his public work was done. His resignation, a few weeks ago, of the Membership of the Medical Society, of which he was one of the founders, was accepted with deep regret and pain by the members. Diabetes and albuminuria, with various and painful secondary consequences, involved a long illness, in which he was most affectionately nursed by his sisters, who have now to feel his absence. Mr. Clifton was never married. A few years ago he took into partnership Mr. Frank Godfrey, who will have to conduct the practice that for a century has been so well conducted by Mr. Clifton and his family.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 20th inst.:—

Ashton, Charles Ernest, Guildford-street.
Bolton, Alfred, Warrington.
Breach, James Henry, L.S.A., Yattenden, Newbury.
Clark, Oscar William, Cowick, near Selby.
Collins, George William, Adelaide-road.
Cooper, Walter, L.S.A., Croydon, Surrey.
Curtayne, Herbert Maxwell, Melbourne, Victoria.
Falls, William Coultard, Buckingham-palace-road.
Inger, John William, Nottingham.
Lunn, Ernest Craven, L.S.A., Hull.
Mason, John, Kirkby Stephen.
Roe, Robert Bradley, Melbury, Dorset.
Roth, Reuter Emerick, Wimpole-street.
Stokes, Arthur Samuel, Caldecott, Leicester.
Thomas, John, L.R.C.P. Lond., Ystalyfera, South Wales.
Webster, John Arthur, Manchester.

The following gentlemen were admitted Members of the College on the 21st inst.:—

Alexander, C. A. A,, B.A. Cantab., Ardrossan, N.B.
Atkinson, Thomas Renel, Dawlish.
Beattie, Henry, Albert-square.
Boot, Arthur Edward, Harrington-square.
Briggs, Christopher Duffield, Tamworth.
Brooks, James, Blackburn.
Brunton, Charles Edward, East Dereham.
Clapp, George Tucker, Exeter.
Coxwell, Charles Fillingham, B.A. Cantab., Brighton.
Davis, Charles Daniel, Kilburn.
Fielden, William Eckett, Walthamstow.
Harris, Underwood Arthur C., Tufnell-park.
Hawksworth, Herbert Byfield, Canterbury.
Holthouse, Edwin Hermus, B.A. Cantab., Helidon, Northampton.
Jones, Thomas Wm. Carmall, Westbourne-street.

King, Thomas Mason, Windermere.
Rygate, Robert Edward, Wellington, N.S.W.
Squire, John Edward, Orchard-street.
Thomas, Stanley Temple, Churchdown.
Wöhrnitz, Ferdinand Broër Mathiew, Mauritius.

The following gentlemen were admitted Members of the College on the 24th inst.:—

Baker, James Barrington, Bassett-road.
Clatworthy, Herbert, L.S.A., Chatham.
Glassington, Charles William, Fulham-road.
Greswell, Daw Astley, Louth.
Harper, James, Windsor.
Johnson, Geo. Lindsay, M.A. Cantab., Upper Norwood.
Marsh, George Ryding, Greenhithe, Kent.
Meaden, George Anderson, Raymond-buildings.
Newcombe, Frank, L.S.A., Derby.
Nicholls, William John, Washingborough, Lincoln.
Oakeley, John Lewis Bagnall, Bournemouth.
Orchard, Alfred, Ashby-de-la-Zouche.
Revell, George Toms, Ivy Bridge, Devon.
Scott, Bernard, Brighton.
Starling, Edwin Alfred, Sutton, Surrey.
Studer, Benjamin, L.S.A., Linthal, Alsace.
Sutton, Samuel Walter, L.R.C.P. Lond., Reading.
Taylor, Frederic Ernest, Derby.
Tyrrell, Charles Robert, Hornsey-lane.
Ward, Lawrence Thomas, Mile-end-road.

The following gentlemen were admitted Members of the College on the 25th inst.:—

Brookes, Robert, Croft, near Leicester.
Gripper, Walter, M.B. & B.A. Cantab., Onslow-square.
Johnston, Walter, St. Mary's-square.
Macnutt, George Augustus, Barnet, Herts.
Palmer, John Irwin, Blackheath.
Smith, Gilbert Thomas, Richmond-crescent.
Watson, Solomon George, Tottenham.

The following gentlemen were admitted Members of the College on the 26th inst.:—

Biden, Edward James, L.S.A., Peckham.
Crossley, Charles, L.R.C.P. Edin., Leicester.
Downes, Charles Haggar, L.S.A., Sydenham.
English, Edgar, L.S.A., Whitby.
Kidd, Arthur, Liverpool.
Legge, William Heneage, L.S.A., Derby.
Lewis, William Henry Phillips, Guilsford, S. Wales.
Mahomed, Arthur G. Sulieman, L.S.A., Brighton.
Rogers, James Macdonald, L.S.A., Berners-street.
Smith, Henry, L.S.A., Plumstead, Kent.
Whistler, Charles Watts, Ashburnham.

Of the 168 candidates admitted to examination during the past fortnight, 99 passed to the satisfaction of the Court and obtained their diplomas; 10 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 59 failed to reach the required standard, and were referred for six months' further professional study. Two candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical qualification recognised by the College, were also admitted Members.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 20th:—

Blythe, Joseph Charles, Hendidley, Newtown, Mon.
Dancy, Horace Michael, Turner's-hill, Crawley.
Girdler, Geo. Toussaint, Westminster Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Arthur Edensor, Guy's Hospital; Edward Ferdinand Grün, London Hospital; Harold George Hathway and Arthur Lloyd Macleroy, St. Bartholomew's Hospital; Hugh Stott, St. Mary's Hospital.

At the Preliminary Examination in Arts held at the Hall on Jan. 21st and 22nd, 84 candidates presented themselves, of whom 45 were rejected, and the following 39 passed and received certificates of proficiency in General Education:—

FIRST CLASS (in order of merit).—1st: Cornelius Clement Caleb. 2nd: W. V. Carden and Caroline Keith. 4th: Josephine L. MacDonogh.

SECOND CLASS (in alphabetical order).—H. D. Adcock, Jas. Anderson, A. H. Armstrong, G. P. Barton, John Bate, L. Bathurst, H. G. Beville, J. Blackford, C. Campbell, A. E. Carey, C. Christopherson, Elizabeth S. Collier, Horace S. Collier, Jessie Crosfield, William Davies, A. C. Gaskin, T. Greaves, E. T. Gregory, G. C. Harrington J. J. Lewington, E. H. Lingwood, B. MacDonogh, A. J. H. Montague, Elise Morgan, E. J. Neville, F. Norman, C. C. Piper, R. J. Reece, Eliza Jane Stacey, Oswold R. Swete, E. S. Wallis, Lydia Maria Webb, W. P. West, Frank F. White, Harrie Yeo.

COLLEGE OF PHYSICIANS IN IRELAND.—At the January examinations the following obtained the licence in Medicine and Midwifery of the College:—

MEDICINE.—Humphrey John Broomfield.

MIDWIFERY.—Robert Samuels Archer, Humphrey John Broomfield, Nicholas John Halpin (Surgeon, Bengal Army).

The undermentioned Licentiates have been admitted Members:—

James Berry Kenny, Alex. Lane, George Lyndon, Hugh Warnock.

LORD WINDSOR has been elected President of the Children's Hospital, Birmingham.

DR. THOMAS W. THURSFIELD has been placed on the Commission of the Peace for the borough of Leamington.

MR. W. T. DREW, L.R.C.P. Ed., &c., of the Egham District of the Windsor Union has received the Government grant for successful vaccination (fourth time).

MR. J. A. KINGDON, F.R.C.S., has resigned his honorary surgeoncy of the City Dispensary—a post which he has held for thirty years.

EXPLOSION IN AN INFIRMARY.—The boiler in the kitchen of the Tiverton Infirmary exploded on the 22nd inst., while the domestics were at dinner. One boy was killed on the spot, and a nurse was severely injured. The cook escaped almost unhurt. The room was completely wrecked.

FORTY anti-vaccinationists were brought up at the Bradford police-court on the 17th inst. charged with neglecting to have their children vaccinated. In none of the cases was the offence denied, and the defence was "conscientious objection." The Bench, in some of the cases, only inflicted a fine of *6d.*, remitting the costs altogether, while in other cases orders were made to have the children vaccinated within three months. Most of the defendants had been previously summoned and convicted of a similar offence.

COLLEGIATE LECTURES.—The annual courses of lectures will be commenced at the Royal College of Surgeons on the 2nd prox., by Professor Parker, F.R.S., who will deliver nine lectures on the Structure of the Skeleton in the Sauropsida, to be followed by Professor Flower, F.R.S., who will give nine lectures on the Anatomy, Physiology, and Zoology of the Cetacea. Professor Butlin will continue his course on the Relations of Sarcoma to Carcinoma. Professor Treves will deliver one lecture on the Pathology of Scrofulous Affections of Lymphatic Glands. Professor Hutchinson will follow with six lectures on the Laws of Inheritance in Relation to Disease. Finally, Professor Gerald Yeo will give three lectures on the Contractile Tissues.

BOOKS ETC. RECEIVED.

BELL, G., & SONS.
- A Manual of Dissections of the Human Body, for the Use of Students &c. By R. E. Carrington, M.D. Lond. pp. 200.

BLAKISTON, P., Philadelphia.
- Drainage for Health, or Easy Lessons in Sanitary Science. By Jos. Wilson, M.D. pp. 68. With Illustrations.

CHURCHILL, J. & A., London.
- Year-book of Pharmacy; with the Transactions of the British Pharmaceutical Conference at Swansea, August, 1880. pp. 605.
- The Diseases of the Bladder and Prostate Gland. By Walter J. Coulson, F.R.C.S. Sixth Edition. pp. 607. With Illustrations.
- The Student's Guide to the Diseases of Women. By A. L. Galabin, M.A., M.D., F.R.C.P. Second Edition. pp. 395. With Illustrations.
- Lectures on Syphilis. Delivered at the Harveian Society, Dec. 1876, by J. R. Lane, F.R.C.S. Second Edition. pp. 94.
- Carpenter's Principles of Human Physiology. Edited by Henry Power, M.B. Lond., F.R.C.S. Ninth Edition. pp. 1097. With Illustrations.

FANNIN & Co., Dublin.
- Anatomy of the Arteries of the Human Body. By J. Hatch Power, F.R.C.S.I. Third Edition. By William Thomson, F.R.C.S. pp. 320. With Illustrations.

LEA'S SON & Co.
- A Treatise on the Principles and Practice of Medicine. By Austin Flint, M.D. Fifth Edition, Revised and largely Rewritten. pp. 1150.

LIPPINCOTT & Co., Philadelphia.
- On the Construction, Organisation, and General Arrangements of Hospitals for the Insane. By T. S. Kirkbride, M.D., LL.D. Second Edition, with Revisions, Additions, and New Illustrations. pp. 320.
- Atlas of Skin Diseases. By Louis A. Duhring, M.D. Part VIII.

LIVINGSTONE, E. & S., Edinburgh.
- An Investigation into the Microscopic Anatomy of Interstitial Nephritis. By B. C. Waller, M.D., F.R.C.S. Ed.

LONGMANS, GREEN, & Co., London.
- A Dictionary of General Biography. By William L. R. Cates. Third Edition, Revised throughout, and Completed to the present time. pp. 1483.
- Popular Lectures on Scientific Subjects. By H. Helmholtz. Translated by E. Atkinson, Ph.D., F.C.S. Second Series. pp. 265.
- The Ventilation of Dwelling Houses and the Utilisation of Waste Heat from Open Fireplaces. By F. Edwards, jun. Second Edition. pp. 178. With Diagrams.
- Natural Philosophy for General Readers and Young People. Translated and Edited from Ganot's "Cours Elémentaire de Physique" by E. Atkinson, Ph.D., F.C.S. Fourth Edition. pp. 612.

MACLACHLAN & STEWART.

Practical Papers on the Materials of the Antiseptic Method of Treatment. By G. T. Beatson, M.D. Edin. (Reprinted from the *Glasgow Medical Journal.*)

NEW SYDENHAM SOCIETY, London.

Investigations into the Etiology of Traumatic Infective Diseases. By Dr. Robert Koch. Translated by W. W. Cheyne, F.R.C.S. pp. 74. With five Plates.

Lexicon of Medicine and the Allied Sciences. By H. Power, M.B., and L. W. Sedgwick, M.D. Fourth Part, Art—Caf.

PARTRIDGE, S. W.

A Plea for Mercy to Animals. By J. Macaulay, A.M., M.D. Edin. pp. 95.

PAUL, C. KEGAN, & CO.

The New Playground, or Wanderings in Algeria. By Alex. A. Knox. pp 482.

PUTNAM'S SONS, New York.

Stricture of the Male Urethra, its Radical Cure. By F. N. Otis, M.D. pp. 360. With Illustrations.

The Cause of Colour among Races, and the Evolution of Physical Beauty. By William Sharpe, M.D. New Edition, Revised and Enlarged. pp. 36.

SAMPSON LOW, MARSTON, SEARLE, & RIVINGTON, London.

Cyclopædia of Practical Medicine. Edited by Dr. H. Von Ziemssen. Vol. IX., Diseases of the Liver and Portal Vein, with the Chapter relating to Interstitial Pneumonia. pp. 928.

SMITH, ELDER, & CO., London.

A Directory for the Dissection of the Human Body. By John Cleland, M.D., F.R.S. Second Edition, Revised and Improved. pp. 182.

STREET, G. & CO.

The Indian and Colonial Mercantile Directory for 1880–81.

TREAT, E. B., New York.

How to Use the Forceps; with an Introductory Account of the Female Pelvis and of the Mechanism of Delivery. By Dr. H. G. Landis. pp. 168. With Illustrations.

TRÜBNER & CO., London.

On the Use of the Cold Pack followed by Massage in the Treatment of Anæmia. By Mary P. Jacobi, M.D., and Victoria A. White, M.D. pp. 76.

WILLIAMS & NORGATE.

Grundzüge der Physiologie des Menschen mit Rucksicht auf die Gesundheitsplege. Von Dr. J. Ranka.

The Causes, Prevention, and Treatment of After-pains; by Dr. J. E. Ranking.—Can the Mildest Form of Enteric Fever be distinguished from Acute Febrile, but Non-specific, Gastro-enteric Catarrh? by C. Bäumler, M.D.—Etudes Cliniques sur les Peptones Pepsiques; par Chapoteant, Pharmacien.—Ueber die Herstammung und Ausscherdung des Kalks im gesunden und kranken Organismus; vón Dr. Schetelig.—The Carisbrooke Magazine, Jan.—Monthly Homœopathic Review, Jan.—The Choice of Food; by D. E. Flinn, L.K.Q.C.P.I.—Why the Teeth Decay, and how to Prevent it; by H. C. Quinby.—Errors in the Diagnosis of Eye Disease; by Dr. S. Theobald, Baltimore.—Dental Education; by W. B. Macleod, L.D.S. Edin.—Anales del Circulo Medico Argentino.—The Examination of the Pulse, including a Description of the Sphygmograph; by Dr. Byrom Bramwell. (Maclachlan & Stewart.)—Westminster Review, Jan.—The Day Nursery and Créche-Guardian School.—Etiology of Infantile Summer Diarrhœa; by Dr. A. McCook Weir.—Illustrirte Vierteljahrsschrift der ärztlichen Polytechnik.—Rocky Mountain Health Resorts; by Dr. C. Denison. Second Edit. (Houghton & Co., Boston, U.S.A.)—Therapeutic Gazette.—Contributo allo' Studio della Dismenorrea Membranosa; pel Dott. Adolfo Paggi.—Diphtheria and Bacteria; by Dr. R. R. Gregg, Buffalo, N.Y.—Victorian Review, Dec.—Practical Biopathy; by Ed. Haughton, M.D. Edin. (Wade & Co.)—Walsh's Retrospect, Jan.—Transactions of the Medical Society of the State of Pennsylvania at its Thirteenth Annual Session, held at Altoona, May, 1880.—Sunday Magazine, Feb.; Good Words, Feb. (Isbister & Co.)—Hardwicke's Science Gossip. (Bogue.)

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office oj* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ANDERSON, M. S., M.B., C.M., has been appointed House-Surgeon to the Paisley Infirmary.

BRADFORD, Dr. E. H., has been appointed Surgeon to Out-patients at the Boston City Hospital (U.S.A.), vice Dwight, resigned.

CHITTENDEN, C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Agent to the Hearts of Oak, Lee and neighbourhood; the Prince Alfred; and also to the Rose of Lee and Duke of Edinburgh Sick and Benefit Societies, vice Reginald Clarke, M.R.C.S.E. Also to the Crown, the Summerfield, and the Tabernacle.

CODNER, J., B.M. & M.S., has been appointed Medical Officer to the Corfe District of the Taunton Union.

DAVIES-COLLEY, J. N. C., M.B., M.C., F.R.C.S.E., has been appointed Surgeon to Guy's Hospital, vice Cooper Forster, resigned.

DAVISON, R., M.B., M.R.C.S.E., has been appointed Medical Officer to No. 1 District Workhouse, and Public Vaccinator of the Battle Union, vice E. Smith, L.R.C.P.L., M.R.C.S.E., resigned.

DINNEN, W. T., L.K.Q.C.P.I., M.R.C.S.E., has been elected Honorary Surgeon to the Flintshire Dispensary, Holywell.

DITCHETT, W. E., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Louth District and the Workhouse of the Louth Union, vice W. D. Ditchett, deceased.

FAGGE, C. H., M.D., F.R.C.P., has been appointed Physician to Guy's Hospital, vice Habershon, resigned.

FARMER, E. W. W., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Seamen's Infirmary and Royal Dispensary, Ramsgate.

FINLAY, D. W., M.D., C.M., M.R.C.P.L., has been appointed Lecturer on Forensic Medicine at the Middlesex Hospital School of Medicine.

FISHER, T. W., M.D., has been appointed Superintendent of the South Boston Lunatic Asylum (U.S.A.), vice Walker, resigned.

FLACK, J., L.R.C.P., M.R.C.S.E., has been appointed Medical Officer to the City of London Lying-in Hospital, for the Bethnal-green District, vice W. Owen, resigned.

GILROY, J., L.F.P. & S., L.M., has been appointed Parochial Medical Officer and Vaccinator for the Parish of Middleborough, Dumfriesshire, vice G. R. Underwood, M.B., resigned.

HIRONS, G. M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed an Honorary Surgeon to the Bournemouth General Dispensary.

LOVE, A. E. B., M.R.C.S.E., L.S.A.L., has been appointed an Honorary Surgeon to the Bournemouth General Dispensary.

LUDWIG, G., M.D., M.R.C.P., has been elected Honorary Assistant-Physician to the German Hospital, Dalston.

NAPIER, J., F.C.S., has been appointed Public Analyst for the Borough of Sudbury. £5 5*s*. per annum and fees.

OXLEY, Mr. H. R., has been appointed a House-Physician at the London Hospital, vice Wolfenden, resigned.

ROBERTS, R., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer to the Llanfairtalhaiarn District of the St. Asaph Union.

ROUÉ, W. B., M.B., C.M., has been appointed one of the Visiting Physicians to the Bristol Hospital for Sick Children and Women.

STOKES, A. W., F.C.S., has been appointed Public Analyst for the Parish of St. Matthew, Bethnal-green, vice Tidy, resigned.

SWABY-SMITH, C., M.R.C.P.Ed., M.R.C.S.E., has been appointed by the Director-General A.M.D. Medical Officer in Charge of H.M. Troops at Seaforth Battery.

TICEHURST, A. R., M.R.C.S.E., L.S.A.L., has been reappointed Surgeon to the Children's Convalescent Home, St. Leonards-on-Sea.

TOWNLEY, A. T., L.F.P.S.G., has been appointed Medical Officer of Health for the Oswaldtwistle Urban Sanitary District, for one year, vice Booth, deceased.

WILSON, R. J., F.R.C.P.Ed., M.R.C.S.E., has been reappointed Physician to the Children's Convalescent Home, St. Leonards-on-Sea.

Births, Marriages, and Deaths.

BIRTHS.

APPLEYARD.—On the 30th October, at Berriedale Cottage, Longford, Tasmania, the wife of James Appleyard, J.P., M.R.C.S.E., & L.S.A.L., of a son.

BODY.—On the 13th inst., at Crediton, Devon, the wife of H. Marten Body, M.R.C.S.E., of a daughter.

CAMPBELL.—On the 20th inst., the wife of William Campbell, L.R.C.S.Ed., of Wellington-square, Hastings, of a son

COLLINS.—On the 22nd inst., at St. Austell, Cornwall, the wife of Walter C. Grosett Collins, M.D., of a daughter.

ELLIOT.—At Cliffe House, Ruyton Eleven Towns, Salop, the wife of Henry F. Elliott, F.R.C.S.E., of a son.

FRANCIS.—On the 22nd inst., at Bourton, Dorsetshire, the wife of George P. Francis, Surgeon, of a son.

GRABHAM.—On the 18th inst., at Madeira, the wife of Michael C. Grabham, M.D., F.R.C.P., of a daughter.

MYRTLE.—On the 19th inst., at Harrogate, the wife of A. S. Myrtle, M.D., of a son.

RICE.—On the 12th inst., at Swift's Hospital for the Insane, Dublin, the wife of William Rice, F.R.C.S., Medical Superintendent, of a son.

SANKEY.—On the 14th inst., at Sandywell-park, Gloucestershire, the wife of Arthur O. Sankey, Esq., of a son.

MARRIAGES.

BATTISS—FRANCKEISS.—On the 11th inst., at St. Mary's, Kingston, W. S. Battiss, M.R.C.S.E., to Laura F. Franckeiss.

DANIELL—KIRKMANN.—On the 19th inst., at St. Mark's, Kennington, Herbert E. Daniell, M.B., of Strood, Kent, to Edith, youngest daughter of the late W. Kirkmann, Esq.

HUTCHINSON—HOOD.—Oh the 20th inst., at Christ Church, High Harrogate, by the Very Rev. Canon Gibbon, M.A., Vicar of the Parish, S. J. Hutchinson, Esq., of Brook-street, Grosvenor-square, London, and Acton, Middlesex (son of the late Samuel Hutchinson, Esq., of Manchester), to Jeannie, youngest daughter of G. Hood, Esq., of Grosvenor Villas, Harrogate.

DEATHS.

CLIFTON.—On the 21st inst., at his residence, Cross-street, Islington, Nathaniel Henry Clifton, F.R.C.S.E., aged 63.

GREGOR.—On the 17th inst., at Institution-road, Elgin, Robert Gregor, M.D., aged 69.

HARLAND.—On the 20th inst., at Chillingworth House, Tunbridge Wells, Sarah Frances Julia, wife of Henry Harland, M.D., formerly of Mayfield and Wadhurst, aged 45.

WOOD.—On the 25th inst., at his residence, Darnaway-street, Edinburgh, suddenly, Andrew Wood, M.D., F.R.C.S.Ed.

WRIGHT.—On the 19th inst., at 128, Walworth-road, of acute laryngitis, Arabella Hutfield, the beloved wife of Morden Wright, M.R.C.S.E., L.S.A.L.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Jan. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Brunton, "On a Case of Gunshot Wound of the Brain of twenty-nine years' standing (the specimen will be shown)."—Mr. Edmund Owen will exhibit three Children who have recovered from Abscess in the Knee-joint after simple free drainage and rest.—Mr. Francis Mason will show (1) the specimen of Disease of the Testicle, taken from the patient brought before the Society in November last. (2) The patient shown at this Society in 1875 with Tumour of the Palate. (3) A Case of Removal of Upper Jaw five years after the operation.

Tuesday, Feb. 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Case of Strangulated Hernia; Ruptured Aorta; Three Cases of Recurrent Multiple Sarcoma; Localised Scleroderma (living specimen); Congenital Truncation of Forearm; Unilateral Hypertrophy of Head; Drawings of Localised Scleroderma; Sacral Tumour containing Fœtal Structures; Case of Abscess of the Liver; Case of Chloasma.

Wednesday, Feb. 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

EPIDEMIOLOGICAL SOCIETY.—8 P.M. Dr. Squire, "On Instructions for Vaccine Inoculation."—Surgeon-General C. A. Gordon, "On certain Considerations regarding Cholera and Fever, more especially with reference to India and China."

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Annual Meeting; Election of Officers and Council, President's Address, and other communications.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. Stephen Bourne, "On Trade Prospects."

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Thursday, Feb. 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Mr. Francis Hueffer, "On the Troubadours."

HARVEIAN SOCIETY.—8½ P.M. Dr. Hughlings Jackson, "On a Case of Temporary Hemiplegia after Localised Convulsion."—Dr. Fletcher Beach, "On Types of Imbecility."

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC. — 5 P.M. Dr. Ramskill, "On the Treatment of some Forms of Epilepsy."

Friday, Feb. 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Dr. A. Wilson, "On Colonial Organisms."

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Saturday, Feb. 5.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. S. Colvin, "On the Amazons."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 27th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 21	30·22	N.E.	24	..	..	30	19	..	Foggy
„ 22	30·30	N.W.	19	..	..	35	14	..	Overcast
„ 23	30·32	N.W.	35	33	..	36	21	..	Overcast
„ 24	30·27	E.	29	..	..	30	25	..	Foggy
„ 25	30·04	E.	26	..	..	31	22	..	Overcast
„ 26	29·76	E.	22	..	..	29	16	..	Overcast
„ 27	29·30	S.E.	39	39	..	43	29	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

FROST, FLOODS, FOGS; SNOWS, SEWERS AND SANITATION.

OUR recent experiences in regard to the weather are happily altogether exceptional. The long-continued frost, with the complication of fogs, has exercised a most depressing effect on most persons, although the infliction is not without its collateral good influences on the few who, being in excellent health or enjoying the mental disposition distinguished by Charles Dickens in the character of Mark Tapley, are able to respond to the provocation of external cold by the acceleration of their internal heat-production. Moreover it is believed by good authorities that the early snow and frost, if not unduly prolonged, will act advantageously on the process of seed germination and vegetation generally, so that hereafter the crops may be larger and better for the repression they are now suffering. It would be well if we could hope that the cold would exercise a salutary effect on the public health by arresting the progress of contagious and infectious diseases. Unhappily, however, there is reason to fear the huddling together for warmth and crowding in-doors, certain to ensue among the poor in consequence of the intense cold, will concentrate, and thereby intensify, the virulence of "catching" diseases to an extent which must more than antagonise any beneficent action which the low temperature might otherwise exert on the morbific germs. Moreover it is always necessary to remember that if cold to some extent checks the activity of disease, it in a more than corresponding degree lowers the vitality of the organism, and thus diminishes the natural safeguards against its invasion. The floods which have occurred—to the lasting disgrace of our domestic government—have caused and will certainly yet entail much grievous suffering and manifold maladies. The snow in our streets is not simply an obstacle to traffic, but a source of danger to health. Either intentionally or in the process of an occasional thaw it will find its way into the sewers, and the sewer gas can scarcely fail to be driven back into the houses. How much better it would be to provide the country with a representative Minister of "public health" in Parliament than to allow these matters of detail to be dealt with piece-meal? The country might be saved considerable expense and the population serious disease if only the interests of "public health" were gathered into a focus and recognised at head-quarters by a Government careful of home affairs and the welfare of the people not less than of those questions which occupy statesmen more than they benefit the people at large.

MEDICAL PRACTITIONERS IN QUEBEC.

M.R.C.S. ENG., L.S.A.—There are, we believe, about a thousand licensed medical practitioners in the province of Quebec, which is in the proportion of nearly one to every hundred of its population.

Examinations at the Royal College of Surgeons.

E first meeting for the present session of the Court of Examiners of the Royal College of Surgeons for the final examination of candidates for the Diploma of Membership was held on the 14th inst., when 164 candidates presented themselves, to whom the following questions on Surgical Anatomy and the Principles and Practice of Surgery were submitted, when they were required to answer at least four (including one of the first two) out of the six questions :—

1. Describe the anatomy of the parts concerned in femoral hernia, and the steps of the operation for its relief when strangulated.
2. State the facts respecting the epiphyses of the humerus, radius, and ulna, which are important in surgical practice.
3. Describe the symptoms caused, first, by a subcutaneous rupture, and, secondly, by an open wound of a popliteal aneurism. State what treatment ought to be pursued in each case.
4. Describe the fractures of the neck of the femur and the upper third of its shaft, and point out the signs and symptoms by which they are diagnosed.
5. Under what circumstances would you recommend the removal of the eyeball? Describe the operation and the after-treatment.
6. How would you recognise uric acid in the urine? First, by the naked eye; secondly, by the microscope. State the principal conditions under which it is met with.

The following were the questions on the Principles and Practice of Medicine submitted to those candidates who had not previously btained any recognised medical licence :—

1. Whence are hydatids derived? What organs do they chiefly infest? Discuss the morbid anatomy, symptoms, and treatment of hydatids of the liver?
2. Describe the contracted granular kidney. Mention the morbid conditions under which it is especially apt to be developed; and enumerate, and, as far as you can, explain the lesions and symptoms to which it gives rise.
3. What are the indications and counter-indications for the employment of opium? State the composition and average dose of each of the following pharmacopœial preparations :—Acidum nitro-hydrochloricum dilutum, pulvis ipecacuanhæ comp., decoctum aloes comp., pil. conii comp., pil. hydrargyri subchloridi comp., and pulv. kino comp.

Sanitation in Chertsey.

ITH reference to some observations we made a fortnight ago, the *Surrey Advertiser* observes :—

"Our usually well-informed contemporary appears to be under a misapprehension in this matter. In our issue of December 25th will be found the facts as reported—the removal of the deceased (a draper's assistant) to the workhouse as a small-pox patient; the disease subsequently found to be measles, and his death on Dec. 10th, bronchitis and malignant sore-throat having set in. On Dec. 22nd the Rural Sanitary Authority held an inquiry, when none of the deceased's friends appear to have been represented, but at which a general feeling was expressed that all was right that was done. In our last issue we reported that owing to letters from the relatives of Spiers and from the Local Government Board on the matter, it was determined to ask for an inquiry to be held by the Local Government Board. This will, we trust, elicit the full facts. With reference to the closing question of THE LANCET we may remark that a 'room' in the infirmary has been set aside for small-pox patients. As to why an infectious disease hospital is not constructed apart from the workhouse, that is a question which many other places besides Chertsey would like to have answered."

M. D. must refer to the advertising columns of our Students' Number.

Student.—Dunglison's, Fowler's, or Mayne's.

r. Redwood (Rhymney).—The reports can be obtained of the medical officer of health of the district.

r. Alfred Philipps.—We cannot call to mind the paper named. Probably the subject mentioned was referred to incidentally only.

"Gratitude for Vaccination."

R. CHALMERS MORTON, of Northchurch, writes to *The Times*, as follows :—

"SIR,—Will you allow me once more to name Stephen Jenner in your columns? Ten years ago you let me tell his story (see *The Times*, July 27th, 1871), and thanks to the contributions then and since received, a monthly payment of £2 has ever since doubled his slender income, and saved his poor circumstances from becoming intolerable. Except that three liberal annual contributors of £5 continue to stand by it, that fund is for the present exhausted. I submit that it ought to be replenished. Mr. Stephen Jenner, now in his eighty-eighth year, living at Heathfield, near Berkeley, is the grandson of Dr. Edward Jenner's younger brother. He was in his childhood himself the subject of many of the test experiments by which his great uncle discovered and established the safety conferred by vaccination. In his youth he was his uncle's favourite associate. He has led a blameless life. It is not necessary that the explanation of his poverty should be given here. It can be given to anyone who asks for it. But it is a pitiable thing that one so nearly related to so great a human benefactor should be dependent in his extreme old age on a gift of 10*s*. a week to save him from destitution."

Mr. G. Smith of Coalville.

THE *House and Home* for Jan. 22nd contains a good portrait and an appreciative though brief *résumé* of the labours of Mr. George Smith of Coalville, whose exertions on behalf of the canal population we have had frequent occasion to notice. Mr. Smith's philanthropic efforts have been extended to the brickmakers and the gipsies, whose habits and surroundings, physical and moral, it has been his life work to endeavour to ameliorate and improve.

THE APPLICATION OF WARMTH TO THE HEAD.

To the Editor of THE LANCET.

SIR,—In many cases of partial or complete suspended animation, especially those connected with cold, valvular defects, and stillbirth, I would suggest the trial of the application of warmth to the head.

I am, Sir, your obedient servant,
CHARLES YOUNG, Surgeon, &c.

Chilton-Polden, Jan. 18th, 1881.

THE TERMS OF ATTENDANCE ON ODDFELLOWS.

To the Editor of THE LANCET.

SIR,—In reply to the letter of Mr. Lys in your last number, permit me to state that the Loyal Good Intent Lodge (No. 6264) pays its medical officer five shillings a year for each member residing within three miles of the lodge-house, "and in no case will sick pay be granted to those whose sickness is brought on by their own misconduct"—extract from rules.

I am, Sir, yours faithfully,
Watford, Jan. 26th, 1881. F. H. WILSON ILES.

Dr. J. H. Battye.—Silicon lozenges can, we believe, be obtained through any druggist.

Mr. W. A. Dingle.—If our correspondent will refer to Guy and Ferrier's Forensic Medicine (p. 529), he will find among *occasional* symptoms of opium poisoning "delirium, convulsions (most common in children), sometimes alternating with stupor, &c." So that Mr. Irving, in order to personate the chief part of a tragedy, must have descended to imitating *occasional symptoms, most common in children.*

G. A.—We have no recollection of the paper.

WANTED—A DIAGNOSIS.

To the Editor of THE LANCET.

SIR,—I wish to report a case I attended some time since, which I think may be of interest to the profession, and on which I would like the opinion of some of my medical brethren as to what was the disease and what the cause of it. On August 11th I was called to see a little girl, aged four years, named A. C——. I found her sitting on her grandmother's knee, face flushed, and extremely fretful, so that it was very difficult to examine her. I found on inquiry, however, that she complained of great pain in her head, and some in her back and limbs; bowels were constipated; tongue coated of a yellowish colour; breath very offensive. I diagnosed worms and bilious fever. I prescribed santonine, calomel, and quinine in small doses. On the 14th I called to see the child again, who appeared much better—so much so that I considered it unnecessary to return unless sent for. On the 15th I inquired after the child, and was told that she was still better. On the evening of the 16th I was sent for in great haste, with the message that the child was dying. I went as soon as possible, and found it lying on its bed. Breathing easy; temperature 101°; pupils of eyes dilated and insensible to light; quite unconscious; head hot, extremities comfortable. From what I could learn it had had tetanic spasms, and since had fallen into this comatose condition. I prescribed cold to head, sinapisms to feet and legs, quarter of a grain of calomel every two hours, and a mixture of bromide and iodide of potassium.—17th: Still in same condition. Put a blister at the back of the neck, and gave a dose of castor oil and turpentine; afterwards continued treatment as before.—18th: Child completely roused up, and wanted to eat. She partook during the day plentifully of crackers and milk and a very little chicken broth. Bowels had been moved several times, and thirteen worms had been expelled by them, and one vomited. On the evening of the 18th and morning of the 19th she suffered from tetanic spasms again, relapsing into a comatose condition.—20th: Little change, but in the evening swallowing appeared difficult for the first time, and her friends gave no medicine. Another doctor was sent for, without my knowledge, on the 21st, and called the case one of cerebro-spinal fever. He found the child, who I saw shortly after, with a temperature of 103°, pupils still dilated, and the right eye drawn inwards, looking towards the nose. He prescribed a mixture containing ten drops of tincture of belladonna and five grains of bromide of potassium every two hours, also hot boiled corn to spine. On the 22nd I met and told him that I thought the cerebro-spinal symptoms which existed were due to reflex action caused from irritation set up by ascarides, and I finally got him to tell the friends that the state of matters then existing might not be spinal fever proper (as stated by him on the previous day, when I was not present), but might be, using his words, "caused by cholera infantum, fever and ague, or worms, &c." The child died the same evening. Now, what I wish to know is, was this a case of spinal fever? From the history I think not, but that worms were the exciting cause of the cerebro-spinal trouble. Apologising for encroaching on your valuable time and space, I am, Sir, yours respectfully, WATSON L. KING, M.D., &c.

Ohio, Oct. 25th, 1880.

THE CORONERS' ACT OF ONTARIO.

THIS measure, passed at the last session of the Ontario Parliament, appears to have given rise to much questioning and dissatisfaction in the Canadian mind. One feature at least in the new Act certainly seems remarkable. It is enacted (we quote from the *Canada Lancet*) that a coroner must, before issuing his warrant, make a declaration in writing and on oath before a magistrate that he believes, from information received, that the deceased did not die from natural causes, but from negligence or foul play, and that therefore an inquest is required. This is surely a cumbrous and vexatious method of putting a check on any tendency that may be exhibited to hold unnecessary inquests.

PROTECTION AGAINST UNJUST OBSTETRIC JUDGMENTS IN COUNTY COURTS.

To the Editor of THE LANCET.

SIR,—A case has just been tried in a county court in which I figured as plaintiff in respect of a midwifery engagement, a verbal agreement only, without witnesses, constituting the basis of the action, and it is in consequence of an adverse verdict that I deem it my duty to lay the particulars before you and your numerous readers, and to ask what course in respect of these engagements ought medical men to pursue in order to protect themselves against the repudiation, partial or complete, of a verbal midwifery engagement by the patient or her friends?

And now as to my own case. I was requested by an artisan earning good wages to attend his wife, and as the distance from my residence to his was more than a mile and a half, I informed him that my fee would be two guineas, which at the time he agreed to pay, but afterwards, the case being over, he paid me one guinea, repudiating his liability for the other, together with a further charge of ten shillings and sixpence for four bottles of quinine mixture which it became necessary to prescribe subsequently. Here let me remark that I paid eight visits to the patient during the following fortnight, for which no charge was made.

As to the case itself, it was one of placenta prævia in a primpara, there being, in addition, adhesion of the placenta, and, to add to its perils, she was weak from a previous illness. I was with her the whole night, and, to complete the history, both mother and child did well. I stated to the judge that the case was beset with difficulties and perils from the commencement to the end, informing him also as to the time during which I was engaged with the patient, and to strengthen my position as opposed to the statement of the husband, who made the agreement with me, and swore that I said my fee would be one guinea, and not two, I handed to the judge my visiting-list, in which I had at the time entered the engagement and fee specified—viz., two guineas.

His Honour objected to medicine being charged for at all in connexion with midwifery cases, commented upon the easy manner in which some cases come over, as a set off, I suppose, against my remarks upon the serious character of the case in connexion with which he was to deliver judgment; and, notwithstanding my explicit declaration to the effect that I stated to the husband when the engagement was made that, "Owing to the great distance, my fee would be two guineas," and the husband's reply, "that he should like his wife to have the best attendance and advice, and that he would rather I attended her than anyone else," his Honour gave a verdict for the defendant, against which I protested, without avail.

And now, Sir, I will leave the matter in your hands and in those of my professional brethren, and ask how are we to protect our interests and obtain justice if such a verdict is to be looked upon in future as a precedent.—I am, Sir, your obedient servant, LÆSUS.

Nov. 18th, 1880.

P.S.—I enclose my card, and ought, I think, to add that I lost the major portion of a day in seeking for justice, without finding it.

*** This letter speaks for itself as a caution to general practitioners.—ED. L.

D. M. R. may consult Mr. Lawson Tait's recent pamphlet on the subject. We have no doubt that a note addressed by our correspondent to that gentleman (Birmingham) would elicit the information he desires.

A Would-be Emigrant had better apply to Moore and Co., St. Mary-axe.

ERRATA.—In the notice of the *Quarterly Journal of Microscopical Science* last week, in the fourth line, for "Welwilischia mirabilis," read *Welwitschia* mirabilis. In the tenth line, for "Endoderm of Quinocodium, read *Eododerm Limnocodium.*

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Wharton Jones, London; Dr. Gristock, London; Dr. G. W. Balfour, Edinburgh; Mr. Trenchard, Taunton; Mr. J. M. Wilson, Leeds; Mr. Ransford, Liverpool; Mr. Chittenden; Mr. C. Young, Chilton-Polden; Dr. Weaver, Longton; Dr. Eastwood, Darlington; Mr. Cape, Totnes; Dr. E. B. Thomson, Plymouth; Dr. Bramwell, Edinburgh; Mr. Grattan, Cork; Messrs. Stidder and Co.; Dr. Walker, Hanley; Mr. B. Fenwick, London; Mr. Berry, Wigan; Dr. Cameron, Epworth; Dr. H. Snow, London; Professor Cleland, Glasgow; Messrs. Bates, Hendy, and Co.; Mr. Rayne, Lancaster; Mr. Palmer, Solihull; Mr. Startin, London; Mr. A. Duncan, Glasgow; Mr. F. Mason, Lee; Mr. Owthwaite, London; Mr. Dingle, London; Mr. F. T. Coates, London; Dr. R. Lee, London; Dr. Barnardo; Mr. Austin, London; Dr. Ramskill, London; Dr. E. T. Tibbits, Bradford; Mr. Coplestone, Chester; Dr. Battye, London; Mr. A. Price, London; Dr. Chapman, Hereford; Mr. Grosholz, Aberdovery; Mr. C. H. Robinson, Dublin; Mr. Duncan, Glasgow; Rev. A. Whettall, Banbury; Messrs. Kirby and Co.; Mr. O. Vincent, London; Mr. Arrowsmith, Bristol; Mr. Spence, Glasgow; Mr. Appleyard, Tasmania; Mrs. Pooley, Beaumaris; Dr. Drake, West Ham; Mr. Dunscombe, London; Mr. Iles, Watford; Mr. Eaton, Grantham; Mr. Fox, Sydney; Mr. J. K. Thornton, London; Mr. R. A. Hart, London; Mr. Macmillan, Nottingham; Mr. Philipps, London; G. A.; F.R.C.S.E. (Exam.); Surgeon, A.M.D.; M.D., F.R.C.S.; A.M.D.; L.R.C.P. Edin.; M.B.; F.R.C.S.; Læsus; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Jones, Towyn; Dr. Stephenson, Shaldon; Mr. Julian, St. Columbe; Mr. Van Praagh, London; Mr. Beaumon, Newton-le-Willows; Mr. Napier, Gosshill; Mr. Eschwege, London; Mr. Leaver, Stratford-on-Avon; Mr. Brockelbank, Islington; Dr. Gillespie, London; Mr. Chadwick, Islington; Dr. Blytheman, Swinton; Mr. Jones, St. Leonards; Dr. McLintock, Church Stretton; Dr. Dickson, Buxton; Dr. Moore, Kinton; Mr. R. White, Norwich; Dr. Adamson, Hetton; Mr. White, London; Dr. Drysdale, London; Mr. Ewart, Tomintoul; Mr. Fradelle, London; Mr. Hargreaves, Armley; Mr. Steadman, Godalming; Mr. Hough, Philadelphia; Mr. Earp, Nottingham; Mrs. Howlett, Margate; Mr. Francis, Bourton; Mr. Evans, Bridport; Mr. Willey, Birmingham; Mr. Walker, Fulbourne; Mr. Brett, Leicester; Messrs. Lee and Nightingale, Liverpool; Mr. Bebb; Mr. Johnson; G. S. G.; Sporocton; Exclibur; Delta; Alpha, Great Yarmouth; A. B., Pimlico; A.; E. T. F., Bristol; A. P. S., Eastbourne; The Secretary, Bristol Hospital; Surgeon; R. L.; C. E. G.; Curate, Cleobury Mortimer; G. W. R., New Swindon; F. F., Brighton; D. C. A., Huddersfield; Sperans; D. W.; A. B. C.; Doctor, Manchester; Teign; R. C. B.; M.D., York; &c., &c.

British Workman, Science, La Union de la Ciencias Médicus, Hampshire Post, Stratford-upon-Avon Herald, Royal Cornwall Gazette, Sunday Figaro, Gaceta Médica Catalana, House and Home, Hampshire Telegraph, Retford and Gainsborough Times, La Escuela de Medicina, Hastings and St. Leonards Observer, Warehousemen and Drapers' Trade Journal, Journal of Applied Science, Glasgow Herald, Dumfriesshire and Galloway Herald, Scotsman, Civil and Military Gazette, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Inaugural Address
ON
THE CATGUT LIGATURE.

Delivered before the Clinical Society of London,
January 28th, 1881,

By JOSEPH LISTER, F.R.S.,
PRESIDENT OF THE SOCIETY.

Gentlemen,—In thanking you for the great honour which you have conferred upon me by my election to this chair, I do so with a peculiar feeling of gratitude, because I am well aware that my personal share in the proceedings of the Society has not been such as to entitle me to hope for such a distinction at your hands. I can only strive to discharge to the best of my ability the important duties which your kindness has imposed. In considering the choice of a subject for the inaugural address which is expected from your President, I have felt precluded from presenting a summary of the labours of the Society in the past, or from tendering advice as to its conduct in the future, and after consultation with some influential members of the Council, I have decided to bring before you this evening a special subject which will, I trust, be thought not unworthy of the occasion, inasmuch as, while it is still in an unsettled or transitional state, it is full of interest for every practical surgeon, and at the same time in some of its aspects well deserves the attention of the pathologist and the physician—I refer to the catgut ligature. In adopting this course I feel it needful to crave your indulgence; for the subject is a large one, and in order to do it anything like justice I shall have to trespass for a considerable time on your attention.

The catgut ligature has in some respects exceeded my original hopes. I feared that its advantages would be limited to wounds in which putrefaction was avoided, and that if septic suppuration took place in a wound in which it was employed for securing the vessels, the ligatures would sooner or later come away like little sloughs. Such, however, has not proved to be the case. Whatever be the progress of the wound, we never see anything of the catgut, so that even surgeons who have not adopted strict antiseptic treatment have been led to employ the new material in ordinary wounds. Under other circumstances, however, the catgut has often led to disappointment. We hear of cases in which the Cæsarean section has been performed, and all has gone on well until the knots of the catgut with which the uterine wound was secured have given way, and the patient's death has been the result. Again, in ligature of large arterial trunks in their continuity several surgeons have met with bitter disappointment, the case ending in disaster from secondary hæmorrhage, or the treatment proving abortive through the channel of the vessel becoming opened up again at the site of ligature. Hence many surgeons have been induced to return to silk, even though using strict antiseptic treatment; rendering the silk aseptic by steeping it in a suitable lotion, and cutting the ends short. This practice has, however, by no means proved uniformly successful. As an instance of unsatisfactory result I may mention a case recorded by Mr. Clutton in the last volume of our Transactions. He tied the external iliac artery under strict antiseptic precautions, and the wound healed within a week; but, as I learned from a letter which he was good enough to send me at the time, "six weeks after the operation a little blister formed, and fluid began to escape, forming a small scab, and in three months the loop which had been placed around the artery came away." Such a result was not at all surprising to me, seeing that what induced me to try the animal ligature was the discovery of a small abscess about the remains of a partially absorbed silk thread, which I had applied in the same manner as Mr. Clutton, and, as it happened, to the same artery.[1] It can hardly be doubted that suppuration proceeding from the immediate seat of the ligature must be a source of danger. As an illustration of the mischief which a ligature of ordinary material may do, I may mention a case of goitre in a young woman on whom I operated on Jan. 28th of last year. It was of moderate dimensions, but the effect on the respiration was so considerable, that I determined to remove it, following Dr. Patrick Heron Watson's plan of preliminary deligation of the thyroid vessels circumferentially to the tumour. If this is effectually done, the operation is bloodless—so that as the laryngoscope applied by Dr. Felix Sémon, who had recommended the case to my care, showed that the anterior wall of the trachea was pressed back considerably by the growth, I adopted a measure which I believe would in all cases of the removal of the thyroid prove advantageous—namely, I divided the tumour in the first instance in the middle line, so as in the event of adhesion to the trachea to be able to remove the two halves of the growth at leisure, dissecting it off from the trachea more or less completely as might be desired, leaving some portions at the adherent parts, so as to avoid the deadly risk of perforation of the air-passage. But in order that the circumferential ligature of the thyroid vessels may be secure, it is essential that the material should be very strong, so that the tissues round about the tumour, including the vessels, may be thoroughly tightened up. I possessed no catgut which I felt was strong enough to bear the full strength of my hands, and therefore I was compelled to use a hempen ligature, after, of course, carefully rendering it aseptic by means of the carbolic lotion. Six of these hempen ligatures were used, three on each side. During the first eight days everything went on in a typical fashion according to the antiseptic method. There was a merely serous effusion rapidly diminishing, and we looked to the wound being healed in a few days more. But on the ninth day there was seen to be a little something of purulence mingled with the discharge; and the pus afterwards became thicker, though always in small quantity; a little could be pressed out from each side, and in a month one of the hempen ligatures made its escape. Five days later four others of the hempen threads came away, altogether unaltered, as they may be seen on one of the cards on the table where I have exhibited them. I submitted them to careful examination. They had a sour odour, and, applied to litmus paper, gave an acid reaction—that is to say, the natural alkaline condition of the blood serum had been changed to acidity by some peculiar species of fermentation. On examining them with the microscope I found the interstices of the threads of the hemp loaded with a little organism, to which I believe I happened to be the first to direct attention as to its mode of growth,[2] and to which I gave the name of Granuligera, occurring in groups of two, three, four, and so forth, as distinguished from the chains of ordinary bacteria, and of which one form at least has been since shown by Mr. Cheyne to occur very frequently in cases treated antiseptically without any interference with aseptic progress. I found that the interstices of the threads of the hemp were loaded with these little micrococci. It so happens I have had the opportunity within the last few days of obtaining a sample of these micrococci, thanks to Mr. Cheyne's kindness. He brought this flask of a pure and perfectly transparent infusion of meat to a case which I had operated on a fortnight before by excision of the ankle. The skin had been unbroken, so that I was able to operate antiseptically, and the case pursued a perfectly typical course. The wounds, which were left gaping at the time of the operation, were filled with blood-clot, which remained unaltered in appearance, though undoubtedly organised by that time, more or less. A little piece of the blood-clot from one of these wounds was introduced with careful antiseptic precautions into the flask of clear fluid, and you see it is now turbid; and there is under the microscope on the table a specimen of the little organism to which the turbidity is due. But though, under ordinary circumstances, these micrococci may be present, as Mr. Cheyne has abundantly shown, and as the excision of the ankle I have just referred to illustrates, without causing any evil, yet there may be circumstances in which they may prove mischievous, and the case of goitre which I have been relating appears to have been one of these. The micrococci developing for a protracted period in the interstices of the hempen ligature produced an acid fermentation of the serum in its most aggravated form. The acid serum became a cause of irritation, and thus the ligatures, which otherwise, being unirritating in their own substance, might have become encapsuled, and in due time absorbed, became causes of suppuration. One of the six ligatures still remained unaccounted for. In due time we sent the patient home with a small sinus remaining, a little pus always discharging from it, but it was not until the middle of September that the last ligature came away altogether unaltered. Now, gentlemen, there is no doubt whatever that if I had had catgut which I could have trusted for the operation, the catgut ligatures would have been disposed of within two or three weeks, and the healing, instead of requiring eight months, would probably have been completed in a fortnight. Here, then, we have an illustration of the great disadvantage which may arise even under antiseptic treatment from the use of the ordinary forms of ligature.

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[1] See Observations on Ligature of Arteries on the Antiseptic System, The Lancet, April 3rd, 1869.

[2] See Transactions of the Royal Society of Edinburgh, vol. xxvii., 1875.

Animal ligatures of another kind have been provided by Mr. Barwell in order to remove these difficulties—namely, strips of the mingled yellow elastic and unstriped muscular tissues which constitute the arterial wall, obtained by spirally cutting the aorta of one of the larger animals. But though fully admitting the efficiency of these ligatures in his hands, I am given to understand that their form and size render them by no means very convenient, and, independently of this, I cannot but feel that it is unsatisfactory, if it can be avoided, to have a special material for this particular object, and that it would be better if possible to have the catgut in a thoroughly reliable condition. Catgut, of which I have samples here, is to be had all over the world in abundance. It is beautifully strong and smooth; it is prepared of various sizes, admirably adapted for all the purposes of the surgeon, and is extremely cheap. Wholesale it is sold at 12*s*. per gross, that is to say, 1*d*. per hank. But as it comes from the maker it is entirely unfit for the purposes of the surgeon. However beautiful it is in the dry state, it becomes soft and pulpy soon after it has been placed in blood serum. In one of these glasses is a piece of unprepared catgut which was placed in warm serum this morning, from the blood of a cow, and within half an hour it was in the condition in which it is at the present time, swollen, soft, and pulpy. A knot tied upon it would hold as little or scarcely better than would one on a piece of the intestine from which the catgut is derived: an utterly unsatisfactory material, soft and slippery, the knot not holding in the least. It is essential in order to fit the catgut for the purposes of the surgeon that it be altered in its physical constitution so as to be no longer liable to this softening effect by the serum of the blood. It is a remarkable circumstance that the blood serum softens catgut more than even water does. It might have been expected *à priori* that a solution of a colloidal substance like albumen would have been much less disposed than water to permeate and soften an animal tissue like catgut; but it is otherwise, and therefore we cannot test the trustworthiness of catgut by steeping it in warm water, as I formerly used to do. In order to be sure that a given specimen of catgut will answer the purpose in so far as the knot is concerned, that it shall not slip, it is needful that we steep the catgut in blood serum, a somewhat troublesome process, as it involves sending to a slaughter-house for blood.

The method of preparing catgut which I published long ago answers the purpose very well even for the ligature of arteries in their continuity, provided certain conditions in its preparation be complied with. Such at least is my own experience. This, indeed, has not been very extensive, but it has been sufficient to deserve consideration. I have tied altogether nine large arteries in their continuity with prepared catgut. Of these one was a case of ligature of the carotid in a young woman aged twenty-two, with a pulsating tumour below the angle of the jaw, in the situation of a carotid aneurism and with all the symptoms of that disease. The application of the ligature reduced somewhat the pulsation and the dimensions of the swelling, but the further cure which we hoped for did not take place. She left the hospital with a pulsating tumour, and I heard only yesterday from the medical man under whose care she is in Scotland that this tumour, for which I tied the carotid artery in 1874, still exists as a pulsating swelling, if anything rather on the increase. But though as regards the cure of the disease the ligature was unsatisfactory, nothing could be more beautiful in its effect as respects the healing of the wound without suppuration, and permanent obstruction of the artery at the seat of ligature.

A case of traumatic arterio-venous aneurism of the temporal artery may be mentioned in the category, partly because the greatly dilated condition which the naturally small artery had assumed brought it up towards the dimensions of a large trunk, and partly because the concurrent ligature of the largely dilated veins would, without antiseptic means, have been justly regarded as of considerable danger. The others were all cases of ligature of the femoral. Six were popliteal aneurisms, four of which presented nothing deserving of special remark. One was a diffuse aneurism extending up to the junction of the lower and middle thirds of the thigh. One was an enormous diffuse aneurism reaching up nearly to Poupart's ligament. It was necessary for me to tie the femoral artery about the situation of the ordinary origin of the profunda, and even there my incision opened into the aneurismal clots. The last was a case of a large arterio-venous aneurism of the upper part of the femoral, of idiopathic origin. This case was of such special interest that I hope on a future occasion to make it the subject of a paper before this Society. In all these cases except two catgut prepared by the old method was employed, and in all these nine cases the result was satisfactory, and recovery perfect, except as regards the poor young woman who has still the pulsating tumour in her neck.

As regards the mode of applying the ligature, I have always used a single reef knot, with short-cut ends, tying it sufficiently tightly to cause the giving way of the internal and middle coats. This latter point is not, indeed, essential; as I long ago surmised, and as Mr. Barwell's experience has demonstrated. But if, as in the case of catgut, the form of the ligature admits of it, the injury done to the deeper tunics is, I believe, advantageous, by leading to a salutary corroborative process of repair.

Why, it may naturally be asked, has my own experience been more satisfactory with the catgut ligature than that of many other surgeons? There are, I believe, two reasons for this: one is, that I have never ventured to tie an artery of considerable size in its continuity without having taken pains to ascertain that the catgut was of thoroughly trustworthy material; and the other reason is, that I have adopted strict antiseptic means of treatment, not only during the earlier stages of the case, but to the last. So long as any part of the wound remains unhealed, antiseptic treatment of the strictest kind ought, I believe, to be employed. Even though the sore may seem to be superficial, there may still exist a sinus leading down to the site of the ligature, and if ordinary treatment, as distinguished from antiseptic, be employed, down this sinus the septic process may advance and invade the ligature, and, inducing unhealthy suppuration and ulceration, may lead at last to disaster from hæmorrhage. I know that this has actually taken place.

But although the catgut prepared after the old method answers very well if it be of proper quality, there is this great objection to this method that it requires a long time in order to produce the requisite quality. At least two months are needed to make the ligature at all trustworthy. It is better at the end of six months, and still better at the end of a year. I possess catgut prepared in this way twelve years old. I have brought here a sample of such catgut which has been steeping in warm blood serum since this morning, and it will be seen that it remains translucent and is comparatively firm, instead of being opaque and soft like the unprepared catgut in the same serum.

Now, the length of time that the present method requires is a very serious objection. It makes the surgeon who has not prepared the catgut for himself, and kept it for a long time, at the mercy of the person who supplies it; and the person who supplies it not being aware of the enormous importance of the question of time, if he happens to have run out of that which has been long prepared, will sell what has been only a short time in the preparing liquid, and is in consequence altogether untrustworthy. A case illustrating this point occurred last year in my practice at King's College Hospital. A patient was admitted who had met with a severe wound on the ulnar side of the forearm, at the anterior aspect. The ulnar artery had been divided. This had been secured by my house-surgeon. He had also tied with catgut the corresponding ends of the various tendons that had been severed. But when I saw the patient next day I found that he could not feel with his little finger and the adjacent side of the ring finger, and therefore it was evident that his ulnar nerve also had been divided, and my house-surgeon had not thought of attending to the ulnar nerve. I therefore cut the stitches in the skin and proceeded to explore the deeper parts of the wound, in order to find the ends of the divided nerve, and tie them also together with catgut, and I found that all the catgut sutures with which the ends of the several tendons had been tied together were lying absolutely loose. The knots had slipped within the twenty-four hours, and yet this catgut had been supplied by one of our ordinary instrument-makers. He had sent us what had not been sufficiently long prepared. I took care to use proper catgut for the ulnar nerve; and the patient left the hospital with restored sensation in the fingers.

The length of time that it requires is, therefore, an exceedingly serious objection to the present method of preparation; and one great object which I have had in view to a series of experiments on this subject with a view to improving the preparation of the catgut ligature has been to devise a means, if possible, of preparation within a short time. These experiments—it may seem almost ludicrous to say so—have occupied two years of my leisure time in the past, some time ago, and after being interrupted by an accidental circumstance, have been continued in a more desultory manner since; but at length I have felt myself justified in bringing before you a new mode of preparation by which the catgut can be prepared in a short period, and at the same time in a perfectly trustworthy condition.

But before I allude to these experiments, which I must endeavour to do in a short compass—I should weary you if I were to bring a large proportion of my facts before you, though I may say out of the hundreds of experiments I have performed on the subject I have never performed one which has not added something to my knowledge of it—before referring to these experiments I wish to say a few words as to what catgut is. Catgut, as you are doubtless all aware, is prepared from the small intestine of the sheep. The gut is treated in what seems an exceedingly rude manner for so delicate a structure. It is scraped with some blunt instrument, such as the back of a knife, over a board; and by this means, as the people express it, the dirt is scraped out. That which these people call the dirt is the exquisite and complicated structure of the intestinal mucous membrane. But while the mucous membrane is scraped out from within there is also scraped off from without the circular coat of muscular fibres. The result comes to be that the intestine is converted into a comparatively unsubstantial material, consisting of two parts or bands, one more slender than the other. When the mesentery is stripped off by the butcher, the peritoneal covering of the gut shrinks into a narrow strip; and this, with some longitudinal fibres, constitutes the more slender of the two parts to which the intestine is reduced by this process of scraping. The other part is the essential material from which the catgut is prepared, and this is neither more nor less than the submucous cellular coat of the intestine. When I first visited a catgut manufactory I was astonished to find that after this scraping process the intestine could be blown up still as a continuous tube, as you see can be done with this specimen, which has been treated in the manner I have described. This exquisitely delicate structure is a beautiful anatomical preparation of the submucous cellular tissue, though made in so rude a fashion. This coat of the intestine which, in the sheep, has this extraordinary toughness, is the material out of which the catgut is prepared. For what the manufacturer calls the "ones"—the thicker form of ordinary catgut—all that is done is to twist the entire tube by means of a wheel like a rope in a rope-walk, up to a considerable degree of tightness, and then allow it to dry. It is afterwards exposed to the fumes of burning sulphur, and for some more special purposes it is bleached by the action of potash. But the essential thing is the twisting and drying; it can be prepared without the use of sulphur, as well as without the use of potash. Some specimens which I have here are prepared by water only, without the use of any other ingredient. This exceedingly beautiful structure, as I think we must consider it, as fine as a horsehair, is prepared without any reagent whatever; nothing but the animal tissue twisted and dried. For the finer kinds the tube of the submucous coat is split up by means of razor blades more or less numerous, according to the degree of splitting required, connected with a conical piece of wood, which is pushed along the tube.

Such, then, is the material with which we have to deal. The first of the more recent experiments which I performed with reference to it was made with the view of ascertaining, if possible, what part the water played in the ingredients used for the preparation by our old method. If I steep unprepared catgut in a mixture of dry carbolic acid and oil, however long it be so steeped, although it will be, of course, abundantly aseptic, it remains utterly unfit for the purposes of the surgeon; a knot upon it would still slip in a wound. But if, instead of using carbolic acid in the crystallised state, we use carbolic acid which has been liquefied by the addition of a little water, we get in course of time a properly prepared catgut. I wished to ascertain how much water was required. The carbolic acid would enable oil to dissolve a certain amount of water; would that amount of water be sufficient which carbolic acid enables oil to dissolve? Accordingly I prepared jars of carbolic oil, some containing the full amount of water we had used hitherto, some a smaller quantity, and some none at all, and placed in them portions of the same hank of catgut. In due time I proceeded to examine the result, by taking portions of gut and putting them into warm water, and leaving them for a certain time in order to ascertain how the knots would hold. To my great surprise I found that which had been steeping in the carbolic acid and oil without any water was just as good as that which was in the carbolic acid and oil with the water. This was contrary to distinct previous experience. Reflecting on the matter, I saw that the only possible explanation was that the catgut was already, so to speak, prepared before I put it into the liquid. Now it so happened that the catgut I had used was several years old; and it turned out that mere age of the catgut prepares it: that in proportion to its age it is rendered less liable to be softened by water or by blood serum, and a knot tied upon it will hold better. And thus I had, for the first time I believe, scientific evidence of the truth of what is popularly spoken of as the "seasoning" of various articles made of animal products. I asked a person who sold violin strings if there was any result from keeping the strings a long time. He said, No; the only result he knew was that they would probably get rotten. But it so happened just about that time there came an old fiddler to amuse the patients at the Royal Infirmary of Edinburgh at Christmas-time. The weather was wet, and he said that his fiddle would not work properly because the fiddle-strings were not properly seasoned. So that he was aware that fiddle-strings, which, of course, are catgut, are liable to seasoning, and require it. This was to me a very important fact, because it served to explain the success that I had had in my earlier experience with the catgut before I knew at all the proper mode of preparing it. I look back with horror at some of my early procedures with catgut. I have operated, for example, on an irreducible ventral hernia, opened the sac, divided the adhesions, returned the protruding intestines, stitched up the mouth of the sac with the catgut, and then applied stitches at considerable intervals in the skin. All went perfectly well; but the mode of preparation that I then used, if I had worked with catgut recently made, must have ended in utter disaster; the knots must have slipped in a few hours, and the intestines must have been protruded through the wound.

I need hardly say that this mode of preparation, interesting though it is, would not be satisfactory; it would only have, in a more aggravated form, the inconvenience of the extremely long period which our old method requires; and, besides that, it by no means provides all the conditions that must be fulfilled in order to provide a perfectly satisfactory state of the catgut for surgical purposes. These conditions I will now mention. In the first place I have spoken of a short period of preparation. This is very desirable. Then it is essential that the catgut should have proper strength, so as to bear any reasonable strain that the human hands can put upon it in the thicker forms; as when used, for instance, in such cases as the circumferential ligature of the thyroid vessels, in the removal of a goitre, or for securing the pedicle in ovariotomy. And it is not sufficient that it should be strong to start with; it is easy to get catgut strong in the dry state; it is necessary that it should be strong after steeping in blood serum for a while. Take, for example, the case of tumour of the thyroid. I passed in that case six ligatures; and in a former case where the tumour was larger I thought it prudent to pass as many as eight, so as to subdivide more the mass that had to be tied; but it is not convenient to tie each of these ligatures as soon as it is passed; and the process of passing takes a considerable time. Now it would be a very sad thing if the residence of the catgut among the tissues soaked with serum for a few minutes, or even a quarter of an hour, should render the catgut so soft that it should give way when we put the strain of the hands upon it. That, then, is another point that is essential, if the material is to be useful for all the purposes for which it is desired. Then, again, it is necessary that a knot tied upon it should hold with absolute security, not merely in the first instance, but after soaking for an unlimited time in blood serum. It is further needful that it should not be too rigid; for, as we shall see immediately, it is possible for catgut to be over-prepared, in which case it may remain almost like a piece of wire among the tissues, and ultimately, perhaps, come away by suppuration in consequence of the mechanical irritation which it produces. But while the animal juices must be able to soften it sufficiently to render it mechanically unirritating, yet, on the other hand, it will not do for it to be too rapidly disposed of by absorption. If it is to do duty for the ligature of an artery in its continuity in the immediate vicinity of some large branch, it must remain for a considerable time of good strength, unabsorbed, and when it is at length absorbed it is desirable that it should be removed in such a manner that while it is reduced in thickness it should still, as long as any of it remains, retain its tenacity.

Now these are a series of conditions which I assure you it is not easy to fulfil completely. I have in various experiments complied with some of them easily enough, but failed in others. Sometimes I have succeeded with all but one, and one has baffled me. I have used various materials in experiments, as you will naturally suppose. One substance that suggested itself was tannic acid, so as to convert the fibrous tissue of the catgut into leather. I succeeded well enough in some respects with tannic acid applied in different ways, but in one respect I did not succeed. I have not obtained by means of tannic acid a kind of catgut that is not too speedily absorbed. Even a piece of kid leather, cut into a suitable shape for sutures, and rendered aseptic, became too rapidly absorbed. Chromic acid was another agent which I very naturally tried on account of its well known effect in hardening tissues. Chromic acid alone does not work very well, but I found that the addition of some other substance to it aided its action very greatly. By adding, for instance, to the watery solution a little glycerine, which produces a reducing action on the chromic acid, we get a different sort of liquid, which acts much more energetically on the catgut. I was highly delighted with the results of the action of this mixture of chromic acid and glycerine; and just about this time it happened that Mr. Oliver Pemberton of Birmingham applied to me for a piece of catgut for the purpose of ligaturing the external iliac artery in a remarkable case of three aneurisms in one limb—two in the femoral, and one in the popliteal. I thought I could not do better than send him a piece of my recently prepared chromic catgut. I did so; and a month afterwards he wrote to me saying that nothing could be more satisfactory than the result. He had operated antiseptically; the wound had united by first intention, and so far as the case could go well, all had gone well. There was, indeed, gangrene of the lower part of the leg, which Mr. Pemberton had predicted would occur in consequence of the existence of four successive obstructions in the course of the arterial channel—viz., the ligature and three solid aneurisms; but the case, under proper management, was doing well. Four weeks later, however, Mr. Pemberton wrote to me again, telling me that soon after his last report the patient had begun to show signs of suppuration about the seat of the wound. After a while the abscess opened in the cicatrix, and one day the ligature which he had placed on the artery was found lying unaltered on the granulations.[3] It is now on one of the cards before you—an over-prepared ligature, which had come away, rigid and wirelike, making its way out, as a piece of glass might have done by mechanical irritation. This opened my eyes for the first time to the possibility of having catgut over-prepared. This over-preparation by means of chromic acid is, I understand, to be found illustrated in a large German school at the present time. I have been told by an American physician, who has lately been in London after spending some time at that school, that the catgut ligatures come away from all wounds to which they are applied in that clinique. They count the ligatures as they put them on, and invariably see them all before the case is done with. The catgut has been over-prepared.

It is by means of chromic acid, however, that I have at length arrived at a result which appears to satisfy all our conditions. But before speaking of the new method I wish to say a few words more with regard to the old. To what is it that it owes its virtue? In this bottle is some catgut which has been nearly ten months in our old preparing liquid—namely, one part of carbolic acid which has been liquefied by means of water to five parts of olive oil. In this other vessel, again, we have catgut which has been the same length of time in a solution of carbolic acid in water. Water will only take up one-twentieth part of its weight of carbolic acid; but the effect produced upon the catgut by the watery solution is very much greater than that brought about by the four times stronger oily solution. In the former case, as you can see, the catgut is almost black—a sort of purple black—while the other is comparatively pale, very little altered from its original colour. This circumstance shows two things. In the first place, the effect of the watery solution of carbolic acid upon the catgut explains the efficacy of the water in our old method. It is the watery solution of carbolic acid in the liquid of the old method that is the effective agent. But while that is the case, when the watery solution is mixed with oil, the fact that it is so mixed limits and checks its operation. If catgut is kept in the watery solution only, there seems to be no limit to the degree of continuous preparation of the gut, so that it becomes more and more dark in colour, and more and more difficult of absorption by the tissues. It is otherwise when the watery solution is blended with the oil. Though the process does go on for many months, there comes a time when it comes to a standstill. You need not fear that catgut prepared by the old plan is ever over-prepared. There is a specimen on the table which at the end of twelve years is as limp, after steeping in blood serum, as it would have been at the end of a single year. Therefore, we possess in the carbolic oil a means of checking any mode of preparation that we may adopt, keeping it from that time forward not materially further prepared, while at the same time the large proportion of the carbolic acid to the oil (one to five) ensures the catgut being maintained perfectly aseptic.

The method of preparation which I have now the honour to bring before you is the following: I dissolve one part of chromic acid in 4000 parts of distilled water, and add to the solution 200 parts of pure carbolic acid, or absolute phenol. In other words, I use a one-to-twenty watery solution of carbolic acid, only that the carbolic acid is dissolved not in pure water, but in an exceedingly dilute solution of chromic acid. But minute as is the quantity of the chromic acid, it exerts, when in conjunction with carbolic acid, a most powerful effect upon the gut. The first effect of the addition of the carbolic acid to the chromic solution is to change its pale yellow colour to a rich golden tint. But if the liquid is allowed to stand without the introduction of the catgut, it changes in the course of a few hours to a dingy reddish-brown, in consequence of some mutual reaction of the two acids, and a considerable amount of grey precipitate is formed. If, however, catgut about equal in weight to the carbolic acid is added as soon as the ingredients are mixed, the liquid retains its brightness, and the only change observed is a gradual diminution of the depth of the yellow colour; the precipitate, which I presume still occurs, taking place into the substance of the catgut. As soon, therefore, as the preparing liquid has been made, catgut equal in weight to the phenol is introduced into it. If you have too large a proportion of catgut, it will not be sufficiently prepared; if you have too small a quantity, it may run the risk of being over-prepared. At the end of forty-eight hours catgut steeped in such a solution is sufficiently prepared. It is then taken out of the solution, and dried, and when dry is placed in one-to-five carbolic oil; it is then fit for use. I have here a sample of catgut prepared by this method. Although it has been steeped in warm blood serum since this morning at 11 o'clock, it is still translucent and firm, without being rigid, and a reef knot tied upon it holds with the most perfect security.

The strength of the catgut depends upon different circumstances. In the first place, sheep differ as to the strength of their intestines, and the catgut-maker, if he understands his business, will insist upon having his raw material of the proper kind. In the next place, the intestines must not be allowed to putrefy; they must be taken fresh. For these things you must, of course, rely upon the maker of the catgut. In the next place, the liquid causes a certain amount of softening of the catgut, and if it is introduced in loose hanks, this will tend to produce a little uncoiling of the twisted cord, and a still greater degree of uncoiling will take place during drying. It is of very great importance that this should not occur, because it involves weakening of the thread, and that in different degrees in different parts, and this may lead to the gut giving way when you subject it to a strain. The catgut, then, should be prepared on the stretch, both when it is put to soak and when it is put to dry.

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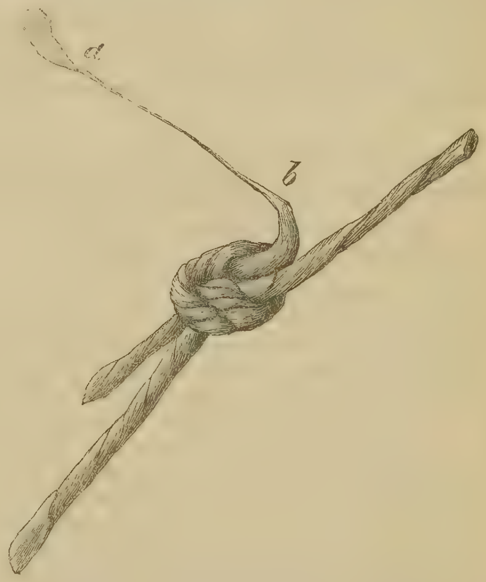
[3] For an account of this case by Mr. Pemberton see THE LANCET, August 4th, 1877.

I need not enter into the mode in which this can be done by the manufacturer. I may only say this, that the surgeon who wishes to prepare it himself may do it in different ways. For instance, he may take two large test-tubes, one a little larger than the other, and he may wind the catgut on the smaller tube, fixing one end by sealing-wax, winding it round, and then bringing it up again, and fixing the other end with sealing-wax at a higher level than the liquid will come to, putting sufficient liquid into the larger test-tube, and introducing the smaller test-tube with the catgut wound round it, with a little shot to keep it down in the liquid. After forty-eight hours he takes out the smaller test-tube and leaves it till the catgut is completely dry. I merely mention this as an illustration, and also as furnishing a hint to some surgeons in private practice who may desire to prepare the catgut themselves. Or a couple of gallipots, one larger than the other, will do just as well. But, as I have already said, the principal uncoiling takes place during drying, and for all ordinary purposes a sufficiently good article is got by putting the catgut loose into the liquid, and putting it to dry on the stretch, by tying the ends of each hank to two fixed points in a room.

In the dry state, catgut prepared by this method is as strong as need be. As to strength in the condition after steeping in blood serum, I confess it is only this very day that I have obtained evidence that catgut thus prepared is really all that we can desire in that respect. The catgut of the hank from which this specimen was taken measured in the dry state 2⅔ hundredths of an inch in diameter, and broke at 13 lb. 6 oz. I have found by experiment that 10 lb. is the utmost strain that my arms are able to put upon a cord. 13 lb. 6 oz., then, is amply sufficient; while, at the same time, the catgut is not at all too large for going into the eye of an aneurism needle. Having obtained the other day some fresh blood of a cow from the slaughter-house, I took some of the serum to-day and put two pieces of this same hank of catgut in the serum, and I placed it in a stoppered bottle in a warm box, at a temperature of 98° F. After more than half an hour I tested the breaking strain (I must not stop to explain how that is done), and I found that the breaking strain of the same catgut, which in the dry state had broken at 13 lb. 6 oz., was 11 lb. 4 oz.; that is, though suppled by the serum, it had only lost in strength 2 lb. out of 13 lb. I think that is really all that can be desired.

The only remaining condition to be considered regarding the new catgut is its suitable behaviour among the tissues. Before describing this I wish to say a few words regarding the manner in which catgut is absorbed. It has been said of late by various persons that the catgut is dissolved by the serum. I must confess that this is entirely contrary to my own experience. I have already said that in order to test the quality of catgut you must have it steeped in blood serum. I have tested in this manner catgut prepared in various ways. The serum has sometimes been putrid; sometimes it had no smell at all, and sometimes it had a little odour. The serum has been kept about the temperature of the body, but I have never seen the slightest indication of any chemical solution of the catgut. Then, again, as to the behaviour of the catgut in the body. Suppose we use it as a stitch, if the catgut were disposed of as a matter of chemical solution, we should expect that when it is employed as a suture, and a piece of our protective is put over it, which is always kept moist with serum perpetually oozing from the wound, the outer parts of the stitch, the parts outside the skin, as well as the parts among the tissues, would show signs of diminution. It is never so. The diminution is always absolutely limited to the parts within the tissues. It is still more striking, as was suggested to me by Mr. Cheyne, to consider the case of catgut used as a drain. There its very function is to drain out the serum, and it is perpetually washed with it. You might suppose that a stitch might perhaps get a little dry. Here there can be no mistake, the serum from the wound is perpetually flowing over the gut, yet, as in the other case, we find the diminution of the catgut is absolutely limited to the part within the tissues. This seems to me sufficient evidence that it is not a question of the mere chemical solution of the catgut, but of the disposal of the catgut in some way or other by the living textures.

Now, if we examine catgut in the process of diminution we find that it may be affected in one of two ways. If it has not been properly prepared, the substance of the catgut becomes converted in the course of a very few days into a soft, pultaceous mass, which, when we examine it by a microscope, we see consists of the remains of the old cellular tissue of the submucous coat, with the interstices among these fibres filled with cells of new formation. The catgut tissue is infiltrated with young growing cells, and it is obvious it is this infiltration which is the cause of the softening. But, on the other hand, if the catgut is properly prepared, instead of being infiltrated by the cells of new formation, it is only superficially eroded. I have here a pretty example of catgut prepared by the new method which has been served in that way by the tissues. You will see that at the part which was among the tissues there remains a very slender residue of the catgut, all the rest having gone; but that slender residue continued firm and translucent, still retaining its firmness, showing not even a superficial infiltration—in short, having exactly the characters that we desire for catgut required for the ligature of an artery in its continuity—viz., that till the last, even though reduced in dimensions, it shall retain its firmness and its tenacity. We know that antiseptic treatment has shown that a piece of dead bone may be absorbed provided it be not putrid; the granulations that overlap it superficially may, so to speak, erode it. It is not necessary for us now to consider how that is effected, but certainly in some way or other the granulations do what mere steeping in serum, whether putrid or non-putrid, never would do. Never, I believe, would the bone be dissolved by the serum. And just as a non-putrid sequestrum is served by the tissues, so is a well-prepared specimen of catgut—it is superficially eroded. I have here a stitch that I removed to-day from a wound made ten days ago—a wound made for stretching the anterior crural nerve, which was stretched as well as the sciatic in an aggravated case of sciatica—and you may see that as yet it shows no signs of erosion. We know by experience that if it were left three or four more days we should find it probably eroded, as the former specimen shows; but until nearly a fortnight has elapsed erosion does not begin. It proceeds gradually, and the thicker the catgut the slower does it proceed. We may fairly consider that from a fortnight to three weeks is long enough for the persistence of a ligature upon an artery in its continuity. [Three days later I removed two remaining stitches in the case last referred to, and found both of them slightly eroded superficially.]



In this woodcut the suture referred to is represented magnified five diameters. Its actual thickness was 1-50th of an inch. The part between *a* and *b* is that which had been among the tissues.

I have brought with me the carotid artery of the calf in which I first established the fact of the substitution of new living tissue for the dead old tissue of the catgut. If any gentleman will examine the specimen after the meeting he will see the ligatures of new formation incorporated with the external cellular coat of the artery. I have been strangely misunderstood as having intended to convey the idea that the catgut when it becomes organised, comes to life again. Gentlemen, such an absurd notion certainly never entered into my head, any more than, when I have spoken of the organisation of a blood-clot, I have meant by that expression to convey the idea that the blood-clot becomes organised by its own inherent virtue. I found the term "organisation" ready to my hand; it was no term of my invention. It was used with reference to lymph. Now, pathologists in speaking of lymph as becoming organised, did not, I suspect, mean by the expression to imply that it was the lymph substance that had the power of self-organisation as distinguished from any influence that surrounding tissues might exert upon it. So in the same way the expression "vascularisation of lymph," was used when it was universally believed by pathologists that the bloodvessels were formed only by loops from pre-existing bloodvessels. Nowadays, a different view may be taken, but the term "vascularisation of lymph" was employed without any notion that the lymph itself created the bloodvessels. And so when I spoke of the organisation of the blood-clot, or of catgut, I never meant to convey the idea that either the one or the other did the work itself. As to the blood-clot, we know that if it remains free from putrefaction among the tissues, it speedily becomes infiltrated with cells of new formation. Whether the white corpuscles originally present in the clot take any part in the formation of these new cells is a question now under discussion, and one, I conceive, not at all prejudiced by the use of the term "organisation of the blood-clot." With regard to catgut, I think if gentlemen would refer to my original paper in The Lancet they would see that I stated very explicitly that new tissue forms at the expense of the old, that the old tissue is absorbed by the new, and that, as the old is absorbed, new is put down in its place.

In conclusion, gentlemen, I venture to recommend the new chromic gut as in all respects deserving of your confidence; and at the same time to thank you sincerely for the patient attention with which you have listened to this long address.

ON CERTAIN PHYSIOLOGICAL EFFECTS OF STRETCHING OF THE SCIATIC NERVE.

By Dr. C. E. BROWN-SÉQUARD,
PROFESSOR OF MEDICINE AT THE COLLEGE OF FRANCE.

The cases of stretching of the sciatic nerve[1] recently published by Drs. Debove and Gillette have called my attention to this subject. My first experiments were made to ascertain what change, if any, would be produced by that operation on the loss of feeling experimentally produced in animals by the transversal hemisection of the dorsal spinal cord. It is known that I have shown long ago that in guinea-pigs, after such lesion, there is a decided hyperæsthesia, with considerable paralysis in the posterior limb on the corresponding side, while there is a marked degree of anæsthesia (and even sometimes a complete loss of feeling) in the posterior limb on the side opposite to that of the lesion. In rabbits there is nearly the same result obtained from the same operation, while in dogs hyperæsthesia is generally less, and anæsthesia is very rarely as complete as we often find in guinea-pigs.

On eleven guinea-pigs, after having divided transversely the right lateral half of the spinal cord at the level of the tenth dorsal vertebra, I ascertained that there was the ordinary effects of such a lesion on the two hind limbs. I then stretched the upper part of the sciatic nerve in all of them on the left side—i.e., the anæsthetic side. In one of these animals immediately after, in two of them a few minutes later, in two others half an hour after, and in three others much later, I found a considerable return of sensibility in the limb operated upon. Of the three other animals two remained as much anæsthetic as they were before the stretching, and one had only a very slight return of sensibility. I must say that in two at least of these last three guinea-pigs the knife had divided transversely very nearly two-thirds of the spinal cord. In several of the eight animals which had a great increase of sensibility where anæsthesia had existed (the left hind limb) there was observed a decided hyperæsthesia. Another remarkable effect was ascertained: the hyperæsthesia of the right posterior limb soon increased after the elongation of the left sciatic nerve.

On rabbits I have obtained much less clear results; the experiment, however, in one instance out of three, gave similar results to those obtained in eight guinea-pigs out of eleven.

Till now I have made a similar experiment only on one dog. The result in this case is a most remarkable one. The right half of the cord had been divided at the level of the tenth dorsal vertebra. There was in the right hind limb a moderate degree of hyperæsthesia, with an incomplete paralysis. In the left hind limb there was a considerable, almost complete, anæsthesia. Hardly did the dog feel the section of the skin, cellular tissue, and muscles, when I laid bare the left sciatic nerve. The same lack of feeling was evident when I stretched that nerve. Almost immediately after this operation pinching of the toes showed hyperæsthesia. This morbid increase of feeling went on increasing, and after twenty-four hours reached a degree which I have very rarely seen in dogs after any lesion. At the same time that these changes from anæsthesia to excessive morbid sensibility occurred the hyperæsthesia which existed in the right hind limb after the hemisection of the cord increased also, and in such a manner that its degree constantly exceeded that of the left limb. The stretching of the left sciatic nerve produced, therefore, in the two hind limbs (and I ought to say in all their parts) a considerable increase of sensibility. Another effect of the elongation of the sciatic nerve in that dog and in the other animals is a marked degree of paralysis in the limbs operated upon. There is, then, in those parts this striking contrast, that the same cause which produces an increase of sensibility simultaneously produces also a considerable diminution of voluntary motion.

It might be supposed that the stretching of the nerve alters in some way its structure, and that this local alteration is the cause of the two effects (on sensibility and voluntary motion) which I have mentioned. That such a cause has some share in those effects I consider as probable. But a great part of them, at least, as is proved by the following facts, depends on an influence of the irritation of the sciatic nerve on the spinal cord, then placed in a special organic condition.

1. In the experiments above described the return of sensibility and the appearance of hyperæsthesia, where anæsthesia existed, are found in the limb operated upon, not only in the parts receiving fibres from the sciatic nerve, but also and as much in parts having only fibres from the crural nerve.

2. In an experiment on a guinea-pig, the division of the right lateral half of the spinal cord was made in the cervical region (at the level of the third vertebra). After having ascertained that there was considerable anæsthesia in both limbs on the left side and hyperæsthesia in the right ones, I stretched the left sciatic nerve. The results were quite striking: not only the left hind limb, but also the left anterior limb soon became hyperæsthetic. On the right side both limbs soon acquired a greater degree of hyperæsthesia than that which had previously existed.

3. In guinea-pigs, whose spinal cord was normal, I have stretched one of the sciatic nerves. The effects of stretching have then been different from those of the previous experiments. The hyperæsthesia produced has been less than in animals having had a hemisection of the cord, and there has been also very much less paralysis produced. In the preceding experiments, as well as in these last, I have found a marked vaso-motor paralysis in the limb whose sciatic nerve had been stretched.

I do not intend to discuss now the questions of usefulness and dangers of stretching the sciatic nerve in cases of locomotor ataxy. I will only say that much simpler means of treatment may prove as beneficial as that operation. My object in publishing this short paper is simply to point out the great power that the irritation of the sciatic nerve, when drawn and elongated, possesses, as shown so conclusively by the considerable dynamic changes produced in the properties and functions of the spinal cord in the experiments I have related.

Paris.

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[1] It is as a means of treatment against locomotor ataxy that the sciatic nerve was stretched in these cases. The operation produced very favourable therapeutic effects.

EPITOME OF A PAPER ON THE NATURE AND RELATIONS OF THE DISEASES OF THE EAR.[1]

By ROBERT SINCLAIR, M.D.,
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Introduction.—Briefly stated, the objects of this paper are to show that the human ear is subject to the same fundamental laws of physiology and pathology as the rest of the organism; to demonstrate the application of general principles of therapeutics to the diseases of the ear; and to counteract the tendency to hedge aural surgery round with artificial distinctions which have a tendency to scare the general practitioner from intruding in what he too often regards as the sacred ground of a few specialists.

The Nature of the Majority of Ear Diseases.—At the threshold of an inquiry concerning the nature of the diseases of the ear, we are met by a fact which greatly simplifies our investigation. An overwhelming majority take their origin in inflammation, and preserve the inflammatory character more or less throughout their whole course. Of 500 cases recorded by Dr. St. John Roosa of New York, 429 were inflammatory; of 600 cases recorded by Dr. Turnbull[2] of Philadelphia, 432 were inflammatory; of 1500 cases treated at the Cork Ophthalmic and Aural Hospital, 1097 owed an inflammatory origin.[3] That is to say, as nearly as possible 75 per cent. of the persons who suffer from ear diseases suffer from inflammation of some portion of the ear.

The Importance of the Diseases of the Middle Ear.—Beyond all question the diseases of the auditory apparatus which occur most frequently, and possess the greatest interest for the practitioner, are the inflammatory affections of the tympanum or middle ear. In no other class of ear diseases has so much mischief been worked by apathy on the one hand, and on the other by officious meddling, and in none can we see more conspicuously the good results of a rational comprehension of well-known pathological changes, and the timely application of sound therapeutical principles. For practical purposes we may consider the middle ear as consisting of the membrana tympani, the tympanic cavity, the mastoid cells, the chain of ossicles, and certain muscles, vessels, and nerves. We have here, in a very limited space, a set of delicate structures performing important functions, easily disturbed from the standard of health by a variety of causes, and attaining increased importance from their contiguity to such vital parts as the labyrinth, the internal jugular vein, the internal carotid artery, the dura mater, and several venous sinuses of the brain. One may be excused for thinking that, even if no alarm is felt for the tympanum itself when attacked by inflammation, its anatomical neighbours might well command respect. Yet how often does the well-educated practitioner content himself with uttering a few commonplaces about the benign operations of nature, applying a blister to the mastoid process, and prescribing those admirable tonics, cod-liver oil and iron, while ulceration is quietly working its way among the structures of the tympanum, into the internal carotid artery or the sinuses of the brain, or laying the foundation for hopeless destruction of the labyrinth.

Acute Inflammation of the Middle Ear demands, perhaps, more than any other disease of the organ, the best care and skill of the family doctor. In a certain number of cases, inflammation of the external meatus which has arisen from cold, damp, furunculus, accident, or injudicious surgical interference, is propagated through the membrana tympani to the tympanic cavity. But it is much more commonly due to extension from the pharynx in scarlet fever, quinsy, diphtheria, measles, small-pox, whooping-cough, pneumonia, bronchitis, influenza, syphilis, and from the use of an instrument that should be banished from all well-regulated consulting-rooms—the anterior nasal douche. When originated in this way, the inflammatory action travels along the Eustachian tube, which, you know, is the channel designed by Nature for maintaining a due equilibrium between the atmospheric and tympanic air, and for draining superfluous mucus from the tympanum. When all the parts concerned are in a normal condition it admirably serves both these purposes. But, as I have already hinted, it serves also as a channel for conducting morbid actions from the pharynx; and when we remember its shortness (it is only about an inch and a half in length in the adult), and the continuity of its mucous membrane with that of the pharynx, it is far from strange that it should do so. If, however, morbid processes are easily conveyed along the adult Eustachian tube, how much more easily and rapidly must they traverse that of the child. Its still greater shortness, its less distinct isthmus, its great width in the middle and at the tympanic orifice, all facilitate the spread of inflammation to the tympanum; while its narrow pharyngeal opening and its almost horizontal position might be expected to offer a less easy exit for the escape of effused fluids than is allowed by the obliquely placed adult tube, with its wide pharyngeal orifice.

But there is still another way in which acute inflammation of the middle ear arises, very frequently, it is to be feared in children during the process of dentition, and which has been clearly demonstrated in a work unrivalled for originality, grasp, and suggestiveness, by any recent contribution to aural literature. I mean the work of Dr. Woakes[4] of London, who, though now a specialist, was for nearly twenty years of his life a general practitioner in Bedfordshire. Dr. Woakes has clearly shown how vaso-motor impressions may be rapidly conveyed from inflamed gums to such a distant and apparently unconnected, but really correlated, structure as the membrana tympani, and subsequently to the tympanum itself, through the medium of the otic ganglion, which has direct communications with the inferior dental nerve and the nervi vasorum of the tympanic branch of the internal carotid artery. The direct connexion of this branch with such a large trunk as the internal carotid offers a very favourable opportunity for its speedy and extreme dilatation, and the anastomosis of the vessels of the membrana with those of the tympanum itself rapidly produces inflammatory action in this organ. We have here the solution of the mystery which must have time after time perplexed every family practitioner and baffled his therapeutic resources. I refer, of course, to that large class of cases in which children, during dentition, develop what are vaguely termed "head symptoms," obstinately refusing to come under any of the ordinary descriptions with which we are familiar in text-books, and which are relieved on the discharge of pus from the external meatus. Dr. Woakes' description of this condition is so admirable and life-like that no apology is required for asking your attention to it for a moment. "The troubled face, the resting of the head on the nurse, the thrill of agony which passes across its features, accompanied with piteous cries or shrieks when its position is moved, especially if this be done suddenly, and more than all the constant raising of the little hand to the side of the head—no one who has watched these symptoms will fail to connect them with the most agonising of all the sufferings of early life, earache."[5]

I have no time to do justice to the close reasoning and observation which characterise every page of this work; but I hope I have said enough to induce you to devote many pleasant hours to its study for yourselves.

The exanthem which is mainly responsible for the production of acute inflammation of the tympana is unquestionably scarlet fever. I am not aware of the existence of statistics showing the exact proportion in which ear inflammations occur in any large number of consecutive cases of this fever. At some future time, when opportunity arises, I hope to obtain reliable figures on the subject. But it has been sufficiently proved that a very large number of cases owe their origin to scarlet fever, and, for want of proper care, drift into hopeless chronicity and deafness; and it is to be feared that no small share of the *immediate* mortality of this fever is due to tympanic inflammation and its sequels. These facts contain hints which should not be disregarded in the exigencies of general practice. While no medical man would dream of pronouncing the kidneys of a scarlet fever patient free from disease without making careful and repeated examinations of the urine, able and experienced practitioners too often act and think as if the tympana were not, like the kidneys, specially liable to inflammation in the course of this common exanthem. If the profession at large would only keep in mind the pregnant fact that "every congestion of the lining membrane of the tympanum is a periostitis, and every ulceration of it a caries of the osseous walls, that may lead to the most serious consequences,"[6] many lives would be saved, many useful ears would be spared, and deaf-mutism would become a rare exception.

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[1] Read before the Perthshire Medical Society.

[2] A Clinical Manual of the Diseases of the Ear, pp. 56 and 57. By Laurence Turnbull, M.D.

[3] A Practical Treatise on Aural Surgery, pp. 168. By H. Macnaughton Jones, M.D.

[4] On Deafness, Giddiness, and Noises in the Head. By Edward Woakes, M.D.

[5] Ibid.,

(To be concluded.)

ON THE NATURE AND SEQUENCE OF THE CARDIAC AND VASCULAR CHANGES IN INTERSTITIAL NEPHRITIS.

BY BRYAN C. WALLER, M.D., F.R.C.S. EDIN.,
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THERE is perhaps no topic within the whole range of medical literature which has excited more interest, provoked more investigations, and elicited more diverse opinions than that of interstitial nephritis. The various books and papers dealing with the subject would of themselves constitute a small library; and one might well begin to hesitate before adding to their number. Yet the summary in THE LANCET for December 18th, 1880, of an article by Sotnitschewsky, in a recent number of Virchow's *Archiv*, leads me to think that a few remarks on the connexion of interstitial nephritis with hypertrophy of the heart and disease of the arteries may not be deemed out of place from one who has devoted much attention to the subject, and has had the opportunity of examining an extensive series of specimens.

During the past five years I have carefully examined forty specimens of ordinary interstitial nephritis, comprising every stage of the lesion, and also five cases of glomerulo-nephritis consequent on scarlatina, making altogether forty-five specimens of interstitial changes. Out of these forty-five specimens, the condition of the heart, and that of the arteries in other organs, was examined in twenty-six. In the other nineteen specimens the examination was limited to the kidney alone.

I shall first consider the arterial changes visible in the kidney itself. These were exhibited in a greater or less degree by every one of the forty ordinary specimens. In the five cases of glomerulo-nephritis the arteries were invariably normal. Large numbers of leucocytes had migrated through their walls, and collected in great quantity in the peri-vascular connective tissue; but the coats themselves constantly presented a natural appearance. No germination of muscle nuclei in the middle coat, or hyaline degeneration of the intima, as described and figured by Klein (Trans. Path. Soc., 1877), was to be seen in any of them. The tunica adventitia was unthickened and natural, though the peri-vascular connective tissue was crowded, as just mentioned, with emigrant cells. In three of these cases I examined the arteries of the spleen, and those of the pia mater in two. All were natural; the only instance of alteration being a merely incidental condition of incipient waxy infiltration of the splenic corpuscles, which in one specimen were stained rose-pink here and there by a dilute solution of methyl-aniline violet (350 N. Lauth.). In this case the liver also was slightly waxy. The heart was examined in three instances, and found normal. In two cases the examination was limited to the kidney itself.

All these cases of glomerulo-nephritis were rapidly fatal. Their freedom from arterial and cardiac change seems to point either to a relation of cause and effect between the renal mischief and the alterations in the circulatory system in the ordinary variety of interstitial nephritis, or else to a common cause, acting in both directions, but affecting the heart and arteries at a later period. As we shall presently see, hypertrophy of the heart and changes in the coats of the arteries are very frequent in cases where the kidney lesion has evidently lasted a considerable time; while in speedily fatal cases they are nearly as constant in their absence, for the simple reason that they require time for their development, and this time has not been allowed.

In the forty ordinary cases the following vascular changes were observed:—In the earlier specimens the tunica adventitia was perfectly normal and unthickened, as could be conclusively proved by picking the arterioles from their surroundings with fine needles. The connective tissue distributed with the small arteries was increased in almost every instance, sometimes very markedly. In unstained specimens this increase in the perivascular tissue presented very much the appearance of thickening of the adventitia proper; but by the use of picro-carmine (1 per cent. solution, Ranvier's receipt), the distinction between the two became very apparent. In most of the more advanced specimens the adventitia was likewise normal and unthickened; but in some instances the fibrous increase going on in the connective tissue around had involved the adventitia also, which had thus become blended with the increased spurious adventitia or perivascular tissue. This was only seen in the most advanced cases of all, and was evidently an entirely secondary process.

It will thus be apparent that my series affords no support to Sir W. Gull and Dr. Sutton's theory of "arterio-capillary fibrosis." In my lately published monograph on Interstitial Nephritis, I have dealt with this subject at some length,[1] and have arrived at the conclusion that the evidence in support of the existence of an arterio-capillary fibrosis is insufficient. Out of the series of cases quoted by Gull and Sutton in their original paper (Med. Chir. Trans., vol. lv.) there were only twenty-six (if my memory rightly serves me) in which the kidneys were granular; while in my forty-five cases of undoubted interstitial lesion I have never encountered a single instance of any appearance in the outer coats which I could conscientiously term true "arterio-capillary fibrosis." The thickening of the adventitia above-mentioned was only seen in the most advanced specimens, and the inference, therefore, appears irresistible that far from constituting the essential morbid condition, it is at most a secondary, and very far from universal consequence.

I have much pleasure in stating that I can adduce the testimony of facts in support of Dr. Johnson's statements relative to the hypertrophy of the middle coat. Differing as I am compelled to do by the evidence of my specimens from this renowned authority on almost every other point, I have found the most undoubted instances of thickening of the circularly arranged muscular coat. I dissent, however, from Dr. Johnson with regard to the presence of an inner longitudinal muscular layer, for I consider that that which he so designates (Med. Chir. Trans., vol. xxxiii., p. 114; vol. lvi., pp. 149, 150; Trans. Path. Soc., p. 384, 1877) is merely the thickened and proliferated intima. For a series of comparative measurements of the several coats in a number of normal and interstitial arteries, I must refer to my monograph above quoted. Suffice it to say that I can entertain no reasonable doubt as to the reality of the muscular hypertrophy, which I believe to be a true one, firstly, because the muscle nuclei of the hypertrophied portions are increased in number, and, secondly, because it appears to be the rule that the more advanced the specimen, the more marked is the muscular hypertrophy. Now, hypertrophy of muscle cells is a gradual process, and we should accordingly expect to find it most marked in the oldest specimens. That it usually is so I have succeeded in satisfying myself, though three of my cases were exceptional on this score. In these, however, the tunica intima was greatly thickened, a circumstance often seen in connexion with atrophy of the muscular coat.

The muscular elements generally appeared quite normal, save for the increase in their numbers. I have never seen anything of the nature of fatty degeneration of the muscle nuclei, nor have I ever seen oil globules inside obliterated vessels in the stage of kidney contraction. As my use of osmic acid as a staining reagent was constant, I cannot think that anything of the sort could have escaped my minute and repeated scrutiny.

In some few cases I have encountered an unquestionably atrophic state of the middle coat. The atrophy was not nearly so frequent as the hypertrophy, and in almost every instance was accompanied by great thickening of the tunica intima. In the atrophied portions the muscular coat appeared more homogeneous than natural, and its nuclei were indistinct and occasionally entirely absent.

The muscular hypertrophy varied much in different specimens, and even in different arteries in the same section. In some of the earlier forms it did not appear to exist, while in others it was already perceptible. Almost all the later cases presented typical examples. In two specimens of advanced granular change the appearances were sufficient to convince the most sceptical. The microscopical sections from these two kidneys are now in the museum of the University of Edinburgh, in common with those from nearly two-thirds of my entire series.

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[6] On Conservative Aural Surgery, p. 4. By J. P. Cassells, M.D.

[1] An Investigation into the Microscopic Anatomy of Interstitial Nephritis. Edinburgh: E. and S. Livingstone.

In thirty-seven out of the forty cases there were more or less obvious indications of changes in the inner coat. Even in the three remaining cases I should not like to say positively that its thickness was perfectly normal. I accordingly consider certain changes in the tunica intima, which I am now about to describe, as practically constant features, in at least all the later and a large percentage of the earlier forms of the disease.

In the more illustrative cases the tunica intima was found to present appearances substantially identical with those described by Heubner under the name of Arteriitis obliterans, and by Thoma under that of Fibrous endarteriitis.

In the earliest examples the inner coat merely appears thicker than normal, and evinces a tendency to become fibrous. In more advanced cases the lumen is considerably narrowed, but its sides are still smooth. Viewed in transverse section, the inner coat is many times its natural breadth, and contains round cells, spindles, and fibres, with a number of wavy lines, which represent the elastic laminæ of the inner coat separated from one another by the proliferative process. Small vessels are sometimes formed for the nutriment of the thickened tunic. A drawing by Dr. Barlow in the Pathological Society's Transactions for 1877 (Plate XV., Fig. 1), representing a syphilitic artery, will convey a pretty fair idea of the state of the intima in the arteries of many interstitial kidneys. This stage is represented in Plate V. of my monograph above quoted.

In the most marked cases, the inner coat is greatly thickened and the lumen very much reduced, or even entirely abolished. At this stage the thickening is principally fibrous, though a few round cells and wavy lines may be visible, as in the preceding one. The character of the thickening is coarse and ragged, something like cocoanut matting. The sides of the lumen, if it still exists, are rough and splintery, and present no trace of epithelioid lining. When the artery is completely occluded, that part of the resulting solid cylinder which represents the intima is seen to consist of more or less regular concentric rings, when viewed in transverse section. These rings are dense, and are composed of closely aggregated fibres and spindles, with very few round cells.

In other instances the thickening is of a fibrous type in the earlier stages. It varies much in degree in different specimens, being as a rule most marked in the more advanced, though one of the most beautiful examples was seen in a comparatively early specimen, the surface of which was but slightly granular, and the size little diminished, though the capsule was strongly adherent, and the interstitial changes in the cortex very visible under a power of thirty diameters. In this case the thickening was cellular rather than fibrous.

(To be concluded.)

CASES OF OBSCURE POISONING.

BY J. HAWKES, M.D.

THE following cases appear to me worth recording, not so much for the interest attaching to them in a purely medical point of view, as for the additional importance they derive in their bearing on forensic medicine.

I was hastily summoned on the morning of December 18th last, about eight o'clock, to examine the bodies of two elderly persons, man and wife, who had been discovered a short time previous lying beside each other in bed, in a state of profound insensibility. The husband, who occupies a small farm on which he resides with his wife, but with no other occupant of the house, had been missed from his accustomed work earlier in the morning, and the bailiff, after seeking him in vain, mounted a ladder against his bedroom window, and having broken a pane of glass, perceived the two bodies lying together as above described. On entering the room, which was of good size and airy, with an empty fireplace, I found the man and his wife lying in a natural position, comatose and breathing stertorously. The husband, a strong-made man, about sixty years of age, was pallid, his eyes closed, jaws clenched, surface of body warm, pupils moderately contracted, insensibility perfect. Pulse 98, full and rather strong. His wife was ghastly pale, jaws firmly clenched. Salivary foam issued from the lips, body of natural warmth, pupil of left eye contracted, right eye blind from old disease; the cheeks puffing out at each expiration, accompanied by stertorous breathing; pulse weak and irregular. No explanation could be afforded by anyone of the state in which they were found. I procured at once some mustard and warm water, and proceeded to administer it by teaspoonfuls placed between the teeth. The woman's mouth was, however, so firmly contracted that it was necessary to thrust the spoon through a cavity where a tooth had been removed on one side. When several spoonfuls had been given without any decided effect I directed some strong coffee to be made, and continued the exhibition of this, giving it as well as the solution of mustard for a quarter of an hour. The temperature of the man's body had now become raised, and his pulse full and bounding, the state of the pupils and insensibility remaining as before. In the woman no perceptible change had occurred. I had meanwhile examined the contents of the apartment, and found a box of pills marked "dinner pills," a small 2-oz. bottle labeled "balsam of aniseed," and an ounce phial half full labeled "laudanum—poison." Having obtained the assistance of two farm labourers I caused them to move the man's body, and lift it about the room in the erect position, the lower limbs dragging helplessly on the floor. His face, however, assumed a hue so cadaverous, his eyes glazing, that I had him placed back in bed. Leaving my pupil with directions to continue the coffee in teaspoonfuls every two or three minutes, I went home and prepared an emetic of sulphate of zinc and ipecacuanha, with which, in about an hour after, I returned. The condition of the woman was unchanged—breathing stertorous, cheeks puffing out as before, the jaws firmly clenched, and pupils contracted. In the case of the man his face had lost some of its pallor; the pulse continued full, and rather strong; breathing no longer laboured or stertorous. I at once gave the emetic in teaspoonfuls, the only effect it produced on the male subject being an exaltation of temperature, return of colour in the face, and wide dilatation of the pupils. The woman vomited small quantities of mucus, besides the medicine and coffee. Slapping with a cloth steeped in cold water caused in her corrugation of the muscles of the forehead; but the same application to the man aroused him more fully, and he was able to open his eyes and move his hand and arm. These remedies were continued through the day, and I saw the patients again late in the evening, when the husband was sufficiently recovered to recognise those about him and to speak, but could tell nothing of what had passed, and knew no cause to account for his state. The woman was still unconscious. She had vomited a second time; breathing stertorous at times; pupil less contracted; when addressed and shaken she opened her eyes and stared vacantly. On my visit the next morning the man was completely recovered, only feeling rather weak and exhausted; he declared himself entirely unable to account for the circumstance, and states he took only a little home-brewed ale previous to retiring to bed at nine o'clock, his wife coming to bed later. Her condition was still one of insensibility; breathing normal; pulse more regular; the colour of her face had somewhat returned. Ordered an egg beat up in sherry; tea at intervals, and milk. Visited the following day; found the husband dressed and downstairs; he still declares he knows nothing to explain the matter. The wife is now quite conscious and able to speak; breathing natural and healthy; colour of face normal; she denies having taken anything whatever in the form of laudanum or any other drug, and knows no reason for the insensible condition of herself and her husband.

Remarks.—These persons had been known to their neighbours as quiet, inoffensive, and orderly. Three months ago they were obliged to give up a farm, and had been since employed as care-taker of the farm where they now live. The woman had an illness six years ago, during which she was said to be "very low" and suffering from over-anxiety. She has been described to me as a peculiar, reserved woman, with something odd about her. The two lived happily together. The husband appears a very straightforward person; he still protests he knows nothing, and feels troubled at the thought of anything having been administered to him. The woman says she only used laudanum for outward application, never internally; she also affirms her utter ignorance of any drug having been taken either by herself or her husband. Some have conjectured the pair were drugged in order to plunder the house, but there does not appear any foundation for this surmise. From the presence of a phial of laudanum in the bedroom, and the symptoms of each case, I have no doubt whatever that opium was the poison taken.

St. Faith's, Norwich.

ADHESION OF THE PLACENTA.

By A. CUMMINGS AIR, L.R.C.P. Lond.

Morbid adhesion of the placenta to the uterine wall is fortunately of very unfrequent occurrence, but inasmuch as when it does happen it constitutes one of the most dangerous complications of labour, both from the great probability of its causing profuse post-partum hæmorrhage, and also from the risk of subsequent inflammation of the womb, the accurate diagnosis of this condition is of great importance, but according to the generally received teaching of modern text-books, it is very difficult, if not absolutely impossible. Thus Dr. Barnes in his lectures on obstetric operations says:—"You may suspect morbid adhesion if there have been unusual difficulty in removing the placenta in previous labours; if during the third stage the uterus contracts firmly, each contraction being accompanied by blood, and yet on following up the cord you feel the placenta still in utero; if on pulling on the cord, two fingers being pressed into the placenta at the root, you feel the placenta and uterus descend in one mass, a sense of dragging pain being elicited; if during a pain the uterine tumour do not present a globular form, but be more prominent than usual at the place of placental attachment." Dr. Playfair says:—"The cause of adhesion is often obscure, but it most probably results from a morbid state of the decidua, which is produced by antecedent disease of the uterine mucous membrane; then the adhesion is apt to recur in subsequent pregnancies. . . . . There are no very reliable signs to indicate morbid adhesion of the placenta previous to the introduction of the hand. And Dr. Churchill: "The diagnosis is in almost all cases impossible until the extraction is attempted; a strong suspicion will be excited, however, by the occurrence of uterine contraction, without extrusion of the after-birth. The previous history of the patient may in some degree confirm these suspicions; if she have suffered much pain in some fixed part of the uterus during pregnancy, it may have resulted from inflammatory action. Whenever we see a patient suffering thus we should always ascertain by the stethoscope whether it is in the situation of the after-birth, so that we may be prepared for the consequences at the time of labour."

I have met with several cases of morbidly adherent placenta, during the last fourteen years, and am inclined to believe that the diagnostic problem may be solved with almost absolute certainty; although from my experience being limited to so short a time I would desire to write with all becoming modesty.

The diagnosis is, I think, to be founded upon two symptoms, one of which is mentioned by Dr. Churchill, the other by Dr. Barnes—viz., that at some period of pregnancy, generally between the third and fifth month, a fixed pain, generally of a dull aching character, is felt over some part of the uterus; and this is converted into a severe *dragging* pain when the patient attempts to turn over to lie on the side opposite to the placental site; so much so that patients with an adherent placenta will never (as far as my experience goes) voluntarily lie on that side. This pain, I believe, to be of the same nature as that mentioned by Dr. Barnes, as being experienced when the cord is drawn upon; and is due to the dragging on the cord by the child when from gravitation it sinks through the liquor amnii.

Theoretically, it may be objected to this explanation that usually the cord is sufficiently long to prevent any such dragging; but I think it will generally be found that when the cord is long, it is twisted around the neck or limbs of the child, and produces the same effect as a short cord would.

No history of this dragging pain on the patient's turning to the side opposite to the placental insertion will be obtained, when the retention of the after-birth is merely due either to the inertia of a wearied uterus, or from irregular contraction; if there is hæmorrhage in either of these cases, one would be justified in trying the effect of cold, compression, &c., before introducing the hand, but in cases of true placental adhesion, trying these and similar means leads to dangerous loss of precious time.

Kennington-park-road.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Prooemium

ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES OF OPTIC NEURITIS AND NEURO-RETINITIS.

(Under the care of Mr. Hulke.)

Roughly-sorted cases of optic neuritis, with which it is convenient to place congestive swelling of the optic papilla, fall into two classes, one in which the neuritis is associated with some intracranial disorder which stands in a causal relation to it, the other in which no such intracranial disorder is present: neuritis optica descendens and neuritis optica non-descendens. The wider interest felt in cases of the first class has attracted greater attention to these. They are of very frequent occurrence, and good examples often present themselves in the out-patient room. The implication of both the optic nerves is often not simultaneous in its onset, but one nerve is attacked before the other, so that the two nerves not unfrequently exhibit different phases of inflammation, and sometimes one nerve only is involved.

Case 1.— ——, aged eight, a weakly child, with double scrotal rupture, was sent up to the hospital from the east coast, absolutely blind. The right papilla optica was swollen and cloudy, and the veins were very turgid. The morbid appearances in the left eye were similar but somewhat less strongly marked. The pupils, notwithstanding that perception of light was absent, were not dilated, but small, and they contracted with convergence of the eyes. Six months previously the child had had very severe headache with retching. After a fortnight the right eye was thought to be blind, and soon after this the sight of the left failed. At the end of three months both were quite blind. When taken to the hospital he was free from headache, had not latterly retched, and he looked in good health.

Case 2.— ——, aged six years, was taken to the hospital by his mother, who for some time had thought his sight imperfect. Tried with Jäger's scales, he read No. 19 with the right eye, and with the left eye No. 2. The right optic papilla was swollen, and its veins very turgid. He was a delicate-looking child. In his second year he was noticed to frequently brush his forehead with his hand, as if he felt some uneasiness there, and about that time a knot (gumma?) appeared in the left biceps humeri, which disappeared later. About the same time he occasionally squinted, and he then began to have fits. These at first occurred at intervals of two or three weeks; they had continued up to the time of the visit, and had latterly become more frequent. From the description given of them the fits were epileptiform. His manner had become cold, wilful, and excitable.

Case 3.— ——, aged seven, when first seen at the hospital was quite blind. Both optic papillæ were swollen and opaque, and the retinal veins were very turgid and tortuous; within the opaque area they were lost to view wherever they dipped away slightly from the surface. The child was thought healthy until five months previously, when she fell ill. She was drowsy and listless, would not play, but lay about all day, and she often vomited. Soon the mother thought her sight failed. Three months after she was brought to the hospital the swelling and opacity of the optic nerves were replaced by whiteness, unnatural distinctness of lamina cribrosa and smallness of vessels—in short, by the signs of atrophy. The child's general condition was better.

CASE 4.— ——, aged fifteen, was led to the hospital. Both eyes were quite blind; their pupils were dilated and motionless. Both optic papillæ were swollen and opaque; the outline was hidden. Within this opaque area the arteria centralis was quite masked, and the veins greatly hidden; beyond it the vessels appeared very swollen and tortuous. During a year he had had great pain in the back of his head, which he spoke of as "a feeling of pressure as if I should fall; then my hands and my legs shook, and soon my sight grew dim."

CASE 5.— ——, a little girl, aged six years, quite blind, was taken by her mother to the hospital for advice. Both optic nerves were quite white; the details of the lamina cribrosa were abnormally distinct, and this up to the margin of nerve-disc, which was itself a frayed and not a clean edge; the vessels also were unnaturally small. The condition was plainly atrophy after neuritis. She was a plump, well-grown, healthy-looking brunette, never ill, the mother said, till six months before, when she became dizzy, and then had such excruciating pain in head that she never ceased screaming for twelve hours. She then had two fits, and after the second of these her left side was palsied, and her sight was gone. She had since then had two similar attacks, in which her neck was drawn towards her left shoulder. All these attacks were preceded by vomiting.

CASE 6.— ——, aged twenty-six, a servant, who through failing sight had lost her situation, applied at the hospital. Tested separately each eye read No. 1, the smallest type in Jäger's scale, but when both eyes were open the type was blurred and slightly doubled. Both optic papillæ were very swollen, and of an opaque stone-grey colour. This morbid condition passed across the margin of the papilla, hiding it for some way into the retina, especially in the left eye, and within its limits the arteria centralis was quite hidden and the veins much obscured. Beyond the opaque part, in the transparent retina, the latter were conspicuously turgid. In and at the outskirts of the swelling were brush-like extravasations of blood. She had, she said, for several weeks felt out of health—had giddiness, headache, and she often vomited. The pain was greatest in the left side of her head and in the occiput. She had tinnitus, loudest in the left ear.

ROYAL ALBERT-EDWARD INFIRMARY, WIGAN.

CASE OF COMPOUND DEPRESSED FRACTURE OF SKULL; SYMPTOMS OF COMPRESSION; TREPHINING; DEATH.

(Under the care of Mr. W. BERRY.)

FOR the following notes we are indebted to Mr. W. Roger Williams, the senior house-surgeon.

Gerard F——, a schoolboy, aged eleven years, was admitted on the morning of the 27th Nov., 1880, having sustained an injury to the head, under the following circumstances:—The lad was sent to shut a stable door, but the horse having got out, he seized the animal by a rope that was round its head. The horse, which was a young cart-horse, becoming restive and frightened, the boy let go the rope, and, running in front of the horse, tripped and fell. In attempting to get up one of the horse's hind hoofs struck him on the head. He was insensible for a moment or so, but then got up without assistance, and went home crying. There was no subsequent vomiting, but a fair amount of bleeding from the wound. Shortly afterwards he was able to walk to the infirmary, a distance of half a mile.

On admission he presented a semilunar scalp-wound, quite four inches long, with the concavity forwards. This wound was placed vertically above the right ear, and on a plane about an inch posterior to it, the lower end of the wound being level with the tip of the ear. The scalp tissues could be raised for about two inches in a forward direction, and in the front part of the wound, thus laid open the bones were exposed, denuded of periosteum. At this spot a fracture was detected, and it was soon made out that a spindle-shaped piece of bone, about an inch long and less than half that in its greatest breadth, had been separated from the lower edge of the parietal bone, and depressed to the extent of nearly a quarter of an inch; and in this position it was firmly fixed with its long axis horizontal. The lower limit of the depression was bounded by the serrated upper edge of the squamosal, and at this place the solution of continuity appeared to be of the nature of a separation along the parieto-squamosal suture. From the depths of the fracture blood welled up freely in a pulsatile manner, whence it was inferred that the posterior branch of the middle meningeal artery had probably been torn. The patient was a healthy-looking, intelligent lad, and had always enjoyed good health. At school he had done well, and was in a higher class than most boys of his age. He appeared to suffer very little from the accident, complaining only of a slight headache. There was no sign of hæmorrhage or escape of fluid from ear or nose. Pupils, respiration, pulse, and temperature presented no notable deviation from the normal. The detached scalp having been laid loosely down the wound was dressed with water dressing. The head was shaved, and an ice bag was applied. He was placed on milk diet, and ordered a full dose of compound senna mixture. He passed a good night, and next morning he was found reading the *Little Folks' Magazine*. He seemed disappointed when told he must give up reading. On the 29th continued as before, the only notable change being a rise of the evening temperature to 101·3° F. On the 30th the morning temperature was 99·6°, evening temperature 100°.

On Dec. 1st morning temperature 99·2°, evening temperature 103·6°; no other noticeable symptom. On the 2nd he was rather restless during the night. Morning temperature 101·2°, evening temperature 102·6°, and during the ensuing night he was restless and muttered in sleep.

On the morning of the 3rd he was talking to himself, but answered questions rationally, and knew those about him. Morning temperature 101°, evening temperature 102·4°. On the 4th, though he had been quiet during the night, it was found in the morning that he had passed urine and fæces in the bed. He was quite unconscious, and the breathing was rather stertorous. There was left facial paralysis. The left pupil was contracted, right dilated. The left hand and arm were constantly twitched. On tickling the soles of the feet neither of the lower limbs was moved, but at other times he occasionally moved both. Morning temperature 102·2°, pulse 80.

These symptoms remaining unaltered, Mr. Berry trephined at about midday. A little chloroform was administered. A horizontal incision about two inches long was carried forwards from the middle of the concavity of the crescentic scalp wound, and the resulting flaps were raised. A medium-sized trephine was then applied to the parietal bone immediately above the depressed fragment, and a circular piece of bone was cut out. There appeared to have been a trifling hæmorrhagic effusion into the dura mater, and some pus oozed from the lower part of the opening. Hardly any bleeding occurred, although the posterior branch of the middle meningeal artery grooved the piece of bone removed by the trephine. The projecting bridge of bone at the lower part of the wound was sawn through at each extremity and removed. The depressed fragment was then extracted, together with some splinters from the inner table. In doing this more pus escaped, making altogether more than a drachm. It seemed to come from the direction of the base of the skull. The flaps were then laid down, water dressing and the ice-bag being applied to the head. The symptoms previously noted underwent no abatement. Evening temperature 104°. On the 5th both hands twitched. When shouted at he would try to put out the tongue. After midday coma deepened, and he died at 6.30 P.M. quite unconscious. Morning temperature 103·8°. Unfortunately a post-mortem could not be obtained.

Remarks by Mr. BERRY.—This case is particularly interesting when taken in conjunction with the two cases of Mr. Godlee's in THE LANCET of Nov. 20th, 1880, page 806, and certainly shows the difficulty of laying down a hard and fast line as to the use of the trephine. Had the trephine been used as suggested by the house-surgeon, Mr. Williams, on his admission, suppuration possibly might have been prevented and recovery followed. I certainly could not look upon the case as a *punctured* fracture, therefore resolved not to interfere till symptoms of compression arose; and as the symptoms set in it was interesting to note the gradual rise of temperature. The failure of relief after using the trephine was, no doubt, due to pus finding its way to the base of the brain, between the dura mater and bone.

LOUGHBOROUGH INFIRMARY.

FIBRO-CYSTIC TUMOUR OF THE UTERUS; OPERATION; DEATH.

(Under the care of Mr. Arthur Eddowes.)

Mrs. F——, aged thirty-seven, was admitted on April 26th, 1877. She had had one child sixteen years ago, none since, and no miscarriages. The catamenia were regular. On admission she was suffering from menorrhagia (which had left her almost ex-sanguineous) and general dropsy. On May 24th, all the dropsy having disappeared, she was discharged.

About a year after this the abdomen began to enlarge on the right side, but she had no recurrence of the hæmorrhage.

On Sept. 9th, 1880, she was again admitted into the infirmary. Her body was poorly nourished, the complexion pallid, the appetite bad, bowels constipated, micturition frequent, but urine healthy. There was no œdema. There was a general pyramidal enlargement of the abdomen, the umbilicus was prominent, and there was enlargement of the superficial veins of the abdominal wall. A tumour was seen to move during inspiration and expiration. The recti muscles bulged forward when the patient raised herself from the recumbent position.

The girth at umbilicus was 38 in.; the right side at this level measuring 18 in. and the left 20 in. From the right anterior spinous process of the ilium to the umbilicus measured 4½ in.; from left, 9 in.; from the pubes to the umbilicus was 11½ in.; and from the sternum to the umbilicus, 8½ in. There was distinct fluctuation round the umbilicus to the extent of 10 inches. The fluid could not be displaced by firm pressure. There was dulness all over the abdomen, except the right flank. By vaginal examination the uterus was found to be anteflexed, mobile; the sound was easily passed, and the cavity of the uterus measured 2½ inches. Per rectum a large tumour, partly fluid and partly solid, was felt between the uterus and the rectum. This only moved slightly on movement of the sound whilst in the uterus.

A diagnosis was made of ovarian tumour of a large primary cyst, with multilocular base of gelatinous and fluid consistence.

The patient was subjected to a preparatory treatment for two weeks, during which her general health was much improved; and on Oct. 11th the bowels were emptied by an enema in the early morning. At 2.30 P.M. the patient was anæsthetised by Dr. Hutchison. Then, with antiseptic precautions, an incision five and a half inches long was made in the median line, midway between the umbilicus and pubes. As soon as the peritoneal cavity was opened, a cyst of a bluish colour protruded. On the patient coughing the cyst was forced still further through the opening. The hand was introduced into the abdomen and passed round the cyst, which was the size of a man's head; it was free from any adhesions except at its base, where it was connected to an enormous tumour of semi-solid semi-fluid matter occupying the lower part of the abdominal cavity and pelvis, and firmly adherent to the neighbouring structures. The primary cyst was then tapped, and about a gallon of greenish fluid escaped. The cyst walls being secured by the hooks of the cannula, the hand was again introduced, with a view to discover the position of another cyst, containing fluid. When this was done the trocar was exposed and the second cyst was punctured through the first, but out of this only about two pints of fluid escaped. The tumour not being sufficiently reduced in size by this, a third cyst was punctured by a second trocar, but only about an ounce of bloody fluid came out of this. The hand was again introduced, only to find the tumour slightly lessened in size, and chiefly of semi-solid matter, the whole mass being firmly adherent to the neighbouring structures. It was then found to be useless to proceed further, and a ligature of carbolised gut having been applied round the base of the cyst which had been emptied, the rest of it was cut off, and the base was returned into the abdomen. There was but slight hæmorrhage, and no escape of fluid into the abdominal cavity. The wound was closed by sutures, and dressed antiseptically. The patient was removed on to a bed in proper position, but she sank in three hours. A hypodermic injection was given to relieve pain when she rallied from the chloroform.

Necropsy twenty-one hours after death.—Behind the primary cyst was a semi-solid mass, which when removed weighed 12 lb. It sprang from the posterior part of the fundus of the uterus, being closely connected to it by a band of fibrous tissue, but not immovably fixed to the same. Besides the second large cyst which had been tapped, the mass contained numerous smaller cysts, the fluid contents of which weighed fully 2 lb. This large mass was situated on the upper part of the sacrum and lower lumbar vertebræ, being bound down by peritoneum. The walls of the uterus were hypertrophied to two or three times the size of their normal thickness. The cavity was normal in length. The left ovary was slightly enlarged. The right ovary was normal. In the wall of the uterus were several small fibrous tumours.

Remarks.—This case is interesting as showing the difficulty of diagnosing an ovarian cyst from a fibro-cystic tumour of the uterus.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

President's Address.—Epithelioma of Thigh.—Strangulated Hernia reduced en masse.—Rupture of Aorta.—Recurrent Sarcoma.—Scleroderma.—Chloasma.

A meeting of the Pathological Society of London was held on Tuesday, Feb. 1st, Dr. Wilks, F.R.S., in the chair. The proceedings were opened by an address from the President, in which he dwelt on the good work the Society had already done, and urged the members to work on in the old lines. A report of the Morbid Growths' Committee on a case of tumour of the thigh, previously exhibited by Mr. Hutchinson, was presented; a committee was appointed to report on two cases of skin disease of doubtful nature, shown by Mr. Morrant Baker and Dr. Cavafy.

Dr. Wilks remarked that he had not prepared any formal address, as he did not think the occasion demanded it. Thanking the Society for the honour done to him, he remarked on the advantage to the Society of changing the President every two years; in this way the risk of the work being conducted in a groove was prevented, and a new bias or influence frequently given. But if a permanent President were in any case desirable, he knew of no one so pre-eminently suited for that purpose as his predecessor, for it would be indeed difficult to determine which field of pathology possessed most interest to him, or had been most fruitfully worked by him. The chief difference discernible in the various Presidents had been that while some specially favoured a study of morbid anatomy by the exhibition of specimens of disease, others attached greater value to the increase in the circle of knowledge to be derived from discussion of pathological problems. He belonged to the former school, although he was fain to admit, from the interest always awakened by the formal discussions, that he was in a minority. To him the exhibition of specimens was of more value than the mere expression of opinion. It was well to remember that when this Society was founded there were other societies where such discussions might be held; but a want was felt, especially by younger members of the profession who were working at practically a new subject, of an opportunity to meet together to show, discuss, and organise their work. When he commenced his studies pathology did not enter into the regular curriculum, autopsies were made at the caprice of physicians to confirm some special point of diagnosis, but not as a matter of course. Morgagni, Andral, Cruveilhier, Rokitansky, and others had worked in it to a certain extent, but the results of their labours were not common knowledge. The great glory of this Society had been that it had stuck to morbid anatomy, and established, as it was, when this science was in its infancy, the Transactions of the Society would be found to be an epitome of the whole history of pathology, accounts of many of the best discoveries of the day being found in them. At first the diseases of the heart were studied, its variations being comparatively simple to follow, then more complex organs and complex diseases were investigated. Thus it was that first one case of enlarged glands in the neck and mediastinum was shown, then another, and then two or three more, until in a few years the whole history of lymphadenoma was elucidated. In the same manner all the pathological changes of Addison's disease were fought out here. And similarly the first specimen of visceral syphilis was shown almost with timidity, until at last the foundation of our present knowledge was firmly laid, and an undoubted proof of the great value of this Society's labours given. He used to hear that syphilis attacked only the outside of the body, or as far in as the eye could see or the finger reach, and because search had never been made into the condition of the internal organs, it was supposed that they were unaffected, and the discovery that this is not so had relieved thousands of patients and proves the close connexion between pathology and therapeutics. It has been said that therapeutics has a basis of its own apart from pathology, but, having thought over it for years, he had felt more and more strongly that this was not so. Could we imagine a mechanic undertaking to repair machinery who professed no interest in nor knowledge of the manufacture and normal working of the body? Neither could he see how pathology and therapeutics can be separated. Similarly the profession cannot be learnt at the bedside alone, for the meaning of the phenomena there observed can only be shown in the dead-house. It was therefore most important to work on without asking about results; truth is always of value, and there is no division into small and great in Nature; a man never sees the real result of any work or discovery. Our knowledge of the pathology of visceral syphilis had enabled us to relieve many patients, while the demonstration of the fact that in Addison's disease the organs at fault are hopelessly disorganised has saved a number of people with yellow skins from being poisoned with mercury. He suggested that advantage would arise from a record of facts in general pathology in the Transactions of the Society, especially a collection of a large number of cases showing the primary and secondary growths, say of cancer. The relation existing between the so-called heterologous and homologous cells was being worked out by histologists such as Dr. Creighton, but some of the same facts could be elicited by collecting all the cases occurring at the different hospitals in London. Thus it might be found that out of many hundreds of cases of cancer some tissues were never affected, or that primary cancer of the lung was so rare as to be doubtful altogether. It would be more difficult to know how far tubercular growths were the result of infection. We now know that abscess in the lung is pyæmic, while in the kidney it is not due to nephritis, but to some external cause; further knowledge of like kind would enable us to get rid of the idea that there are certain organs and certain diseases, and that each organ may suffer from each disease. We should find out what processes can, and what cannot, take place in the different organs and tissues. For instance, it might be that it would be shown that an alveolus of the lung could be only affected with exudation of lymph and hyperplasia, and that no other changes went on in it unless under the influence of extraneous matter. In conclusion he urged the members to work on along the old lines, and he felt sure that when the history of medicine in England was written the history of that Society would be written in letters of gold.

Messrs. BECK and GODLEE presented a report on a Tumour of the Thigh, shown at a previous meeting by Mr. Hutchinson. It was a variety of epithelioma differing markedly from the usual lobular form, and resembling somewhat closely the growth met with in rodent ulcer, to which the tumour was also allied by its very chronic course, but from which it differed in the fact that the lymphatic glands were affected.

Mr. MCCARTHY exhibited a specimen of Strangulated Hernia, which had been reduced *en masse.* A man, sixty-two years of age, was admitted into the London Hospital with a very large strangulated right inguinal hernia. Efforts at taxis failed, but finding no very urgent symptoms, and the man refusing all active interference, he was ordered to have an ice-bag applied. Next morning the house-surgeon reduced the hernia with great ease, but vomiting continued, and fulness was perceptible in the right groin. The man refused operation for three days; then, as the vomiting continued, he requested that it might be performed, but as the bowels had acted and the fulness in the groin had disappeared nothing was done. Next day the man died. At the post-mortem, in addition to the signs of acute peritonitis, a coil of gut one foot long, strangulated by a narrow ring, was found in the left iliac fossa. The sac of the hernia was found in the scrotum, and the upper part of it projected into the belly, and looked like the bowl of an egg-cup, and the upper edge of it was thin and ragged where the neck had been detached. Mr. McCarthy thought that nothing short of an abdominal section could have dealt successfully with this condition. He could not find a record of a similar case. — Mr. BRYANT asked if the strangling band were not an adventitious fibrous band rather than the real neck of the sac, which it was scarcely possible to imagine could be torn off. These anomalous cases are more common in congenital than acquired hernia; was this case congenital in its origin? — Mr. MCCARTHY quite accepted Mr. Bryant's view, but added that if the band were not anatomically the "neck of the sac," it was nevertheless torn off from that part, as the specimen showed. The hernia was an ordinary acquired oblique hernia. It was chronic, and the upper part, of the sac had been displaced upwards by the patient in his efforts at reduction, and thus, when strangulated, the neck was not fixed by the left hand during taxis in the ordinary manner.

Mr. MCCARTHY also showed a Ruptured Aorta from a girl aged twelve, who was knocked down and trodden on by a pony. She died in eighteen hours from collapse. The posterior mediastinum was found full of blood, the descending part of the arch of the aorta was seen to be ruptured apparently by the head of the third left rib, for this projected forwards more than any of the others, and when pressure was made on the front of the chest the head of the rib became still more prominent.—Dr. WILKS had often thought that we needed a full explanation of the way in which viscera suffer from external violence, for they all receive special injuries—the liver gets torn on its under surface, the heart at the back, and so on. No doubt it was in obedience to certain definite laws.

Mr. H. CRIPPS related the history of Two Cases of Recurrent Sarcoma in the practice of Mr. Willett at St. Bartholomew's.—Case 1. Male, aged nineteen. In 1879 had a small sarcoma removed from the ham. Four months later he returned to the hospital with a local recurrence of large size, for which amputation through the lower third of the thigh was performed. Three months afterwards he was again admitted very emaciated, with dyspnœa and hæmoptysis and a small tumour over the right side of the chest. He died nine months after the first operation. Post-mortem: A mass the size of the fist was found growing from the periosteum of the right fifth rib and extending back along the rib to the spine; the mediastinal, abdominal, pelvic, and deep inguinal glands were affected also, the growth from the latter having absorbed part of the hip bone.—Case 2. Female, aged forty. A year before admission a blister formed on the sole of the foot after a walk; it discharged blood and never healed. A growth here developed and was removed. In five months the tumour had recurred locally, and there was a hard mass in the groin, great emaciation, and eventually from 150 to 200 small nodules could be felt under the skin. Post-mortem: Both lungs beneath the pleuræ were thickly studded with small nodules; tumour growths were also found in each ventricle of the heart, beneath the pericardium, and in the femoral, inguinal, abdominal, and thoracic glands. All the abdominal viscera, except the spleen, were affected, and the intestines were thickly studded with small growths, the great omentum weighed five pounds. Sections of the periphery of the primary tumour showed an alveolar stroma with epithelial cells in the spaces (cancer), but the centre of the tumour and also the secondary growths showed all the characters of round-celled sarcoma. Mr. Cripps suggested that the distinctions between the various forms of malignant tumour were rather artificial than real; and he referred to the similarity of the secondary changes to those of pyæmia, in both diseases the secondary growths consisted of small round cells, but while the cells of the sarcoma showed power of growth, those in pyæmic abscesses are degenerated. These cases were also exceptions to the rule laid down by Mr. Butlin that sarcomata do not infect the lymphatic glands.—Mr. BUTLIN had seen both these cases; in the first case the pelvic glands were affected directly by a growth springing from the hip bone. The fact that sarcomata as a rule do not infect the lymphatics had been long shown, and by no means originated with him; but, on the contrary, he had shown that sarcomata in some situations, as the testicles, always infect the lymphatics; in others, as central growths in bone, very rarely; and in others again, as subperiosteal growths, less rarely.

Mr. MORRANT BAKER showed a patient with localised Scleroderma of the face and scalp. The woman, forty-five years of age, had suffered for four years. There was a very firm, brawny, irregular patch on the right cheek, tapering at each end, several raised pink hard nodules below it, very slight affection of the left side. On the scalp there were two hairless patches, smooth and dense, in one of which there was a small ulcer; the face was much seared, it was stated from caustics; the sensibility was not affected; the disease had not progressed during the last two years.—Mr. HUTCHINSON had never seen a case exactly like this, but he thought it approached in clinical features to lupus rather than scleroderma; for in scleroderma the patches, well defined at the commencement, have no tendency to spread, while here the nodules have enlarged. There was one undoubted spot of ulceration, and some forms of lupus ulcerate with extreme difficulty. He suggested that it somewhat resembled Hebra's rima scleroma. He had seen a case somewhat allied to it where an indurated patch on the cheek had followed a wasp-sting.

Dr. PYE-SMITH showed drawings of the earlier condition of a case of very extensive Scleroderma, exhibited early in the session by Mr. Hutchinson. The patches first formed coalesced; it was symmetrical at first, and did not follow the distribution of nerves, or bloodvessels, or parts of the skin, or particular regions. The general sensibility of the parts was lessened, but there were spots of very painful ulceration. Also another drawing of the early stage of the disease in a girl, showing the characteristic ivory patches.

Dr. CAVAFY brought forward a living specimen of Chloasma. The man, aged twenty-nine, suffered from jaundice for two months. The colour of the skin then deepened into a dark yellow-brown, the conjunctiva becoming normal. After nine months the general colour became lighter, and circular islets of healthy skin appeared, which are still increasing in number, and are most numerous on the upper parts of thighs and in the loins. He considered it due to nerve change.—Mr. HUTCHINSON thought, on a first examination, that it was a case of leucoderma.—Mr. M. BAKER concurred in this view, and suggested that it was often accompanied by pigmentation in the early stage. If his case was lupus, the disease existed in two forms in different parts.—The PRESIDENT requested Mr. Hutchinson, Mr. Baker, and Drs. Cavafy and Pye-Smith to report upon the two cases.

The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on Wednesday, Jan. 12th, 1881, Dr. W. S. Playfair, President, in the chair,

Mr. DORAN showed an exfoliated portion of the Mucous and Muscular Coats of the Female Bladder. The patient was thirty-one years old, a primipara. After seventeen hours' labour, a large child, weighing 10 lb., was delivered by forceps, the bladder having been first evacuated. The perineum was ruptured, but was stitched up at once. There was difficulty in systematic use of the catheter, and cystitis appeared on the tenth day. The slough was passed on the twentieth day, and the patient afterwards did well.

Dr. GEORGE HOGGAN showed microscopic specimens and camera lucida drawings illustrating the Comparative Anatomy of the Lymphatics of the Uterus, being the material accumulated jointly with his wife. He demonstrated specially the lymphatics of the mucosa, which investigators had hitherto failed to discover. The superficial division of these ramified immediately under the epithelium. There were no true subserous lymphatics, but the vessels so-called were the lymphatics of the longitudinal layer of muscle on its outer surface. They appeared merely as small twigs, which crop up here and there and dip down again. In some animals, as the mare, no lymphatics are ever seen on the serous aspect of the muscle. The subserous lymphatics of the ovary were shown, that organ presenting a strong contrast to the uterus in this repect. On either surface of the circular muscles the lymphatics lay as dilated valvular sinuses parallel to the muscular bundles, being capable of great elongation on distension of pregnancy. The specimens were mostly prepared with silver and gold solution.

Dr. MATTHEWS DUNCAN exhibited two Ovaries removed by Dr. Lediard in a case of Double Ovariotomy in which there was suspicion of malignancy. A large amount of ascites had existed with the tumours.—Mr. KNOWSLEY THORNTON said that the specimens resembled one called a papilloma of the Fallopian tube exhibited at the Pathological Society by Mr. Doran. He thought it an interesting question whether in these cases the fluid was secreted by the peritoneum, or was a secretion in the interior of the tumour, which escaped by minute apertures.—Mr. DORAN mentioned other cases of ascites associated with still smaller growths, or with merely chronic inflammation of the ovaries, cured, in the latter case, by oöphorectomy.

Dr. EDIS showed a simple form of Syphon Douche, consisting of six feet of rubber tubing with a vaginal nozzle. By inserting the tube through the spout of a bath-can, and withdrawing it partially when filled, a syphon action was at once produced.

Dr. CHAMPNEYS exhibited the Uterus, &c., of a Woman, who died from septicæmia in consequence of a rupture of the upper and posterior part of the vagina, not, however, through the peritoneum. The child, which was born at the end of the seventh month, had been dead some time, and the labour was completed with apparent ease in four hours.—Dr. WILTSHIRE mentioned a case of laceration of the lef lower segment of the uterus where the patient had been rather precipitately delivered before help arrived. She recovered.

Dr. THOMAS CHAMBERS read a paper on "Complete Extirpation of the Uterus with both Ovaries, weighing ten pounds; recovery." Jane S——, aged forty-three, was admitted into the Chelsea Hospital for Women on May 24th, 1880. In 1870 she first noticed a lump in her right groin, which grew slowly for five years. After this menorrhagia commenced, and gradually increased. Pain and hæmorrhage were excessive, and she eventually became too weak to attend as an out-patient, and was remarkably emaciated. The tumour was freely movable from side to side, and was very soft and doughy, but without fluctuation. The pelvic cavity was unoccupied, the vagina drawn up into a cone, with the os and cervix, both small, in the centre. There was a periodical discharge of watery fluid through the vagina. Hence a diagnosis of fibro-cystic tumour was made. Medical treatment having proved of no avail, extirpation of the uterus was proposed to the patient, and she decided in favour of the operation. It was performed on June 2nd. The abdominal incision was extended to eleven inches. The broad ligaments were tied with silk at each side, a parallel clamp placed above the ligatures, and the uterus cut away. After a few minutes arterial hæmorrhage occurred from a large vessel, which was at once secured. The cervix was then transfixed by a double ligature, the clamp removed, the ligatures tightened, and the stumps replaced. By the twenty-first day the patient was convalescent, a free discharge of offensive matter from the vagina having taken place suddenly on the fourteenth day. The tumour proved to be a lobulated white fibroid, not fibro-cystic, and contained very large vessels.—Dr. HEYWOOD SMITH thought that the term hysterectomy should be limited to amputation of the uterus. He considered oöphorectomy safer than removal of the uterus when life was threatened by flooding and pain.—Dr. ROUTH had some years ago tabulated a number of fibro-cystic tumours as compared with pure fibroids of the uterus, and had found that in fibro-cystic disease menorrhagia was rare.

Dr. ROGERS related a case of Chronic Complete Inversion of the Uterus, successfully treated by sustained elastic pressure. S. B——, aged twenty-nine, had a child two years ago. Delivery was followed by great flooding, and menorrhagia has continued more or less ever since. On admission a tumour was felt in the vagina, as large as a turkey's egg; a ring encircled its neck, but the sound could not be passed more than a line or two above this. On April 28th Dr. Aveling's double-curved repositor was applied, and adjusted by Dr. Aveling. After twenty-four hours the strings were tightened, the patient being very comfortable. About sixteen hours later she felt great relief; something had given way, and the strings had become loose. On examination the repositor was found within the uterus high up, and was removed without difficulty. The uterus was completely restored.—Dr. AVELING stated that, since he had invented his repositor last year, five cases had been successfully treated by it.

Dr. MATTHEWS DUNCAN brought forward the subject of delivery in a case of Double Uterus. The patient was delivered naturally in her ninth pregnancy, but, as a portion of the chorion remained in utero, the hand was introduced into the uterus to seek for it. The uterus was then found to have two cavities, of which the child had been in the right. The left was smaller, but similarly shaped, having a rounded roof. In some previous pregnancies the patient had had copious losses of blood about the third and fourth months. The cervix was single and normal.—Dr. BRAXTON HICKS mentioned a case of pregnancy with double uterus and vagina. The author was called to examine a lady, pregnant four months, with a tumour in the right inguinal region, to ascertain whether the pregnancy were extra-uterine. On passing the vulva the finger came in contact with the edge of a firm septum, and it was obvious that an os uteri existed on either side. The uterus on the right side was manifestly pregnant, and of course more developed. Labour took place naturally at full term, and the abnormality was not noticed by the medical attendant.

Dr. W. S. PLAYFAIR read a supplement to a paper on Fibroid Tumours Complicating Delivery. Two cases were detailed by the author in the nineteenth volume of the Society's Transactions. In May, 1875, he was called to see a young married lady, on account of dysmenorrhœa. She had aborted without any known cause within three months of marriage. A large lobular mass was found, occupying Douglas' space, and thus placing the cervix forward. It had much mobility, and was diagnosed as a fibroid. Much anxiety was felt as to probable obstruction in labour, if pregnancy occurred. Soon after she did become pregnant, but the fibroid gradually rose above the brim as pregnancy advanced. Delivery took place naturally, and the fibroid afterwards diminished in size, and did not again descend into the pelvic cavity. The second patient, thirty years of age, was seen first by the author about the fourth month of pregnancy, in July, 1880. The greater part of the cavity of the pelvis was then occupied by a rounded, somewhat lobulated mass, rising above the pelvic brim. The cervix was pushed forward and upward, so as to be difficult to reach. It was decided to wait a while, and the tumour rose to some extent, but became stationary about Nov. 8th. Dr. Hicks met the author and Mr. Wells on Nov. 30th, and a vain attempt was made to push up the tumour under anæsthesia. On Dec. 1st premature labour was induced, with the intention that Mr. Wells should perform Porro's operation, if necessary. When the os was fully dilated the author made a final attempt to push up the tumour, and did so by using considerable force with the closed fist. The child was extracted by version, and was living.

CAMBRIDGE MEDICAL SOCIETY.

(Concluded from p. 177.)

Cases of Diabetes treated by Salicylic Acid.—Chemical Theory of Sudden Death from Chloroform.—Disease of the Skull in Congenital Syphilis.

DR. LATHAM read a paper on "Diabetes treated with Salicylic Acid." In discussing at a former meeting, in November, the action of salicylic acid in acute rheumatism he had suggested that the remedy acts by entering into chemical combination with the antecedents of the *materies morbi* of that disease, which is probably lactic acid, and that this and glucose might have a common origin. (See Note, *infra*.) In that case it seemed reasonable to suppose that the remedy should be of service in diabetes; and it had been given to six patients with variable success, but still with such results as seemed to warrant further trial and investigation. In the first case the sugar had entirely disappeared. Mrs. H——, aged fifty-three, consulted Dr. Latham in June last for great thirst and polyuria; her mouth was so dry and clammy that utterance was very difficult. She was passing seven or eight quarts in the twenty-four hours. These symptoms in a lesser degree had existed for two months, and she was losing flesh; urine, sp. gr. 1042, contained a large quantity of sugar. She was placed on a diabetic diet, with a moderate allowance of toasted wheaten bread, as she could not take gluten bread, and the effervescing citrate of ammonia was prescribed. There was marked improvement from this, but on Dec. 2nd she was still passing three pints of urine during the night; its sp. gr. was 1025, and contained a quantity of sugar. Fifteen grains of salicylic acid were now prescribed three times a day, and distinct improvement immediately followed. On Dec. 10th, sp. gr. 1015, but still containing sugar, as shown by the copper-test, and she was passing much less. On Dec. 22nd, sp. gr. 1017; no trace of sugar, and this, too, after having dined off beefsteak and plum-pudding a couple of days previously; but under the microscope were seen crystals of oxalate of lime and uric acid. She discontinued her medicine, and on Dec. 28th the specific gravity of the urine was 1016, without any trace of sugar to be found. She was passing, however, between three and four pints of urine in the twenty-four hours, and complaining of rheumatic pains in the joints, which had also troubled her for the first time in her life a few months before the diabetes was discovered. The second case was one seen in consultation with Mr. Carter. This case was complicated with the existence of a large swelling of the parotid gland and surrounding tissues with suppuration, under which the patient sank. But whilst taking ten-grain doses of salicylic acid, the amount of urine diminished from seven pints (sp. gr. 1035) on Nov. 7, to four pints (sp. gr. 1018) on Nov. 30th, and on Dec. 3rd, two days before his death, he passed five pints and a half (sp. gr. 1026), with only feeble traces of sugar. The disappearance of the sugar may have been due to the intercurrent disease, as is sometimes the case, and the dose of the remedy was small. The beneficial effect could not have been due to the chemical action of the remedy, but the coincidence is noteworthy. The third case was that of a lady, aged fifty, whom Dr. Latham had seen from time to time, and who for eighteen months had suffered from diabetes, associated with considerable headache, pains in the limbs, across the loins, and along the sciatic nerves, especially severe at night, and preventing her from sleeping. Various remedies had been tried to relieve the neuralgic pains, but with little success. On November 6th she came for advice, as the thirst was more troublesome, the nights were very restless, and had been so for some time, and she was very easily worried and disturbed. She was taking ordinary diet, though from time to time she had tried a restricted diet, generally with the effect of lessening the amount of urine, but increasing her general discomfort. She was passing four quarts of water daily, sp. gr. 1035, containing a large quantity of sugar. Without altering the diet in any way, salicylic acid was prescribed in fifteen-grain doses. On the evening of the 6th she took one dose and slept well, afterwards she took three doses daily. On the 7th she slept well and passed six pints of urine, sp. gr. 1030; on the 8th she passed four pints, sp. gr. 1037; on the 9th, three pints, sp. gr. 1041; on the 11th, two pints, sp. gr. 1037; on the 13th, five pints, sp. gr. 1034; on the 18th, three pints, sp. gr. 1032. She was then troubled with bad headaches and giddiness, &c., and the medicine was taken very irregularly, generally not more than one dose in the day, the sleep was indifferent, and the quantity of urine varied from three pints to three quarts; sp. gr. ranging from 1031 to 1037. On Dec. 6th she was placed on a more restricted diet, and took from that time two or three doses daily of the acid. The urine diminished, and averaged four pints daily; the sp. gr. diminished, and was generally below 1030; on Jan. 4th it was 1025. The three other cases are at present in the hospital. One on admission, on Dec. 1st, was passing four to five pints daily; sp. gr. 1036. He has taken twenty grains of salicylic acid three times a day, with meat, greens, eggs, tea and coffee, and eight ounces of wheaten bread, and passes now from forty to fifty ounces daily of urine with a sp. gr. averaging 1030, and has gained a few pounds in weight. A second, aged forty-four, on Dec. 10th passed 107 ounces of urine, sp. gr. 1045, when he was taking ordinary diet. Fifteen grains of the acid were given without any benefit until Dec. 13th. He was then placed on a restricted diet, with eight ounces of wheaten bread, and twenty grains of the acid had been given to him three times a day. On Dec. 15th he passed sixty ounces, sp. gr. 1050. The quantity and specific gravity varied, but his general health much improved, and on Jan. 4th he passed sixty ounces, sp. gr. 1033. The third case had only been in the hospital a few days. The man was passing about fifty ounces daily, sp. gr. 1042, and neither the medicine nor a restricted diet had as yet produced any improvement. He complained of very severe neuralgic or rheumatic pains in the legs, especially troublesome at night. Dr. Latham had not ventured in any of his cases to try the enormous doses which have been given in Germany (in the Medical Clinique at Kiel) in this disease, such as fourteen to sixteen grammes daily (about half an ounce), (see *Berl. Klin. Wochensch.*, 1877), for in the cases above recorded even sixty grains a day were quite sufficient to produce some of the physiological effects of the drug. That it is of use in this disease seems clear, but for what cases and to what extent must be matters for further investigation.

Dr. LATHAM then directed attention to the "Chemical Aspect of Sudden Death by Chloroform." He had recently suggested that the living representative of sarcosine is the hypothetical compound $(C_2H_5O)(CN)(H_2O)$, cyanate of ethyl + water, and that the cyanate of ethyl either in the living sarcosine or in some derivative from it combines with salicylic acid to produce salicyluric acid, &c, and that seemed to be in accordance with the views of Pflüger (Archiv, x., s. 337), who "has called attention to the great molecular energy of the cyanogen compounds, and has suggested that the functional metabolism of protoplasm, by which energy is set free, may be compared to the conversion of the energetic unstable cyanogen compounds into the less energetic and more stable amides. In other words, ammonium cyanate is a type of living and urea of dead nitrogen, and the conversion of the former into the latter is an image of the essential change which takes place when a proteid dies." (Foster's "Physiology," 3rd edit., p. 691.) Or may it not be, generally, that the cyanates and cyanides are the types of living tissues, the isocyanates and isocyanides of dead ones? In this way:—

$$(NH_4)(CNO) \text{ represents living} \;\ldots\ldots\ldots\ldots\ldots\ldots\ldots\; N\left\{\begin{matrix} CO \\ H_2 \\ NH_2 \end{matrix}\right. \quad \text{dead urea}$$

$$(NH_4)(CNO)(C_2H_5)(CNO) \text{ represents living} \;\ldots\ldots\ldots\; N\left\{\begin{matrix} CO \\ H_2 \\ NH_2 \end{matrix}\right. + N\left\{\begin{matrix} CO \\ \\ C_2H_5 \end{matrix}\right. \quad \text{dead kreatine}$$

$$(NH_2)(CN)(C_2H_5)(CNO) \text{ represents living} \;\ldots\ldots\ldots\; N\left\{\begin{matrix} C \\ \\ NH_2 \end{matrix}\right. + N\left\{\begin{matrix} CO \\ \\ C_2H_5 \end{matrix}\right. \quad \text{dead kreatinine}$$

Now, if this be so, may we not have here an explanation of some, at least, of the cases of sudden death which occur under the influence of chloroform? By means of chloroform, as was shown by Hofmann, the amides are converted into isocyanides; and if the inhibitory or coördinating chemical centre is weakened, so that the four molecules composing living kreatinine are loosely held together, the chloroform would act on NH_2 and C_2H_5, transforming the ethylamine into dead ethyl isocyanide—

$$(C_2H_5)(NH_2)+CHCl_3=3HCl+N\left\{\begin{matrix} C \\ C_2H_5 \end{matrix}\right.$$

$$\text{and } 2CNHO+2H_2O=2NH_3+2CO_2$$

Consequently,

$$\underset{\text{Living kreatinine.}}{(NH_2)(CN)(C_2H_5)(CNO)}+\underset{\text{Chloroform.}}{CHCl_3}+3H_2O$$

$$=\underset{\substack{\text{Ethyl}\\\text{isocyanide.}}}{N\left\{\begin{matrix} C \\ C_2H_5 \end{matrix}\right.}+\underset{\substack{\text{Ammonium}\\\text{chloride.}}}{2NH_4Cl}+HCl+2CO_2$$

If, then, in a person whose coördinating chemical centre is in a feeble state, blood charged with chloroform passes from the lungs to the heart, and at once through the coronary arteries comes in contact with the muscular tissue, one constituent of the muscle would be decomposed, and the transformed tissue would no longer respond to the nervous stimulus, but become a mere bag, into the right side of which the blood, from the pressure in the veins, would flow, and the patient die with a distended right ventricle.

Note by Dr. LATHAM. — In THE LANCET of Jan. 17th, page 97, I have tried to show that it is not improbable that salicyluric acid may result from the action of glycogen and alloxan in the presence of salicylic acid (assisted, it may be, by the pancreatic ferment). Pancreatic juice will convert glycogen into glucose, and glucose fermented with a nitrogenous body may be converted into lactic acid. Consequently, if salicylic acid be not present, the following changes may take place instead of those given on page 97:—

$$\underset{\text{Glycogen.}}{2(C_2H_5O)_2C_2O_3}+\underset{\text{Alloxan.}}{2(CN)(NH_2)(C_3O_4)} \quad +3H_2O$$

$$=\underset{\text{Carbonic ether.}}{(C_2H_5)_2CO_3} \quad +\underset{\text{Ethene cyano-hydrate.}}{2(CH_2OH-CH_2CN)}+\underset{\text{Oxaluric acid.}}{(NH_2)_2C_3O_4}+\underset{\text{Oxalic acid.}}{3C_2O_3.H_2O}$$

And under the influence of alkalies (see Fownes' Manual of Chemistry, 11th ed., p. 707)—

$$\underset{\text{Ethene cyano-hydrate.}}{CH_2OH-CH_2CN}+2H_2O=NH_3+\underset{\text{Paralactic acid.}}{CH_2OH-CH_2-COOH}.$$

The carbonic ether being either decomposed into alcohol and a carbonate, or uniting with oxalic acid to form oxalic ether, which with urea is decomposed into allophanic ether, alcohol and oxamide (see Watt's Dict., 1st Supplem., p. 89), oxamide and dilute phosphoric acid, which may be present in the blood, forming ammonium phosphate and oxalic acid.

Dr. LEES gave a demonstration of the series of Skulls collected by Dr. Barlow and himself from cases of congenital syphilis.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THE annual meeting of this Association was held on Wednesday evening, Jan. 26th, when the Treasurer announced that the finances of the Society were in a most healthy condition. The retiring President (Mr. W. A. N. Cattlin, F.R.C.S.) delivered an address "On the Imperfections of the Dentists Act, with Suggestions as to the Alterations required to protect the Interests of Qualified Surgeons." The following is a list of the newly-elected officers of the Society:—President: Mr. T. Edgelow. Vice-Presidents: Messrs. J. A. Baker, Samuel Cartwright, W. A. N. Cattlin, Francis Brodie Imlach, S. J. A. Salter, F.R.S., and Dr. John Smith, F.R.S. Ed. Treasurer: Mr. S. H. Cartwright. Honorary Secretary: Mr. J. Hamilton Craigie. Council: Messrs. Edward Bartlett, J. Fairbank, Francis Fox, C. Gaine (Bath), W. A. Hunt (Yeovil), W. D. Napier, W. G. Ranger, and Augustus Winterbottom.

STRUCTURE OF ANAL MUCOUS MEMBRANE.

To the Editor of THE LANCET.

SIR,—In reference to the description of the structure of the anal mucous membrane in last Saturday's LANCET (p. 187), allow me to say that Mr. Bickersteth has been in the habit of describing the "pouches" referred to in the paragraph, in his Clinical Lectures, for the past four years to my knowledge. He has, moreover, demonstrated the pouches by the introduction of a probe bent at one extremity into a hook. Not only does Mr. Bickersteth describe these pouches as playing an important part in the production of anal abscess and fistula, but as a source of irritation and distress owing to husks of corn and other substances lodging therein. I hold notes of two such cases. In addition, the division of the pouch or pouches is performed by Mr. Bickersteth by the aid of a hook-shaped knife—the cutting edge of which is within the curve of the hook.

Seeing that this subject is not mentioned in any of the books that I have consulted, it is worthy of more than casual publicity. Yours truly,

Liverpool. WALTER T. CLEGG, M.R.C.S.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 5, 1881.

WE have been twitted with taking a non-specialist view of the question of Lunacy Law Reform, and of being hampered by the traditions of THE LANCET. As regards the first part of this charge, it is only necessary to remark that if by "experience" is meant an intimate acquaintance with the business of hotel-keeping for lunatics, ignorance is such bliss that we would not willingly barter it for the knowledge our critics boast, and with which they are doubtless well furnished. If, however, "experience" may be taken to imply a close study of mental disease, and practical acquaintance with the active treatment and personal management of the insane, then we will not yield precedence to any "authority" who, unable or unwilling to argue the question of lunacy law reform on the basis of plain facts, seeks to raise a side issue. With reference to the traditions of THE LANCET, we will only observe that they are clearly formulated, and fully matured. They do not hamper us, because we are most fully persuaded that the views entertained by the founder of this journal, the late Mr. WAKLEY, and expressed by him in its pages, and in his place in the House of Commons, on the subject of the asylum system, and the working of the lunacy statutes generally, were pre-eminently sound, and, looking to the present state of the question, singularly applicable. Little remains for us to do beyond enforcing those views in their entirety. The leading features of this topic have been so little changed by the progress of events during the last quarter of a century, that the very language used in these columns more than twenty years ago accurately embodies the opinion we desire to express to-day.

"The public has ample confidence in the practitioners of medicine; it harbours an instinctive distrust of those whose vocation it is to combine the custody with the treatment of the insane. It must be regarded as a serious misfortune that any member of a liberal profession should be found acting in this double capacity. The medical proprietor of a private asylum will infallibly be looked upon as a composite individual, in whom the lodging-house-keeper, interested in filling his establishment, predominates over the physician, whose professional pride it is to cure his patients." We wrote thus in a leader on April 23rd, 1859. At the same time, we said, "It has been generally recognised that the inspecting capacity of the Lunacy Commissioners is quite inadequate. It is felt to be impossible for six Commissioners, visiting in pairs, to maintain a sufficiently minute and frequent supervision of the numerous private houses and their inmates, within their jurisdiction.......The plan proposed is to appoint 'medical examiners' for districts; their duties to be, to visit any patient received into a house in their district forthwith, on receipt of a notice of admission, and to transmit a private report upon the case to the Commissioners."

Mr. DILLWYN—whose labours in the cause of Lunacy Law amendment will ultimately be acknowledged as entitling him to the respect and gratitude of the profession and the community—has reprinted his Bill of last session, with a few small but not unimportant alterations, which we are glad to recognise as improvements. The initial proposition is to enable justices to provide for the accommodation of lunatics other than paupers. Clause 1 would extend the powers given by 16 & 17 Vict., chap. 97, secs. 46—52, so as to allow the justices of counties and boroughs to raise money for the provision of new asylums for paying patients, or the purchase of those that exist. This proposal has been opposed on the ground that it does not compel the taking over of all the existing asylums. Ultimately all asylums must be public institutions. The power of imprisonment *must* be withdrawn from private persons, and restricted to public officials acting in the name, and under direct responsibility, as agents, of the Government. We should entirely agree with those who object to the permissive nature of this clause if they took exception to it on the ground just indicated; but that is not the fact. The antagonism exhibited comes from the proprietors of existing asylums who are not unwilling to be bought out of their undertakings, more particularly now that the public are beginning to distrust them, but who are not so sure of the value of their properties as to feel confident that the justices will purchase them. Of course, if the private asylums were well up to the requirements of the day, and eligible from a business point of view, there could be little doubt of their sale, though the clause is left optional. We are not disposed to attach any great importance to this objection. There can be no question that the justices will buy where they can do so with a due regard to the public interests, and after the long spell of forbearance the proprietors and lessees of asylum property have enjoyed, they may well be content to abide the event. It is not graceful to stand in the way of reform with petty and selfish objections. Clause 2 provides that the proprietors of such asylums as may be purchased shall receive in addition to the value of their freeholds or leases, and other stock-in-trade, a "goodwill" not less than the yearly average profits of the establishment during "the three years immediately preceding the passing of this Act." In the Bill of last session the assessment was to be made on the basis of the average of three years preceding the sale. The present wording is better, as supposing the sale to be delayed there may be a serious disturbance of the averages of profits by the passing of this Act. Another important feature in the clause is a provision at the close enabling the justices to pay the vendors of asylum property in "bonds" issued under the authority of the Act 16th and 17th Vic., chap. 97, before cited. This will meet the convenience of those proprietors who would like to retain a monetary interest in the property, although no longer beneficially interested in the profits of the business. It will also obviate the need of borrowing money, except to pay off proprietors who are eager to realise. Clause 3 transfers private asylums and licensed houses in the metropolitan districts from the jurisdiction of the Commissioners to that of the justices. This is necessary to bring them fully under the Act. Clause 4 requires the provision of at least one asylum for paying patients, within each of the metropolitan districts within two years after January 1st, 1882. The time allowed strikes us as needlessly long, but this can be amended in Committee if deemed desirable. By Clause 5 the receipts from asylums are to be made a common fund, and any surplus in a district appropriated to the reduction of the rates levied for the maintenance of the pauper lunatics chargeable to that district. Clause 6 places private asylums, on becoming the property of the justices, upon the footing of public asylums as regards their government and administration. Clause 7 continues the "Medical Visitor to the justices" appointed under 8th and 9th Vict., chap. 100, but makes him virtually local inspector of *all* asylums without official connexion with either, and requires that he shall not be engaged in private practice, but permits him to hold any public appointment such as those of coroner and medical officer of health, or to be a professor at, or teacher in, any medical or scientific school. This is a great point gained for the independent and yet skilled supervision of the insane in asylums. There can be no difficulty in obtaining the services of medical men of position and repute for the post, and it will be a most important one, looking to the provision made in subsequent clauses of the Bill. Clause 8 enables the Committees of Visitors of Public Asylums to provide suitable accommodation for paying patients. Clause 9 requires that no lunatic shall be received into any asylum without an order granted by a Justice of the Peace. It also provides that the person signing the form of application to the justice shall be a blood relation within one or two degrees, or a solicitor acting for a person so related. One of the two certificates of insanity is to be signed by the Medical Visitor. This we hold to be one of the most important and salutary provisions in the Bill. It will give, if not a perfect, certainly a very strong, safeguard against abuses, and in every respect be most satisfactory to the great body of the medical profession and to the public. The same clause provides for the admission of urgent cases on a single medical certificate, but Clause 10 requires that in all cases of "emergency" notice shall be at once sent to the Commissioners in Lunacy and to the Medical Visitor, and that "as soon as possible after receiving such notice, the Medical Visitor shall visit the case and report forthwith confidentially upon it to the Commissioners in Lunacy." It must be manifest that this is an arrangement of the highest value, and looking to the advice we gave in 1859 (above quoted), we trust the visiting and reporting to be performed by the Medical Visitor will hereafter be extended to all cases received into asylums, thus securing that personal knowledge and supervision of the insane which the law as it stands does not provide. Clause 11 limits the operation of the order of admission made by a Justice to one year, and makes it determine with the notice of discharge of the patient. Clause 12 adopts substantially the provisions of the Scotch law in respect to voluntary patients, thus providing for the early treatment of mental disease, when a patient is self-conscious of the need of aid or protection and may yet be spared the development of actual disease. This is a very valuable and obvious amendment of the strangely imperfect lunacy system which finds favour on this side of the Tweed. Clause 13 provides that any person may obtain an order from a judge at chambers or a chairman of Quarter Sessions, a stipendiary magistrate, or a County Court judge—easily accessible officers—for the examination by two medical men of any lunatic confined in an asylum, with a view to his or her discharge. By Clause 14 the Commissioners in Lunacy are required to visit all houses, hospitals, and asylums at least *twice* in each year. Clause 15 gives the Commissioners power to order the removal of any patient in a private asylum to a public institution. Clause 16 provides for the appointment of a salaried chairman to the Board of Commissioners in Lunacy, and enables the Lord Chancellor to appoint two additional Commissioners, both being physicians. Among the schedules of the Bill, we would particularly call attention to that marked "F," which requires the signature of the Medical Visitor of the district to every certificate presented by a superintendent, to continue a judge's order from year to year. This will further strengthen the development of the Medical Visitor's authority as a local inspector of the *insane*, as distinguished from the Visiting Commissioners, who are practically travelling inspectors of *asylums*.

Such is a brief outline of the main provisions of Mr. Dillwyn's Bill. We shall hereafter have ample opportunity for the discussion of its proposals in detail, but, speaking now generally, it is a measure we most cordially approve and must warmly support.

The subject chosen by Mr. Lister as the theme of his address on first taking the chair at the Clinical Society was peculiarly well chosen, and dealt with in a manner worthy of the speaker and the Society and profession addressed. The value of the catgut ligature can be tested only by clinical experience, and there is no question of surgical therapeutics exciting more interest—and worthily so—at the present time than Mr. Lister's attempt to reintroduce an animal ligature. But Mr. Lister's Address shows, as pointed out also by Dr. Wilks in his address at the Pathological Society, how intimately all clinical study is bound up with pathological research, and what valuable aid it receives from chemistry and scientific philosophy, and as an illustration of these facts the Address is well worthy of study.

Mr. Lister acknowledges, as he was bound to do, that hitherto the catgut ligature has been uncertain in its action, and therefore not entirely trustworthy. Sometimes softening too soon and exposing the patient to the danger of hæmorrhage, it has at other times resisted too long the absorbent action of the soft tissues and induced local irritation. But these occurrences have been but the exceptions to the general success attending its use. With characteristic discrimination he foresaw that this irregularity in the changes undergone by the dead passive catgut would be explained by some differences in its physical or chemical characters, and with laborious research he endeavoured to find out the clue to this variation, and if possible to devise some mode of obtaining a ligature uniform in character and possessing all the qualities of the best specimens of catgut hitherto prepared. In this he states he has been successful. It has been rumoured for some time past that such was the case, but that Mr. Lister was hesitating to publish his mode of preparation until fully convinced that it was all he desired it to be. And those who know Mr. Lister best will feel most confidence that what he has now made public will bear the test of experience. We need not here refer to the treatment to which Mr. Lister subjects catgut, but must only point out that while simple, cheap, and rapid, it is warranted to produce a thread, supple, very strong, of which a knot properly tied holds without any slipping, and which is slowly but surely absorbed by the tissues, neither yielding too soon nor remaining too long. It may seem that this is "too good to be true," that unless there is some reservation to be made it is an exception to most if not to all surgical procedures. Lengthened experience can alone determine this point.

The artificial arrest of hæmorrhage is perhaps the greatest surgical triumph, and there is no landmark in the history of the practice of surgery on which we can look back with greater pride than the introduction of the ligature by Ambroise Paré. Since that time every competent practitioner has been armed with a certain means of arresting, at least temporarily, loss of blood from any vessel around which a thread can be passed. And if the tendency in late years has been rather to concentrate attention upon the failures attending the use of silk and hempen threads, we must not lose sight of the incalculable advantage they have proved during the last three hundred years. The proportion of failures has been small indeed, and if it be that to this generation of surgeons, and to Mr. Lister in particular, the honour of *perfecting* the ligature will accrue, we must not withhold our meed of admiration from that man who first conceived the idea of closing the mouth of a bleeding vessel by a constricting thread, and carried it out with a success which has been shared in by countless thousands in later years.

There is one feature in this communication of Mr. Lister's that will recommend it very widely. It is the fact that it is a simplification of one of the parts of his antiseptic treatment which is generally supposed by those who do not practise it to be too complicated. We doubt not that its author is fully alive to this consideration, and that he would welcome any method by which a like simplification could be made in his mode of dressing, while all its claimed advantages are retained, or made more certain. Another fact of importance is Mr. Lister's admission that the catgut ligature is not an integral part of his antiseptic treatment, but that it is of avail when that cannot be, or is not fully, carried out; it thus becomes generally applicable, and the value of Mr. Lister's work proportionately increased.

There is one part of Mr. Lister's Address, however, that leaves an impression of doubt upon the mind, and we refer to it with the more liberty as we have already stated our very high appreciation of its general value. And it is in reference to the lasting strength of the new catgut. Mr. Lister tells us that the large size will bear a strain of 13 lb. at least before breaking, which is more than can be employed by the unaided hands, and goes on to say that, after soaking for half an hour in blood serum at the temperature of the body, its breaking strain is only reduced to just over 11 lb. We confess that we crave for more facts in the same direction; what strain will it bear at the end of one, three, five, and twelve hours? If used only for clean vessels in a healthy subject, no doubt the knowledge of such facts may not be important, for an obstructed artery soon has a clot formed within it, and the pressure of the blood on its end becomes materially lessened; but cases occur every now and then where, from constitutional causes, this clotting of the blood is delayed for many days, and, for example, forcible pulsation may be seen quite up to the ligature round the femoral artery after amputation through the thigh. But, excluding these cases—important as they are—the great strength of the catgut suggests that it may be employed for the ligature of piles, or of the pedicles of ovarian and other tumours, and have a value here second only to that of its application to single vessels. Is, then, its strength so enduring that it will resist any tendency to swelling of the constricted part when reaction ensues? We doubt not that evidence will soon be forthcoming on this head, but it is important to have the facts elicited by experiment in the laboratory before it is verified in the living subject, and it would seem that we could acquire sufficient evidence very readily. Mr. Lister's case was so strong that he could afford to acknowledge generously Mr. Barwell's effort to supply a reliable animal ligature; although Mr. Lister claimed that the catgut prepared on his new plan answered all purposes, he did not point out that Mr. Barwell's ligatures were any less efficacious or reliable, or hint that Mr. Barwell had not obtained a thread considerably superior to the catgut hitherto generally used.

On some of the minor and subsidiary issues raised by Mr. Lister, more divergence of opinion may be held than on the subject of the ligature. In particular, we would refer to his remarks on the presence and influence of micrococci in the ligatures he used in a case of thyrotomy. He appears to take it for granted that the mischief set up in that case was due to the action of the micrococci found in the interstices of the ligatures. But yet we are assured that these same organisms may occur in cases treated by Listerism and no mischief ensue. If so, there must at least be some other element in the former case, and Mr. Lister's remarks on this head are at any rate inconclusive.

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It has been proposed to employ rabbits for the purpose of testing the nature of supposed cases of rabies, on account of the readiness with which the disease can be transmitted to these animals. M. Raynaud lately communicated to the Académie de Médecine an account of some experiments by M. Lannelongue and himself on this subject. On Dec. 8th a child was admitted into the Hôpital Ste. Eugénie who had been bitten on Nov. 11th. After twenty-six days' incubation the child was seized with dyspnœa, which was followed by intense delirium, and the patient died on the fourth day. Three series of inoculation experiments were made. Four rabbits were inoculated with the saliva before the child's death. Of these three died rapidly; the fourth recovered after a period of considerable indisposition. Two rabbits inoculated with the blood recovered—a fact which is regarded as corroborating the opinion that the disease is transmitted by the saliva rather than by the blood. After the child's death a second series of experiments were made. Rabbits inoculated with the mucus from the bronchial tubes died. Juice from the salivary glands yielded a doubtful result, only one of the rabbits inoculated having died. At the post-mortem examination of the child it was found that the glands of the neck on the side of the face which had been bitten were much swollen. A scraping from one of these glands inoculated into two rabbits killed one of them. The roots of the two fifth nerves placed beneath the skin of a rabbit killed it at the end of three days, and hence it is assumed that the virus is abundant in the nervous system. In a third series of experiments inoculation was practised from a dead to a living rabbit, and it was found that death occurred even when the blood was employed. Of thirty-eight inoculations twenty-six were fatal. The average interval between the inoculation and the death was about forty-five hours, but only twenty-nine hours in the case of the inoculation from rabbit to rabbit. This short period of incubation, together with the fact that inoculation from the rabbit to the dog was without effect, raised considerable doubts as to whether it was indeed rabies of which the rabbits died. This doubt was expressed by many members of the Academy. M. COLIN pointed out that since the period of incubation in the herbivora is from twenty-eight to thirty days, it was much more probable that the animals died of septicæmia, since the saliva is a very putrescible liquid. This opinion was shared by M. DUJARDIN-BEAUMETZ. M. RAYNAUD admitted that the symptoms were not similar to those of ordinary rabies, but accepted a suggestion of M. BERGERON that the difference in the characters of the disease was probably the result of a difference in the dose. M. PASTEUR stated that he also had inoculated some rabbits from the same patient, taking a little mucus from the mouth four hours after death. The animals died thirty-six hours after the inoculation. With the saliva of these rabbits others were inoculated, and these also died. In the first series there was a swelling of the lymphatic glands, and both the glands and the trachea contained numerous hæmorrhages. In the blood of the rabbits taken immediately after death, a microscopical organism was found altogether peculiar. It had the form of a small rod, slightly constricted in the middle, in length about the 1000th part of a millimetre, or even less, and it was surrounded by the pale halo which may be seen around most microscopic organisms when they are placed in a certain focus. If these were placed in a cultivation liquid, as, for instance, in a decoction of veal, they rapidly multiplied, and always maintained the same form, but better defined. Sometimes the organisms were found arranged in 8-shaped chaplets. In cultivation the areola did not show itself. When the liquid in which they were growing was left to stand, the figure of 8-shaped arrangement disappeared, and only minute spherical points remained. This organism was without doubt the cause of the illness and death of the inoculated rabbits, for others inoculated with the organisms, after their artificial cultivation, died with just the same symptoms. Is the disease, thus inoculated, rabies? M. PASTEUR would not affirm this. It was certain that the saliva came from a child who suffered from rabies, but although M. GALTIER had shown that the period of incubation in the rabbit is comparatively short (eighteen days), the practical absence of incubation in these cases was a difficulty in accepting the conclusion that the disease was rabies. Of one thing M. PASTEUR was sure, that it was not septicæmia. The organism was not the same, and the symptoms were not the same. In his experience the disease was a new one. Guinea-pigs inoculated with it did not suffer at all, although it is an animal closely allied to the rabbit. On the other hand, the disease was readily transmissible to the dog, which dies in three or four days, but presents no symptoms of rabies.

At the next meeting of the Academy M. PASTEUR returned to the subject, and insisted again on the negative result of the inoculations on guinea-pigs as proof that the disease communicated to the rabbits was not septicæmia. He showed six guinea-pigs inoculated with considerable quantities of the new organism, obtained by artificial cultivation, and all the animals were in perfect health. On the other hand, a rabbit inoculated with the same material died in a few hours. In a series of comparative experiments M. PASTEUR inoculated some guinea-pigs with germs of the vibrios of septicæmia, collected in 1877, and carefully preserved in a tube; all died rapidly, with the characteristic symptoms of septicæmia. From these facts he considered the conclusion justified that the inoculation of the rabbits with the saliva of the hydrophobic child has given rise to a virulent disease, which is absolutely new, and which is characterised by a special organism.

It is to be hoped that the investigations initiated by M. PASTEUR will be prosecuted further, for the facts he describes are of extreme interest and importance, although it would be premature to affirm that he has discovered the organism of rabies.

At the same meeting some experiments by M. GALTIER of Lyons were communicated. In one series of observations the various salivary and buccal secretions of rabid animals were inoculated, with a view of ascertaining which of these secretions were virulent. The only evidence of virulence was obtained from the lingual glands, and from those of the mucous membrane of the mouth and pharynx. In a second series of experiments he found that the virus remains active for a certain time in the dead body, and even preserves its virulence after mixture with water, for one to three days. He obtained what he regarded as rabies in the guinea-pig with inoculation of the saliva collected ten days before, and preserved between two plates of glass. By cultivating the saliva of a rabid dog in the saliva of healthy animals he also obtained an organism which had the form of rods and chaplets. But, contrary to the results obtained by M. PASTEUR with his organism, which was cultivated in an indifferent liquid, M. GALTIER found that guinea-pigs inoculated with this saliva died in from eight to twenty-two days. Other guinea-pigs inoculated with the saliva of the first, died in from the fourth to the fifth day. By treating different mucous membranes with the saliva of rabid animals, M. GALTIER believes that he has conferred on animals an immunity to rabies. He has succeeded in inoculating rabies, from the dog, in the case of rabbits, guinea-pigs, sheep, and hares. He has not succeeded in communicating the disease to fowls. On the other hand, he found that the subcutaneous injection of the saliva of a rabid dog was capable of producing local inflammation and septicæmia, which caused death in from four to eight days. The injection beneath the skin of sheep of the juice obtained by squeezing the cerebral substance of rabid dogs, caused death in a single day. The disease did not appear to be rabies, for the saliva of the sheep did not communicate the disease to rabbits.

These experimental results are not altogether easy to interpret. It is possible that the facts discovered by M. PASTEUR may furnish a key to their significance. However this may be, the experiments are full of promise of important additions to our knowledge of the pathological relations of this terrible disease.

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THE Select Committee for investigating the working of the Medical Act and the merits of the several propositions for its amendment will be revived. Meanwhile the General Medical Council is sitting. It is announced that the chief business of the Council has reference to the Dental Register, though we can see nothing in the questions raised at the time of our going to press that could not have waited till the ordinary meeting of the Council. The time chosen for this session is unusual, and, occurring so closely on the death of the lamented chairman of its Business Committee, inopportune. It will be a melancholy waste of time and money if the Council should be tempted to repeat its oft-told opposition to schemes of medical reform. If this should be the case, is it too late, or is it really useless, to appeal to the members of the Council to consider whether the time has not come for the Council to accept with grace the judgment of the profession and to come to terms with it? It would be an enormous accession to the strength of the Council and to the force of its proceedings if it were somewhat reconstituted, and if it were to put itself right with the profession. There would be a feeling of respect for it and for its authority, the absence of which must be very painful to those members of the Council who spend much valuable time in fruitless discussions and weak recommendations. We can assure such members that the profession has no pleasure in disparaging what ought to be its most honoured public body. For ourselves, we should only be delighted to see the Council and the profession reconciled and helping each other to maintain the education of the profession, and the clear distinction contemplated by the Act of 1858 between qualified and unqualified practitioners. It is conceivable that the majority of the Council may foil the efforts of the profession, as the profession has repeatedly foiled the attempts of the Council at medical legislation, which in the judgment of the profession were imperfect. But what will be the good of that? The profession cannot recede, and the days are gone, or fast going, when a few corporations could long maintain a successful war against the body of educated and earnest men to which they owe all their importance. The time has come for an understanding to be arrived at, and we appeal with some hope to the Council to admit the fact. There must be eminent men in the Council, as there are outside of it, who see this. The Council will meet under the shadow of a great loss. Dr. ANDREW WOOD was a worshipper of the established order of things, but even he never sanctioned the exclusion of the profession from the Medical Council. He represented a College which in 1505 had "a seill of cause granted by the Towne Counsell of Edinburgh to the crafte of surgery and barbouris." One of its first rules was that no surgeon should take an apprentice who could not read and write. It was for a long time the only body in Scotland licensed to distil spirits! Bodies so old deserve reverence, but they need adaptation. Let the men who are younger than Dr. WOOD see the necessity, in the true spirit of conservatism, of adapting institutions which they wish to preserve to another century than that in which they were created. If such a spirit should now take possession of the Council, the meeting of 1881 may be a new departure for that body.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

AT the meeting of the Fellows on the 27th ult., it was resolved to grant the use of the rooms of the College to the International Medical Congress from July 24th. Drs. G. Johnson, G. T. Fincham, J. E. Pollock, J. Andrew, and C. Chadwick were elected to serve on the Council. The annual report of the examiners for the College licence was read. It was resolved to admit to the privileges of the reading-room those medical officers of the Army, Navy, and Indian Services who have retired, on application to the Registrar in writing, accompanied by a recommendation from a Fellow or Member of the College, or from the head of the department to which the applicant belongs. A proposal from the Registrar to the effect that candidates for the licence be required to sign a declaration that they have not been rejected within three months, was negatived after some discussion, in which Dr. Pye-Smith, Dr. N. Moore, Dr. Quain, Sir W. Jenner, Dr. Pavy, and Dr. Fagge took part. A further proposition that the question of appointing auxiliary examiners be referred to the Council, and that meanwhile the President should be empowered to nominate such auxiliary examiners, if occasion arose, was carried.

FILARIAL PERIODICITY.

AT the last evening meeting of the Quekett Microscopical Club Dr. Cobbold communicated a fresh paper by Dr. Manson on the above subject, which is expected to appear in the next issue of their journal. The facts are remarkable. The paper opens with a careful consideration of the views of Dr. J. Mortimer-Granville, who has expressed the opinion that the phenomenon of filarial periodicity may be associated with sleep. This might occur, Dr. Granville thinks, owing either to the mechanical changes in the circulation when the body is in the recumbent posture, or to the different proportions of oxygen in the blood, or, again, to the relative alterations of blood and tissue.

Dr. Manson holds that his facts and observations prove (1) that the periodicity shown by the filaria embryos is by no means an exceptional or capricious phenomenon, and (2) that this periodicity is associated with the advent of night, not being in any way dependent on the sleeping state.

The second part of the paper records a series of observations on the blood, temperature, and pulse of two Chinese youths. Having ascertained that the young men were filarious, Dr. Manson proceeded to educate them to the performance of a systematic inquiry. Under his frequent supervision the young men not only readily recognised, but carefully counted, the embryos present in practically uniform quantities of blood taken from their own persons. The necessary self-vivisections were performed every three hours daily and nightly for a period of one month. At the same time they read accurately the teachings of the clinical thermometer, making also equally careful observations on the states of the pulse, the barometer, and the ordinary thermometer. The facts observed every three hours, daily and nightly, are recorded on a chart, in respect of which the author pledges himself as to its general accuracy, qualifying his statement only by the remark that "if there are any errors, they are few and unimportant."

One of the chief difficulties to be overcome had reference to the regulation of the quantity of blood to be examined. Whatever amount of actual bloodletting took place, the utilisation and accurate measurement of a single drop for each observation would have proved a cumbersome operation. The author, therefore, caused his pupil-patients to employ only "sufficient to form a thin workable film occupying a covering glass of 1½ in. by 1 in. in diameter." Although infinite pains were apparently taken to render the successive films equivalent to each other quantitatively, yet trifling differences of volume must inevitably have resulted. It would appear, however, that the substantial accuracy of the results remains unaffected.

Towards the close of his paper Dr. Manson refers to the results of his administration of quinine, nitrite of amyl, santonin, inhalations of turpentine, and quassia tincture sprays, but as regards any influence on the filariæ the results were negative.

A WINTER ON THE RIVIERA.

A CORRESPONDENT writes:—The Riviera has not escaped a reflex of the terrible winter, which, with unusual violence, has assailed the British islands. During the month of December, and while London was constantly enveloped in fog, the numerous patients who resort to these regions thought they had at last found real summer in mid-winter. At Hyères there were, in December, twenty-eight days of sunshine, and sunshine of a description unknown in England. There were but five days of wind, and one of rain. According to Dr. Biden's observations, the average maximum temperature for the month was 61·78° F., and the average minimum 44·9° F. The myrtle bloomed a second time; the may was beginning to show itself on the hedges, when January came with lowering clouds, gloom and cold winds. Seventeen days were given up to rain, and it often rained at night also. The rainfall from the 1st to the 25th amounted to four inches. According to Dr. E. Vidal's official reports for the French Meteorological Society, the average rainfall at Hyères during the last ten years is equal to 22 inches per annum. During nine days in January it was fine but cold, and there were but four days when it was at once fine and warm. It has frozen four times, and once with such severity as to kill many roses and flowers. This was on the 21st, the minimum reached by the thermometers in the more exposed portions of the town being 26·5° Fahr. On the 16th and 17th the thermometer fell to 28·5° and 28·75°. The maximum registered on these two days was, however, 37° and 40° Fahr. respectively, while the maximum on the coldest day was higher still—namely, 46·5°. In the more sheltered quarters of the town the thermometer never went lower than 29° F. On the 24th the thermometer just reached freezing point, and there was snow, but it melted on touching the ground. Thus, though six or seven degrees of frost is considered very severe at Hyères, the persistent gloom, rain, and cold winds were far more unpleasant to bear. The patients therefore protest that they have, after all, endured a severe winter, though there were but fifteen days in the month when the minimum temperature registered fell below 40° F. The fact is, that the houses and furniture are so unsuited to cold weather that a temperature which could be endured easily in England would occasion considerable suffering on the Riviera. Also the bursts of sunshine that will send the exposed thermometer up beyond 80°, when it falls to 35° F. at night, creates contrasts that are naturally difficult to bear. The complaints made at Hyères have been echoed throughout the Riviera, where rain and sleet, cold and wind, have been the universal torment. Each station has suffered, some a little more and some a little less, according to the amount of shelter that protects them, but none have escaped the inclemency of the winter.

THE CAMBRIDGE TRIPOS LIST.

IT is a fact of some significance that, in the list of wranglers of the recent mathematicnl tripos, among the first six there was not a single representative of the richly endowed scholastic establishments of Eton, Winchester, or Westminster, or of the old-established public schools like Rugby or Harrow. On the contrary, the first six wranglers received their primary education at institutions established at a comparatively recent date for the purpose of providing education at a cheaper rate than is attainable at the schools we have named. Thus we find the senior wrangler received his education at the Liverpool College; the second at Clifton College; the third at Owens College; the fourth at Windermere College; the fifth at Brighton College; and the sixth at King's College, London. If we turn to the classical tripos the same thing occurs, since we find a small school like Shrewsbury competing, and competing most successfully, against the heavily subsidised and specially trained scholars of Eton, Westminster, and Winchester. The success of Shrewsbury during the last forty years has been prodigious. At Cambridge, Shrewsbury men have repeatedly attained the distinction of senior classic, and quite recently this honour has been obtained by them three years in succession, whilst since 1848 no less than twenty-one Porson prizes at the same university have fallen to their share, and since 1868 they have carried off ten University (not college) Scholarships. Such success is, we believe, unparalleled, and appears marvellous when we consider that the school rarely exceeds 170 in number, and that there are no entrance scholarships to attract boys of special promise to it. This latter point brings the question of the advantage of entrance scholarships under notice on the present occasion. We are not, indeed, able to form an opinion, nor is it our province to attempt it, whether the comparative infrequency of scholars hailing from Eton, Westminster, or Winchester, being highly placed in the Cambridge class lists is due to any shortcomings in the educational system in force at these institutions. But the fact remains that lads selected by severe competition, at an early age, and then educated for the special purpose of attaining high University distinction in these highly endowed educational establishments, do not hold their own, as far as Cambridge is concerned, with institutions whose resources are more limited and whose scope is more general. Is it not probable that the premature forcing and severe training which a successful competitor for an Eton or Winchester scholarship has to undergo takes too much out of a lad at first, and places him in later years at a disadvantage with competitors who have matured more slowly, when the struggle at the University commences? This supposition is strengthened by the fact that a lad who has failed to obtain an entrance scholarship at Eton or Winchester has, not unfrequently, gone to some less pretentious school, and has succeeded in the tripos in turning the tables on his successful rivals of previous years.

DEATH BY DROWNING.

THE striking fluidity of the blood, often to be observed in the bodies of persons who have been drowned, has led MM. Brouardel and Vibert to make some experiments on the subject. They have found that when animals have been drowned slowly a large amount of water passes into the circulation, as is shown by counting the number of corpuscles in a given volume of the blood before and after immersion. They estimate that the water, in this case, amounts to not less than one-third of the total amount of liquid in the circulation. If death occurs rapidly, little or no water is absorbed. The water enters chiefly by the mucous membrane of the lungs, for ligature of the œsophagus makes very little difference to the quantity absorbed. Animals killed by the injection of water into the air-passages present a slighter amount of hydræmia than those killed by drowning. In the latter case the blood-corpuscles present only slight changes, and the chief difference to be detected is their lessened quantity. Small capillary hæmorrhages, however, are often to be found in the alveoli and parenchyma of the lungs, which explains the blood-stained foam which often flows from the nostrils and mouth of the drowned. Some of the epithelial cells of the lungs are altered, and present a granular and fatty appearance in consequence of the action of the water. The experiments will be found described in detail in the *Annales d'Hygiène Publique* for November.

DR. RICHARDSON'S LECTURE IN THE CHAPTER HOUSE OF ST. PAUL'S ON THE JEWISH SANITARY CODE.

ON the invitation of the Homiletical Society—a society of clergymen of the Church of England—Dr. Richardson delivered an address to the members on Tuesday last, in the Chapter House of St. Paul's Cathedral. The subject of the lecture was the Jewish Sanitary Code. The lecture opened with a description of the present Jewish population throughout the world. This was followed by a summary account of the privations and oppressions through which the Jews had passed since their last dispersion after their defeat by the Emperor Hadrian, A.D. 131–5, of the enthusiastic and brave Simeon, or, as he was also called, Barcochebas (son of a star). Next, the extraordinary vitality which the Jews had exhibited through all these troubles was described and their present remarkable vitality was fully detailed. The evidence thus adduced led up to the question, Why has the race shown such tenacity of vital power? The various hypotheses in answer to this question were related—(*a*) The supernatural; (*b*) facility for acclimatisation; (*c*) hereditary longevity; (*d*) superior physique; (*e*) sobriety. The lecturer, discussing these hypotheses, came to the conclusion that the phenomenon was the result of the observance that had been kept of certain cardinal points of the Mosaic sanitary code. Five of these observances were of special moment, and were sufficient to account for all that had been observed. They were the Passover cleansing; the seventh day's rest from physical and mental labour; the domestic care and the chastity of the Jewish women; the circumspection in regard to foods and drinks; and the succour which is ever given by the strong to the enfeebled. The meeting was rendered remarkable—we may even say memorable—by the circumstance that at the instance of Dr. Richardson, the Delegate Chief Rabbi, the Rev. Dr. Hermann Adler, was invited to be present. The learned Chief Rabbi not only came, but took part in the debate that followed the lecture, giving an admirable description of the definition which the great scholars amongst his people have rendered of the word 'leprosy."

NURSES FOR THE TRANSVAAL.

THE War Office has decided to suspend for the present the embarkation of the nurses from Netley, for service in the military hospitals in the Transvaal, a communication having been received from Sir George Colley that he has made arrangements for nurses in the colony for employment in the Base hospitals. Should the military operations against the Boers be extended, and the campaign resume larger dimensions, the Netley nurses would be telegraphed for.

MARCH FROM QUETTA TO KANDAHAR.

THE Commander-in-Chief in India has ordered the publication of the despatch from General Phayre, submitting a report of the march of the division under his command to Kandahar, as being "most interesting, and showing good work done under exceptionally difficult circumstances." This report unfortunately contains very little information respecting the health of the troops, making forced marches with the thermometer ranging as high as 120° to 130° Fahrenheit. "The heat during the day was sometimes very great, occasioning excessive thirst, which the brackish water of some places failed to quench, and, in addition, injured the health of a great part of the force." We are nowhere informed what was the effect of these untoward conditions upon the health of the men, nor what measures were taken to diminish it as far as possible, except that it is stated the men were carried "in bullock-carts from Sidi to Mach, a distance of fifty-five miles in three days." Our contemporary, the *Army and Navy Gazette*, asserts, however, "as a matter of fact we know that the men hardly ever got into the carts, and, moreover, were obliged in many places to shove them up steep inclines, over fords, and through deep sands. Indeed, far less work would have been entailed on the men had they had no carts at all, but good animal transport instead." Our contemporary accuses General Phayre of having in his report suppressed several unpleasant occurrences, and among others "that the 11th and 15th Foot, 15th Hussars, and Artillery lost quite sixty men from sunstroke and heat apoplexy before they reached Quetta." Among other matters omitted, we regret to find all allusion to the services of the medical department, which under such circumstances must have been very arduous. General Phayre has specially thanked by name twenty-six officers, military, political, commissariat, and transport, but has not thought it necessary to take any notice of the medical service. In this respect his conduct stands in striking contrast to that of Sir Frederick Roberts. We trust that the Commander-in-Chief and Governor-General will not allow this neglect on his part to operate against the medical officers receiving their due share of any credit which may attach to, or rewards which may be granted for, the arduous service performed on this occasion. We refrain from further comment upon General Phayre's conduct in this matter.

ROMAN ANATOMICO-PHYSIOLOGICAL INSTITUTE.

AT the opening of this institution, on the 16th ult., Prof. Tommasi-Crudeli enlarged on the material difficulties surmounted before the undertaking had become *un fait accompli*, and concluded his address by auguring from the good work achieved by unfavourably circumstanced Roman physiologists the better work they would put forth under more propitious auspices. It was in no completely equipped laboratory, but in the narrow cells of the Convent of S. Antonino, that Francis Boll in 1873 began to train his little band of physiologists and to make those discoveries which have once more drawn the eyes of *savans* to Rome. Already labouring under the malady to which he prematurely succumbed, Boll gave his pupils the example of a rare assiduity, and with his clear demonstration of the fact that the retina has a colour of its own (*rosso retinico*) he set the seal of science on his humble school. This discovery, preceded by interesting monographs by himself on the Electric Apparatus of the Torpedo, and by his pupil Colasanti on the Ovum, was followed by the elaborate paper of another pupil, the Marquis Stefano Capranica — "Studi Chimico-Fisiologici sulle Materie Coloranti della Retina" (Chemico-Physiological Studies on the Colouring Matters of the Retina). From these admirable beginnings Professor Tommasi-Crudeli anticipated the vigorous development the Roman medical school would ere long exhibit, and he resumed his seat with the announcement that the physiological course would be forthwith commenced by Professor Moleschott. This eminent teacher then delivered his inaugural discourse, the official publication of which will shortly place before the scientific world the author's latest views on human physiology in general, and on that of the nervous system in particular.

THE CLINICAL SOCIETY.

MR. LISTER's address, on taking the chair as President, occupied the whole of the meeting on Jan. 28th. On the conclusion of the address a vote of thanks to Mr. Lister was moved by Mr. Hutchinson, seconded by Mr. Heath, and carried by acclamation. Mr. Barker showed a case of Elephantiasis of the Hand and Forearm; Dr. Crocker, one of Melasma; Mr. Gould, of Dislocation of the Head of the Radius forwards, of fifteen years' standing; and Dr. Sturge, one of Motor Ataxy with exaggerated Tendon-reflex.

THE DISTRIBUTION OF THE RED BLOOD-CORPUSCLES.

S. D. KOSTJURIN has shown, in the *Petersburger Med. Wochenscrift*, that the proportion of blood-corpuscles in the serum varies considerably in different parts of the body, and in the same part under different conditions of the circulation. His observations were made with Malassez's numerator on the blood of healthy and diseased men and also in animals. He found that the red blood-corpuscles are considerably more numerous in the capillaries of the skin of the supra-clavicular region than in the skin of the little toe, and that this difference becomes more marked when the rapidity of the heart's action is increased. In healthy men the extremes observed were 274,000 and 1,037,600 in a cubic millimetre of blood; and in patients, especially those suffering from fever or valvular disease of the heart, the numbers varied between 621,300 and 1,847,000 in the cubic millimetre. Observations on dogs showed that if the rapidity of the blood-stream be lessened by cold, or by ligature of the supplying artery, the relative number of corpuscles is markedly lessened.

THE ARMY MEDICAL SCHOOL, NETLEY.

THE winter session of the Army Medical School of the Royal Victoria Hospital terminates on Monday next, when the Secretary of State for War, the Right Hon. Hugh Childers, M.P., is expected to visit Netley for the purpose of closing the session and presenting the Herbert and other prizes to the medical officers who have been awarded them at the examination just concluded. Owing to the large batch of probationers for the Army Medical Department, as well as the candidates for the Royal Navy and the Indian Medical Service, the class this session has been unusually numerous, and has caused a considerable strain on the accommodation of the school and hospital.

EXAMINATION STATISTICS OF THE COLLEGE OF SURGEONS.

THE following analysis of the last pass examination for the diploma of membership of the Royal College of Surgeons of England, which was brought to a close on the 26th ult., will be read with interest. There were 164 candidates—viz., 130 London students, 22 from the provinces, and 12 both metropolitan and provincial. Of this number 59, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and 10 gentlemen having passed in surgery, will be admitted members of the College when qualified in medicine. The rejections per night varied from 3 to 16. At the corresponding period last year there were 127 candidates, of which number 48 were rejected and 7 approved in surgery. The following were the recognised medical licences passed by some of the candidates, who, of course, were not required to undergo an examination in medicine again—viz., M.B. Lond., 1; M.B. Cantab., 1; M.B. Dub., 1; L.R.C.P. Lond., 2; L.R.C.P. Edin., 3; L.K. & Q.C.P. Ireland, 1; and with the additional L.R.C.S., 1; M.D. Paris, 1; L.S.A. Lond., 23; and Apothecaries' Hall, Dublin, 1.

NAVAL MEDICAL SERVICE.

THE examination of candidates for this service will take place in the course of a few days. The Admiralty has not yet done more than offer the "vague generality of equalising the Service with that of the Army," but it withholds the Warrant by which alone its intentions can be gauged. There are too many recorded instances of bad faith towards this branch of the Service generally, and even to individual officers, to permit us to place implicit confidence even in Warrants; and we would be pleased to find the coming examination afford evidence that the juniors of the profession are not to be easily induced to enter the portals where "Cave canem" should be affixed to the threshold.

OUR Birkenhead correspondent writes:—The fund now being raised for a new Children's Hospital is also being liberally supported. Mr. Stickell, the donor of the £250 to the Borough Hospital, has given an equal sum to the Children's Hospital; and at a bazaar lately held at Christchurch about £500 was gathered for the new building.—On Wednesday, Feb. 2nd, an interesting ceremony took place at the stipendiary magistrate's court. The Order of St. John of Jerusalem having kindly granted their bronze medal to James McGowen, Inspector of Roads, for an act of bravery in rescuing the lives of two men from a sewer in Birkenhead in October last, the medal was presented by his worship the Mayor, many of the principal inhabitants of the borough being present on the occasion.

ANOTHER illustration of the peculiar dangers to which medical men are exposed in the practice of their profession is afforded by the lamented death of Dr. Ferdinand Jencken of Kingstown. It appears that on Jan. 1st Dr. Jencken opened an abscess in the arm of a poor woman, having on his thumb at the time of operating a cut or abrasion so slight as to have been entirely overlooked. The hand and arm, however, soon afterwards became violently inflamed, symptoms of pyæmia rapidly supervened, and death closed the scene.

THE question of bursaries in the Aberdeen University, which was remitted to the Endowed Institutions and Educational Committee, has terminated by the Committee resolving to abide by the instructions of the Town Council, which embodied the recommendation that the tenure of the bursaries should be three years, but that no appeal should be made to the Home Secretary to increase them either in number or amount.

NO fewer than 100 persons are at present waiting their turn for admission into the Glasgow Royal Infirmary, and during the past year the daily average waiting at the Western was 68. This represents a very serious amount of unrelieved misery.

THE Queen has been plased to signify her intention of conferring the honour of knighthood upon James Risdon Bennett, M.D., President of the Royal College of Physicians of London.

HOSPITAL SUNDAY cannot be said to have been a success in Glasgow, church collections in aid of the infirmaries having greatly fallen off. In the city and its neighbourhood are about 400 churches; these gave to the Royal Infirmary last year only £873—that is, about 44*s.* each. This, of course, is very much less than it should be.

A MEMORIAL to the late Surgeon Thomas Power, R.N. who died at the Royal Hospital, Haslar, whilst on the staff there, Nov. 2nd, 1879, has been erected in the Naval Cemetery, Haslar, Gosport, by subscription amongst his brother officers and shipmates. The memorial is a Latin Cross in Portland stone, over six feet in height.

The Irish Medical Directory for 1881 contains new matter of interest and utility—e. g., an Index to Acts of Parliament having reference to Irish Medical or Sanitary Affairs, and a reprint, verbatim or in abstract, of the statutes specially affecting the medical profession in Ireland.

THE GENERAL MEDICAL COUNCIL.

A SPECIAL Session of the Medical Council was held on Thursday, for the purpose of considering questions arising under the Dentists Act.

The PRESIDENT, in opening the proceedings, said: I cannot but regret that it has been my duty to summon the Council at this inclement season, but it is for a special purpose of business connected with the Dentists Act; and it is to be noted that this is the first time that any such meeting has ever been specially summoned to discharge this new duty. The reason for our meeting now depends upon the fact that a question has been raised as to the accuracy of the Dentists' Register in over 500 cases; and it would seem improper to delay to a later period of the year, when the Council would meet for its ordinary business, the publication of the new volume of the Dentists' Register for 1881 in a corrected form. It will be in the memory of the Council that on July 15th, 1880, memorials from the Association of Surgeons Practising Dental Surgery, from the British Dental Association, and a letter from the honorary secretary of the British Dental Association, stating the grounds on which it was considered that a large number of persons ought to have their names erased from the Dentists' Register, were referred to the Medical Committee established under the Dentists Act by the General Medical Council, in order that they might ascertain the facts of those several cases named in such memorials and letter. At meetings of the Dental Committee held since that period, after prolonged deliberations with the solicitor to the Council, reports have been drawn up which will now be presented to you. The Council is now called upon to decide whether upon the facts stated in these reports all or any of the persons whose cases are reported upon should or should not be erased from the Dentists' Register; and one person whose case the Council has to decide is summoned to appear this day at four o'clock before you. It is not my intention to bring before the Council any business other than that for which it is my duty thus to summon you. There is one subject, however, connected with the business itself which I must in conclusion name, and that is the loss which this Council has sustained by the recent death of Dr. Andrew Wood, made the more grievous because sudden and unexpected. I am well aware that it is generally highly inexpedient to make observations, even those of high personal regard, on any who have been taken away in whatever manner from this Council table. But I am sure that it would shock the whole feelings of the Council were I to attempt to conceal the sense which we all entertain of the loss of so faithful a public servant and so warm a personal friend. . . . .

On the motion of Sir William Gull a vote of condolence with Mrs. Wood and her family in their sudden and painful loss was agreed to.

The Council then proceeded to the consideration of the dental business, and having heard the report of the Dental Committee, and considered the cases with counsel's opinion thereon in regard to the Dentists Act (1879), resolved, on the motion of Dr. Humphry, "That all qualifications now appearing in the Dentists' Register, other than dental qualifications, be erased therefrom."

The Council further resolved—"That the report of the Dental Committee not having put the Council in possession of evidence to show that any of the registered dentists named in the corrected list of persons submitted by the hon. secretary of the British Dental Association, or of the registered dentists named in the letter of Dr. Jacob, were not at the time of their registration *bonâ fide* engaged in the practice of dentistry, the Council is therefore not prepared to order the removal of any such persons from the Dentists' Register."

Also, "That certain persons mentioned in the Dental Committee's report as having been actually though erroneously removed from the Register, at their own request should, on application, be restored to the Register without fee."

This concluded the business of the Special Session, a fuller report of which will appear in our next.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

THE MEDICAL INSPECTIONS UNDER THE LOCAL GOVERNMENT BOARD.

A PARLIAMENTARY return, moved for by Mr. Alexander Brown, has been published, showing in a tabular form, in order of years, all the local visitations which have been made by medical inspectors under the direction of the Local Government Board, from the date of the establishment of the Board in 1871 to Jan. 1st, 1880, with regard to prevalence of disease in particular places and to questions therewith connected, and defects in sanitary administration, and stating in successive columns in regard to each visitation the following particulars:—1. Names and population of the places of sanitary districts inspected. 2. Date of the visitation (or, when several visitations have been made, of the first or them), and name of the inspector. 3. On what ground of complaint or otherwise this visitation was ordered. 4. Précis of facts reported by the inspector with regard to the prevalence of disease, and to the existing defects of sanitary administration. 5. Reinspections (if any) which have since been made in the same areas with reference to the defects of sanitary administration, with the date of each reinspection and name of the inspector. 6. Précis of the information had by the Local Government Board up to Jan. 10th, 1880, as to the sanitary state of the places, and when given.

In spite of the repellant form of a tabular return of this class, there is much interesting matter in this document. It furnishes some (although very slight) indications of the important part these skilled medical inspections have had in promoting sanitary progress in England and Wales. But in glancing over the return regret is more than ever excited that the reports of the inspectors are only very partially accessible. These reports, if they had been made as easily attainable as were the reports of the engineering inspectors of the General Board of Health (reports which have still a great value in the localities to which they referred, and in the history of sanitary progress of England) could not have failed to exercise a more important educational effect upon the places to which they applied, and to the people at large, than they have been permitted to do, because they have not been procurable at the Parliamentary printers. The Local Government Board, as a rule, puts these reports into type, prints them, and then, strange to say, issues them as a rule only by grace!

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kensington.—Dr. Orme Dudfield has republished his monthly reports and special reports for the year 1880 in a single volume, and added to them a summary of the vital statistics. The majority of these reports we had occasion to notice when they first appeared, and with respect to the collected reports we can add nothing to what we have had to say in regard to previous annual collections, namely, that they form an exceptionally useful and instructive comment on the progress of sanitary work, not merely in Kensington, but in the metropolis generally, throughout the year to which they apply. Dr. Dudfield has the art not simply of setting forth the particular facts relating to his own district, but of treating of the more general sanitary questions that arise relating to the metropolis, and illustrating their bearings from the experience of his own district, so as to throw the completest light upon them. In this way his collected reports become a running commentary upon the intimate sanitary administration of metropolitan districts of the highest value for present information and for future reference.

West Ham (*Urban*).—The report of the medical officer of health (Mr. Thomas Drake) consists merely of a brief statement of the mortality statistics of 1880 with comments on the deaths from the principal zymotic disorders. The annual death-rate from all causes is given at 19 per 1000 population as compared with 17·5 for 1879. Of the general sanitary condition and administration of this important metropolitan suburb nothing is said, except a reference to the effluvium from trade nuisances which do not appear to be suppressed to the extent they might be, and to the very partial carrying out of the Adulteration of Food Acts.

THE POPLAR INFECTIOUS-DISEASE HOSPITAL.

The Poplar District Board of Works have addressed a letter to the Metropolitan Asylums Board, setting forth in detail the advantages possessed by their hospital for the reception of small-pox cases, and stating that (contrary to the opinion expressed by a committee of the Asylums Board) it will accommodate sixty-nine patients and a sufficient staff of nurses and attendants. Dr. Bridges is in favour of the Asylums Board hiring the hospital, and, from some slight knowledge of the building we possess ourselves, we are at a loss to conceive, under the present exigencies of the Asylums Board, a reasonable ground for their refusal to hire it. Nevertheless, the Board holds to its refusal. Although we understand that the hospital was built without the special approval of the Local Government Board as to its construction and arrangement, the *site* was approved by that Board after the building was erected, and we can hardly conceive that Board opposing the site independently of the consideration of the fitness of the building upon it for its purpose; but obviously the technical objections of the Asylums Board to the building cannot be reasonably sustained in face of Dr. Bridges' approval.

CUTTING-OFF THE WATER-SUPPLY OF THE METROPOLIS.

The Vestry of St. Mary's, Newington, have printed and circulated certain extracts from a Report of their medical officer of health, Dr. Iliff, and correspondence relating thereto, respecting the cutting-off the water-supply of houses in their district by the Water Companies south of the Thames. The extracts and correspondence go to show the arbitrariness of the proceedings of these companies in exacting their strict legal rights from the owners and occupiers of house property, and their extreme indifference to depriving families of water, no other supply of this essential fluid being obtainable in the neighbourhood except from their mains. That companies should possess powers of this sort, without any reserve as far as the sanitary necessities of the people are concerned, is a scandal upon the Legislature, and furnishes one of the most cogent arguments for a change in the administration of the water-supply of the metropolis. This circular of the parish of St. Mary's, Newington, strengthens this position greatly, and it will be read with great interest by all who take concern in the subject.

A resolution passed at an "indignation" meeting, held recently at Homerton, to protest against any increase of accommodation being made for small-pox patients in the Asylums Board Hospital there, expresses "surprise and alarm" that twelve of the hospital officials should have come direct from the hospital to the meeting. This reminds us of an incident during the epidemic of 1871–72. An official of the Local Government Board attended a meeting of the vestry of St. Pancras. In the course of the meeting it became known that he had come direct from the Hampstead Hospital, then used for small-pox cases, to the vestry meeting. Whereupon a great outcry among the members of the vestry at the audacity and thoughtlessness of the official for possibly bringing the contagion of small-pox among them. To which the official quietly replied, when the hubbub ceased, that considering the *warmth* of his reception by the vestry, he thought that the members might be quite easy upon the score of infection, as it was well known that *heat* was the best disinfectant.

Mr. Alfred J. Bernays, the analyst for St. Saviour's district Board of Works, in his report for the Christmas quarter 1880, has to speak unfavourably of the specimens of milk submitted to him for analysis, and makes a suggestive comment upon the improvement apt to occur when the dealer finds that the specimens of the fluid he sells have been sent to the analyst. The following observations on cocoa are also suggestive: "I should be glad to be informed," says Mr. Bernays, "when cocoa ceases to be cocoa. What are we to say of cocoas containing only from 12 to 20 per cent. of cocoa? The public is paying very dear for the accommodation of admixing coarse sugar and flour! If it would receive advice, a slice of bread-and-butter, with a thin drink of genuine cocoa, would be both wholesomer and cheaper, than when thickened and sweetened; but even if it should prefer such cocoas, at what point is admixture to end?"

The medical officer of health for Paddington, Dr. James Stevenson, is dissatisfied with the measures which have been taken by the Canal Company to clean the bed of the Paddington Canal. The cleansing appears to have been very imperfect, and when the hot weather returns it is doubtful whether the nuisance experienced from the canal will show much diminution.

The Stepney Board of Guardians have rescinded a resolution to give extra remuneration to their relieving officers for their services in working up arrears of vaccination. On reconsideration of the resolution it appears to have been held that to pay the extra remuneration would be to reward, as it were, the previous neglect of vaccination, out of which the arrears had arisen.

Lord Edmond Fitzmaurice, Mr. Pell, and others have introduced a Bill into the House of Commons for the appointment of a Commission for the alteration of areas of Local Government in certain cases, and for the rearrangement of boundaries.

The medical officer of health for Dundee (Dr. Wallace), in his report for the four weeks ending the 1st January, 1881, reports seven cases of typhus, three of which were directly connected with a fatal case mentioned in the previous month's report.

The Shoreditch Board of Guardians, in view of the prevalence of small-pox in their district, have decided that for a month the inmates of the workhouse shall not have permission to visit their friends outside, nor receive visits from their friends unless in a case of dangerous illness.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Under the influence of the fifteen days of exceptionally low temperature ending on the 26th ult., the recorded mortality showed a further increase last week. In twenty of the largest English towns, estimated to contain in the middle of this year a population exceeding seven and a half millions of persons, 5730 births and 4523 deaths were registered last week. The births exceeded by 547, and the deaths by no less than 1266, the average weekly numbers during 1880. The deaths showed a further increase of 324 upon those returned in recent weeks, and were equal to an annual rate of 31·0 per 1000, against 21·3, 23·6, and 28·8 in the three preceding weeks. During the past four weeks of the current quarter the death-rate in the twenty towns has averaged 26·2 per 1000, showing an excess of 0·6 upon the average rate in the corresponding period of the five years 1876-80. The annual death-rate averaged 26·2 in London during the four weeks ending last Saturday, and was equal to 26·8 in the nineteen provincial towns.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 383 and 390 in the two preceding weeks, declined to 373 last week, and included 108 from whooping-cough, 94 from scarlet fever, 54 from small-pox, 39 from fever (principally enteric), and 38 from measles.

The annual death-rate from the principal zymotic diseases averaged 2·5 per 1000 in the twenty towns, among which it ranged from 0·7 and 0·8 in Wolverhampton and Leicester, to 3·4 in Newcastle-upon-Tyne and 4·1 in Liverpool. Scarlet fever showed the largest proportional fatality in Oldham, Sunderland, and Sheffield, and whooping-cough in Leeds and Liverpool. The death-rate from fever (principally enteric) was again considerably below the average. The 11 deaths from diphtheria in the twenty towns included 8 in London. Of the 54 fatal cases of small-pox 52 occurred in London and one each in Plymouth and Birmingham; no death from this disease was recorded in any of the seventeen other large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylum Hospitals at Homerton, Stockwell, Fulham, and Deptford, which had steadily increased from 77 to 516 in the thirteen preceding weeks, further rose to 520 on Saturday last. The new cases of small-pox admitted to these hospitals, which had been 118 and 142 in the two preceding weeks, declined to 114 last week. The Highgate Small-pox Hospital contained 30 patients on Saturday last, against 26 and 27 in the two previous weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 371 and 617 in the two preceding weeks, further rose, under the influence of the recent low temperature, to 702, and exceeded the corrected average number in the corresponding week of the last ten years by 249; 481 were referred to bronchitis and 120 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 9·9 per 1000 in London last week, while the rate from the same diseases was 19·5 in Liverpool.

In the twenty towns last week the causes of 117 deaths were not certified, either by a registered medical practitioner or by a coroner; these were equal to 2·6 per cent. of the total deaths. The proportion of uncertified deaths was equal to 1·8 per cent. in London, while it averaged 3·3 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Norwich, or Plymouth, while the largest proportions occurred in Oldham, Leeds, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 34·7 per 1000 last week, against 24·6 and 31·1 in the two preceding weeks; this rate exceeded by 3·6 per 1000 the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 22·7 and 29·0 in Aberdeen and Dundee, to 39·3 and 48·7 in Glasgow and Perth. The deaths referred to the principal zymotic diseases in the eight towns, which had been 102 and 107 in the two previous weeks, further rose to 125 last week, and were equal to an annual rate of 4·9 per 1000, while in the twenty large English towns the rate from these diseases did not exceed 2·5. In the eight Scotch towns the zymotic death-rate last week ranged from 1·4 and 1·9 in Aberdeen and Perth, to 8·5 and 8·7 in Paisley and Leith. The fatal cases of scarlet fever in the eight towns, which had been 27 and 28 in the two preceding weeks, were 27 last week, of which 10 occurred in Glasgow and 11 in Edinburgh and Leith. The 34 deaths from whooping-cough showed a further increase upon recent weekly numbers, and included 22 in Glasgow and 7 in Dundee. The 25 deaths from "fever" also showed a considerable further increase; 14 were returned in Glasgow, 4 in Edinburgh, and 4 in Paisley. Six of the 7 fatal cases of measles occurred in Glasgow. The deaths referred to "fever," which had been 15 and 8 in the two previous weeks was 11 last week, of which 5 occurred in Glasgow, 4 in Edinburgh, and 2 in Greenock. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns were 348 last week, against 191 and 307 in the two previous weeks; those 348 deaths were equal to an annual rate of 13·8 per 1000 of the population in the eight Scotch towns; the death-rate from the same diseases in London did not exceed 8·5. The greatest fatality of lung diseases in the Scotch towns last week occurred in Glasgow, Paisley, and Perth.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a further increase last week upon the excessive rates in recent weeks. No less than 303 deaths were registered within the city and suburbs, 11 more than those in the previous week. The annual rate of mortality per 1000 estimated to be living, which was equal to 31·8, 35·1, and 45·7 in the first three weeks of the year, further rose last week to 47·4. During the first four weeks of the current quarter the death-rate in the city averaged no less than 40 per 1000, against 25·5 in London and 25·2 in Edinburgh. To the principal zymotic diseases, 34 or 11 per cent., of the deaths in Dublin were referred last week, or 3 less than those in the previous week; they included 15 referred to fever, 6 to whooping-cough, 5 to scarlet fever, 4 to diarrhœa, 2 to small-pox, and one each to measles and diphtheria. The annual death-rate from these zymotic diseases was equal to 5·3 per 1000 in Dublin last week, while it did not exceed 2·9 in London and 4·9 in Edinburgh. The deaths referred to fever in Dublin, including typhus, enteric, and simple fever, which had been 8 and 17 in the two previous weeks, were 15 last week, and were equal to an annual rate more than eight times as large as the average rate from the same causes last week in the twenty large English towns. The fatal cases of scarlet fever and whooping-cough also showed a slight decline. The deaths of infants were less numerous than in the previous week, whereas those of elderly persons showed a marked further increase.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DISEASED PORK ON THE FRENCH MARKETS.

M. Leclerc, meat inspector, has found trichinæ in pork received at Lyons from New York. There were, in all, fifty cases of American pork, weighing about 13,000 kilogrammes —quite sufficient, therefore, to poison even so large a population as that of Lyons. This alarming discovery has revived, to some extent, the question of organising special means of supervising the pork, bacon, &c., sold as food to the public. At Crépy en Valois, in the department of the Oise, Dr. Jollivet observed an epidemic of trichinosis in 1879, and several cases ended fatally. Yet, in spite of these facts, it has become a sort of fashion to treat this malady as a disease from which the French consider themselves exempt. The French, it is said, are such good cooks that there is no danger of trichinosis. Such disasters are only likely to occur with a coarse-palated public that can tolerate undercooked pork, and smoked, but uncooked, ham. Unfortunately, trichinæ will survive exposure to 20°C. of cold, and requires 70° to 75°C. of heat to ensure their destruction. If the piece of pork put before the fire is large, the centre of the meat is often not exposed to this degree of heat in the process of cooking. Now, there are about 900 pork-butchers in Paris alone, who employ some 2500 assistant-butchers, and these sell annually to the population 23,000,000 kilogrammes of sausages, bacon, and, in fact, pork generally. Under these circumstances the question arises whether a special staff of microscopists should not be attached to the laboratory which the Prefect of the Seine has just organised for analytic purposes, who would undertake the systematic examination of the pork imported from America and Germany, and also, though this is perhaps not quite so necessary, the pork of French origin. Such measures might advantageously be supplemented by the exercise of some sort of control over the piggeries and the stabling in rural districts. If the laws of cleanliness and ventilation were more strictly observed in the housing of cattle we should perhaps hear less of diseased meat. In the meanwhile travellers who visit the smaller French provincial towns should be careful in selecting their meat, whether pork or otherwise. The carcasses that have been properly examined by the slaughter-house authorities are stamped in several places; the mark is like a large post-mark, circular, and black, and no butcher has the right to sell meat that is not approved in this manner. But the smuggling of meat into the smaller towns is sometimes practised to avoid local dues and local inspection, and it is very probable that such meat would be offered in preference to foreigners, who might be supposed not to know these rules. It would be well if imported foreign or American pork could be stamped in a similar manner by competent inspectors.

Spotted typhus is said to have made its appearance in several parts of Saxony, originating, it would appear, with itinerant Slovak wireworkers. Measures have been taken to check the spread of the disease.

The Russian Society of Public Health is actively engaged in endeavouring to promote the foundation of sanitary colonies for the treatment of children suffering from chronic diseases.

The last mail from St. Thomas reports the existence of small-pox in the island, necessitating the imposition of quarantine on all vessels from that port.

Battersea Cemetery has, from sanitary considerations, been closed for common interments.

THE SERVICES.

WAR OFFICE.—Brigade of Foot Guards: Surgeon-Major Arthur G. Elkington, Grenadier Guards, to be Brigade Surgeon.

MEDICAL DEPARTMENT.—Surgeon-Major David Chambers McFall, who has been granted retired pay, to have the honorary rank of Deputy Surgeon-General; Surgeon-Major Watkin Sandom Whylock, M.D., has been granted retired pay, with the honorary rank of Brigade-Surgeon; Surgeon-Major James Africanus Beale Horton, M.D., African Medical Service, has been granted retired pay; Surgeon George Ryan to be Surgeon-Major.

INDIA OFFICE.—The Queen has approved the resignation of Surgeon Henry Prescott Roberts, M.D., of the Bombay Army.

The health of the troops at Kandahar is still far from satisfactory. Fevers and dysentery are very prevalent, the 11th Regiment having a large number in hospital from these complaints. The drinking water and sanitary condition of the city are reported as very faulty.

Surgeon-Major William S. Fox, Madras Medical Service, has been appointed by the Governor of Madras Surgeon on his Personal Staff.

Surgeon W. S. Pratt, Army Medical Department, proceeded in medical charge of the 97th Regiment from Gibraltar to Natal in H.M.S. *Tamar*, and remains for duty in the Transvaal.

Dr. John Davidson, C.B., Inspector-General Royal Navy, and Honorary Physician to the Queen, whose death is announced as having occurred on Monday at his residence, Bosworth-lodge, Willesden-lane, in the 64th year of his age, served against the Borneo pirates in 1844, and was Deputy-Inspector of the Royal Naval Hospital at Therapia during the Crimean war. He was Inspector of Plymouth Naval Hospital from 1868 to 1873, and had been Honorary Physician to the Queen since 1874. He was nominated a Companion of the Order of the Bath (Military Division) in 1867.

ADMIRALTY. — The following appointments have been made: Surgeon W. F. Spencer, additional, to the *Duncan*; Surgeon J. D. Anderson, to the *Salamis*, vice Spencer; Surgeon E. A. Lucas, to the Portsmouth Division of Royal Marines, vice Anderson; Staff-Surgeon W. D. Isaac, to the *Northampton*, for service in the *Griffin* when commissioned; Staff-Surgeon George Bolster, to the *Penelope*, vice Pickford.

Correspondence.

"Audi alteram partem."

"SIR WILLIAM GULL AND DR. PAVY."

To the Editor of THE LANCET.

SIR,—Will you allow me space to afford information upon one or two points which have not been placed in quite their true light in your leader of last week on the case between Sir William Gull and myself.

It is a minor matter, it is true, but you speak of me as "declining to give a certificate of the cause of death, and thus necessitating an inquest." Such was not my position. The physician has nothing to do with giving certificates of death of patients dying in the hospital. This is done in the Superintendent's office, and it was Dr. Steele who initiated the inquest. I was simply a witness in the case, in the same manner as the house-physician, sister, nurses, and others; and, holding the relation I did to the patient, and being the recipient of an important statement from her regarding the bath, I felt it was my duty as a British subject to attend the inquest and give evidence. Moreover, Dr. Steele met me within the hospital shortly after the inquest had been decided upon, and said he presumed that I should attend, and spoke of serving me with a subpœna; but I stated that it was unnecessary, as it was my intention to be present.

You speak of the clinical report as being part of the case for the prosecution, and ground an argument accordingly. A tale remains to be told about this clinical report. It was, in fact, through Sir William Gull (for the defence) that the clinical report was brought forward. It had formed no part of the evidence at the inquest, and Mr. Poland (for the prosecution) was taken by surprise when Sir John Holker (for the accused) referred to it, and stopped the case until it was settled that it should be received in evidence. I had never seen this report, and therefore knew nothing of its contents until I read it in Court after the trial had commenced. Here is Sir William Gull's evidence under cross-examination by Mr. Poland in relation to the report:—

Q. You would hardly put up your judgment in the case against the judgment of the physician who attended the case from the commencement?—A. I should, in this case, certainly, and I will tell you the ground of it.

Q. You would in this case, you say?—A. Yes, I would in this case.

Q. Upon the student's report?—A. Yes, upon the student's report.

Q. Upon the student's report you would put your opinion against that of Dr. Pavy?—A. Yes; the physician governs the student's report.

Q. Who governs it?—A. The physician.

Q. But supposing he never saw it?—A. But his duty is to see it.

Q. Then you are assuming that it is the same as if it was made by the physician himself?—A. No, not so much as that; but I was a physician at Guy's for twenty years, and my clinical reports were my own reports.

Q. They were made by a student?—A. I beg your pardon; I always dictated the report myself.

Such is an extract from the printed transcript of the official short-hand notes of the Court. It is not for me to comment on the statements made, except with reference to their bearing upon my own position in the matter. My connexion with Guy's has extended to a period of close upon thirty-four years—that is, before Sir William Gull was upon the staff of the hospital. I have never known the clinical reports as otherwise than truly students' reports. We indeed look upon case-reporting as a valuable means of promoting the systematic investigation of disease by pupils, and the manner in which they acquit themselves in the performance of their reportership duty is taken into account in awarding the higher appointments. But how would this system stand if the physicians always dictated the reports themselves? As regards the report in question, the case for the defence rested upon its holding an accredited position before the Court. As a matter of fact, however, it was (as Sir William Gull when it was in his hands had the opportunity of seeing) a student's report. The document consists of a printed form, and there are columns headed on each page, "Report by the Clinical Clerk" and "Notes by the Physician or Registrar," and the report down to the time of the administration of the bath was wholly upon the space allotted to the student.

In this particular instance a curious circumstance chanced to occur further affecting the value of the report as regards the purpose for which it was drawn into use. On June 1st there was a change of clinical clerks, and four new ones ought to have come on duty in my wards. One out of the four, however, failed to make his appearance, and the cases in the beds allotted to him had thus for a time no reporter attached to them. The patient, Louisa Morgan, whose death led to the trial, was admitted on June 9th into one of these beds, and it was not until June 25th that a student came on duty in place of the absentee. He then made a report of Louisa Morgan's case from what particulars he could pick up from the patient and within the ward, but what was noted down under the dates previous to June 25th did not fall under his own observation, for he never saw the patient until the day last named. The two records of temperature entered were copied from the back of the prescription paper, upon which they had probably been inserted by the house-physician.

This was the basis upon which Sir William Gull's argument for the defence and charge against me rested. From the profound secrecy observed, no opportunity was afforded for the acting medical staff to give the information which would have placed the circumstances of the case in their true light. Until it was produced in Court nothing was known by us about the report being intended to be made use of as it was, and much less that Sir William Gull was to appear as a witness and take the action he did upon it. So little consideration did Sir William Gull show for the true interests of justice in a criminal case, and so lightly did he regard the charge he made against a fellow-physician and colleague, that he took no pains to obtain particulars from anyone—physician, registrar, or house-physician—in actual contact with the patient, to determine whether the view he had taken was well founded.

I am, Sir, your obedient servant,
Grosvenor-street, Feb. 1st, 1881. F. W. PAVY.

⁂ We are, of course, perfectly well aware that the honorary physician of a hospital does not himself sign a certificate of the "cause of deaths" for any patient dying in the hospital; but the case is *his*, and he "gives" the certificate, though the resident officer actually signs it. The responsibility of causing a death to be certified or withholding a certificate, and thereby necessitating an inquest, rests virtually, if not formally, with the physician in charge of the case, and we are glad to believe that Dr. Pavy would not, under any circumstance, have allowed this case to pass without judicial investigation. That was what we meant to point out, and to this view of the matter we adhere. As to the circumstances under which the clinical report was "put in" we have nothing to say. This does not affect the fact that when "put in" it was *evidence*.—ED. L.

"AGITATION WITHOUT LEGISLATION."

To the Editor of THE LANCET.

SIR,—In a leader in THE LANCET, January 22nd, you give an interpretation to certain lunacy statistics that is, I think, open to question. The article I refer to alleges a concealment of the insane, "a concealment forced on the friends of the insane by the fears excited by agitation," and proposes to "show that the practice of evading the miserable law that exists is widespread," and that "the seeming decrease of the total of private patients upon which the Commissioners in Lunacy are disposed to congratulate themselves and the public, may be accounted for by the measure to which the growing distrust of the public is driving the relatives of the mentally diseased." It says that "with that shortsightedness common to public officials, the Commissioners in Lunacy and their friends and supporters interpret the figures as indicative of a decrease or at least a diminished rate of increase in the number of occurring cases of insanity." It even says that "it cannot be endured that official apathy and the misconstruction placed on official figures by incompetent statisticians should," &c.

I should myself be inclined to include as "incompetent statisticians" both those who draw the conclusion that the article says the Commissioners in Lunacy and their friends do, and also those who draw such a conclusion as is done by the writer of the article.

The Commissioners in Lunacy might fairly be left to defend themselves, but in this matter I fail to find anywhere any statements of opinion by them in the sense attributed to them by the article in question, and as a rule the Commissioners satisfy themselves with giving the bare facts and rarely indulge in any comments, and have often very unjustly been criticised for not doing so. If the writer of the article has any other facts in support of his view he ought to produce them, since he says it is a public duty to do so.

I do not wish to discuss the alterations in the law that are advocated in the article referred to, which may be, and in some respects are probably very desirable, but to call attention to the fact that the statistics which he uses to support his argument admit of a very different interpretation, an interpretation that will account for probably all the decrease recorded in the official figures. These figures show a marked diminution in the number of private patients during the year 1879. The meaning of this is to be found in the fact that the number of private patients depends not on the production of cases of lunacy, and not on the view the public may take as to asylums, but is directly dependent on the wealth and prosperity of the country—in other words, on the paying power of the patients' friends.

The falling-off of private patients in 1879 is the direct result of the commercial depression that has lasted some years, and culminated in the agricultural distress that marked that year. A glance at the figures for the past twenty years shows clearly that a large increase accompanied and followed periods of prosperity, smaller increases or diminutions occurred at periods of depression. The number rose in 1864 and 1865 to 214 and 224, falling in 1866 and 1867 to 41, and decrease 15; then rose gradually till it reached 381 and 269 in 1872 and 1873, falling in 1874 to 98, and continued in the following years at 119, 88, 95, 86, and in 1879, decrease 158. The converse fact is referred to by the Commissioners in Lunacy in their last report as follows: "By far the larger proportion of the 'pauper' patients in asylums have been pauperised only by their insanity, the great majority of these cases having really occurred among the ordinary working population, of whom, previously to the attack of the malady, comparatively few were in the receipt of any kind of Poor-law relief." The probability is that if such an analysis could be made, the missing private patients, whilst in many cases probably kept at home, though not from the motive stated by THE LANCET, would in the majority of cases be found among the increase of paupers for the year; and it is not unworthy of remark in connexion with this view, that the aggregate increase of private and pauper patients is very nearly the same in 1879 as in 1878,—although the private patients increased 86 in the one year and diminished 158 in the other.

I am, Sir, your most obedient servant,
T. A. CHAPMAN, M.D.
Hereford County and City Asylum, Jan. 25th, 1881.

"WOOLSORTERS' DISEASE."

To the Editor of THE LANCET.

SIR,—Being specially engaged, in conjunction with some of my professional brethren, in investigating the nature, &c., of "woolsorters' disease," certain portions of Dr. Greenfield's very interesting lectures have attracted my attention and aroused my curiosity. Might I be permitted most respectfully to ask Professor Greenfield to state, through your columns, the precise data upon which the identity of so-called "woolsorters' disease" and anthrax has been *conclusively established?*

It would also greatly facilitate our investigations in this neighbourhood if the Professor would tell us what are the diagnostic characters of the organisms he so frequently designates "typical bacilli," and of what they are "typical?" Might I also ask what are the essential differences between the so-called bacillus anthracis and the ordinary bacillus of putrefaction?

If the Professor will kindly answer the above queries, I feel sure that many gentlemen, including myself, will feel really grateful to him for the information.

I am, Sir, yours obediently,
Bradford, Jan. 25th, 1881. EDWARD T. TIBBITS, M.D. Lond.

STATISTICS OF OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—Mr. Thornton in his reply to my letter on Statistics of Ovariotomy, after indulging in a few sneers which are utterly beyond the question, implicitly acknowledges having taken, without my knowledge or consent, a series of my unpublished cases from the register of the Samaritan Free Hospital, and utilised them for an incomplete and *ex parte* statement of results. This was exactly the point I had wished to make clear, and I now leave the case, which in my experience and that of others is unprecedented, to the judgment of the profession.

I am, Sir, your obedient servant,
GEO. GRANVILLE BANTOCK.
Granville-place, Portman-square, Jan. 31st, 1881.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

To the Editor of THE LANCET.

SIR,—Whether the above is a bogus qualification or not I am not in a position to say, but Mr. Berry is quite wrong when he hints that the M.D. Aberdeen might just as well be viewed in the same light.

I admit the M.D. Aberdeen is given by promotion, after the M.B. has been two years in practice; but then only on certain regulations being fulfilled. When I went in for the M.D., two years ago, I had to lodge with the Dean of the Faculty of Medicine a thesis, to be approved by the Faculty of Medicine; I had to go up to Aberdeen to be examined in Logic, and also in Greek, in the latter because I had not previously passed in it, as it is not a compulsory subject for the M.B., nor with any of the other examining bodies before whom I have appeared. I do not think I have any reason for considering it a bogus degree.

Believe me, Sir, yours truly,

Cardiff, Feb. 1st, 1881. FRED. EVANS, M.D. Aberd.

IRELAND.

(*From our own Correspondent.*)

ALTHOUGH it is usual for a candidate for the Vice-Presidency of the Royal College of Surgeons in Ireland at the close of the year to declare his intention of coming forward for election in the following June, up to the present time no name has been put forward for the office now held by Mr. Chaplin of Kildare. It is, however, believed that if Mr. John Kellock Barton, a senior Member of Council, surgeon to the Adelaide Hospital, and Lecturer on Surgery in the Carmichael School of Medicine, would stand for the Vice-Presidency, he would be returned unopposed.

At the annual meeting of the Cork Ophthalmic and Aural Hospital, held recently, it was shown that the total expenses for the past year amounted to £480, of which the intern patients contributed £227. It will thus be noticed that one-half of the total expenditure was obtained from the patients admitted to the wards, a fact sufficient to show that the work done at this institution is appreciated by those seeking admission, more especially as the charge for intern patients has of late been increased.

At the fourth annual meeting of the Dublin Branch of the British Medical Association, held last week, Dr. Robert McDonnell, the outgoing President, delivered an address more especially directed to the compulsory notification of infectious diseases, a subject which he trusted would ere long be so far brought into action in Dublin as to sensibly diminish the high death-rate for which that city is unhappily notorious. The President alluded to Mr. Gray's Bill, which proposes to throw on the medical attendant—if one be in attendance—the duty of informing the sanitary authority when any inmate of a building used for human habitation is attacked by small-pox, cholera, scarlatina, typhus, typhoid, puerperal, or relapsing fever, diphtheria, measles, or erysipelas, and observed that he would hesitate to support this clause, not on the ground of the committal of any breach of confidence by the medical attendant, but because he doubted if it was the best method of attaining the object in view. It was also open to doubt whether the proposal would work well, which requires that the medical attendant should give notice to the master of the house, and on such notice the householder shall be required to communicate with the sanitary authority. Both of these propositions oblige the medical attendant to take the initiative, but Dr. McDonnell was disposed to think that it would be a just as well as a wiser course to throw on the householder the initial step, and that it should be the duty of the latter to ascertain from the medical attendant whether the disease was infectious. The importance of the compulsory notification of infectious disease is denied by none, but the detail as to who is to be the party—the householder, or the medical attendant—to inform the sanitary authority as to the existence of a contagious disease in a household is the real practical difficulty. I know that the feeling among the profession in Dublin is much against the onus of taking the initiative in the matter, and I am certain that with the present feeling every loophole of escape will be seized upon to evade notification by the practitioner in attendance. There is little doubt that Mr. Gray's Bill must be materially changed before it will be received with any degree of favour. The payment also to the medical attendant of one shilling for each certificate cannot be considered as munificent. The entire subject is, however, one which may be regarded with very different feelings; and the proposal of Dr. McDonnell, that the question should be thoroughly investigated by a select committee of the House of Commons, is one deserving of consideration.

The annual meeting of the subscribers to the Belfast Hospital for Sick Children, Queen-street, was held in the Clarence-place Hall, last week, presided over by the Hon. R. O'Neill. Resolutions were adopted congratulating the Committee on their success in paying off the debt on the building fund, and thanking the Ladies' Committee for their constant attention to matters connected with the best interests of the hospital. A vote of thanks was also accorded to the medical staff.

The recent concert for the benefit of St. Mark's Ophthalmic Hospital, Dublin, has resulted in a sum of £66 12*s.* 4*d.* having been obtained for the funds of the institution. Dr. James Little has been appointed consulting physician to the hospital, in the vacancy caused by the decease of Dr. Alfred Hudson.

In consequence of the prevalence in certain parts of England of foot-and-mouth disease, the Lord-Lieutenant and Privy Council have published an order prohibiting the importation into or landing in Ireland of any animal from Great Britain. The order came into force on the 1st inst., and continues during the present month.

The annual meeting of the friends of the Dublin Hospital Sunday Fund was held last Monday, presided over by His Grace the Archbishop of Dublin. From the annual report of the Council I learn that, last year, collections were made in 229 places of worship, the total amount contributed being £4050 7*s.* 9*d.*, showing a decrease of £264 11*s.*, as compared with 1879. After payment of the ordinary expenses, a sum of £3870 was available for distribution; and the Committee of Distribution have decided to divide the sum of £3750 among the sixteen participating hospitals. A proposition of Lord Plunket, that the advantages of the fund should be extended to institutions for nursing the sick poor at their own homes, more particularly St. Patrick's Home for Nurses for the Sick Poor, in York-street, was put to the meeting, and negatived.

During the past year 802 patients were treated at the Newry Fever Hospital, of which number 200 were admitted into hospital, and the remainder treated as out-door patients. The sanitary state of the hospital has been good, and the attendance of patients exceeded that of any previous year since the hospital was first established.

It is rumoured that Dr. McDonnell, F.R.S., may probably succeed the late Dr. Hudson, as Crown representative on the General Medical Council.

PARIS.

(*From our own Correspondent.*)

THE Paris Court of Appeal was recently the scene of a most extraordinary exhibition, and one which is probably unique in the annals of medical jurisprudence. Unimportant as it was in itself, the case which called forth the evidence about to follow is worthy of record, as it gives a better idea of the progress of psychological science in France than all the *annales* and *revues* issued by all the professors in the country. It is from the *Union Médicale* that the extract is taken.

Last October a young man had been condemned to three months' imprisonment under the following circumstances:—"Deux agents des mœurs avaient surpris le prévenu dans un urinoir de la rue Sainte-Cécile. Didier, deposaient-ils, commettait, seul, un acte obscène, et ils l'avaient observé du dehors pendant près d'un quart d'heure." The accused replied, that the police had sworn falsely, and that he had no memory of anything of the kind. He appealed from the decision of the court, and begged the eminent alienist, Dr. Mottet, who had treated him at the Hôpital St. Antoine, to testify in his defence. Dr. Mottet, called upon to make a report, stated that Didier was the subject of a most curious nervous disease. In magnetic sleep he would get up in the night, sit at a table and write in the dark. . . . One day Dr. Mesnet required a compress for a patient. He did not ask for it, but was only thinking of doing so. Immediately Didier, who was looking on, went and fetched one, *having read the thought of the doctor.* An experiment was then devised. Dr. Mesnet put Didier to sleep, and told his house-physician to think of something. The latter looking round for some subject of thought, chanced to see a female patient holding an infant in her arms. Thinking of the woman and child, the house-physician placed himself in front of the sleeper and asked what he saw.

"I see a woman."—"What is she like? Young?"—"I cannot see."—"Why not?"—"She holds a child in her arms and the child hides her face."

Such is the written report of Dr. Mesnet. Before the magistrate who had the hearing of the appeal, Didier seemed to have no recollection whatever of the circumstance which led to his apprehension, remembering only that he had had two profuse nasal hæmorrhages in the evening, which had weakened him to such an extent that he could scarcely walk, and had been obliged to rest against several lamp-posts as he went along. Dr. Mottet, called into the witness-box, declared that the accused was subject to frequent crises of magnetic sleep, during which he lost all consciousness of the outer world. The doctor proposed to put him at once to sleep. The proposition being accepted by the court, the judges and counsel retired into one room, physician and patient being conducted into another. In a few seconds Didier was asleep, and Dr. Mottet returned to the Council Chamber, leaving two keepers at the other door. Then the magnetiser called, "Didier, get up, and come here." Immediately the door opened, and Didier, pushing aside both keepers and magistrates, walked straight up to the doctor. After Didier had been marched about to the satisfaction of all present, one of the counsellors asked whether he might remember in the magnetic state what had occurred on the evening of his arrest. Dr. Mottet repeating the question, ordered Didier to remember. The young man looked at him hesitatingly and beseechingly. The doctor insisted, and reiterated his command. "What did you do?" Here the patient took his handkerchief from his trousers' pocket and seemed to be dipping it as if in water. He then passed it over his face several times. Everything was explained. Didier had had severe nasal hæmorrhage, and not wishing to be seen with blood on his face, he had gone into the urinal in question, where there was a constant flow of water at a convenient height. The magistrates, however, were not fully convinced. Was not the man perhaps playing a clever part? Dr. Mesnet now took the place of his colleague, and ordered the young workman to sit down and rewrite a letter which he had sent him from prison three months before. Didier hesitated. "I cannot write," he said, feebly. "Why not?" "Because I am not in prison." "I will it. Write." Didier obeyed hesitatingly; and when he had finished, his letter was compared with the former one. They were found to be identical. As a crucial experiment, the doctor approached quietly and suddenly thrust a pin into Didier's neck; no external manifestation betrayed his feeling. The magistrates seem to have been much struck with this proof of the prisoner's innocence, and returning at once into Court the president acquitted him, on the score of mental irresponsibility.

The municipal authorities have done much lately in the interests of public health, and this is no doubt mainly due to the presence of a number of medical men in the Town Council. They have now taken another step in the right direction, and the public at large will shortly possess an efficient and gratuitous means of protection against food adulteration. A laboratory is to be attached to the Prefecture of Police for the examination of suspected substances, the qualitative analysis of which will be performed for nothing; applicants being told whether their samples are good, bad, or adulterated. A quantitive analysis, however, will be charged for, the fee varying from five to twenty francs, according to circumstances. When a sample is found to be adulterated, an inspector of the department will be sent to the delinquent's shop to seize another specimen, and if this turns out badly, proceedings will be taken by the administration.

M. Kœberlé, the well-known surgeon of Strasburg, related a case at the Academy of Medicine in which he had excised two yards of small intestine. The patient, a young woman, aged twenty-two, had been subject for some years to acute attacks of abdominal pain, and on two occasions there had been symptoms of obstruction, which had, however, been overcome by the use of enemata. Since that time (October, 1880) the pain had been most constant and severe, not remitting day or night, and at times so intense that it could scarcely be soothed by hypodermic injections of morphia. Gastrotomy was performed on Nov. 27th, 1880, and four narrowings were found in the bowel, one being only four millimetres in width. These strictures were distributed over two yards of the gut (2 metres ·05), which was excised between two ligatures at each extremity, the vessels of the mesentery being secured by twelve ligatures. The ligatures of the ends of the intestine were then tied together so as to place the gut in the most favourable position for enterotomy, which was performed on the third day. The parts beyond the ligatures came away between the twelfth and fifteenth days; and on the twentieth the first alvine evacuation occurred. Five days later a band of strapping sufficed to prevent food or gas passing through the wound, which had entirely healed in six weeks. The operation was not performed antiseptically, and the temperature never rose beyond 38° Centigrade. During convalescence, and from the third day, the patient was fed by the mouth, with solid and substantial food—bread, meat, and eggs—sufficient liquid being given for the purpose of digestion only, the thirst being assuaged by injections of water into the rectum, seventy such injections having been made in the twenty days. The young woman, who is now quite well, has no pain or digestive trouble of any kind.

THE INTERNATIONAL SANITARY CONFERENCE.

(*From a Correspondent.*)

THE International Sanitary Conference, which will meet at Washington on the 3rd of January, 1881, will form an important event in the history of sanitary progress in the United States. It is the first International Sanitary Conference in which the United States Government has ever taken part. This Conference is the outgrowth of that agitation of sanitary questions which followed the great yellow fever epidemic of 1878, and led to the organisation of the National Board of Health, under the Act of Congress of March 3rd, 1879. By a subsequent Act, passed June 2nd, 1879, it was made the duty of that Board "to obtain information of the sanitary condition of foreign ports and places from which infectious and contagious diseases are or may be imported into the United States." The Board of Health, however, found insuperable obstacles in its efforts to obtain accurate information of the health of certain ports from which the greatest danger was to be apprehended. The peculiar difficulties met could be overcome only by the mutual co-operation of all nationalities interested in the commerce of ports most frequently affected with contagious and infectious diseases. The National Board of Health therefore took early measures to secure an International Conference on these and kindred subjects, and had at once the hearty co-operation of the President and the Secretary of State. Congress passed a joint resolution as follows:—"That the President of the United States is hereby authorised to call an International Sanitary Conference, to meet at Washington, district of Columbia, to which the several Powers having jurisdiction of ports likely to be infected with yellow fever shall be invited to send delegates, properly authorised, for the purpose of securing an international system of notification as to the actual sanitary condition of ports and places under the jurisdiction of such Powers, and of vessels sailing therefrom."

The Secretary of State accordingly issued the following circular under date of July 30th, 1880, to the Ministers representing the United States at the capitals of the Maritime Powers of the world:—

"Sir,—I have to state for your information that in pursuance of a joint resolution of Congress, which was approved on the 14th of May last, the President has determined to call an international sanitary conference, to meet at Washington, and to invite to join in the proposed conference the several Powers having jurisdiction of ports likely to be infected with yellow fever or cholera, with the view of securing the adoption by the Powers in question of an international system of notification as to the actual sanitary condition of ports and places under the jurisdiction of such Powers and of vessels sailing therefrom. I enclose herewith a memorandum in which the circumstances which have induced this Government to ask those of other nations to join in the proposed international sanitary conference are set forth, and which concludes with a statement of the specific propositions which the President would desire to submit to the conference. In view of the urgent necessity which, according to the experience of this Government, exists for prompt action in reference to this matter, I have to instruct you to lose no time in calling the attention of the Government of —— to this subject, by transmitting for its information a copy of the memorandum above mentioned, and by asking it at the same time to take into consideration the expediency of holding a conference of the character proposed, and requesting it to communicate its views on the subject to this Government at as early a date as may be convenient. You may add that it is thought by the President that such delegates as may be appointed by the several Powers to attend the proposed conference should be authorised to conclude, if deemed expedient upon consultation, an international convention in relation to any proper subjects for international sanitary regulations to be proposed for the consideration of the Governments interested. In order that the proposed conference, if agreed to by the several foreign Governments interested in the subject, may be held at as early a period as practicable, the President deems it expedient to suggest the 1st day of January, 1881, as a suitable date for the assembling of the conference in the city of Washington. In the event, however, that the Government of —— should have occasion to prefer a different date for the meeting of the conference, this Government will be ready to reconsider the question with a view to an alteration in the date."

The responses have been very cordial, and representatives have been appointed as follows:—England and Germany will be represented by the English and German Consuls-General at New York; Canada, by Dr. Tache, Deputy Minister of Agriculture, who has arrived here from Ottawa; Belgium, Mr. George Neyt, Chargé d'Affaires and Councillor of the Belgium Legation in Washington; Brazil, by Councillor A. P. de Carvalho Borges, Envoy Extraordinary and Minister Plenipotentiary of the Brazilian Government; Turkey, by Gregoire Aristarchi Bey, the Turkish Minister; Japan, by the Japanese Minister, Jushie Yoshida; Italy, by Prince de Camporeale, Chargé d'Affaires of the Italian Legation; Sweden and Norway, by the Minister, Count Carl Lewenhaupt; France, by Mr. Max Outrey, the French Minister; Mexico, by Senor Don Manuel M. de Zamacona, who is to arrive this week; China, probably by the Assistant Minister, Mr. Yung Wing; Portugal, by Viscount das Nogueiras and a specialist; Spain, by Senor Don Felipe Mendez de Vigo and a specialist; Austria, by Count Bethlen; Chili, by Francisco S. Astaburnaga, the Chilian Minister; Russia, by Mr. Michel Bartholomei; the Netherlands, by Mr. Rudolph de Pestel, Minister Resident; and Denmark, by Mr. de Bille, Chargé d'Affaires.

On the part of the United States the President has appointed Dr. J. L. Cabell, President of the National Board of Health; Dr. T. J. Turner, U.S. Navy, and Secretary of the National Board of Health; and the Attorney-General.

New York, Jan. 1st, 1881.

MEDICAL NOTES IN PARLIAMENT.

In the House of Lords on Tuesday the question of the water-supply of the metropolis was brought forward by the Earl of Camperdown, who suggested that, considering the state of things in the Lower House, it might be expedient for the proposed Bill of the Home Secretary, for the creation of a metropolitan water trust, to be introduced in the first instance into their Lordships' House. The Earl of Dalhousie, on behalf of the Government, could not make a definite statement on the subject, but could assure the noble lord that the question was receiving due attention.

In the House of Commons on Thursday, Jan. 27th, petitions for redress in connexion with the East India Army Medical Department were presented from G. Coates Bell, T. Matthew, T. McGann, and A. K. Reed. A petition was presented from St. Mary's, Rotherhithe, for inquiry into the affairs of Guy's Hospital. The Burial and Registration Acts (Doubts Removal) Bill was considered in Committee and reported without amendment. The second reading of the Medical Appointments Qualifications Bill was deferred to Thursday, Feb. 3rd. The Universities (Scotland) Voting Bill was read a second time without discussion.

On Friday further petitions for inquiry into the East India Army Medical Department were presented from R. Mantell, D. B. Smith, G. Y. Hunter, and C. T. Eves. The following notices were given for Tuesday:—Dr. Farquharson, to ask the Secretary to the Admiralty whether the report of the Committee on the pay and position of naval medical officers will be circulated before the next examination of candidates for the medical service of the navy. Mr. P. A. Taylor, to ask the President of the Local Government Board whether it is true that he has given any sanction to a resolution lately brought before the Holborn Board of Guardians, under which relief would be refused to all paupers who had not been vaccinated. Mr. Chaplin, to ask the Secretary of State for the Home Department if his attention has been called to a case of horse-poisoning at Ruskington, in Lincolnshire, which was tried before the magistrates at Sleaford on Jan. 10th, when it was shown that two horses, the property of Mr. Grist of Ruskington, had been poisoned with arsenic by George Olive, the person in charge of them, and that one of them in consequence had died. Whether he is aware that it was stated in evidence that arsenic sufficient to poison fifty horses had been sold by Mr. Smith, chemist, at Sleaford, to George Olive, and that it was entered in the chemist's book "to be given to horses." And whether the Government will take steps to check the indiscriminate sale of poison by chemists for the purpose of being given to horses.

Weights and Measures.

On Thursday, in answer to a question by Mr. Barran, Mr. Chamberlain said the Board of Trade had no power to interfere with verification by local authorities of glass measures; but they were, with the assistance of the Pharmaceutical Society, and a number of local authorities, preparing suggestions as to the measure that should be permitted. The Weights and Measures Act of 1879 provides that measures stamped by the inspector of weights and measures shall be a legal measure throughout the United Kingdom, unless found to be false and unjust. There has recently been a conviction in a case in which the measure was stamped by the inspector, and the conviction was quashed on the ground that the possessor was not aware, when using it, that it was false or unjust.

Naval Medical Officers.

In reply to Dr. Farquharson, Mr. Trevelyan said the report of the Committee on the pay and position of naval medical officers would be presented to Parliament as soon as the correspondence with the Treasury on some minor points was terminated. The scheme had virtually been settled. Ever since 1854 it had been understood that the payment and position of naval medical officers ought to be one-seventh better than of military medical officers on account of the relative advantages of service. He intended to bring a scheme before the Committee on Estimates to improve the condition of the naval medical officers. The scheme with regard to pay, pension, and retirement would come in force on the 1st of April, and successful candidates at the next examination would, from the moment of entering the service, under a new regulation, receive full pay as surgeons.

In answer to Mr. P. A. Taylor, Mr. Dodson denied that vaccination was enforced at the Holborn Union as a condition of relief; at any rate, he had sanctioned no such regulation.

Bequests and Donations to Medical Charities. St. Mary's Hospital, Paddington, becomes entitled to 200 guineas by the will of Mr. C. S. Ball, late of Cambridge-terrace, Hyde-park. Mrs. Clayton, widow of the founder of the Clayton Hospital, Wakefield, and whose funeral took place on the 26th ult., has bequeathed £200 to that institution. Mrs. Herbert Williams has just sent £500 to the funds of the Dorset County Hospital in memory of her late husband. The Grocers' Company have given £100 to the City Dispensary.

Obituary.

ANDREW WOOD, M.D. EDIN., LL.D., D.C.L., &c.

THE report of few recent deaths has been received with so much pain and surprise as that of Dr. Andrew Wood. Not many months since he was in London, playing his prominent part in the proceedings of the General Medical Council, and to all appearance as full of vigour and manly pugnacity as ever, suggesting to his friends how uniform was the flow of his health and spirits. True, he was seventy years old, but he bore them lightly, and they seemed no more than fifty to other men; when all at once the bad news came upon his friends. Almost as with Robert Levett,

> "With no throbs of fiery pain,
> No cold gradations of decay,
> Death broke at once the vital chain,
> And freed his soul the nearest way."

Dr. Andrew Wood, whose father and grandfather were both medical men and Fellows of the Edinburgh College of Surgeons, was born in September, 1810. He laid the foundation of that sound classical knowledge which was afterwards to stand him in such good stead at the High School, in the Rector's class of which he held a high place. He studied medicine in Edinburgh and Dublin, and graduated in the University of Edinburgh in 1831, in his thesis treating "De Cataracta." From his earliest years he was a man of action, and took a leading part first in the debates of the Royal Medical Society, and soon after in the business of the Edinburgh College of Surgeons, of which he became a Fellow, not in the lazy way of admission by testimonial, but by the examination which was in force in those days.

It is one good thing for which at least we have to thank the Medical Act of 1858, that by abolishing territorial restrictions of diplomatising jurisdiction, and creating a Council in which all divisions of the kingdom are represented, members of the profession from all these divisions, of very diverse histories, nationalities, and schools, meet around a common table and exchange views and amenities which have greatly improved and broadened professional feeling. One of the most prominent illustrations of this advantage of the Medical Act was Andrew Wood, who came, very much through the Medical Council, to be as much known in London as in his own beloved Edinburgh. As a physician Dr. Andrew Wood was well known and much respected. Though we do not remember any great contributions to either pathology or therapeutics, he had large experience both in private practice and in connexion with public institutions. He was surgeon to Heriot's Hospital, the Trades Hospital, and the Merchant Maiden Hospital. It was at Heriot's Hospital that he made those experiments as to the prophylactic use of belladonna in scarlatina which are constantly quoted. He was Inspector of Anatomy for Scotland. He was held in abundant honour by those who had the best means of knowing him by association and co-operation. His own College—the Royal College of Surgeons of Edinburgh—elected him as President in 1855, and have paid him the great compliment of returning him, without dispute, to the General Council of Medical Education and Registration ever since the creation of the Council. At Cambridge last year he was one of a group of medical men who received the degree of LL.D., as at Oxford previously he had received that of D.C.L.

The cause of Dr. Andrew Wood's death was somewhat rare, and, more interesting still, as being the lesion of which another great Edinburgh physician (Dr. Abercrombie) died—rupture of the heart. One of the cusps of the aortic valve was corrugated, and had been so, probably, for years. In addition to this, there was extensive calcification of the coronary arteries. It is remarkable that he never presented symptoms of angina. The muscular substance of the heart was remarkably soft, and in many places there were patches of fatty degeneration. But the fatal lesion was rupture of the cardiac fibres in the left ventricle, close to the septum. The passage so made into the pericardium was a narrow one, and less than half a crow's quill in diameter, so that the fatal hæmorrhage which ensued was comparatively slow, and extended over some hours. Eight ounces of coagulated blood were found in the pericardium.

There were three great traits in Dr. Wood's character. He was conservative; he was classical; he was hearty and human. His conservatism only interests us as it affected the affairs of the medical profession, though in Scotland it was a power which secured him respect from the leaders of the Conservative party. In medical politics he was pugnaciously conservative. He defended the old corporations and all they did—their preliminary examinations and their professional ones; and he challenged their enemies to meet him in the gate. About the year 1870 he was led by the force of public opinion to acquiesce in legislation for a compulsory consolidation of the corporations; but he afterwards rejoiced at the failure of this attempt at legislation, and ever since had objected to any interference with the freedom of these bodies. The Medical Council, too, had in him its most dauntless and thoroughgoing defender. All it did was good. Its Recommendations and its Visitations scarcely admitted of improvement. To do him justice, however, he had none of the narrow feeling which makes the Council so much afraid of the profession, and he always heartily supported measures for direct representation of the profession. For years past he had found recreation and solace in the close study and translation of the classics, especially of Horace. But, as our readers know, he was as much at home in translating Schiller or Lessing as in translating his own favourite Horace. It is not necessary to maintain that these translations were not serious rivals to similar works, but they were very creditable acts in the life of a busy professional man, and constitute an example that cannot be too frequently held up for commendation.

With all his honours and his culture, he retained his great human characteristics, his patriotism, his friendships. He loved Burns as much as he loved Horace, and sang the songs of his native land as fitly as if he had never been south of the Tweed. He will be greatly missed in London as well as in Edinburgh. We scarcely see how the Medical Council will get on without him. His long experience of its business as Chairman of the Business Committee, his good nature, his frankness, his bold defence of the old and the traditional, will be all missed. We can scarcely think that the meeting would have been held so soon had his death been anticipated. We do not pretend to have always agreed with him. But there was no difficulty in differing from him, as we differed much. We will even admit that his death removes an obstacle to reform. But for all that we have lost a friend whom we should have preferred to fight.

JAMES MACKIE, L.R.C.S. EDIN., L.S.A. LOND.

HEIGHINGTON, near Darlington, has sustained a severe loss in the death of the oldest practitioner in the neighbourhood. Mr. Mackie was born in Glasgow, and came to Heighington in 1844, where he resided until his death. He held the union appointment for many years, and for the last seven years he had also been medical officer of health to the Rural part of the Darlington Union. He was an able practitioner, and highly respected by his professional brethren. Besides being well acquainted with his own duties, which he performed with zeal and ability, he was a genial and intellectual companion, well acquainted with literature, and a good classical scholar. A year ago Mr. Mackie had a severe attack of bronchitis, followed by dropsical symptoms, which caused his death on the 17th of January, in his seventy-second year. There was a large attendance of friends and patients at his funeral, notwithstanding the severity of the weather, and those in his own profession included Mr. J. Jobson, J.P.; Dr. Eastwood, J.P.; Drs. Smith and Clark; and Messrs. F. Wilson, Tweddle, Fielden, Manson, and Hardy. The remains of the deceased were interred in the churchyard of Heighington. Many of the mourners were deeply affected.

ERNEST CRAVEN LUNN, M.R.C.S., L.S.A.

WE briefly announced last week the sad death of Mr. Ernest Craven Lunn, M.R.C.S., L.S.A., youngest son of W. Lunn, M.D., of Hull, who was knocked down by a hansom and instantaneously killed, in the presence of the lady to whom he had been engaged some time, who also received a fractured tibia, on Jan. 25th ult. Mr. Lunn entered at St. Thomas's Hospital, Oct. 1875; passed his first

M.R.C.S. in Jan., and his first L.S.A. in Aug. 1878. In October of the same year he entered Aberdeen University; and in April, 1879, there passed his First Professional Examination with honours, his second University Examination being passed the following April, his final L.S.A., Aug. 1880, and his M.R.C.S. Lond. so recently as Jan. 20th, 1881, receiving his diploma only five days before his decease. As a student he held every appointment tenable by such at St. Thomas's Hospital, and obtained a certificate of honour for midwifery. He was dresser to Mr. Mason and Mr. McKellar, and clerk to Drs. Bristowe, Gervis, and Payne. Mr. Lunn was looked upon by all as a rising young man, and held in the greatest esteem by all who knew him.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Members of the College on Jan. 27th:—

Beale, Edwin Clifford, M.B. Camb., Langham-street.
Saunders, Chas. Edw., M.D. Aberd., Lower Seymour-street.
Willis, William, M.D. Edin., Stanhope-street.

APOTHECARIES' HALL. —The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 27th:—

Burrows, Charles William Grimes, Chesterfield.
East, Frederick William, Clapton-square.
Green, Harry, Padstow, Cornwall.
Holroyd, John, Rushworth, Halifax.
Thurlow, John Howard, Boston, Massachusetts, U.S.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Hy. William Faulkner, Charing-cross Hospital; Francis James Lea, University College; Frank Charles Osborn, St. Mary's Hospital; John Henry Williams, London Hospital.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the quarterly examination held in January the following gentlemen passed the First Professional Examination:—

M'Cormick, J. D., Thurles.
Wilson, James, Glasgow.

The following gentlemen, having passed the Final Examination, were admitted Licentiates of the Faculty:—

Farwell, A. A., M.D., Paisley.
Gabe, J. Bernard, Glasgow.
Macfarlane, N., Glasgow.
Nasmith, G. C., Glasgow.

Five candidates were remitted at the First and nine at the Second Examination.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW. — At the quarterly examination held in Glasgow in January the following gentlemen passed the First Professional Examination:—

Alvares, E. M., Bombay.
Foulston, E. J., Leeds.
Horn, R. J., Preston.

The following gentlemen, having passed the Second Professional Examination, were admitted Licentiates of both bodies:—

Cook, Edmund A., Glasgow.
Corkery, W. A., Bombay.
Cattermole, J. F., M.D., Canada.
Dutt, M. R., Madras.
Head, J. G., M.B., Canada.
Marchmont, F. G., Bombay.
Patchett, E. J., Glasgow.
Simpson, E. J., Bombay.

Three candidates were remitted at the First and seven at the Second Examination.

[The fourth name in our last published list of gentlemen who passed the College of Surgeons on the 24th ult. should have been as follows: "Gresswell, Dan Astley, Louth."]

THE annual dinner of the Hunterian Society will be held at the Albion Hotel, Aldersgate-street, on Saturday, Feb. 12th, at 6.30 P.M., John Couper, F.R.C.S., in the chair.

A SPECIAL appeal was made on Sunday last in the various churches and chapels in Doncaster on behalf of the infirmary of the town.

WILLIAM GRANT, M.B. Glas., C.M., of High Blantyre, has been placed on the Commission of the Peace for Lanarkshire.

AT the last meeting of the Sanitary Institute of Great Britain (B. W. Richardson, M.D., F.R.S., in the chair) eight Fellows were elected, among whom were the Bishop of Exeter, Sir Stafford Northcote, General Bartlett, and Colonel G. E. Waring (U. S. America). Two Members were also elected.

A MEDICAL student at Birmingham, last week, was found dead in his father's surgery. It would seem from the evidence adduced at the inquest that the fatal result was due to taking prussic acid, probably inadvertently.

THE Committee of the Chelmsford Dispensary and Infirmary have resolved on the purchase of a site and the erection thereon of a more commodious building than the present one. The subscriptions paid or promised for the purpose amount to £1667, but the sum of at least £4000 will be required.

THE GERMAN HOSPITAL.—The annual General Court of Governors of this charity was held on the 26th ult. at the Cannon-street Hotel, under the presidency of Baron H. Von Schroeder, the treasurer. The whole number of patients attended during the past year was 19,453. The receipts had been £9195 and the expenditure £8738.

HOSPITAL AND EDUCATIONAL REFORM.—On the 31st ult. a meeting of the Westminster Liberal Union was held at their offices, Regent-street, to consider the question of agreeing to a memorial to the Home Secretary on the reform of administration of London hospitals. After considerable discussion the memorial was adopted.

EDINBURGH EYE INFIRMARY. — At the annual meeting of the subscribers to this institution it was stated that the indoor patients for the past year numbered 11, outdoor patients 1070; it appeared from an abstract of the accounts that the income amounted to £104 and the payments to £83, the whole of the officers of the institution acting gratuitously.

AT the annual meeting of the friends and supporters of the Liverpool Infirmary for Children, held on the 26th ult., the Mayor threw out the suggestion that an appeal in aid of the funds of institutions such as that whose interests he was advocating might be made to the children of the towns and neighbourhoods where such charities existed. The attendances last year at the above named infirmary were stated to have amounted to 29,250.

THE inhabitants of Millbrook (Cornwall) and its vicinity have expressed their regard for, and their appreciation of the skill and kindness of Mr. E. J. Worth, M.R.C.S. Eng., by presenting him with a valuable testimonial in the shape of a silver salver with a smaller salver, tankard and two beakers. A roll of vellum, containing the names of the subscribers, to the number of 300, accompanied the gift.

THE annual meeting of the supporters of the Liverpool Royal Infirmary, Lock Hospital, and Lunatic Asylum was held on the 31st ult. The report read by the treasurer stated that the efficiency of the infirmary had been maintained. The financial position continued to be a source of anxious attention to the committee; the debt had been increased during the year by £753, and now stood at £3600. The total income of the year was £14,732, and the expenditure £14,576.

NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR. The annual meeting of the Governors was held at the offices, 12, Pall-mall, S.W., on the 2nd instant. In the absence of the President, Viscount Eversley, Sir Harry Verney, Bart., M.P., Vice-president, took the chair. The report presented recorded a continuance of the efficiency of the institution, and that an increased number of patients had been benefited by treatment at the hospital during the past year. The receipts for the year amounted to £7216 and the expenses to £7380. His Royal Highness Prince Leopold was elected President in succession to Viscount Eversley. The medical report was read by the Hon. Visiting Physician, Dr. Sinclair Coghill, and it stated that 598 patients had been treated at the hospital, the mortality being only 2·8 per cent.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN. At the annual general meeting of the contributors to this hospital, held on Jan. 21st, it was stated that no fewer than 546 children had been treated within the wards, an increase of 114 over last year, while 6612 had been treated at the dispensary, being an increase of 1651 over the previous year. The mortality was unusually high, there having been 96 deaths; this was due chiefly to the widespread and virulent epidemic of scarlet fever which had been raging in some parts of the city during the past four months. The expenditure for the year had exceeded the income by nearly £1450.

Science Lectures at the Parkes Museum of Hygiene.—Professor Corfield lectured at this museum on Saturday upon the subject of "Water-supply and Filtration." The Professor referred at some length to the engineering feats of the ancient Romans, and described the aqueducts with which Rome and Lyons were supplied with water. Three of these aqueducts remained to the present day as the channels by which modern Rome is supplied with water, and were monuments to the engineering skill of those who constructed them, and Rome at the present time had one of the best water supplies of any city in the world. The properties of water were explained, and demonstrated by experiments. Though pure water should be colourless, tasteless, and free from particles in suspension, it did not follow that water which had all these properties was pure and fit for drinking purposes. The various sources of water-supply were spoken of, and filtration for purifying water on a large scale in reservoirs, and on a small scale for domestic purposes was explained. The lecture was listened to with much interest, and at the close a cordial vote of thanks was given to Professor Corfield. The proposer, as a working man, said these sanitary science lectures were highly appreciated, and he for one should henceforth pay greater attention to the sanitary arrangements of his house.

The London International Medical and Sanitary Exhibition, 1881.—Considerable progress has been made with the arrangements for this Exhibition, and since the publication of the first list of the guarantee fund several contributions have been received. In addition to the medical and sanitary sections, there will be a miscellaneous section, consisting of school furniture and other articles more or less connected with the general purpose of the Exhibition. Applications for space are to be sent in not later than Thursday, March 31st, 1881; but from India, the Colonies, and America applications will be received up to April 15th. Full particulars may be had on application to the Secretary, Mr. Mark H. Judge, Parkes Museum of Hygiene, Gower-street.

Royal Hospital for Women and Children.—The annual meeting of this hospital in the Waterloo-road, formerly known as the Royal Infirmary, was held on Tuesday last. The Lord Mayor presided, and commenting upon the satisfactory report presented, expressed his pleasure that so much good should have been effected at little cost, there having been in the year 378 in-patients, and 7859 out-patients; 26,872 visits had been paid to out-patients, and 1153 visits to sick children at their own homes. At the conclusion of the meeting warm thanks were given to the medical, nursing, and general staff.

A council meeting of the Metropolitan Hospital Sunday Fund, in the Mansion House, is announced for Monday next, Feb. 7th, at 3 o'clock, for the following purposes:—To elect officers, and the committees for general purposes, and for distribution for 1881; to consider the reference from the last annual general meeting, relative to surgcal aid and kindred societies; and for general business.

The West Ham Board of Guardians have raised the salary of Dr. Scoresby-Jackson, medical officer for Walthamstow, to £150 per annum.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

Armstrong, J., M.B., L.R.C.S.Ed., has been reappointed Honorary Physician to the Liverpool Infirmary for Children.

Barnes, R., M.D., F.R.C.P., has been appointed Consulting Physician to the Royal Maternity Charity.

Barton, J. A., M.B., C.M., has been appointed Medical Officer for No. 6 (St. George's) District of the Barton Regis Union.

Cooper, J. N., L.K.Q.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Medical Superintendent of the Infirmary, St. George's-in-the-East.

Curtis, A., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Staines Urban Sanitary District.

Dinwoodie, W., M.D., C.M., has been appointed Medical Officer to the Third District of the Bellingham Union.

Evans, E., M.B., C.M., has been appointed Public Analyst for the County of Anglesey, vice Owen, resigned. £1 1s. per analysis.

Gilroy, J., L.F.P. & S., L.M., has been appointed Parochial Medical Officer and Vaccinator for the Parish of Middleborough, Dumfries-shire, vice G. R. Underwood, M.B., resigned.

Hayward, R. S., M.D., has been appointed Medical Officer and Public Vaccinator for the Tenth District of the Chelmsford Union, vice Betts, resigned.

Head, R. T., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Cherryhinton District of the Chesterton Union.

Jeffreys, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the New Industrial Schools, Ashgate-road, Chesterfield.

Langton, J., F.R.C.S.E., has been appointed Surgeon to St. Bartholomew's Hospital, vice Holden, resigned.

Lenihan, P. J., L.R.C.S.I., has been appointed Surgeon to Dawson-street Provident Dispensary, Manchester.

Lucas, H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Godmanchester Urban Sanitary District.

Lucas, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Fulborn District of the Chesterton Union.

Mair, A. H., M.B., C.M., has been appointed Medical Officer to the First District of the Woodstock Union.

Morris, F. H., M.D., M.R.C.S.E., has been appointed Medical Officer to the Earl's Barton District of the Wellingborough Union.

Norris, E. S., M.A., M.B., has been elected Honorary Visiting Surgeon to the Windsor Royal Infirmary, vice J. W. Gooch, M.R.C.S.E. resigned.

Outton, H. W., M.D., L.R.C.S.I., has been appointed Resident Surgeon and Apothecary to the Meath Hospital.

Peck, E. G., B.A., M.R.C.S.E., has been appointed House-Surgeon to St. George's Hospital, vice H. M. Sheild, appointed House-Surgeon to Addenbrooke's Hospital, Cambridge.

Pound, F. J., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Royal Hants County Hospital, Winchester, vice Leedham Fuller, resigned.

Rawdon, H. G., M.D., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Honorary Surgeon to the Liverpool Infirmary for Children.

Roper, G., M.D., M.R.C.P.L., M.R.C.S.E., has been appointed Consulting Physician to the Royal Maternity Charity.

Stewart, J., L.F.P.S., has been appointed Surgeon to the Forester's Society, Court Charity, Thornton, Bradford, vice James Murray Park.

Sykes, W., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer of Health for the Mexborough Urban Sanitary District.

Wotton, C., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the King's Langley District of the Hemel Hempstead Union.

Births, Marriages, and Deaths.

BIRTHS.

Benton.—On the 29th ult., at Bennett-street, St. James's, the wife of Samuel Benton, L.R.C.P., M.R.C.S.E., of a son.

Bisdee.—On the 31st ult., at Hopewell House, Cleveden, Somerset, the wife of Alfred J. Bisdee, M.R.C.S.E., L.S.A.L., of a son (prematurely).

Gabe.—On the 27th ult., at the London Dispensary, Spitalfields, the wife of J. Rees Gabe, M.R.C.S.E. &c., of a daughter.

Gittins.—On the 27th ult., at St. John's, Horselydown, S.E., the wife of John Gittins, M.D., of a son.

Jones.—On the 19th ult., at Harrogate, the wife of A. O. Jones, M.D., of a daughter.

Meadows.—On the 26th ult., at Otley, Ipswich, the wife of G. F. W. Meadows, M.R.C.S.E., of a daughter.

Milson.—On the 29th ult., at Finchley-road, South Hampstead, the wife of R. Henry Milson, M.D., of a daughter.

Siccama.—On the 1st inst., at Portland, the wife of Fleet-Surgeon R. R. Siccama, H.M.S. *Warrior*, of a daughter.

Wallis.—On the 24th ult., at Priory-place, Doncaster, the wife of Ferdinand Wallis, M.R.C.S.E., of a son.

MARRIAGES.

Ellis—Newton.—On the 19th ult., at St. Mary's, Whittlesey, Joseph Watson Ellis, M.R.C.S.E., of Swavesey, to Laura Edwina, daughter of the late Edwin Newton, of Whittlesey, Cambridgeshire.

Tamplin—Ree.—On the 28th ult., at Holy Trinity Church, Brompton, Charles Harris Tamplin, M.R.C.S.E., of Ramsgate, second son of the late R. W. Tamplin, of Old Burlington-street, W., to Amy Constance, only daughter of Dr. Ree, formerly of Fulham.

Thew—Atkinson.—On the 26th ult., at St. Andrew's, Newcastle-on-Tyne, by the Rev. Bernard East, Edwin P. Thew, M.B., C.M., of Alnwick, son of the late Edward Thew, of Shortridge, Northumberland, to Helen, younger daughter of the late James Atkinson, of Framlington-place, Newcastle.

DEATHS.

Askwith.—At Huntley Lodge, Cheltenham, suddenly, Robert Askwith, M.D., aged 65.

Cobbett.—On the 25th ult., at Petworth, Torquay, Robert Newberry Cobbett, M.R.C.S.E., of Portobello, Edinburgh, and late of Albury, New South Wales, aged 50.

Dabbs.—On the 30th ult., at 11, Brunswick-terrace, New-road, Buckland, Hants, Fleet-Surgeon George Henry Dabbs, R.N., aged 79.

Davidson.—On the 31st ult., at Bosworth Lodge, Willesden-lane, John Davidson, M.D., C.B., Inspector-General R.N., Honorary Physician to the Queen, aged 63.

Holden.—On the 27th ult., John Fearne Holden, Medical Officer of Health for Hull, aged 50.

Izod.—On the 29th ult., Freeman Izod, M.R.C.S.E., of Fletcher House, Tottenham, aged 54.

Lunn.—On the 25th ult., Ernest Craven Lunn, M.R.C.S.E., L.S.A.L., youngest son of W. J. Lunn, M.D., of Hull, aged 24.

Morton.—On the 15th ult., in London, Surgeon-Major Edward Morton, of the Bombay Army.

Papineau.—On the 28th ult., at Milford House, Homerton, William Papineau, M.R.C.S.E., in his 63rd year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Feb. 7.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ a.m. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ p.m. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 p.m.

Royal Orthopædic Hospital.—Operations, 2 p.m.

St. Mark's Hospital.—Operations, 2 p.m.; on Tuesday, 9 a.m.

Royal Institution.—5 p.m. General Monthly Meeting.

Royal College of Surgeons of England. — 4 p.m. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Medical Society of London.—8½ p.m. Third Lettsomian Lecture: Sir Joseph Fayrer, "On Tropical Dysentery and Diarrhœa."

Tuesday, Feb. 8.

Guy's Hospital.—Operations, 1½ p.m., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 p.m.

West London Hospital.—Operations, 3 p.m.

Royal Institution.—3 p.m. Professor Edward A. Schäfer, "On the Blood."

Royal Medical and Chirurgical Society.—8 p.m. Ballot.—8.30 p.m. Mr. Frederick Treves, "On a Case illustrating the condition of large Arteries after Ligature under Antiseptic and non-Antiseptic Measures."—Mr. Jeremiah M'Carthy, "On a Case of Aneurism of Axillary Artery, probably ruptured; treated by Antiseptic Ligature of third part of Subclavian Artery."

Wednesday, Feb. 9.

National Orthopædic Hospital.—Operations, 10 a.m.

Middlesex Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ p.m.

King's College Hospital. — Operations, 2 p.m., and on Saturday at 1 p.m.

London Hospital.—Operations, 2 p.m., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 p.m.

University College Hospital. — Operations, 2 p.m., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations, 2½ p.m.

Royal Institution.—3 p.m. Prof. S. Colvin, "On the Amazons."

Hunterian Society.—7.30 p.m. Annual General Meeting for the Election of Officers.—8 p.m. The Hunterian Oration will be delivered by Mr. A. H. Smee.

Royal Microscopical Society. — 8 p.m. The Annual Meeting for Election of Officers and Council.

Society for the Encouragement of Arts, Manufactures, and Sciences.—Mr. J. Hungerford Pollen, "On the Present Condition of the Art of Wood-carving in England."

Royal College of Surgeons of England. — 4 p.m. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Sanitary Institute of Great Britain.—8 p.m. Mr. W. H. Michael, "On the Law in Relation to Sanitary Progress," to be followed by a discussion.

Thursday, Feb. 10.

St. George's Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital.—1½ p.m. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 p.m.

Central London Ophthalmic Hospital. — Operations, 2 p.m., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 p.m.

North-West London Hospital.—Operations, 2½ p.m.

Royal Institution.—3 p.m. Mr. Francis Hueffer, "On the Troubadours."

National Hospital for the Paralysed and Epileptic. — 5 p.m. Dr. Buzzard, "On a Case of Disseminated Sclerosis."

Friday, Feb. 11.

St. George's Hospital.—Ophthalmic Operations, 1½ p.m.

St. Thomas's Hospital.—Ophthalmic Operations, 2 p.m.

Royal South London Ophthalmic Hospital.—Operations, 2 p.m.

Royal Institution.—8 p.m. Professor R. S. Ball, "On the Distances of the Stars."

Royal College of Surgeons of England. — 4 p.m. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Clinical Society of London.—8½ p.m. Dr. Sutherland, "On a Case of Chronic Vomiting, in which no food except Koumiss was taken for sixteen months."—Mr. J. W. Teale (Scarborough), "On a Case of Quiescent Scirrhus."—Mr. Heath, "On a Case of Gangrene of the Arm from a Poisoned Wound; Amputation at the Shoulder, and Recovery."—Dr. Whipham, "On a Case of small Round-celled Sarcoma of the Dura Mater, encroaching on the left Temporo-sphenoidal Lobe of the Brain, and producing extensive Softening in its neighbourhood; Absence of Aphasia, the Patient being left-handed."

Saturday, Feb. 12.

Royal Free Hospital.—Operations, 2 p.m.

Royal Institution.—3 p.m. Professor S. Colvin, "On the Amazons."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, February 3rd, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 28	29·07	N.E.	40	39	..	45	35	0·07	Overcast
„ 29	28·98	S.W.	45	45	..	49	37	0·05	Foggy
„ 30	29·23	S.	46	45	..	49	43	..	Overcast
„ 31	29·53	W.	40	39	..	52	36	0·17	Fine
Feb. 1	29·83	W.	35	34	..	42	33	..	Overcast
„ 2	29·78	S.	42	41	..	45	32	..	Raining
„ 3	29·68	S.W.	49	48	..	53	39	0·12	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Uncertified Deaths in the Pottery Districts.

In the mining and pottery districts of Staffordshire the proportion of uncertified causes of death, although recently showing some decline, is still exceedingly high, and a correspondent has recently called our attention to the existence of this evil around Wolstanton. It is specifically stated that registrars in the neighbourhood frequently accept as legal certificates the written statements of unqualified practitioners. As such action is most distinctly contrary to the regulations issued by the Registrar-General and approved by the Local Government, we are scarcely inclined to believe that it prevails to any considerable extent. Registrars, however, may in some instances believe an unqualified or unregistered practitioner to be duly registered, as they are not provided with a copy of the Medical Register, which alone supplies trustworthy information as to medical registration. A registrar is instructed to accept the statement of a medical practitioner with regard to his registration, unless he has good grounds for doubting the accuracy of such statement, in which case it is his duty to apply to the Registrar of the Medical Council for information on the point. With special reference to such a case as that pointed out by our correspondent from Wolstanton, we should advise that whenever it comes to the knowledge of a medical practitioner that a local registrar is accepting as legal certificates written statements issued by unregistered practitioners, the case should be immediately reported to the Registrar-General, who would at once order the rejection of the informal certificates. Without further particulars it would be impossible to hazard an opinion whether the irregular practitioner in question had, by the issue of those certificates, rendered himself liable to prosecution for furnishing a certificate and thus inducing persons to believe him to be a registered medical practitioner. At the same time it must be borne in mind, although false pretension of medical qualification can be punished, there is no law to prevent the most illiterate person from practising medicine, provided he can get patients and there is no pretence of being a duly qualified practitioner. There is, therefore, nothing illegal in the conduct of the "unregistered practitioner" of Burslem, whose written statements of the cause of death are, of course, not accepted as legal certificates by the local registrar. If medical officers of health and medical practitioners would take a stronger interest in this subject of irregular practice and uncertified causes of death, good would undoubtedly result both to the profession and the public.

G. Van Abbott.—Applications for space in the International Medical and Sanitary Exhibition must be made on the official form, which may be had by applying to the Secretary of the Exhibition Committee, Parkes Museum, University College, W.C.

CINCHONA.

THE *Colonies and India*, in its advices from Ceylon, has the following:—"The Calisaya variety of the cinchona tree had been adversely reported upon by Mr. Moens, the superintendent of the Dutch Government plantations in Java, but subsequent reports received from Mr. David Howard, the well-known quinologist, differed entirely from the view taken by the former gentleman, and he pronounced its bark to be superior to that of the renewed Succirubra kind. As the Calisaya had been very extensively planted on the estates, this decision by Mr. Howard had given great satisfaction to the planters. Several extraordinarily large yields of bark were reported to have been obtained from individual trees."

ACUTE RHEUMATISM AS A SEQUENCE OF TONSILLITIS.

To the Editor of THE LANCET.

SIR,—I think the profession ought to be obliged to Dr. Fowler for having brought this subject under their notice. There are many, I am sure, who may have forgotten, or never were aware of the fact, that a large percentage of cases of throat affections are followed by rheumatic fever. I have at present under my care a gentleman whom I saw on the 17th inst., with acute tonsillitis, which disappeared on the 19th inst., and two days afterwards was followed by a tolerably severe attack of acute rheumatism, principally affecting both ankle joints. The interval between the cessation of the throat affection and the commencement of the rheumatism was only two days.

I am, Sir, your obedient servant,
CHARLES H. ROBINSON, M.C.P., &c.
Dublin, Jan. 25th, 1881.

Mr. H. A. Canning.—The subject has not been recently discussed in our columns.

L.R.C.S.I. might refer to the catalogue of the Royal Medical and Chirurgical Society, Berners-street.

Hippocratides (Liverpool).—The late Prof. Francis Boll's physiological papers are to be found in the "Atti della reale Accademia dei Lincei" of Rome, 1875–77, the most considerable of them, that "Sull' Anatomia e Fisiologia della Retina" in the volume for 1877.

THE STEAM-DRAUGHT KETTLE.

To the Editor of THE LANCET.

SIR,—The principle on which a jet of steam may be used to propel air was favourably noticed by you in its application to the simple purpose of an inhaler, which has come into general use in most of our large hospitals.

The extension of the same principle to the homely matter of a bronchitis kettle has been carried out by Maw, Son, and Thompson, and I may recommend this invention as likely to prove useful to the profession.

I am, Sir, yours, &c.,
Savile-row, W., Jan. 25th, 1881. ROBERT LEE.

Surgeon, A.M.D.—We are afraid our correspondent has not read the Warrant very carefully. It does not say anything about pay and allowances. We understand these are at present under the consideration of the authorities.

M. B.—We believe the medical witness is entitled to much the same fees as in England.

Dr. Allan M. Lane Hamilton.—The paper is marked for insertion.

Mr. G. Kingston Barton's paper will appear probably next week.

DISPENSARY PRACTICES.

To the Editor of THE LANCET.

SIR,—Might I crave a few lines in your valuable journal to point out the snares that the so-called provident dispensaries prove in the great majority of instances to young medical men who are tempted, by the bait held out of a snug little income with very little to do for it, to eagerly purchase what on the surface appears to be a most profitable investment, and to earnestly impress upon them the necessity of thoroughly searching the neighbourhood of a dispensary offered for sale, so as to count the number of similar places, and also to place no reliance upon the vendor's books, but to adopt the simple plan of counting the number of patients entering the surgery for a week or two, for by so doing they will, as a rule, soon discover the truth or not of the usual reputed £10 per week receipts.

There is no doubt that cheap, ready-money practices have been great successes in days gone by, but, considering their rapid increase in the last three or four years in localities where the population remains stationary, simply from want of room to increase, the pecuniary result of investing in newly established ones must be apparent to anyone with common sense. My advice and experience, gained from an intimate knowledge—no matter how obtained—of the takings of five or six dispensaries still carried on by purchaser after purchaser, although practically failures, is for a would-be buyer to divide the advertised receipts into halves if he wishes to approximate the real state of affairs, and thus possibly cause him to hesitate before adopting a career that has neither honour nor profit to commend it.

I am, Sir, yours, &c.,
Jan. 23rd, 1881. L.R.C.P. Edin.

SULPHUR IN WOOL AND HAIR.

THE proportion of sulphur in wool and hair (says the *Journal of Applied Science*) is very large, and as they are daily growing, they necessarily draw upon and rob the land of sulphur, its especial constituent. Professor Johnston states that the wool which is grown in Great Britain and Ireland carries off the land every year upwards of four million pounds of sulphur, to supply which would require the addition to the soil of 300,000 tons of gypsum. The hair on the heads of our population carries off nearly half as much as the wool of our sheep. It is not without reason, therefore, that the Chinese collect and employ as a manure the hair shaven every ten days from the heads of their people.

COTTAGE HOSPITALS.

Dr. Stainthorpe of Hexham will be greatly obliged to any medical gentleman sending him a report or any information as to the cost of a four or six room cottage hospital with the necessary appliances and conveniences.

"MEDICAL MEN AND CORONERS' FEES."

To the Editor of THE LANCET.

SIR,—May I once more be allowed to bring before the notice of the profession generally the position of the medical men residing in West Kent relative to the fees for making post-mortems and attending upon inquests. It would appear that the justices of quarter sessions for this division of the county of Kent have decided amongst themselves that we shall make, by the coroner's order, an autopsy, and forward a report of the same; and upon the subject matter of the same an inquest shall be or shall not be held, at the discretion of the coroner. By such action they do away with much importance of the office, and at the same time throw into our hands, for good or for evil, a large amount of unsolicited power, at the same time saving for the county rates a few pounds, though it may be at the cost of some security of life. I will ask, in conclusion, what would or could be expected of a man, even in fair practice, who accepted such terms? The remuneration would not pay for the repair of instruments, and you will be pleased to hear that the majority of the medical men in West Kent have refused, as I have done, to furnish any report under two guineas.

I remain, Sir, yours truly,
Jan. 19th, 1881. CHARLES CHITTENDEN.

ENURESIS.

To the Editor of THE LANCET.

SIR,—May I request the favour of some of your correspondents, through the medium of your valuable journal, giving me advice as to the treatment to be adopted with young boys who habitually wet the bed?

I am, Sir, your obedient servant,
Jan. 29th, 1881. EX FIDE FORTIS.

Dr. F. R. Bernard's communication shall receive attention next week.

Mr. John E. Marsh is thanked.

Mr. J. Ffrench Blake, of Prince's-street, Storey's-gate, desires to caution his professional brethren against the attempts on various shallow pleas at obtaining money by a man of gentlemanly appearance, about fifty-five years of age, above the middle height, of sallow complexion, and with grey hair and beard.

Dr. R. E. Dudgeon.—Declined with thanks.

Lex.—The numbers of THE LANCET for July 12th and 19th and Oct. 11th, 1879, contain articles which will give full information on the subject.

FOREIGN BODY IN THE EAR.

To the Editor of THE LANCET.

SIR,—The following may be of interest to some of your readers:—On the morning of Jan. 28th a man came to me complaining of excruciating pain in the right ear. He said it commenced during the preceding night, when he believed something must have entered his ear while he was asleep. This proved to be the case, as, with the speculum, a dark object, with legs, could be seen, and, with the aid of a forceps and director, I with tolerable ease extracted what turned out to be a cockroach, measuring a little over an inch in length.

I am, Sir, yours truly,
Jan. 31st, 1881. T. G. WHITE, L.R.C.S.I., &c.,
Assistant-Surgeon Tredegar Iron Works.

ANIMAL VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—You will no doubt recollect my inserting a letter in THE LANCET of 13th Nov. last, saying I would send a supply of calf lymph to any medical applicant on the condition that I was informed as to the result of the use of the lymph. I had 136 applicants, and to each I forwarded lymph. I am pleased to be able to tell you that I have heard of most satisfactory results from many of those, but a large number seem to have forgotten about the promised reply. I am still carrying on the regular vaccination of calves, and although the trouble and expense are both very considerable, I hope to be able to continue until our Government take the matter in hand, when I shall be pleased to retire.

I remain, Sir, yours faithfully,
Manningtree, Jan. 28th, 1881. J. W. COOK, M.D.

HYPODERMIC PELLETS.

DR. H. A. WILSON, of Philadelphia, recommends, for hypodermic injection, the use of soluble compressed pellets, each being composed as follows:—Morphiæ hydrochloratis, ¼ gr.; atropiæ sulphatis, 1-150th gr.; sodii chloridi, ¼ gr. The advantages claimed for these pellets are—(1) their convenient size, (2) they may be used by the mouth if desirable, (3) their certainty of contents and dose, and (4) their certainty and rapidity of action.

CHIAN TURPENTINE IN CANCER.

To the Editor of THE LANCET.

SIR,—I had hoped that some of your readers would in to-day's issue have challenged Dr. Allbutt's opinion as to the value of Chian turpentine, in the case recorded in THE LANCET of January 22nd, p. 155. It was the well-known name of Dr. Clay which made many hope that, at least improbable though it seemed, a remedy had been found for cancer; so when a so-called confirmatory case is adduced by one bearing the name of Allbutt, it ought to bear the strictest investigation. Dr. W. A. Allbutt gives the history of a lady suffering from an extensive suppurating fungoid cancer of the temporal region, infiltrating most extensively surrounding parts, whom he placed under the treatment of Chian turpentine, together with an iron and strychnine mixture. The result was most gratifying: "sleep and appetite returned, and pain vanished." Is it not probable that the strychnia played a more important part than the Chian turpentine? Is it not also probable that, as a coincidence more than a consequence of the treatment, pressure was removed by the extending suppuration or breaking down of a mass near some sensitive nerves, or that the latter were destroyed altogether?

I do not myself think the case can be quoted as a triumph for the Chian turpentine, and I should be glad to elicit the opinion of others upon the subject.

I am, Sir, yours truly,
Jan. 29th, 1881. RICHARD NEALE, M.D. Lond.

PAYMENT OF MEDICAL OFFICERS TO ODDFELLOWS' SOCIETIES.

To the Editor of THE LANCET.

SIR,—In reply to the letter of Mr. F. D. Lys in THE LANCET, Jan. 22nd, respecting the payment of medical officers to Oddfellows' Societies, I beg to say I do not think there is a single lodge in London, either Oddfellows or Foresters, that pays its medical officer more than a shilling per quarter per member, but, on the contrary, I regret to say there are lodges which pay only ninepence per member for medical attendance.

I have over 1500 men in my several clubs, all of which pay me one shilling per member, and that sum they paid my late father, who held these various clubs for over twenty years. The medical man is expected to visit all members (unable to attend at the doctor's house) within three miles radius from the house where the lodge or court is held, and when the lodge-house is situated, as is not unfrequently the case, a mile or two from your own, the distance is much increased.

The rules of most benefit societies state that "no member is entitled to receive sick benefit whose illness is produced by his own indiscretion," and therefore is not eligible to medical attendance otherwise than as a private patient, and this rule we generally enforce or send the member to one of the metropolitan hospitals. The remuneration of one shilling per quarter is preposterously small, but as there are plenty of medical men ready and willing to accept this small sum, it will have to remain until there is some "unity" amongst us and a general demand for higher fees. Excepting for the fact that an amount of private practice is derived from attendance upon the wives and families of some of the members, club practice would be unbearable, the amount of remuneration for services given not permitting of analysis.

I am, Sir, yours faithfully,
ROBERT A. H. HART, L.S.A. Lond.
Stone's-end House, Southwark, Jan. 26th, 1881.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—Your columns I know are always open on behalf of distressed members of our profession and their families, and I venture to bring the case of Mrs. Morris, of Stratford-on-Avon, to the notice of those of your readers who are benevolently inclined as one deserving of help.

Mrs. Morris is the widow of a medical man who practised at Deddington, Oxon, and met with his death eight or more years ago by a fall from his horse at an early age, leaving his wife and five children almost without provision. One of the sons was elected to the Medical Benevolent College at Epsom, but was removed in consequence of bad health three years ago, since which time he has been confined to bed and afflicted with abscesses, having at the present time sixteen or more, with no prospect of recovery. Mrs. Morris's total income is under £70 a year. I have been able to collect a small sum from a few of my patients for her, but the great tax caused by the invalid boy has brought the mother into difficulties, and she will be sincerely grateful for any help the profession may extend towards her.

Donations forwarded to me shall have due acknowledgment.

I am, Sir, yours very truly,
Ewell, Surrey, Jan. 31st, 1881. GEO. R. BARNES.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Tatham, Salford; Mr. Craigie, London; Mr. Rimmington, Bradford; Dr. Cook, Manningtree; Mrs. Prætorius; Dr. B. Squire, London; Mr. E. Owen, London; Mr. Ainley; Dr. Wahltuch, Manchester; Mr. Canning; Mr. Wallis; Mr. Marsh, Barrow-in-Furness; Dr. Dabbs, London; Dr. Stainthorpe; Mr. J. F. Blake, London; Dr. Neale, London; Dr. Bantock, London; Mr. W. Turner, Glasgow; Mr. Post, Berout; Mr. F. Godrich, London; Mr. White, Tredegar; Mr. Reeves, London; Mr. Bell, Tynemouth; Dr. H. Sutherland, London; Dr. Saundby; Mr. G. R. Barnes, Ewell; Mr. Clegg, Liverpool; Dr. S. E. B. Brown, Kashmir; Mr. C. Young, Chilton-Polden; Mrs. Sole, Devonport; Mr. A. L. Hamilton, New York; Dr. F. Evans, Cardiff; Dr. Latham, Cambridge; Dr. Dudgeon, London; Dr. Stephens, Liverpool; Mr. G. Pollock, London; Mr. J. K. Barton, London; Mr. Ball; Dr. Fisher, Rathmullen; Dr. Steventon; Mr. Brookes, Wellington; Mr. Taylor; Mr. Gick, Dublin; Dr. F. Bernard, Stockwell; Mr. Bowring, London; Mr. Boyle, Tenby; Mr. H. T. Wood, London; Dr. Willis, Monmouth; Messrs. Squire, Fox, and Co.; Dr. Moritz, Manchester; Dr. Evatt, Woolwich; Mr. E. Morgan, London; Sussex; W. C. H.; Perplexed; L.R.C.S.I.; The Secretary of the National Association; Ex Fide Fortis; The Earl of Kimberley; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Toyne, Sheffield; Mr. Leman, Chipping Sodbury; Dr. Tinley; Dr. Charteris, Arcachon; Mr. Purcell, Feakle; Dr. C. Reid, London; Mr. Jones, Lowyn; Mr. Croft, Church Gresley; Dr. Lyon; Mr. Hyatt, Shipton Mallet; Mr. F. Jordan; Dr. Saffern, Birmingham; Mr. Walker, Fulbourne; Mr. Siccama, Portland; Mr. Maclehose, Glasgow; Dr. Ridge, Enfield; Mr. Drefus, Strasburg; Mr. Chadwick, Islington; Mr. Chestnut, Tralee; Mr. Clacker, New York; Mr. Bisdee, Cleveland; Mr. Watts, London; Mr. Hyslop, Church Stretton; Dr. Lovell, Bradford-on-Avon; Mr. Granger, Bristol; Mr. Howlett, Westgate-on-Sea; Mr. Shepherd, Liscard; Messrs. Oliver and Boyd, Edinburgh; Dr. Philpot, Poole; Dr. Jacob, Leeds; Mr. De Frane, Aylesbury; K. K.; Alpha, Durham; Surgeon, Great Grimsby; Fides, Yaxley; Dr., Liverpool; Student, Notting-hill; M.D., Camborne; Sigma; Cinchonin; Medicus, Roath; Surgeon, Halifax; J. M., Cirencester; P. F.; M.D., Liverpool; W. S. N.; F.R.C.S.; Delta; Surgeon, Camden-town; Medicus, Sheffield; Physician, Eccleshall; Medicus, Killamarsh; Benedict; Q. X. Z.; R., Brighton; D. S.; Z.; E. J.; G. B., Newport; Medicus, Hitchin; J. K. M. D.; &c., &c.

Essex Telegraph, Estates Roll, North Wales Guardian, Woodhall and Clafflin's Journal, Coffee Public-house News, Education, Western Daily Mercury, The Specialist, Tenby Observer, Herald of Health, Charity Record, Indian Medical Gazette, &c., have been received.

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NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements (on page 2), which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom.

The postal arrangements relating to the distribution of THE LANCET will be considered from time to time in the interests of subscribers.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Annual Address

TO THE

OBSTETRICAL SOCIETY OF LONDON.

Delivered February 2nd, 1881,

By W. S. PLAYFAIR, M.D., F.R.C.P.,

PRESIDENT OF THE SOCIETY.

GENTLEMEN,—It is again my pleasing duty to congratulate the Society on its continuous prosperity. Since our last annual meeting we have elected 40 new Fellows, while we have lost 37 by death and resignation. The Society now numbers 749 Fellows.

Outside the special work of the Society there are two matters worthy of your notice, since they have to do with the general progress of the department of medical science in which we are specially interested. One of these is the representation of Obstetrics on the General Medical Council. The attention of the profession has more than once been called to the strange fact, that in what is practically the Parliament of our profession, which undoubtedly ought therefore to represent all branches of medical practice equally, there has hitherto not been a single member who practised obstetrics, and who might claim to speak with authority when subjects connected with it were discussed. The result of this glaring defect has been that obstetrical questions have been very inadequately treated; not, I am sure, purposely, but from a very natural ignorance of their merits. When we reflect that obstetrics form a large and important part of the daily work of an immense majority of the medical profession, we are surely justified in maintaining that there should be some members of the Medical Council who know something about the matters they are discussing. During the past year a vacancy occurred in the Medical Council by the death of Dr. Hudson, and since the nomination was vested in the Crown, your Council empowered me to head a deputation to the Lord President of the Council for the purpose of pointing out to him the facts I have alluded to. Unfortunately he was unable to receive us, and I therefore addressed to him a petition on behalf of the Council, a similar course having been adopted by the Obstetrical Society of Dublin. No definite decision has yet been announced, but there is good reason to hope that our memorial will lead to the nomination of an eminent obstetrician, whose name is of itself a sufficient guarantee that the interests of obstetrics will in future be properly represented in the deliberations of the General Medical Council.

Another equally glaring and even less defensible anomaly was the fact that in the examination for the membership of the Royal College of Surgeons obstetrics had no place. As the membership of the College forms the most common of all the qualifications for general practice, that must be admitted to have been not only a defect, but an absurdity. That the College should give its *imprimatur* every year to the qualification to practise of hundreds of men, without the slightest attempt to satisfy itself that they possessed the most elementary knowledge of one of the most anxious and responsible branches of their profession, may fairly be said to have been something even worse than an absurdity. I am happy to be able to announce to you that this reprehensible state of things is about to be put an end to, the Council of the College having decided that on and after the 1st of January, 1882, the candidates for the membership shall be examined in midwifery as well as in surgery and medicine.

The past year has certainly been not less fertile than its predecessors in the amount of work which the Society has accomplished. Not only have the meetings been well attended, but the discussions have often been lively and interesting. The custom which the Society has adopted from the first of reporting at length in our Transactions the discussions which have followed the reading of papers has always seemed to me to be a very valuable one. By this means the varying opinions entertained on any special subject are permanently recorded, and much interesting information may be gathered from them which would otherwise never be obtained and be entirely lost. I am conscious of having myself gained, from time to time, important knowledge from this source.

At our first meeting we had an elaborate statistical record by Dr. Champneys on the site, character, and best mode of relieving the pain in uterine cancer. The deductions made by him from fifty carefully observed cases differ somewhat from the opinions which have been generally entertained. In his statement as many of the patients affected were between thirty and forty as between forty and fifty years of age. This is certainly contrary to general experience, and Dr. Champneys' results were probably to some extent accidental, in consequence of the comparatively small number of cases observed. Thus, for example, out of 108 cases carefully noted by Scanzoni, sixty occurred between forty and fifty years of age, and only thirty-five between thirty and forty; while out of 112 cases recorded by Emmett forty-two occurred between forty and fifty years, thirty only between thirty and forty. It is to be hoped that Dr. Champneys will extend his observations on this disease to other points even more important than that of pain. I know of few topics in connexion with gynæcology in which more promising results are likely to be obtained by advancing knowledge than in that of uterine cancer. To point to one subject in connexion with its etiology only, the statement made by Emmett, and supported by Thomas in his latest edition, that all cases of epithelioma have their origin in laceration of the cervix, requires careful study; since, if this be so, prevention is not altogether beyond our reach. Then, as regards treatment, we are already far in advance of the gynæcologists of only a few years ago in dealing with this most deadly disease; and the very generally entertained opinion of pathologists of the present day as to its essentially local origin, strongly encourages us to study the means at our disposal for eradicating it before it has made such ravages in the affected part as to render all interference useless. This subject has already engaged the attention of the Society in a paper by Dr. Wynn Williams on the local treatment of cancer by bromine. In the removal of epitheliomatous growths of the cervix by the knife and galvano-caustic, after the plan recommended more especially by Marion Sims, I have, from time to time, obtained most encouraging results, and the possibility of dealing with such growths much earlier and more effectually than has hitherto been the case should obtain our earnest attention. Then, again, there is the very important subject of the total extirpation of the uterus in early stages of malignant disease, a question which calls for the most serious study, and which, strangely enough, has not been yet taken up in this country, the cradle though it be of abdominal surgery. Although the originator of the method, Professor Freund of Breslau, has operated fourteen times with five recoveries, and his example has been followed by many of the leading surgeons in Germany, I have only heard of one or two unsuccessful operations in this country, and the subject has not yet been brought under the notice of this or any other Society. Probably the extreme complexity of Freund's operation may account for the small degree of favour it has as yet received in Great Britain. No one can doubt, however, that in these days, in which uterine symptoms receive much earlier attention than was formerly the case, malignant disease of the uterus may very frequently be detected before it has spread to any of the surrounding textures, in which it is strictly limited to the uterus, and in which that organ is still perfectly mobile. Perhaps there is no organ in the body, except possibly the mamma, in which total extirpation promises more successful results, if only a comparatively simple operation could be devised. It is worthy of note that that great obstetrician, Dr. Blundell, fully recognised this fact long before the days of abdominal surgery had commenced, and actually removed the uterus in four cases from the vagina, and I am by no means certain that some modification of the plan he adopted may not yet be found easier than Freund's operation. As a matter of fact, Professor Billroth of Vienna has, during the past year, resorted in several cases, in some successfully, to a modification of Blundell's operation, which he maintains to be far more easy and satisfactory than Freund's. Be this as it may, I trust I may be pardoned for specially directing the attention of those of our Fellows who are experts in abdominal surgery to this topic, in the hope that they may, ere long, bring it under the notice of the Society.

At the April meeting Mr. Lawson Tait read a paper, which may be here mentioned as it deals with an interesting and hitherto little studied point in abdominal surgery, on "The Axial Rotation of Ovarian Tumours leading to their death." It not only added to our knowledge of the accidents attending ovarian disease, but led to an important discussion, in which many of our prominent ovariotomists took part, which the Fellows doubtless remember. Mr. Tait's ingenious theory as to the cause of this accident being the alternate filling and emptying of the rectum, although not generally admitted to be correct, struck me as very interesting. There can be no doubt that the presence of this viscus and its varying dimensions in the pelvis plays an important part both in obstetrics and gynæcology, which has not been sufficiently studied, although its influence has been recognised by Sir James Simpson and other writers. I can imagine a valuable paper being composed on this subject.

Another of the burning questions of the day in connexion with abdominal surgery occupied the Society on the reading of a paper by Dr. Godson, recording a successful laparotomy performed by Mr. Spencer Wells, and a very important paper by Mr. Knowsley Thornton on "The Removal of Uterine Fibroids by Laparotomy," and certainly no more interesting subjects could come under discussion. We had the advantage of hearing the views of many well qualified to speak on this point. No one can doubt that a great future lies before this operation, and the brilliant results of the antiseptic method, properly and carefully carried out, in abdominal surgery, certainly render the chances of success much greater than they otherwise would be. While I fully admit that the removal of uterine fibroids by hysterectomy, in properly selected cases, is a perfectly legitimate procedure, I cannot think, with some who took part in the debate, either that this operation can be talked of as on a level with ovariotomy, or that it is ever likely to become so; and I am inclined to hold that this is a subject in which the brilliant successes of ovariotomy, and the operative skill resulting from them, are perhaps a little apt to warp our judgment. In diseases such as ovarian tumour, uterine cancer, and the like, which, if left to run their natural course, must, of necessity, ere long prove fatal, no difficulties and no dangers need stand in the way of an attempt at radical cure. In diseases which may embitter life from suffering, but which probably may not kill at all, or only after many long years, the resort to an operation of such gravity should, I venture to submit, stand on an entirely different footing. In some cases it is undoubtedly legitimate, and in one of Mr. Thornton's cases which I saw with him I myself counselled the patient to undergo the operation; but the momentous decision is not to be lightly made, and much study of the natural progress of fibromas is still required before one can feel justified in arriving at very positive conclusions on this point. It is to be remembered, too, that in the cases of fibroid in which life is most often imperilled—those accompanied by profuse and exhausting hæmorrhage,—there is a fair prospect of material benefit, if not of complete cure, from the far less serious and less difficult operation of spaying, the indications for which, like those of laparotomy, are still *sub judice*. I have ventured to make these observations, because I fear there is a tendency to resort somewhat rashly to this grave procedure, which time and greater experience will doubtless modify. I am well aware that in the hands of such experienced and careful operators as Mr. Thornton there is no risk of the kind I have indicated, but I have elsewhere known of more than one case in which laparotomy has been recommended where, in my judgment, it was by no means imperative, and in which the tumour in no way imperilled the patient's life, and even interfered very little with her comfort. A word of caution may, I trust, therefore be considered to be not altogether out of place.

The June and July meetings were pretty fully occupied by a paper by Dr. Graily Hewitt, on Uterine Flexions and by the discussion which followed it; and although it was not a formal debate on a settled subject, such as that which we had last year on the Use of the Forceps, it was so animated and prolonged that it practically assumed the dimensions of one. I have heard it said that we have had somewhat too much of flexions in our Society, and that it was time the subject was dropped. I cannot myself quite endorse that view, for, doubtless in great measure owing to Dr. Hewitt's persistent advocacy of his own theory of uterine disease, the profession and the public have got a rooted hold of the subject; and whenever uterine symptoms exist, not well understood, we are now told that the womb is probably displaced. It is, I think, greatly to be regretted that in gynæcological practice there is this tendency to run into extremes and fix attention too exclusively on one class of disease only, whether it be what is called an ulcerated womb, a displaced organ, or, what is likely to be the gynæcological lesion of the future, if we may believe our American brethren, a lacerated cervix. This being so, it cannot be unimportant that the subject should be thoroughly discussed in all its bearings; and I trust, therefore, that the time we devoted to it may prove to have been well spent. Personally, although I dare say my friend Dr. Hewitt may consider me a somewhat lukewarm follower, I owe it to him to state that I attach much greater importance to flexions than I did some years ago, and this has followed from a study of his views and opinions. Indeed, I am at a loss to understand how anyone who sees much uterine disease can possibly doubt the extraordinary effects produced by flexions, or the equally extraordinary results which follow judicious mechanical treatment. This is, however, a very different thing from admitting Dr. Hewitt's theory that all uterine disease is caused by flexions—a view which not only leads, as I venture to think, to mistaken practice, but causes those who adopt it to overlook many conditions of primary importance. I trust these remarks may not be misunderstood; but it seems to me, above all things, necessary in this special department of practice that we should hold broad views, and not let ourselves be led into a narrow groove, the following of which, by men less able than Dr. Hewitt himself, may lead to much that is strongly to be deprecated. In the address which I delivered at the Obstetric Section of the British Medical Association at Cambridge in August last, I ventured to point out that the reason why gynæcological practice was in some respects so uncertain was the want of accurate pathological knowledge of the condition of the parts affected; a want for which we are not altogether to blame, since it results partly from the comparatively short time that has elapsed since the diseases of women became the subject of special study, and partly from the difficulties that surround the pathological investigation of the diseased organs. Since writing the above I have had the pleasure of reading in the new edition of our Honorary Fellow, Dr. T. Gaillard Thomas's admirable work on the Diseases of Women, some remarks which so strongly corroborate the observations I have made on this point, that I shall venture to quote them. "Nothing," he says, "more decidedly retards the progress of gynæcology, lowers it as a special study in the eyes of its sister departments, and fans the dying flame of a prejudice with which it has been successfully able to contend only during the past half century, than the unsettled state of uterine pathology. In general medicine, in surgery, and in all other special departments, the study of pathology is made the keystone of the arch which supports them; and observers seem willing to agree as to fixed principles concerning it. In gynæcology the whole subject presents the melancholy aspect of uncertainty and dissension. Many of its votaries, instead of taking broad and strong views, become the partisans of some special dogma or theory, which is warmly attacked by others who hold some view equally narrow, incomprehensive, and exclusive." Perhaps this unhappy state of things is not unnatural in a comparatively new study, but the more frankly we recognise the shortcomings of our department, the sooner shall we get rid of them; and we have had some excellent work before us, such as in the account of the "Pathological Anatomy of Erosions of the Cervix Uteri," and on the "Histology of Endometritis," by our honorary secretary, Dr. Galabin, which shows that considerable attention is now being paid to this topic.

There are many other papers of importance besides those I have referred to, on which, did time allow, I might very properly remark, but I have, I fear, already trespassed too long on your patience to justify my referring to them. I must, however, make a passing allusion to Dr. Priestley's interesting paper "On the Induction of Abortion as a Therapeutic Measure," since it is the first attempt, so far as I know, to systematise the causes which may justify the practitioner in resorting to this distasteful procedure, and to lay down laws for his guidance. It is surely time that a subject such as this should be fairly grappled with, and I am sure we must all agree in thinking that Dr. Priestley not only did us a service in bringing it before us, but that he has laid down a series of very judicious rules in regard to it, which, if strictly attended to, may prevent the abuse of this procedure. In other countries the production of criminal abortion has become, we are told, almost a system, and is practised with unblushing openness, leading, as it may well do, to most disastrous results. Fortunately for us, nothing of the kind exists here, at least not to any appreciable extent, and I trust that Dr. Priestley's paper may, by the safeguards it has laid down, assist in preventing this most pernicious practice ever becoming prevalent amongst us.

The remainder of the address was chiefly devoted to obituary notices of deceased Fellows.

Clinical Lecture

ON THE

DIAGNOSIS & TREATMENT OF RINGWORM.

Delivered at St. Mary's Hospital Medical School,

By MALCOLM MORRIS, F.R.C.S. EDIN.,
JOINT LECTURER ON DERMATOLOGY.

(Concluded from page 166.)

NEXT I desire to call your attention to the practical part of our subject—namely, the treatment. Let us consider for a moment what are the fundamental points to be held in view to guide us. The disease is an eczema produced by a local cause, which cause it must be our business to remove. In doing this, however, we must not aggravate the eczema, but, on the contrary, endeavour to cure it at the same time. The essence of the treatment is the destruction or removal of the fungus, for until that is done the disease cannot get well.

The question then is, How is this best effected? If the disease is on a non-hairy part of the body, be it acute or chronic, it is quickly cured, and for the following reason:—The fungus grows in the layers of the epidermis, and mechanically or chemically can therefore be either removed or destroyed.

If, for example, strong blistering fluid be applied to a patch of ringworm of the body, a bleb is raised in which fungus can be found; in this way much, and sometimes all, is removed mechanically; or if one of the remedies known as parasiticides be well rubbed into the patch, the fungus is soon reached and destroyed. But I can assure you it is quite another matter if a hairy part such as the scalp is affected. It is true in some recent cases cure may be effected by one application just as if the part were non-hairy. But in these cases the fungus, from some unknown cause, has not been able or has not had time enough to penetrate into the follicle. These are the cases that win for quack remedies the credit of performing marvellous cures. I have no hesitation in saying that it is a really difficult thing to cure a well established ringworm of the scalp, in which abundance of fungus is to be seen around the roots of the extracted hairs. The first question of importance to consider is whether there is any means at our disposal for the mechanical removal of the fungus when it is situated deeply in the hair-follicle. Two methods of epilation are advocated—the one by forceps, and the other by the calotte. This latter is a pitch plaster which, having been placed firmly on the head, and allowed to dry, is then forcibly torn off. Naturally this procedure is very painful, and, besides, it does more than is required, tearing out sound with diseased hairs. In addition, as it has the same disadvantages as simple epilation, which I am about to mention, I do not advise you to adopt it. Some authorities very strongly advocate epilation by forceps, affirming that ringworm of the scalp cannot be cured without it. Others think it useless. For myself I am inclined to take a position midway between these opinions, and say that in early acute patches, where only a limited number of hairs are affected and there is a prospect of extracting the root when the hairs are removed, the operation may be performed with advantage. When, on the other hand, the disease is of old-standing, and the hairs break easily on being touched, I think it is worse than valueless to epilate. Even when the mischief is localised to a small patch and is chronic I do not adopt it. It is easy to understand that if you succeed in extracting the stump, root and all, you must leave much fungus behind in the depths of the follicle, and you have not advanced your cure one iota, since it is only a question of time for the fungus to rise again to the surface. So much, then, for the mechanical removal. I now pass to the chemical mode of destruction. Chemicals such as sulphur, mercury, tar, and iodine act in two ways. First, in consequence of certain properties which they contain that are antagonistic to the growth and also to the very life of vegetable organisms, they are used as and denominated parasiticides; and, secondly, they are employed to excite more or less inflammation in the skin to which they are applied.

I cannot pretend in a brief lecture to be able to describe the numberless remedies that are grouped under the name of parasiticides; and even if I could, no useful purpose would be gained. They all seem to be of about equal value, and it matters little whether you select sulphur, mercury, tar, tar and iodine, or chrysophanic acid, and each in turn has had its supporters and its detractors. But, of course, there is one exception—viz., carbolic acid, a drug that has held its own in spite of all opposition. The value of carbolic acid as an antiseptic and a destroyer of low vegetable organisms is, I am sure, too well known to you through the brilliant researches and results of Professor Lister to need any introduction from me. Here then seems to be our sheet anchor. A powerful well-recognised antiseptic would soon destroy our enemy, and some eminent authorities recommend it as one of the best of remedies. For instance, Dr. Alder Smith, before quoted, uses equal parts of carbolic acid and glycerin, the latter to carry the antiseptic to the bottom of the follicle. I would at once recommend this to you as the remedy to use had I not found in practice that it does not answer, and I have my own theory to account for the indifferent results. I do not think that glycerin does penetrate sufficiently deep into the follicle, and carbolic acid in strong enough proportions to be of use is a severe local irritant, to say nothing of the risk of constitutional poisoning, which occasionally occurs when this agent is persistently applied to a tender skin. We want a *parasiticide*, but we do not want an *irritant*. And this leads me to a second effect, which is another objection, in my mind, to the employment of these drugs. They excite more or less inflammation in the skin. This is what, as far as I can judge, all authorities on ringworm have hitherto insisted upon as the essential means of cure. No one has, however, stated it so boldly and argued it with so much skill as Dr. Alder Smith in the article mentioned. He even advocated going to the length of producing artificial kerion, in order that nature may be copied, and the fungus be destroyed by a severe inflammatory process. This he does by the application of croton oil. He says, "Croton oil is the best irritant for causing this inflammatory condition."

My experience has taught me to differ entirely from Dr. Smith in the desirability of producing any inflammation; on the contrary, I think inflammation should be avoided. We should rather turn our attention to remedies that are *gentle* in their action. I am confident that many old-standing cases of ringworm are the result of *over-treatment*—that is to say, a chronic eczema is produced by the remedies, and kept up for months and years, while the fungus all the time exists undisturbed. Of late, with the view of carrying theory into practice, I have been trying some combinations of drugs, which I will now briefly describe.

Seeking for an antiseptic or parasiticide which would be less irritating than carbolic aid, and without its dangers, I have been led to try thymol and some other similar drugs. Thymol, a camphoraceous body belonging to the phenol series of aromatic compounds, is present in small quantities in oil of thyme, but is obtained chiefly from the seeds of the Ptychotis ajowam. It is a powerful antiseptic, being, according to Bucholz,[1] eight to ten times as efficient as carbolic acid in preventing the development of bacteria. It is not nearly so great an irritant to the skin when applied locally, and there is no risk of constitutional poisoning. Menthol is a somewhat similar substance obtained from Japanese oil of peppermint. That it is not far inferior to thymol as an antiseptic, I think you will see from the following experiments. From its power of relieving neuralgia when placed on the skin, and the numbness its application produces, it might be used with good results instead of thymol when there is much tenderness or irritation.

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[1] Archives f. Experimentelle Pathol. und Pharmacol., iv. p. 42, 1875.

I placed normal urine of a healthy man in six test-tubes in an incubator at the average temperature of 100° F. for eight days under the following conditions :—

—	Condition.	Result after eight days.
Tube 1	Urine alone	Full of bacteria
" 2	Urine with bacteria and thymol (1 in 1000)	Urine clear, no bacteria
" 3	Urine with bacteria and menthol (1 in 100)	Ditto
" 4	Urine with bacteria and menthol (1 in 200)	Ditto
" 5	Urine with bacteria and menthol (1 in 500)	Ditto
" 6	Urine with bacteria and menthol (1 in 1000)	Slightly turbid; sediment: not alkaline; no smell. On 12th day bacteria.

To two tubes containing a solution of sugar, yeast was added, and to one of them five drops of a 10 per cent. solution of thymol. After four days not a trace of sugar was found in the solution, which was without the thymol, but it was full of the yeast plant, while in the tube to which the thymol had been added the yeast had settled to the bottom, and no loss of sugar by fermentation had occurred. The next requirement in order to place our theory on a scientific basis is to find some vehicle which will carry the antiseptic to the part of the hair-follicle where the fungus grows, which is far beyond the reach of ordinary remedies. That chloroform is rapidly absorbed by the cutaneous surface is well known, and an experiment by Parissot confirms the view. He found that dilatation of the pupil began five minutes after rubbing into the skin of the temple a solution of half a milligramme of atropin in twenty grammes of chloroform, while an alcoholic solution of the same strength took thirty minutes to produce any effect.[2] The question presents itself, How is the chloroform absorbed? I reply that the larger proportion is in all probability taken up by the hair-follicles and sebaceous glands. With a view to obtain some trustworthy data on this subject I have tried, imperfectly I know, to test to some extent how far a given remedy could be traced down the follicles. Accordingly I had one part of a dog's back rubbed every day for twenty-five days with the following solution :—Asphalt, half a drachm; chloroform, two drachms; olive oil, six drachms; and another part for four days with alcannin in the place of the asphalt. At the end of the time the dog was killed, and the skin that had been rubbed was removed, frozen, and cut into sections, which are now under the microscopes on the table. You will see for yourselves how far the dyes penetrated the follicles—i.e., nearly to the root of the hair,—certainly over three-fourths of the entire length of them, in the case of the asphalt. Now this I attribute to the chloroform used in the liniment. It is a solution similar to these, only with thymol or menthol, as the case may be, in the place of the colouring matter, that I have been using for the treatment of ringworm. A strength the same as above I have found to answer well in the majority of cases. The only exceptions are very young children in whom the skin is tender from previous severe treatment, or when the disease assumes one of the pustular forms. Under these conditions I would for a time lessen the quantity of both the chloroform and the thymol, or else substitute menthol for the latter. The oil is added to arrest the evaporation of the chloroform, and to prevent it from acting as an irritant. This solution I have found of great value, and I have used it both in recent and in chronic cases with success. If employed carefully in the way about to be mentioned, it quickly cleans the scalp, thereby curing the eczema, while at the same time it destroys the fungus. It encourages the growth of new hair by stimulating the cells of the papilla; and it dissolves the fatty matter that fills up the neck of the follicle. The new hair, as it rapidly shoots up, pushes out the old diseased stumps, and raises the fungus towards the surface. In this way the disease is more quickly cured than by any other method I have seen or tried, and it has the additional advantage of not destroying the hair sacs, and consequently does not leave the unsightly bald patches which undoubtedly result from the heroic treatment. Already I have had the satisfaction of seeing several cases of fifteen or eighteen months', or even of two years' duration yield to the mild treatment in six to eight weeks, and I have not considered the cure proved till several weeks of perfect freedom from the disease have been allowed to elapse after the discontinuance of the remedy.

In conclusion, I would add a word or two of instruction as to its use. First, let the part be well washed with soap and water if it is not tender. After it is dried rub the oil in gently, taking care that the friction be not too severe or too long continued, for fear of producing a mechanical eczema. After the treatment is commenced neither soap nor water should be again used. If there is the slightest tenderness let the oil be simply painted on and not rubbed. If there are scabs present remove them gently with a comb after soaking them with the oil, which must be applied to the surface beneath. It is in the chronic squamous cases that the rubbing is well borne, but it should nevertheless be done gently and for several minutes two or three times a day, in order that the part may become thoroughly soaked with the oil. If you see at any time the slightest irritation being produced, stop the rubbing, and order the application to be merely smeared on; if it still causes irritation add for a while one-third more oil, but you will find the liniment will soon be tolerated at the proper strength. No cap should be worn in the house during the treatment, as it is essential that the head be kept cool.

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[2] Comptes Rendus, lvii., pp. 327, 373.

FURTHER RESEARCHES ON

ETHYLATE OF SODIUM IN THE TREATMENT OF NÆVUS AND OTHER FORMS OF DISEASE,

WITH OBSERVATIONS ON ETHYLATE OF POTASSIUM.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(Concluded from p. 170.)

TAKING all the evidence that is before me, Dr. Brunton's experience, my own, and the facts I have been able to collect from other practitioners, I am of opinion that with patient care in its employment, sodium ethylate may be accepted as a most effective remedy for the ordinary form of nævus.

In two examples in which, as I have been informed, there was failure from it, the causes of failure were all sufficient. In one of these instances water-dressing was used to remove the scale or crust; in the other the preparation employed was made with alcohol containing water, whereby a simple caustic soda became the agent that was brought into application.

To secure success it is necessary to have a pure ethylate solution; to make the application without any poultice or water dressing; to allow the crust to loosen of itself before removing it; and, lastly, to be patient in treatment, so as to keep up the effect until the growth is entirely destroyed.

Use of the Ethylate for Removal of Tattoo Marks and so-called Mother's Marks.—Passing from the consideration of nævus I would ask permission to dwell for a few minutes on the question of the use of sodium ethylate in other forms of disease. As a minor point the ethylate is very rapid and effectual in removing tattoo marks, and it admits of being employed with promise of good results in the removal of those diffused nævi called blood-stains, or mother's marks, when they are not extremely extensive. In a future paper I hope to bring this last-named subject of treatment before the Society in a special form based on a more perfected experience than I have as yet obtained. Meantime I would offer as a practical memorandum that in treating the diffuse nævus or mark it is good practice to commence the application of the ethylate at the extreme margin of the stain, and to produce the encrustation in a line not exceeding the tenth of an inch in diameter.

The Ethylate in the Treatment of Nasal Polypus.—I have used the ethylate three times with remarkable success in the treatment of nasal polypus. In two of these cases the polypus was small, easily discernible, and readily within reach. The ethylate was applied to the pedicle of the polypus from a probe point of cotton-wool held in the blades of a long pointed curved forceps, and in both instances the growth was destroyed during the application, and was removed by after blowing of the nose, the one application suficing to effect a cure. In another case the result was not so immediate, the patient, the son of one of our professional brethren, and a university student, had suffered from polypus for two years. The polypus had twice been removed by surgical operation, but had recurred. When the young gentleman was brought to me there was a large polypus far back filling up the nasal cavity, so that the base of the growth could not be seen. I made, therefore, a firm pellet of cotton-wool on the curved forceps, saturated the pellet with the solution of the ethylate, and then plunged the pellet into the polypoid growth and retained it there for three minutes. The removal of the pellet was followed by violent sneezing, and a copious discharge of thick mucus and some blood; but when the discharge had ceased the nasal passage was found to be quite clear, and a curved director could be passed into the posterior nares without the least difficulty. The proceeding was followed by some pain and irritation of the mucous surface, which lasted for three days, but did not oblige the patient to keep to the house. On his return to me four days later the passage was so clear that I thought the cure was complete. This view was not confirmed, for a few weeks later the obstruction recurred, and the patient was once more brought to me, by my friend, with a polypus as large as before, and completely obstructing the passage. The same plan of treatment was repeated and with the same result of completely destroying, for the time, the polypoid mass. The irritation again continued for two or three days, after which I was enabled, by the speculum, to see the point from which the growth took its attachment. I now directed, with the curved forceps, a pellet saturated with the ethylate on to that spot, and repeated the application every five or six days. Some ulceration followed the last application, but the ulcer healed kindly and left the nasal passage quite clear. The latest report I received, eleven months later, was that the recovery remained complete.

On the whole, I think this case promises a very useful application of the ethylate in a new direction. On theoretical grounds cases of polypus are precisely those in which the ethylate should rapidly produce a destructive action, and in practice, as I have so far seen, the effect is in perfect confirmation of the theory. If further experience should be of the same character, a very troublesome affection will have become amenable to one of the simplest possible forms of curative treatment. Aural polypus will probably in like manner be successfully treated by the same method, and it may be that some varieties even of uterine polypus will, in skilful hands, be removed by the application.

The Ethylate in the Treatment of Ozœna.—The employment of sodium ethylate in the treatment of nasal polypus led me to think of using it in ozæna. Here I have had an experience in a long-standing but not extremely severe example of the disease. In this instance, in a young girl, the affection was confined to one nostril, from which there was constant fetid discharge, with evidence of ulceration of the mucous membrane at the distance of about an inch within the cavity. In this case I diluted the ethylate with absolute alcohol to one-half, and then introduced a pellet of cotton-wool, by means of the curved forceps, into the canal, up to the ulcerated surface. Withdrawing the forceps, I left the wool in the cavity for five minutes, and then withdrew it. The application was attended with severe pain, and was followed by an irritation which lasted for three or four days; but the secretion was so much arrested and the offensive odour so greatly relieved that the patient willingly permitted a repetition of the treatment for three successive times. The discharge thereupon entirely ceased, and the odour has not again been noticeable after a period of several months, so that I hope a cure has been effected.

In these cases, again, the theory of the action of the ethylate as a means of cure is quite in accord with the promise suggested by theory, and that, too, though the bony structure should be the seat of ulceration. For I find that the action of the ethylate on soft bone and cartilage is to destroy texture by the decomposition of water, and to fix or pectise the gelatinous matter. The ethylate may thus again be extended in application on this basis of operation. It may, I think, be often successfully used for the destruction of caries or necrosed bone, attended with purulent discharge.

The Ethylate in the Treatment of Lupus.—When I first began to study the action of the ethylates I entertained some hope that they would prove useful in the treatment of malignant growths, and of those pseudo-malignant ulcerations to which we give the name of lupus. So far I have neither been able to confirm nor give up these anticipations. For the destruction of fungoid growths of limited size in malignant ulceration sodium ethylate answers well, but I should be saying too much at present if I assigned for it anything more than a caustic action, rapid and effective, and antiseptic. In treatment of lupus non exedens the results, with some few fortunate exceptions, have been negative. My late esteemed and valued friend, Mr. Robert Ceely of Aylesbury, consulted me last year about the case of a lady who for many years had suffered from lupus non exedens of the face. The ulceration extended over the greater portion of the surface of one cheek, and had shown no tendency to heal until Mr. Ceely commenced the application of the ethylate of sodium. I saw the patient three times, and recommended that the ulcerated surface should first be lightly covered with cotton-wool, and that the cotton-wool should be then saturated with the solution. The application was made every fourth or fifth day; a scale or crust formed, and at the last visit of the patient to me a most decided improvement had occurred. The ulcerated surface had greatly contracted, and the part that had not contracted was covered with a dry scale. In his last letter to me Mr. Ceely reported that the improvement continued, and that he expected there would be complete healing. I am sorry that I have not heard of the further progress of this case.

I have had under my care for nearly eight months a case of lupus exedens, affecting the face on the left side and involving the left ear, in which the treatment with the ethylate has yielded the following results. When this gentleman first came under my care there was a large fungoid vascular growth beneath the ear, which seemed to be increasing rapidly in size; while from the surrounding ulcerated surface there was a free acrid discharge, which was exceedingly fetid—so fetid, in fact, that the odour was detectable at a distance from the sufferer. There had also been several severe attacks of hæmorrhage from the vascular growth. In this case I treated the vascular growth freely with the ethylate, using it diluted to one-half with absolute alcohol. Some hæmorrhage followed, but was arrested at once by the use of the styptic spray which I brought into practice in 1866, and which consists of a mixture of absolute alcohol and pure ethylic ether, in equal parts, saturated with tannin. A firm crust was produced by the ethylate, and the growth was entirely removed. Since then the ulcerated surface has been treated with the alcoholic tannin spray, and whenever there has been a reappearance of vascular growth the ethylate has been again successfully resorted to. At one time, after the use of the ethylate, so good a cicatrisation commenced, that I ventured to treat all the ulcerated surface with the ethylate by using a diluted solution of it in alcohol, one part in ten, in the form of spray. Under this, used every third day for five weeks, there seemed to be a general indication of healing. A thin dry crust formed over the surface, and there was general contraction of the ulcer. Unfortunately these good results were not maintained. Some affection of the general health of the patient during the damp cold weather led to enervation and general debility, during which the ulcerative process became active again, and the parts which had contracted and healed recommenced to discharge. Recently, without alteration in the plan of treatment, there has been once more an improvement; and, on the whole, in the eight months there has at least been an arrest of the disease. That there is death of nervous supply further back I have no doubt, inasmuch as there is trifacial failure; and that in the end the ulcerative mischief will extend I have every reason to fear. I do not therefore suppose that the mere local treatment is more than palliative. At the same time, as a local measure, it is by far the best of any I have ever seen. It prevents decomposition; it destroys vascular growth; it restrains purulent discharge. It has not caused a basic curative effect, but it has limited local extension of disease, has made existence much more endurable, and has, I believe, prolonged existence considerably.

Subcutaneous Injection of the Ethylate.—The question whether the solution of sodium or potassium ethylates may be used by subcutaneous injection for the destruction of abnormal growths deserves to be tested. In my earliest communication I suggested their employment for this purpose, and Dr. Sedgwick has reminded me that in a case in which he and I were once in attendance we did, as a last resource, use the ethylate of sodium in the manner referred to. This case was one of extreme hypertrophy of the thyroid gland. The patient was a lady of about fifty-six years of age. She had suffered from enlargement of the gland for many years, and various plans had been adopted for removal of the gland or for reduction of its size. A short time before she came under our care the tumour had been pierced by the needle, and the electric cautery had been brought into requisition several times. At the last of these attempts the needle had broken, and from three to four inches of it remained permanently in the gland. This was sometimes a cause of pain, but was quite supportable, and was probably no more than an occasional inconvenience. The serious part of the case was that the growth continued, that the skin was distended to the extremest degree, that the trachea was pushed far on one side, that the venous channels through the neck were obstructed, and that the œsophagus was so constricted from the pressure that nothing but fluid food could be swallowed, and even that with difficulty.

In this condition we endeavoured to remove the gland section by section by the subcutaneous destruction of it from injection of the ethylate. Selecting the part where pressure from within was most declared we injected thirty minims of the solution into the structure of the gland at the distance of about an inch from the surface. The operation was followed by some slight local heat and throbbing, which passed away in a few hours, after which there was a very distinct reduction of size and tension of the gland at the part injected. In a few days we injected again with similar good results, and after six injections the gland was reduced to at least a third of its size, with the greatest relief to the breathing and complete relief to the œsophagus. We were congratulating ourselves on our success when an accidental check succeeded. After coming to my house to have a further subcutaneous injection the patient, who insisted on walking home, was immersed suddenly in a dense London fog with rain. Losing her way for a time, she reached her home at last wet through, extremely exhausted and suffering from cold. She was in this way subjected to an acute attack of bronchitis, with severe cough and expectoration, in the course of which the thyroid became congested and inflamed. Abscess formed in the gland, followed by free discharge of pus. In spite of all she, nevertheless, began to recover and to get up and attend for some weeks to a part of her daily duties, but with an impression fixed on her mind that she should die, and a constant expression that she wished to die. One evening, after making preparation for Christmas festivities, she summoned all the servants under her control, gave some of them presents, expressed regret that she had chided one of them, and then bade them all good-by and dismissed them from her room. A little later a loud ringing brought them back, to find her on the floor with the wound in the neck open and bleeding freely. Dr. Sedgwick was quickly in attendance, and found that she was dead from the loss of blood from one of the large veins involved in the gland. Whether bleeding from the wound alarmed her and led her to remove the dressings, or whether she ruptured the vein herself by interfering with the dressings, we could not tell, but the accidental mode of termination does not to my mind affect the treatment at all in regard to principle; and should another instance of enlarged thyroid come before me in which death from pressure on the œsophagus is inevitable, I shall not for a moment hesitate to suggest the same mode of destroying the gland in sections by the subcutaneous injection of the ethylate.

There are some minor uses for the ethylate, which are not without their practical value. I have used it successfully for removing warts, for destroying a small melanotic growth on the face, for a ringworm which had long withstood other forms of local treatment, for the removal of a small loose hæmorrhoid, and for the destruction of the vascular growth dependent on an ingrowing nail. In fact, the ethylate becomes after a little practice with it like a kind of supplementary knife, and in many cases takes the place of the knife without suggesting the fears that are so often connected with that useful but dreaded instrument.

One or two words as to the mode of application. In my first paper I recommended the exclusive use of a glass rod for applying the solution. As I have become more familiar with the treatment I have more commonly used a brush of camel's hair, as more readily applicable. The only objection to the brush is that one using of it destroys it—a trifling objection. Occasionally, when I wish to put on the solution in fine points or lines, I employ a new quill pen, taking the solution up with it in the same way as ink would be taken if the pen were about to be applied for its usual purpose. In this manner the fluid can be applied drop by drop or in line to the part, and its action can be confined precisely to the spot required.

When the solution is used in the form of spray, it should be diluted with absolute alcohol, sp. gr. 795, and sprayed through a Seigle's disperser. The operator in using the spray must be careful not to inhale it himself. In spraying it one day, a little of the fine spray was reflected back into my face, and I inhaled a breath of it, the effect of which was to cause a soreness and irritation of the throat, which lasted some hours. This, however, need not cause alarm. A weak solution can be actually sprayed into the throat, and in cases of malignant sore-throat might prove of great service.

To relieve the pain that is connected with the application of the ethylate, an alcoholic solution of opium may be added with good effect, but for this purpose chloroform must never be used. Chloroform mixed with the ethylate may explode with some violence. All the alcohols treated with sodium or potassium yield a sodium or potassium substitute, and I have made an amylate, a butyrate, and other similar compounds. Whether they will prove useful in medicine remains to be seen. Again, whether potassium ethylate has any advantages over sodium ethylate remains also to be seen. I may relate of potassium ethylate that it is much keener in its action than its sodium ally. It is nearer to the knife, and might almost rival the knife when used in its concentrated form. I have no doubt it will one day come into extensive application, for the whole study of these pectising alcoholic caustics is but in its infancy. For my part, I am repaid already in having been the pioneer in the study, and whatever successes my more learned successors may achieve from it, I most heartily offer them welcome and good-will.

EPITOME OF A PAPER ON THE NATURE AND RELATIONS OF THE DISEASES OF THE EAR.

By ROBERT SINCLAIR, M.D.,
PHYSICIAN AND AURAL PHYSICIAN TO THE DUNDEE ROYAL INFIRMARY.

(Concluded from p. 208.)

THE symptoms common to all acute inflammations are familiarly known by the description of Celsus, "*rubor et tumor, cum calore et dolore.*" The symptoms which, in addition to these, more specially characterise the disease under consideration, are impairment of hearing, giddiness, a sense of fulness in the head, and increase of pain on mastication, swallowing, moving the head, and blowing the nose. If the ear be inspected in the earliest stage of the attack by means of a speculum and a mirror of 5″ or 6″ focal distance, signs of vascular injection will be seen in the part first affected, which will be the dermoid layer of the membrana tympani, if the disease has originated in the external meatus, and the lining membrane of the tympanum and the mucous layer of the membrana tympani if it has taken its origin from the usual source, the pharynx. Should the attack be a very slight one or be appropriately treated at first, resolution occurs, and in a short time the illness terminates without leaving any evil results behind. But if left to itself in the milder cases effusion of mucus occurs, and in the more severe suppuration. These processes usually occur within forty-eight hours of inception, a fact which gives us a very significant hint for early and rational treatment. During this stage there is usually bulging of the drum-head, observable on inspection, and all the local and general symptoms become much more severe. It is even yet possible for the patient to be relieved without surgical aid by the escape of the effusion down the Eustachian tube. But as this channel is usually swollen and blocked up, such a happy result is exceedingly rare. The more usual course for the effusion to follow is the one we would naturally expect—namely, the direction of the point of least resistance—the membrana tympani, and the patient is fortunate indeed if rupture occur before serious disorganisation of the organ takes place. But his troubles are by no means at an end if his medical adviser is sceptical of the propriety of meddling with such a "useful safety valve" as a "trifling discharge from the ear." He has before him the possibilities of a life-long disgusting suppuration and irremediable deafness. If he be a child who has not learned, or has only recently acquired articulate speech, deaf-mutism is almost a certainty. And in any case he may at any moment fall a victim to meningitis, cerebral abscess, or pyæmia.

To say that the only foundation for the rational and successful treatment of this disease is to be found in the general principles which guide us in the treatment of inflammation is, I am aware, to utter a most obvious truism. But it is, nevertheless, a truism which has too largely shared the neglect proverbially attached to things familiar.

In the first place, we must, as far as possible, remove the cause, and prevent the operation of other possible causes. These objects we attain by attending to the external meatus and the pharynx, and in children by lancing swollen gums.

Secondly, we must procure absolute rest for the organ, and, as far as possible, physiological repose for the body generally. With this aim we place the patient in bed, in a well-ventilated and otherwise comfortable apartment; procure for him the greatest possible quietness by diminishing talking and noises to a minimum, and by placing a pledget of absorbent cotton wadding in the ear; and permit no food requiring mastication, for mastication obviously interferes with rest of the organ.

Thirdly, we must moderate the local action by general and local measures. To accomplish this end we must, in the first place, attend to the state of the excretory organs. A judicious selection of vascular sedatives and narcotics—such as aconite, tartar emetic, opium, and chloral—must be made, according to the requirements of each case. And, above all, there should be no hesitation in adopting the aid of our trusty ally, bloodletting by means of leeches. As the situation selected for this measure is a matter of prime importance, I shall ask your attention for a moment to the vascular supply of the organ. The posterior auricular, the anterior auricular branches of the temporal, and the deep auricular branch of the internal maxillary are the arteries of the external meatus. The last-named vessel is the source of the principal arterial supply of the membrana tympani. The stylo-mastoid branch of the posterior auricular reaches the tympanum through the aqueduct of Fallopius, and the tympanic branch of the internal maxillary enters by the fissure of Glasser. These are the two chief arteries of the tympanum.

From these facts it would appear that leeches should be applied in front of and below the external meatus, and certainly not over the mastoid, unless there is evidence that the mastoid cells are also implicated, in which case the parts both before and behind the meatus should be bled. In a child two or three, and in the adult not less than six, leeches should be applied. The meatus should be carefully plugged with wadding before the operation, to prevent the leeches and blood entering it. After the operation the bites should be carefully covered with plaster, to prevent their inoculation with pus, and fomentations by sponges wrung out of hot water, or, what is better, by warm water syringing of the meatus, should be sedulously adopted. "Never poultice an eye or an ear" is an injunction that cannot be too often repeated, for in neither organ can we afford to run the risk of suppuration and its consequences.

Lastly, if the products of inflammation have accumulated, it becomes our business to procure for them a safe and speedy exit by means of the knife. For the performance of this operation we require good light, a wide speculum, a concave mirror of 5" or 6" focal distance, attached by a band to the forehead, and a delicate, sharp-pointed knife. Many instruments have been devised for making the incision. But the one which seems to me to fulfil all the requirements in the highest degree is the myringotome by Dr. Woakes. This beautiful instrument has the supreme merit of perfect safety. It is a sharp-pointed, double-bladed knife, concealed in a cannula, worked by pressure on a spring, and fixed in an angularly-placed handle. In accordance with a well-known principle of surgery, a free incision should be made at the bulging point, if one can be clearly detected; and if not, in the lower segment of the membrane, behind or in front of the handle of the malleus. A good deal can be said for both positions. After the fluid has been evacuated, the inflamed surface should be washed every few hours by copious injections of water about the temperature of the blood, with the double view of diminishing inflammatory action and removing its products. The best way to do this is by means of a brass syringe, fitted with a somewhat conical-shaped nozzle to fit into the meatus, and ensure the thorough washing of the meatus, tympanic cavity, and Eustachian tube. To use a small glass or pewter syringe is merely to trifle with a serious inflammation and the fate of an important organ. A well-made Higginson's or india-rubber ball syringe fitted with a proper nozzle is, however, a good substitute for the brass syringe. In the intervals of syringing the patient should lie on the affected side to permit the free escape of discharge; and a piece of absorbent wadding should be loosely placed in the meatus to soak up discharge and protect the ear from the injurious effects of cold and noise. From the time of the natural or artificial opening of the abscess, the Eustachian tube should be kept pervious—in the adult by the daily gentle use of Politzer's inflator, and in the child by the simple expedient of blowing air up the closed nostril through a piece of india-rubber tubing. In a few days, when inflammation has somewhat abated, weak, warm, astringent solutions should be injected twice daily after cleansing with warm water. Solutions of sulphate of zinc or copper and the sulpho-carbolate of zinc are those which I have found most satisfactory. Vegetable infusions, on account of their liability to decomposition, should on no account be used. It is hardly necessary to say that after every wet application to the ear the meatus should be carefully dried by turning the head on its side, so as to allow the fluid to trickle out, and by using a piece of soft rag.

The line of treatment which I have rapidly sketched may at first sight appear elaborate and difficult of execution. But a moment's reflection will convince you that it is neither more nor less than the common-sense application of well-known principles of surgery; and speaking from my own experience I have invariably found both patients and their friends willing co-operators when the objects of the treatment and the probable consequences of neglect have been fairly placed before them.

If I am asked what measure of success is likely to attend the adoption of this plan, I can only answer, from my own experience and that of numerous others, that the results are quite as good as could be expected from the rational treatment of an acute abscess in such a situation. Quite recently I have had under my care two cases of acute suppuration of both middle ears in adults. In both cases perforation had occurred before I was consulted; and in both entire cessation of inflammatory action, perfect healing of the membranæ tympani, and complete restoration of hearing power were obtained within six weeks of the commencement of treatment.

If you admit, as I think everybody must, the truth of Sir William Wilde's observation, that "as long as discharge from the ear is present we can never know how, when, or where it may terminate, or to what it may lead," if you think of the immediate and future dangers of tympanic suppuration, if you concede its evident disqualification for life assurance, and if you reflect on the restraining power of imperfect hearing in the keen and eager struggle for existence, rank, and wealth,—you will not fail to recognise the importance of accurate diagnosis and rational treatment, and you will find in the study of the diseases of the tympanum a field for the exercise of your best skill, care, and talents, a source of gratification to yourselves, and of inestimable benefit to your patients.

Dundee.

THE annual meeting of the governors of the Birkenhead Borough Hospital was held at the Music Hall, on Jan. 31st, the Mayor (Wm. Laird, Esq.) presiding. The report of the committee of management stated that the total number of patients relieved during the year 1880 was 7724, of whom 535 were in-patients. The total expenditure amounted to £2138 11*s.* 3*d.*, being an increase of £130 1*s.* 9*d.* on the previous year. The total ordinary receipts for the year were £2331 9*s.* 6*d.*, an increase of £419 2*s.* 4*d.* on the previous year. The total receipts exceeded the disbursements by £192 18*s.* 3*d.* The committee most gratefully acknowledge the handsome donation of £250 received from J. T. Hickells, Esq., of Noctorum; and a legacy of £100 (less duty) from the late J. Crowther, Esq., of Oxton. Owing to the yearly increasing number of in-patients the committee considered that the opening of the fourth ward had become a matter of pressing necessity. This, however, could not be done without adding a wing to the main building and making some other slight alterations, at a probable cost of not less than £600.

THREE CASES OF KNEE-JOINT ABSCESS IN CHILDREN.[1]

BY EDMUND OWEN, F.R.C.S.,
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THE three patients whom I have the honour of showing this evening are not selected; they happen to have been lately under treatment together, and are, indeed, the only instances in which I have recently had occasion to open the knee-joint for suppurative arthritis. Short as the series is, these cases offer, I think, an interesting subject for discussion and criticism; and especially so as you have just had the opportunity of examining the present condition of the joint in each instance. The eldest child only was treated by me as an in-patient; the others were brought as out-patients to the Children's Hospital.

Briefly, the line of treatment has consisted in free incisions into the joint and subsequent free drainage; in absolute and prolonged rest of the limb with compression of the articulation; in constitutional and dietetic support, and (need I say it?) in local cleanliness. But having remarked that I have employed cleanliness in the treatment of these diseased and opened joints, the conclusion that I adopted the high ritual of spray and the vestments of gauze would be both hasty and inconsequent. I wish it, however, to be thoroughly understood that I did my best to keep the articulations clean, both on the exterior and in the interior. I would like it to be understood also that by no means do I bear the spray and gauze ill-will; I even look upon them as a kind of safety-lamp which may well be carried by those who work in an atmosphere of surgical fire-damp, as well as by those who, trespassing in the seductive regions of speculative surgery, may on occasion require evidence of their having started on their excursion without neglect of approved precaution To the great champion of cleanliness in our art I personally owe a boundless debt of gratitude, but to certain of his enthusiastic disciples who, to speak within bounds, seem to consider those who do not adopt their creed as wilfully obstinate or morally oblique, I will delicately put this question, Could any other method of treatment have obtained better results than those which we have now before us?

Our medical journals are continually called upon to publish reports of cases, trifling and serious, which have recovered after "antiseptic treatment," that this short series out of the groove cannot now but be of interest. Possibly even they may help to show that *post* and *propter* when employed in connexion with a certain surgical practice need not be confused even when half-obscured in a cloud of carbolised vapour.

The first case is that of a girl of about four years of age. A little more than two years ago she was brought into the out-patient room in Great Ormond-street in a most pitiable condition. The left knee was red and enlarged from a collection of fluid in the interior. So painful had the joint been that appetite and sleep had left her. Moreover, she had had several attacks of convulsions—the rigors of childhood. Ten months previously, the mother said, the child had fallen off her chair, and directly afterwards the knee had begun to swell; but though the swelling had steadily increased, the child had been able to limp about until three weeks ago. The whole limb was red and swollen. She was at once put to bed, and the Registrar (Dr. Abercrombie) going round next morning noted that the leg and thigh were the seat of erysipelas, and that there were several blebs on the leg. The glands in the groin were enlarged and tender. Though there was a small sinus leading towards, or into the joint, from the inner side, from which a thin fluid was oozing, the patella was floated from off the femoral condyles. The temperature was just under 101° Fahr. On the third day after her admission—that was when I next saw her—chloroform was administered, and a free incision was made on each side of the knee, much thin pus escaping. The finger passed into the interior of the joint detected much thickened and pulpy synovial membrane, but no diseased bone. The joint having been thoroughly washed out with a weak solution of chloride of zinc a drainage-tube was passed through it, and the limb was put up again on a slightly bent tin splint. Nevertheless, the erysipelas continued to advance, and blebs now had made their appearance on the thigh, and the temperature went up two or three degrees. The child was taking quinine, iron, and wine; in less than a week the temperature began to track the chart along the normal line. For convenience in the washings, which were daily performed by the house-surgeon, Mr. Kempe, the back splint was changed for extension by the stirrup, weight, and pulley. A month after her admission the joint was strapped, the drainage-tube still lying in the outer wound; and at the end of another like period she was taken home in excellent condition, the wound, though steadily closing, still weeping a little. But at home she did not prosper, and in three weeks she was again in hospital for ten days. Since that time she has steadily improved, the limb being fixed upon a back tin splint. It is no exaggeration to say that in function and movement the damaged knee is now as good as the other. The child runs about on it all the week, and kneels upon it on Sundays. It is absolutely free of pain.

The second case is that of a little boy. The mother says that the disease was started by a fall out of bed upon the knees, after which the right joint began to swell. At the beginning of last year he was sent to me by Dr. Goullet, of St. John's-wood, for an attack of subacute synovitis. The child was then under a year and a half old. We fixed the limb on a tin splint, and Dr. Goullet looked after the child until April, when, in spite of the treatment adopted, the inflammation had run on to suppuration. In this case only one incision was made into the joint, and that on the inner side. The solution used for washing was weak tincture of iodine. Three days after that operation it was noted that the child had lost its thirst and that its nights were quiet. Previously it had been in the habit of starting in its sleep and awaking with a scream. Seven months later it was remarked at the side of the prescription-paper, under the date of Nov. 17th:—"Has been wearing the splint up to to-day. The wound has healed, but there is a good deal of eczema around its site. There is good flexion and power of movement in the joint, but there is still some fulness about the ligament of the patella from the old thickening of the synovial membrane. The health is excellent." There is no tenderness at the knee, which can be bent, without disturbing the child, to less than a right angle. Though the skin over the old wound is not sound-looking it is serviceable enough, and the child cruises about the room without inconvenience.

The last case is that of a baby of four months, who was brought as an out-patient from Hendon at the end of last June. Against his name in the case-book I then wrote: "Subacute synovitis of the left knee-joint," and fixed the limb on a bent splint with strapping and soft bandage. But by the tenth day it was evident that a purulent collection occupied the synovial pouch. Excessive pain in the part had driven away sleep, and the child had attacks of convulsions. The knee was red, hot, swollen, and very tender. By means of incisions, and injections of weak tincture of iodine and water, much thin sero-purulent fluid and flakes of thick and curded pus were washed out of the joint, and the limb was then packed round with vaseline lint and tenax, and fixed to a splint. Gradually the splint was straightened, and by the middle of September drainage was discontinued, and the wounds healed up. The child never had a bad symptom. In October last there was free movement in the joint, and the infant was flourishing; and, as you have seen to-night, the child allows full examination of the capabilities of the joint to be made. He even flexes it of his own accord; and, his mother says, tries to walk on it.

I am well aware that there is nothing of an extraordinary nature in these reports and cases, unless it be the simplicity of the treatment adopted. A treatment somewhat similar to that described by Mr. Sampson Gamgee,[2] with this exception—improvement, I will call it—that the pus is straightway washed out of the joint, instead of being allowed to ooze out. So the joint gets a well-considered and fair start towards the goal of recovery.

In conclusion, I will venture to express the opinion that the chief requisites for obtaining such happy results in the treatment of acute joint-abscess in childhood are the early employment of clean and free drainage and the prolonged continuance of absolute rest. And these are conditions which are fortunately very generally obtainable.

Seymour-street, W.

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[1] A paper read before the Medical Society of London, Jan. 31st, 1881.

[2] On the Treatment of Wounds, p. 101.

ON THE NATURE AND SEQUENCE OF THE CARDIAC AND VASCULAR CHANGES IN INTERSTITIAL NEPHRITIS.

BY BRYAN C. WALLER, M.D., F.R.C.S. EDIN.,
LECTURER ON PATHOLOGY IN THE SCHOOL OF MEDICINE, EDINBURGH.

(Concluded from page 209.)

THE obliterative changes in the intima appear to consist essentially in a proliferation, and subsequent fibrous transformation of the connective-tissue structures of the inner coat. The proliferation is probably due to irritation caused by the circulation of some blood-poison, such as those generated by gout, rheumatism, syphilis, chronic alcoholism, lead-poisoning, and chronic dyspepsia. I am thus inclined to refer the changes in the stroma and in the arteries to a common cause, and to consider that their development generally goes hand in hand, though those in the stroma are usually more marked in the earlier stages, as might be expected from the plentiful migration of leucocytes into the stroma, and from the higher differentiation, and consequently greater permanency, of the elements concerned in the formation of the arterial coats. There is, however, no fixed relation between the character and extent of the changes in the kidney stroma and those in the coats of the renal or systemic vessels—a fact which further corroborates the idea that they are dependent on a common cause, and refutes the supposition that the vascular lesions are originated by those of the kidney, or *vice versâ*.

The remarks which I have made relative to the state of the renal arteries hold good also broadly with regard to that of the arterial system in general. Substantially the same changes may be observed in the vessels of the pia mater, spleen, liver, subcutaneous tissue, &c., though generally to a less degree than in those of the kidneys. The adventitia is not, as a rule, thickened, though in two cases there was thickening of the outer coat of the arteries of the pia mater. This small percentage does not warrant any inference as to the connexion of the thickening with the state of the kidneys. In point of fact, the adventitia of the arteries of the pia mater is often thickened in cases quite unconnected with Bright's disease.[1]

Out of the twenty-six cases in which the heart was examined, there was hypertrophy unconnected with valvular disease in eighteen. The general rule seems to be that the more marked the obliterative changes in the intima of the arterioles the greater the degree of cardiac hypertrophy. In my cases I have been struck with the distinct relation which the one seemed to bear to the other. The number of cases is, of course, too small to justify definite conclusions, though provisionally I am led to adopt the opinion that the cardiac hypertrophy is secondary, and simply due to circulatory obstruction in the kidneys themselves and in the systemic vessels. In three cases where the kidneys were very granular, the intima of the arterioles much thickened, and the heart not hypertrophied, I attribute this fact to the general state of malnutrition which had subsisted before death. Under such circumstances I should not have been surprised had the heart been actually atrophied.

Besides those changes which I have already described in the arteries of the kidney stroma, there are others in connexion with the Malpighian bodies to which I must now shortly direct attention. These changes are principally, if not entirely, due to compression, by the fibrillar transformation and contraction of the nephritic cell-infiltration of the intertubular stroma. By this contraction the capillary loops of the glomeruli are emptied of blood and compressed; and being thus rendered functionally useless, they either undergo simple atrophy and become impervious, or are affected by colloid degeneration and converted into homogeneous or slightly granular masses, which under a power of 300 diameters appear very much like lumps of pretty firmly set gelatine. The colloid change is a very frequent one. In consequence of the obliteration of the glomeruli the blood in the afferent arterioles is prevented from traversing the capillary loops and so entering the efferent venules. A certain amount of rise in the blood-pressure must thus follow, which will not only act directly as one factor in determining an albuminous state of the urine, but will further contribute its quota towards establishing cardiac hypertrophy.

Three principal factors serve to determine a rise in the blood-pressure during the stage of cell transformation and shrinking of the kidney. These are:—Firstly, destruction of the capillaries of the intertubular stroma from contraction of the newly formed cicatricial elements. Secondly and chiefly, changes in the vessels themselves, both in the kidney substance and throughout the system generally, which lead to thickening of the walls with diminution of calibre, and roughening of the sides of the lumen; and, thirdly, destruction of the glomeruli, either by simple atrophy, by colloid degeneration, or by cystic dilatation.

The blood-pressure having been thus heightened, attempts at compensation are likewise initiated. Firstly, the walls of those renal vessels whose coats have undergone least alteration become abnormally permeable, and thus permit the transudation of albuminous substances. Secondly, according to Thoma, when a glomerulus has been destroyed, a direct communication is formed between its afferent arteriole and its efferent venule. Thirdly, anastomoses may form between the vessels of the capsule of the kidney and the small twigs of the supra-renal, phrenic, and lumbar vessels. Thus a portion of the blood which naturally passes through the kidney will be diverted, avoiding, as it were, the locked floodgates. These compensatory provisions are, however, insufficient, and the blood-pressure accordingly becomes permanently heightened. The heart, thereupon, begins to hypertrophy, in order to overcome the conditions obstructing the circulation—that is to say, if the general nutritional conditions are favourable. When hypertrophy is once established the heart is enabled, in great measure, to overcome the obstacles; but at the same time the augmented *vis à tergo*, acting in concert with the increased permeability of the walls of the renal vessels, serves to produce an aggravation of the albuminuric symptoms. These ideas are in accordance with the results of clinical observation, from which we learn that albumen is usually present in the urine in small quantities only during the first stage of interstitial change—namely, that of cell-infiltration; while in the second stage of cell-transformation and contraction it becomes more abundant, though it is seldom very copious in this variety of Bright's disease.

To me the most puzzling fact in connexion with the vascular changes is the hypertrophy of the middle coat. I cannot quite adopt Dr. Johnson's explanation, which ascribes it to the antagonism of the heart and arteries, the one, as it were, insisting on supplying and the other on rejecting the poisoned blood, so that both, like contending athletes, become presently strengthened by the prolonged struggle. Meanwhile I have no feasible exegesis of my own to proffer, unless it be that the hypertrophy of the middle coat is due to the same causes as that of the intima—a view not destitute of serious difficulties, considering the apparently true character of the muscular increase. The fact of the muscular hypertrophy is thus an inconvenient one, so far as regards the sufficiency of present explanations; but that fact it is, I am well persuaded.

The conclusions to which my series of cases appears to point are therefore shortly as follows:—

1. Certain changes in the vascular system are found in connexion with chronic interstitial Bright's disease.
2. These changes consist principally in thickening of the middle and inner coats.
3. In the case of the systemic arteries, the outer coat does not undergo any change which can be connected with the state of the kidneys, though in the kidneys themselves it is sometimes secondarily blended with the surrounding increased perivascular connective tissue.
4. The hypertrophy of the heart is compensatory, and secondary to obstructive causes. It seems to bear a definite relation to the degree of obliterative thickening in the tunica intima of the systemic arterioles. There will, however, be no hypertrophy if the general nutritive conditions of the system are markedly bad.
5. The changes in the arterial coats are, in all likelihood, due to the same primary cause as the alterations in the kidney stroma—namely, the circulation of poisoned blood; though the affection of the vessels is generally subsequent in point of time, owing to the more differentiated, and therefore more stable, nature of the vascular tissues, and the non-occurrence of cell emigration into the arterial tunics as into the kidney stroma.

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[1] See Dr. Grainger Stewart, Brit. Med. Journ., Nov. 15th, 1873.

6. Interstitial changes may occur in the kidney apart from any alterations in the arteries, if the renal disease prove fatal before the latter have time to develop. This is seen in cases of glomerulo-nephritis, where death generally occurs rapidly, with symptoms of suppression of urine, uræmia, and acute dropsy.

7. The general order of sequence of the various items in the morbid process appears to be: (*a*) blood-poisoning, (*b*) renal changes, (*c*) vascular changes, (*d*) cardiac hypertrophy.

Edinburgh.

PENETRATING GUNSHOT WOUND OF THE SKULL; LODGMENT OF BULLET IN THE INTERIOR OF CRANIUM; RECOVERY.

BY J. KINGSTON BARTON, L.R.C.P. LOND.

THE notes of the following, although very incomplete as regards the whole history of the patient (necessarily so from a cause beyond my control), yet, I trust, are sufficiently interesting to warrant their being placed before the profession.

A young man, aged twenty-two, received a penetrating wound of the skull from a bullet weighing thirty-four grains, discharged by a small Remington pistol. The wound was at a point about two inches above a horizontal line drawn across the eyebrows, and about a third of an inch to the left of the median vertical line of the frontal bone. About eleven hours after its infliction the wound gave the appearance of being merely a slight puncture of the scalp, there being little swelling, bruising, or discoloration at its site, though the left eye was closed by ecchymosis of the lids. On the third day the scalp began to swell under the wound. On the fourth day after the receipt of injury the scalp swelled in a globular form about three-quarters of an inch in diameter, the swelling pulsating synchronously with the pulse at the wrist. This pulsating tumour gave the feeling of there being fluid immediately beneath the skin, and the heaving did not seem to be expansile in its character. On the sixth day the swelling diminished, but instead of feeling a tense fluid tumour the fingers detected an apparently small circular depression in the frontal bone. On this day (sixth) Mr. Thomas Smith saw the patient in consultation with me, and having removed the scab a probe was passed into the wound.

The probe passed by its own weight into the cranial cavity in a line directly back towards the occiput, and was only restrained in travelling further by the fingers holding the end of the probe. About a teaspoonful of cerebro-spinal fluid escaped when the probe was passed, and after its removal the depression of the bone was more easily felt. The pulse was 44 before the probe was used, but it rose to 50 immediately afterwards. The cerebral symptoms had been those of compression during the few days previous to the exploration with the probe. A piece of lint soaked in carbolic oil was applied to the wound, and was not removed until the wound had healed. Some other pieces to keep the first in place were renewed daily, but a little carbolic oil daily poured over the original piece of lint was the only local treatment used. The skin wound was quite healed on the fourteenth day after the injury. The symptoms of compression, which were existent from the first day, became most marked on the fifth day, but within twenty days the pulse had risen to 60, and no cerebral symptoms of importance remained. The temperature from the first was never above 99° F. The pupils were contracted. The patient for a long time complained of pain at the injured spot, as also at the occiput. When seen at first, about eleven hours after the injury, the left eyelids were extensively ecchymosed, so much so that three days elapsed before the ophthalmoscope could be used. The optic nerve was then found to be swollen, and in the condition called ischæmia. The optic disc in the right eye was normal. It is difficult to say for certain whether this ecchymosis and ischæmia arose from an injury to the cavernous sinus preventing the return of blood by the ophthalmic vein on the left side, or was merely a consequence of a blow upon the eye. Within four weeks the disc had cleared up considerably, leaving distinct signs of its previous condition; but no atrophy occurring, as was evident by the vision of the eye being equal to that of the right eye (which vision was normal), the probable cause of the ischæmia was an injury to the eye, producing not only ecchymosis of the lids, but also extravasation of blood in the neighbourhood of the optic canal, thus causing pressure on the veins of the optic nerve, and giving rise to the condition observed with the ophthalmoscope. The senses of taste and smell seemed to be quite lost after the accident. The patient was always a subject of thick nasal and pharyngeal mucous membranes, together with a tendency to enlarged and inflamed tonsils, so that his sense of smell was probably never very acute. The loss of taste would be partially dependent on the loss of smell, but the glosso-pharyngeal or facial nerve may have been injured near their roots. The loss of taste seemed to be general, as no localised areas unaffected could be discovered. He had double vision for some days, but being very slight, it was difficult, owing to his confused mental state, to determine whether it was due to a temporary paralysis of the external or internal rectus of his left eye. However, the external rectus seemed to be the muscle at fault. The anomaly did not last long.

There are many other points of clinical interest which might be mentioned, but as the case cannot be published in its completeness now, my chief object is to relate the points that bear on the advisability of treating gunshot wounds of the skull by leaving them alone, if possible, rather than surgically interfering with them. The patient convalesced most favourably until forty days after the injury, when suddenly one evening he was seized with most violent pain at the point of injury, accompanied by several rigors. The pulse soon rose to 100, and the temperature to 103° F. He was almost unconscious, and wildly delirious. Within a few hours he was very sick, bringing up a great quantity of undigested food. The pain, delirium, and fever continued for several days, and then gradually subsided. At the time of this sudden attack there was a partial facial paralysis, or, perhaps more correctly, a paresis of the right side of the face. There was no optic neuritis of the right eye, nor were there any fresh signs of it in the left eye. During this attack he was treated with small doses of calomel and opium for a few days, and it seemed to relieve the bowels and head. Appropriate local remedies were applied to the head. Excepting an effervescing mixture of soda whilst he had the feverish symptoms, he had little or no other medicine. From the time of injury until his critical attack as related above, his bowels had to be relieved daily by enema. The small doses of calomel were sufficient to produce evacuations without the aid of an enema, absolute quiet and the blandest food being the chief treatment relied on. He gradually recovered strength from this time, his appetite, owing to the partial return of his taste, coming back to him, and he was able to go into the country on the seventy-fourth day after the accident for change of air. He is still perfectly well in all respects, five months having elapsed since the accident.

General remarks.—Penetrating wounds of the skull produced by firearms are necessarily of a very grave nature, but this case is a good example of treating such injuries in the simplest manner. In military records there are a good many examples of recovery after a bullet has been lodged in the cranial cavity. The local treatment in this case consisted in providing a free escape for any fluid that might collect in the track of the wound, so as to avoid intracranial pressure; at the same time that the wound was shielded from the contact of air by a veil of lint soaked in carbolic oil, no attempt being made either to search for or remove the bullet. A similar plan was adopted with equal success in a case recorded in THE LANCET, May 3rd, 1879, by Mr. Smith, where the skull and brain were shot clean through from side to side, and where the bullet was felt beneath the scalp, near its orifice of exit from the skull. It is more than possible that operative interference with a view to remove the bullet in such cases does more harm than good; and illustrative of this may be mentioned a case recently recorded in THE LANCET, Oct. 2nd and 9th, 1880, by Mr. Gamgee, where the removal of a bullet lodged in the petrous portion of the temporal bone seemed to inaugurate a train of symptoms which shortly proved fatal.

Gloucester-road, S.W.

THE Governors of the Sussex Eye Infirmary have resolved to rebuild the institution, to meet the growing requirements of Brighton and the county.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

TWO CASES OF OBSCURE ABDOMINAL TUMOUR; OPERATION; CURE.

(Under the care of Mr. JOHN WOOD.)

CASE 1. *Fibroma of cæcum; removal; recovery.*—E. C——, aged twenty, a healthy-looking lad, subject to frequent attacks of constipation, with large and evident intestinal accumulations, was originally admitted into a medical ward. These attacks commenced by some slight typhlitis, followed by a rise in temperature. They were relieved by restricting the diet to milk, and by giving large doses of castor oil every night and enemata. Whenever the bowels were relieved a hard pyriform mass could always be felt behind and below the cæcum, and evidently either growing from it or the ilium.

The patient was after a time transferred to the surgical care of Mr. Wood. At this time a resonant note could be percussed out over the cæcum. Behind this and below it was a hard pyriform non-movable tumour. There was no pain on pressure; the legs did not swell, and there were no enlarged glands in groin, nor was there a history of syphilis. The kidneys, heart, and lungs were apparently healthy.

On June 5th the patient was placed under the influence of ether, and a semilunar incision, six inches in length, was made parallel to Poupart's ligament. The superficial epigastric was cut and tied; the external oblique fascia, the internal oblique, and the transversalis muscles were cut through at right angles to their fibres. Troublesome hæmorrhage occurred. The transversalis fascia was much thickened and indurated, and was divided on a director. The deep circumflex iliac artery was cut, and tied with difficulty. On cutting through the transversalis fascia the tumour was exposed. It was found to be of the size of three walnuts, adherent three-quarters round the cæcum and external to the peritoneum. It cut like scirrhus, and was very vascular. The tumour was dissected as close off the peritoneum as possible. A counter-opening was made anteriorly to the quadratus lumborum, a large drain-tube inserted, and the wound was united with three sets of sutures. The patient was then placed in hernia position. Strict antiseptic precautions were observed throughout. At 6 P.M. the temperature had sunk to 95·6°; pulse 102, intermittent and almost imperceptible. Patient was in intense pain. Champagne and soda-water were given, but rejected at once. Finally, enemata containing alcohol were given. Eighteen ounces of high-coloured urine were drawn off by catheter. Next morning at 10, temperature 98·4°, there was incessant vomiting of greenish mucus. Patient fed entirely by beef-tea and brandy enemata. The wound was dressed, and was perfectly united superficially; no sign of redness or tension visible. 6 P.M.: Red sanguineous discharge through dressing. Pulse 144; temperature 97·4°; feeling of prostration; anxious look; cold, clammy sweat. The dressings were removed, and free hæmorrhage was going on from the large drain-tube. Ice bags were applied all over the abdomen, and iced water enemata were injected every half hour. On the 7th vomiting and retching were incessant, causing intense pain at the site of the wound. The patient was still fed by enemata entirely. Everything was tried to alleviate it: hypodermic injections of morphia, drop doses of creasote, effervescing draughts of bismuth and hydrocyanic acid, and, finally, effervescing draughts with solution of strychnine; but all failed, the patient becoming very prostrate and weak. On the 8th vomiting had slightly diminished. Subcutaneous injections of morphia given three times daily allayed the pain, and by the following day the vomiting had almost ceased, and the patient took champagne and soda by mouth, with a little brandy and beef-tea jelly. On the 10th the wound was dressed, and fæcal discharge was seen at orifice of drain-tube, showing the bowel had burst. The wound was dressed with tow and carbolic lint. All the sutures were cut, and the wound was allowed to heal up from the bottom. From this time the progress was rapid, the only difficulty being to keep the wound open and to preserve the skin from bedsores. On the 25th a free motion was passed per anum. Owing to the closure of the hospital the patient was transferred to University College Hospital, under the care of Mr. Marshall. He returned to Mr. Wood's clinique early in October, and the wound was then quite healed up. He had a daily free motion, but found that if he took a purgative it caused violent pain round the wound.

CASE 2. *Enchondroma of the peritoneum.*—(For the notes of this case we are indebted to Mr. S. Farmer, house-surgeon). G. S——, a labourer, about sixty years of age, was admitted to the Albert ward on Nov. 1st, 1880. He had always enjoyed good health, and there was no history of tumour of any kind in the family. Twelve months before he noticed a small swelling about the size of a marble in the left iliac region; this was freely movable. It gradually increased in size up to the date of admission. He had been gaining flesh.

On admission a large nodulated mass could be felt in the left iliac region. The tumour was rounded in shape, and of the size of a very large orange, and was situated on a level with the crest of the ilium, and in close proximity to the anterior superior spine. The skin was freely movable over it, but the tumour itself was attached below. Pain was experienced down the thigh in the course of the external cutaneous nerve.

On the 20th a free incision, six inches long, was made over the tumour. A careful dissection brought the tumour into view. Attempts were made to separate it from the surrounding structures, but it was found adherent to the peritoneum. At this stage the intestines protruded during a fit of coughing, and were with great difficulty kept within the abdominal cavity. The great bulk of the tumour was then removed; a small and quite distinct tumour, about the size of a filbert, was also taken away. Only two vessels required ligature. The peritoneum was stitched together with catgut, and a large drain-tube put into the wound. Antiseptic precautions were observed throughout. He vomited once after the operation. A grain of opium was ordered to be given every four hours. Next day the wound was dressed. It had quite united by primary adhesion. A catheter was passed twice daily.

The patient progressed most favourably until Nov. 26th, when a fæcal odour was observed, and liquid fæces made their appearance. Antiseptics were of course stopped. The wound opened up; the temperature, which had gradually been rising since the 23rd, was 100·4°; it dropped down to normal immediately after rupture of the bowel. Free fæcal discharge took place daily until Dec. 15th, when he had free motions per anum; and when he was discharged at the end of the month there was only a slight serous discharge from the wound.

Remarks.—With regard to the first case, Mr. Wood stated that he was half inclined to give up the operation when he found the tumour presenting so much of a malignant character; but, on microscopical examination showing it to be only of a fibroid nature, he was of opinion that removing the greater part of the tumour would cause atrophy of the remainder. A feature of the first case was the incessant vomiting of a greenish mucus, in spite of food being given only by enemata, and the entire failure of all the usual therapeutic remedies. In both cases it will be observed the bowel burst in the first on the fifth, and in the second on the sixth day. Doubtless the intestine must have been weakened by the necessarily close dissection; moreover, in the first case the vomiting must have in a great measure contributed to this result.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

CASES OF TRAUMATIC TETANUS.

(Under the care of Mr. J. D. RANSFORD.)

CASE 1.—R. P——, aged sixty-one, was admitted on Sept. 29th. Fourteen days before admission his finger had been badly crushed, and had been amputated by a house-surgeon. On admission the wound looked sloughy, and he complained of not being able to open his mouth well, but had no pain. Temperature 99°, pulse 76.

Sept. 30th.—Temperature normal, pulse 72; mouth opened to the extent of half an inch. No pain, no risus, or spasm about the body. An enema of fifteen grains of chloral was given, and later in the day forty grains of compound jalap powder, which moved his bowels several times in the night and once on the following morning. On Oct. 1st temperature and pulse normal, stiffness of mouth greater; opening to the extent of a quarter of an inch. To have thirty grains of chloral every four hours in enema. On the 2nd trismus not diminished, pain in the back of neck, temperature 100°, pulse 98. On the 3rd pulse 116, temperature 99°; trismus increased, stiffness of neck greater; corners of mouth drawn down. Ordered forty grains of bromide of potassium every four hours, and forty grains of chloral as an enema every four hours. Evening: Pulse 128, very weak and compressible; frequently recurring spasms, followed by vomiting. Chloral omitted on account of the state of the pulse, and one drachm of bromide of potassium ordered every four hours. To have a bath of 100° F. for an hour. Three teaspoonfuls of Brand's beef essence every second hour were easily swallowed without exciting spasm. On the 4th swallowed the medicine about six times; he thinking that ice stopped the spasm, he asked for it. Temperature 101·3°. Twenty grains of chloral hydrate at once, and followed by twenty grains in three hours—if necessary subcutaneously. 11.30 P.M.: Twelve grains given subcutaneously, and repeated at 12.30. Spasms as frequent as before, though patient felt drowsy. 4.30 A.M.: Twelve grains repeated subcutaneously; spasm less frequent and less severe; patient very drowsy. Temperature, 2 A.M., 99°. On the 5th the injection of chloral was repeated at 8.30 and 12. Temperature 100, pulse very feeble and compressible. Ordered twelve grains of chloral hydrate, sixty grains of bromide of potassium, and twenty drops of tincture of digitalis every four hours as an enema. Pulse so feeble that after the first dose the chloral was omitted. No spasm after 10.30, but the patient died exhausted, Oct. 6th. Not more than half the above enema could be retained at one time, the rectum being very irritable.

Remarks.—The patient was a strong healthy-looking man, and the symptoms were so slight that some hopes of his recovery were entertained. Dr. Wm. Carter also saw the case from the commencement.

CASE 2.—M. L——, aged twenty-five, was admitted on Sept. 26th. He was a healthy young man, employed as a tramcar driver. While trying to whip some boys clinging to the car he slipped, and the car passed over his right leg. When admitted it was severely lacerated and bleeding fast, apparently from one of the tibial arteries. Esmarch's tube was at once put on by the house-surgeon, and within half an hour Mr. Ransford saw the patient and amputated at the seat of selection by lateral skin flaps and circular division of muscles. Hæmorrhage was rather free at the time and somewhat difficult to stop. The operation was done under the spray and dressed with the carbolic gauze. About two hours afterwards rather sharp capillary hæmorrhage took place, necessitating the taking down of the stump. This was done under a large carbolic spray from a steam spray-producer. No vessel was found, but rather general oozing, which mostly ceased on exposure and clearing out clots, and elevating the stump. The dressings were reapplied, and the house-surgeon was directed to give a subcutaneous injection of three grains of ergotine if there were any fresh signs of the hæmorrhage. This was done in about an hour, when some blood showed through the dressing, but did not increase after this. The next day (Sept. 27th) the temperature was 100° in the moring, and 101° in the evening; pulse 100, very compressible. The wound was dressed, and looked very well. After this the pulse and temperature remained nearly normal up to Oct. 3rd, when the temperature was 100·6°, and remained 99° or 100° up to Oct. 6th, the morning on which he died, when it reached 103°. The leg was dressed every other day, nothing but a little serum being on the dressings after the first day.

On October 3rd, the day on which his temperature rose to 100° F., he complained of his throat being sore. Pulse 74, compressible. Nothing was seen in his throat; no risus; no trismus. Appetite good, able to take full diet. Next day he had dinner and breakfast, and took them without complaint. The first sign of stiffness of the mouth was noticed in the morning at 1 A.M., and in the evening of the same day he had marked difficulty in opening his mouth and spasm in taking food. Had a free purge, followed by thirty grains of chloral hydrate every third hour in the form of an enema, to this was added bromide of potassium and digitalis, to avoid if possible the depressing effects of chloral. On the 5th the trismus had gradually increase, spasm appeared at every attempt to swallow, and food as well as medicine had to be given per rectum. On the following day the spasm was severe and long, the patient was hardly conscious; bathed in cold sweat. Rectum very irritable, neither food nor medicine being retained. On the 6th morning temperature 100·4°; just before death 103°.

Remarks.—This case ran a very rapid course, and was apparently uninfluenced by chloral in any way. The temperature and dressing proved that there was no septic absorption, so that this would lead to prove that it cannot have anything to do with tetanus, as some think. The amputation was well above the lacerated tissues, so that the tetanus was most unexpected. It seemed as though he was going to get rapidly well. When he complained on the fourth day, at first it was hoped that imagination might have something to do with it, as he had heard of the first case; but by the evening all doubt as to its nature was at an end, and chloral was at once given. At the necropsy about half a drachm of pus was found in a small abscess in the stump. Some might say this proved it not to be aseptic, but it was perfectly aseptic; still it was not suspected during life. I have had lately two other similar cases, but have no notes by me now.

SOUTHPORT INFIRMARY.

FATAL CASE OF DEPRESSED FRACTURE OF SKULL, WITH SLIGHT SYMPTOMS.

(Under the care of Dr. MCNICOLL.)

FOR the following notes we are indebted to Mr. A. J. Popert, house-surgeon.

On the evening of Nov. 11th last, in a drunken brawl, the patient, a woman aged forty, received a blow on the head from a small kitchen poker. She was not stunned, and thought little of it; her friends easily stopped the slight hæmorrhage that occurred from the small scalp-wound caused by the blow, and it was not until the morning of the 16th that she applied at the infirmary. She complained of soreness of the scalp. Upon examination a small sloughy wound, large enough to admit the top of the little finger, was found slightly to the left of the median line of frontal bone, and close to its upper border. The bone was denuded of periosteum. She was advised to enter the infirmary, which she did next day. A more careful examination then revealed the fact that an almost circular piece of bone, about the size of a sixpence, immediately beneath the wound, was slightly depressed. The depression, however, was so slight as to be more evident to the touch than to the eye. It was entirely surrounded by a faint line of fracture, but was not starred, and was quite immovable. Pressure on this spot caused no pain. The patient complained of slight frontal headache and nothing else. The pupils were normal, responding freely to light. Her temperature was 100°; pulse 90. Patient had not shivered.

On the 18th a consultation was held as to the expediency of trephining, and taking into consideration the fact that five days had elapsed since the receipt of the injury, and that the patient presented no symptoms beyond headache of an intermittent character, and a temperature of 101°, it was decided to wait.

Next day the evening temperature was 103°, and slight diarrhœa set in. This was checked by astringents, and the temperature again fell to 101°. From this time till Dec. 3rd patient's condition remained unchanged. She slept well, took her liquid food with good appetite, and except for the headache was fairly comfortable; but on the evening of this day she became rapidly comatose, and died in that condition about twenty-four hours after.

At the necropsy the external aspect of the cranial vault presented the appearances already described. On removing the skull-cap a comminuted fracture of the inner table was found; it was circular and rather larger than the corresponding depression of the external table, and consisted of three segments, the peripheral borders of all of which were free and sharp. The dura mater was bathed in creamy yellow pus, and on cutting this membrane several ounces of purulent fluid escaped. The whole of the right anterior lobe of cerebrum was disorganised, consisting of a dirty-brown semi-fluid mass; the cortex of the rest of this hemisphere showed signs of compression, but the left half brain seemed to be quite normal and healthy, nor had any pus found its way on this side of the head. All other organs were found to be healthy.

Remarks.—In this case the symptoms during life bore no proportion to the severity of the lesion, at no time did the patient present any of the clinical indications of acute meningitis; in fact, the only evidence of any mischief beyond the fracture were the headache and temperature; this fact alone makes the case of sufficient importance to record, and the question of trephining makes it additionally interesting.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Condition of Large Arteries after Ligature under Antiseptic and Non-antiseptic Measures.—Axillary Aneurism treated by Antiseptic Ligature of third part of Subclavian Artery; Partial Restoration of Lumen of Vessel.

THE ordinary meeting of this Society was held on the 8th inst., J. E. Erichsen, Esq., F.R.S., President, in the chair. Two papers illustrative of the inefficiency of the catgut ligature to produce permanent occlusion of arteries tied in their continuity were read, the one being contributed by Mr. Treves, and the other by Mr. M'Carthy. The main contention was that under antiseptics the changes around the vessels are too slight and temporary to aid in the occluding process.

A paper was read on "A Case illustrating the Condition of Large Arteries after Ligature under Antiseptic and Non-antiseptic Measures," by Mr. FREDERICK TREVES, of which the following is an abstract:—The specimens upon which the paper is founded consist—together with other parts—of the right carotid and subclavian arteries from a man, aged forty-seven, in whom those vessels had been ligatured for innominate aneurism. The patient gave a history of previous good health, and no definite date for the commencement of the local symptoms. A small aneurism of the innominate artery was diagnosed and ligature of its two branches resolved upon. On June 30th, 1880, the right carotid was ligatured above the omohyoid by Mr. James Adams, under whose care the patient was. The operation was performed under antiseptic precautions without hindrance or difficulty of any kind, a stout catgut ligature was used, and tied in a double and then a single hitch. The wound healed rapidly by first intention without the formation of a drop of pus, and in twelve days the antiseptic dressings were discontinued. After the operation the aneurism, although it did not diminish, ceased to increase. On July 21st, 1880, Mr. Treves ligatured the third part of the subclavian, the operation was also performed antiseptically, and the vessel was readily found; a stout catgut ligature was used and was tied in two simple hitches. During the night after the operation the patient loosened the antiseptic dressings and exposed the wound. On the evening of the next day he had a chill, the temperature rose to 101·6°, and the edges of the wound were red and swollen. The wounds began to suppurate very freely; the stitches had to be removed to allow of the freer discharge of pus, and in thirty-six days the incision was almost healed, having closed up from the bottom. The carotid incision may fairly be regarded as a type of healing under antiseptic measures, and the subclavian incision as an open suppurating wound. After the subclavian was tied the aneurism improved greatly, all the previous symptoms of discomfort gradually disappeared, and the man was discharged thirty-six days after the operation with the tumour apparently cured, or at least greatly benefited. He returned, however, on Oct. 14th, 1880, complaining of severe pain in the back, of cough, and of general feebleness, and was readmitted. After a slight attack of hæmoptysis the patient died suddenly two days after admission. At the time of death, therefore, 108 days had elapsed since the carotid was ligatured, and eighty-seven days since the subclavian operation. Death was found to be due to the rupture of an aneurism of the thoracic aorta; this had produced great destruction of some of the dorsal vertebræ. The great vessels were examined *in situ*. A small aneurism about the size of a Spanish chestnut was found connected with the innominate artery at its commencement; its sac was almost filled with laminated fibrin, leaving only a cavity about the size of a horse-bean in the centre of the tumour, and that communicated with the vessel. The brachio-cephalic vessel was quite patent, as were also the first portions at least of its two branches. In the region of the carotid operation the restoration of the parts to their normal condition was remarkable, the skin scar was slight and had formed no adhesions to the parts beneath, no trace of wound could be detected in the carotid sheath, no adhesions had formed between the artery and the vein, and every trace of the ligature had disappeared. No constriction could be seen in the vessel, and its external outline was unaltered and the seat of ligature indicated only by a faint transverse bluish mark on the vessel, due apparently to the thinness of the arterial coats in that situation. The vessel was found to be patent, but to be narrowed at the seat of ligature by a kind of perforated diaphragm or a miniature pylorus, leaving a central aperture about a line and a half in diameter. This diaphragm was formed by the incurvings of the ruptured ends of the middle coat, and as the external coat retained unaltered the external outline of the vessel, a minute triangular interval was thus formed, having its base represented only by the isolated external coat, and indicated by the bluish line, and its apex by the margin of the diaphragm, where the two cut ends of the middle coat met. As the two portions of the middle coat were only united to one another by the scantiest of connective tissues, the artery was very weak at the seat of ligature, and allowed of considerable angular bendings. The third part of the subclavian artery was found embedded in a mass of very firm inflammatory material, and was occluded for three-quarters of an inch, and entirely obliterated for half an inch. No trace of the ligature could be detected; the subclavian vein was patent. The aorta was very atheromatous, and the summit of its arch calcareous; the aperture leading from the aorta to the left carotid was extremely small, and that vessel was found to be occluded, save for a minute channel, through which air could only with some difficulty be forced. This unsuspected closure of the left carotid was evidently present at the time of the patient's admission, and much embarrassed the early diagnosis; for when the patient came under notice it was observed that the left temporal pulse was much feebler than the right, that the aneurismal bruit (most clearly marked over the innominate tumour) was more distinct in the left than in the right carotid, and that in the left vessel a thrill could be felt not noticeable in the right. These symptoms aroused strong suspicions of aneurism of the aortic arch, and are explained by the almost solid condition of the left carotid. As an operation for closing a bloodvessel the carotid operation must be considered to have failed, and the reasons of that failure are matters of great importance. In reviewing the subject Mr. Treves deals in detail with the comparative physiological condition of the two vessels at the time of ligature, and urges that in this respect the condition of the subclavian artery at the time of ligature was actually less favourable than was that of the carotid when subjected to operation. In the details of the two operations and in the health and general surroundings of the patient, no differences are apparent that could account for the differences in result. The conclusion, therefore, would appear to follow that the failure of the carotid ligature was due to the antiseptic measures adopted. It would appear that these measures might almost err on the side of perfection, by producing too ready and too complete a return of the parts to their condition previous to disturbance. Anatomically the healing of the wound was perfect, but would seem to have been too perfect for surgical purposes. A little so-called reaction in the wound, and a little of that firm inflammatory material almost too bountifully supplied about the subclavian incision, would probably have effected the permanent closure of the artery. The comparative risks, however, attending the healing of the two wounds are to be considered. The question remains as to whether, for some surgical purposes, the perfect healing aimed at by the supporters of the antiseptic treatment is desirable or successful.

The following is an abstract of the paper on "Aneurism of the Axillary Artery, probably ruptured; treated by Antiseptic Ligature of third part of Subclavian Artery; Partial

Restoration of Lumen of Vessel," by Mr. JEREMIAH M'CARTHY. F. G——, aged fifty-one, a sailor, was admitted into the London Hospital Sept. 7th, 1880. In 1879 he had been under the care of Mr. James Adams, for diffused aneurism of right popliteal artery, with the result of cessation of bruit and pulsation in the aneurism after eight hours' digital compression of the femoral artery. Five days later gangrene necessitated amputation above the knee. The wound had healed well, and the man was discharged cured in November, 1879. Ten days prior to his second admission he felt pain in the left axilla, which recurred on Sept. 6th with great intensity, and a swelling was observed in front of the left shoulder. There was a pulsating tumour immediately below the clavicle, which stretched the pectoral muscles, so that the man sat with his body bent forward. A loud bruit was heard over the swelling, and its pulsations were synchronous with those at the left wrist. It was evident that a small axillary aneurism had suddenly ruptured. The subclavian artery was at once ligatured antiseptically with a catgut ligature, arresting pulsation in the tumour and left wrist. In four days the tumour and the œdema had almost disappeared, and the wound healed by the eleventh day, when slight pulsation could be detected in the left radial. On the twenty-first day the patient complained of severe pain in the shoulder, and examination was made for its cause. A harsh bruit was heard below the inner third of the clavicle, but none in the consolidated mass close to the shoulder. An hypodermic injection relieved the pain. On the forty-second day the tumour was spreading towards the shoulder, and ice was tried externally and iodide of potassium internally; and on the forty-sixth day, on the supposition of the subclavian artery having become permeable, an examination was made, but no pulsation could be detected in the subclavian beyond the ligature. On the fifty-seventh day the arm became œdematous, the pulse at the wrist no longer perceptible, and the tumour steadily enlarging. On the sixty-second day the arm became of a dusky-red colour, some bullæ formed, and the tumour was obviously about to burst in the axilla. On the sixty-fourth day there was oozing of blood from the axilla, and Mr. M'Carthy amputated at the shoulder-joint. The pectoral muscles and parts of the axillary and brachial arteries were indistinguishable in the pultaceous mass, composed of old and recent blood-clots. The remains of the axillary aneurism could be seen with three large vessels opening into it, which, with five smaller vessels, were then tied. The man died one hour and a half afterwards. The author gave a full description of the post-mortem appearances of the subclavian artery and of the microscopic examination of its coats, which were much thickened at the seat of ligature, but there were no traces of the tunica intima having been completely divided, though in the media some of the elastic fibres had evidently been ruptured. The tunica adventitia was much thickened, and in it were imbedded the remains of the ligature surrounded by giant cells. With regard to the question how the artery became pervious, the author suggested that the catgut ligature applied with effectual antiseptic precautions to an artery in its continuity does not do sufficient injury to ensure the permanent closure of the vessel.

The PRESIDENT said the papers were of great value in the light they threw upon a subject of which so little was known—viz., the action of the catgut ligature upon the vessel when this is tied in its continuity. History repeats itself; for two generations ago it was probable that the efficacy of catgut and other animal ligatures was discussed at that Society. At the beginning of this century such ligatures were largely used; the ends cut short, and the wounds closed over the ligatures. Astley Cooper had a case where healing took place in four days. It would be interesting to know why the surgeons in those days abandoned these ligatures, for which such great expectations were raised. Probably it was because they were not found to be so trustworthy as the silk and hempen ligatures, which again came into vogue. At the present day, although catgut is specially prepared and the application of the ligature aided by modern science, it was remarkable that facts were pointing to the same conclusion as that formerly arrived at. That in each of the cases recorded there should have been this imperfect occlusion or reopening of the vessel, and formation of a sort of perforated diaphragm, was remarkable: it was a condition altogether unknown in his own experience of the ordinary ligature.—Mr. MORRANT BAKER asked why the author attributed the conditions found in the arteries to the mode of healing under antiseptics, rather than to the more reasonable fact that the ligatures had yielded after a certain time.—Mr. BARWELL said that the formation of a sort of diaphragm in an artery after ligature was quite new to him. In Mr. Treves's case no mention had been made of any internal clot above and below the seat of ligature (in the carotid), which used to be regarded as the chief protection against hæmorrhage. Could it be supposed that the antiseptic treatment prevented the formation of the clot, or the rupture of the inner coat, which determined such clotting. He suggested that a thin layer of fibrin might conceal the ruptured intima and convey the idea that this membrane had remained entire. Several instances had been recorded at the Clinical Society of the unreliability of catgut, which is liable to yield or to be absorbed too quickly; and this was a grave objection to its use. But if in the case the carotid had really been impervious for eighteen days, surely that was time enough for clotting to take place. Could one go so far as to say that the absence of an influence outside the vessel prevented clotting within it? He was surprised that ligature of the carotid should have been followed by increase in the force of the radial pulse, and more surprised at the increase of the opposite radial pulse after ligature of the subclavian in Mr. M'Carthy's case. The use of catgut, doeskin &c. was abandoned in old days because of the formation of abscesses around the ligatures. Although Astley Cooper's first case did well, his second case was followed by an abscess attributed to the ligature.—Mr. HULKE had twice tied the common femoral with catgut obtained from Edinburgh. The wound in each case did not heal by first intention, but a small sinus was left, causing much anxiety for some time; and it was his belief that if he had used the ordinary ligature he would have been spared that anxiety. He believed from the careful descriptions given that in neither of the cases recorded was the inner coat cut through; and if the inner coat were not divided, no clotting would ensue. However, we live now in revolutionary days, for we are told now that the clot is an accidental factor in the occlusion, which is said to be produced by the union of the opposed surfaces of granulations formed from the proliferating endothelium of the intima; and that the clot comes afterwards to strengthen the union.—Mr. GANT admitted that Mr. Treves's case showed that the open healing of the wound aided in the closure of the subclavian artery, but did not think the two operations comparable; that on the carotid being a simple incision, that required for ligature of the subclavian being a deep almost lacerated wound, where antiseptics were more likely to fail.—Dr. B. O'CONNOR said that ten or twelve years ago when dresser to Mr. Lister at Edinburgh, it was impressed on him that freshly prepared catgut was certain to slip when tied in a knot after soaking a short time in serum; and in his recent address Mr. Lister had again forcibly pointed this out.—Dr. J. HARLEY also pointed out that catgut by absorbing moisture must yield to pressure after a time unless most firmly applied.—Mr. T. SMITH said the cases were very valuable for confirming, if any further confirmation were needed, the untrustworthiness of carbolised catgut as a ligature for arteries in their continuity; and they supplied evidence as to the manner in which this takes place. He agreed with Mr. Baker that the whole failure could be explained by the ligatures not holding long enough. He could not doubt that if they had not yielded the coats would have been completely divided, and clotting taken place. Ever since he had a case where, in consequence of the failure of a catgut ligature (given him by Mr. Lister), followed by an aneurism at the seat of ligation, he had been in the habit of applying two such ligatures to an artery in continuity, and dividing the vessel between them. For the ligature can be trusted to severed arteries (as in amputation), but not to arteries where continuity remained. He had followed this plan for the brachial and femoral arteries, and had no trouble from secondary hæmorrhage. He could not believe that any process to which the catgut was submitted would make it a safe ligature. It was not by nature ever intended to resist tension in the longitudinal direction, and he feared it was vain labour to attempt to alter its nature. More fitting material might be found in tendons, which naturally resist tension; and he had been informed that kangaroo tendons (of which he understood some were in use in St. George's Hospital) were much employed in Melbourne and found to be thoroughly reliable.—Mr. HULKE explained that in speaking of the clot being only of secondary importance he was quoting the doctrines laid down in the ninth edition of Billroth's work, and not his own views.—Dr. GILBART SMITH asked whether the catgut ligature was likely to divide the inner coat, and whether such division was necessary or not to occlusion.—The PRESIDENT said that was the point on which James, of Philadelphia, tried to contest Jones's view that the inner coat must be divided, and the former urged that animal ligatures did not divide the internal coat.—Mr. BARWELL had made many experiments which convinced him that it was impossible to tie an artery with a round ligature without dividing the internal coat.—Mr. TREVES, in reply, said that he presumed loosening of the ligature might occur, but his point was that if there had been any inflammatory exudation around the vessel it would tend to keep the ligature applied; and in an antiseptic wound no such barrier occurred. There was absolutely no clot found in the vessel. The antiseptic failed in the case of the subclavian, because the patient had displaced the dressings. The inner coat appeared to have been divided and then reunited; there was no doubt that the middle coat had been severed. The division of the internal coat depended simply on the amount of force employed in tying the vessels.—Mr. M'CARTHY, in reply, thought too much stress had been laid on the mechanical action of the ligature, and that the reopening of the vessel was due to changes in the walls rather than the ligatures, which in his case had certainly not given way at the knot. The increased pulsation in the opposite radial was in accordance with physiological fact, and he related a case where such increased tension was observed by the sphygmograph to occur in the left radial artery to a certain extent when the right subclavian was tied, and to a much greater extent when this ligature was followed by ligature of the carotid, the case being one of innominate and aortic aneurism treated by ligature of these two vessels. If catgut were tied firmly enough it would divide the inner coat. In Mr. Adams' case, if this coat had been divided, a dissecting aneurism might have formed. There was microscopical evidence in his own case of proliferation of the intima; no clot was found, so that if it had formed it must have been swept away. The point of his case was that the changes in the adventitia did not proceed far enough, and the vessel yielded gradually to pressure, so that the channel was opened up again.—Mr. SAVORY asked Mr. TREVES if he had made any experiments or observations showing any difference between the healing of the wound in his case from that ordinarily known as healing by "first intention." If the process were the same, it did not alone explain why the vessel was not occluded.—Mr. TREVES said he had made no experiments.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Gunshot Wound of Brain.—Treatment of Suppuration in the Knee-joint.—Tumour of Hard Palate.—Sarcoma of Upper Jaw.

AT the meeting on Jan. 31st, F. J. Gant, Esq., President, in the chair, Dr. BRUNTON read notes of a Case of Gunshot Wound of the Brain, of twenty-nine years' standing, and exhibited the specimen. The present case, like all other cases of gunshot wound which had come under Dr. Brunton's care, was of suicidal origin. A lovers' quarrel resulted in an attempt to destroy his life by the discharge of a loaded pistol. A dangerous gunshot wound of the forehead was the consequence, followed by recovery without detection of the bullet, in fact the recovery was so satisfactory that it was assumed that either the charge in the pistol was blank, or if there were a bullet that it had glanced off. The patient carried on his ordinary business as a corn merchant for twenty-nine years. Subsequently his temperament was an excitable one, he married afterwards, and at his death left several children, all of whom are healthy. On the 23rd of March last, on being called to see him, the author found him in bed, suffering from double sciatica, for which he had been treated in the hospital. Marked relief followed treatment; but on the 5th of April paralysis of the bladder appeared, and continued until his death on the 19th of that month. On the 16th he was seen in consultation by Dr. Charlton Bastian; he was reduced in flesh, and, in spite of every precaution, suffered from bedsore. Wasting paralysis appeared a few days before his death, his intellect, however, remained clear to the last. On noticing an old cicatrix of an irregular shape over the left superciliary ridge at its inner aspect, by the root of the neck, inquiries as to its origin were made by the author, who, on hearing the story of the suicidal attempt, determined, if possible, to obtain an opportunity for searching for the bullet. Permission was with difficulty given accordingly to have an autopsy, the head only to be examined. On this being carried out membrane thickening and subarachnoid effusion of lymph were the external appearances found on the brain itself in the neighbourhood of the second and third left frontal convolutions. On examining the left frontal bone it was seen that the bullet had entered the bone at the inner part of the frontal sinus, passed through the outer, and lodged in the inner table projecting through it, and pressing on the membranes, destroying them *in situ*; and a portion of the second and third convolutions of the anterior lobe of the left cerebral hemisphere, exactly at the spot where the foreign body came in contact with these parts. There was no pus or artificial membrane, only a plain cavity lined by dura mater. The author remarked on the great rarity of this case; on its recovery, so rapid and complete, and upon the activity of the mental faculties, together with the healthy condition of his physical powers, and pointed out the absence of headache, notwithstanding the presence of the missile for so long a time.—Dr. GILBART SMITH thought this case remarkable and almost unique, as an instance of the tolerance shown by the brain to the presence of foreign matter. Cases of perfect recovery from lesions involving loss of substance of the brain itself, and especially of the frontal portion, were not rare, although somewhat difficult to understand; he mentioned the case of a photographer in Montreux, who received in the first Carlist war a sabre-thrust over the left eye followed by hernia cerebri. When seen by him some years ago, although an extensive cavity lay within an orifice situated at the bottom of a funnel-shaped depression an inch and a half deep in the forehead, yet his mental and physical faculties were unimpaired, and he followed his artistic occupation with great success. In reply to Mr. Pearce Gould, Dr. Gilbart Smith stated that the man was not left-handed, and this was shown by his having been aphasic for months after his wound.—Mr. ROYES BELL also considered this a rare case, and referred to the case of a boy from whom he had removed a bullet, in which perfect recovery ensued, although with considerable loss of brain-substance.—Dr. SYMES THOMPSON, in commenting on the case, referred to the celebrated "crowbar" case as an instance of the enormous damage sustained by the brain compatible with life.—Dr. BROADBENT observed that marked symptoms would not have been expected in this instance, seeing that only the extreme tip of the frontal lobe was injured. The death of the patient with acute cerebro-spinal mischief was remotely attributable to the bullet. The direction taken by the bullet gave the impression that the pistol was held in the left hand.—Dr. DOWSE said that the various cases mentioned went to prove that the anterior lobes have but little physiological value.—Dr. DAY thought these cases by no means uncommon, having seen many such in gunshot wounds. He thought that in some persons the brain showed a greater tendency to take offence than in others.

Mr. EDMUND OWEN showed three cases of "Knee-joint Abscess in Children." (These cases will be found described in full at p. 246.)

Dr. ALDER SMITH related a similar case recently treated by him at Christ's Hospital. The boy was admitted into the infirmary on September 15th, 1878, having previously had good health, and there was no history of injury. The symptoms resembled those of rheumatism; pain on movement, redness, swelling, but no effusion into the knee-joint. On September 22nd acute inflammatory symptoms set in; temperature 104°, and led to the opinion that an abscess had involved the joint. The limb was placed on a back splint. Next day there being no abatement of the serious symptoms, it was determined, in consultation with Mr. Langton, to thrust a trocar into the joint under carbolic spray. This was done and pus escaped, whereupon the joint was laid freely open on either side. Digital exploration of the joint revealed nothing abnormal. An india-rubber drainage-tube was placed through the joint underneath the patella, and the joint washed out with carbolic lotion. For a fortnight the limb was kept at rest in a swing back splint, and the joint syringed night and morning with carbolic lotion, and dressed with carbolic oil and lint. The constitutional symptoms subsided. On the fourteenth day the drainage-tube was removed. Till the 24th the joint freely suppurated, and the tissues about it enlarged; the lower end of the femur was much swollen. Next day, as necrosis appeared to be the cause, it was discussed, in consultation with Mr. Savory, where the limb would have to be amputated, rather than whether it could be saved. The same treatment, however, was continued, and by Nov. 9th the local and constitutional conditions were greatly improved. The discharge ceased on Nov. 21st. By February he was able to go into the country, and in a few months was playing about as usual. At the present time his joint, though larger than the left, is quite movable, and he is able to play cricket or football as well as ever. The case shows what an admirable result may occur after suppuration in a joint treated in the old method.—Mr. FRANCIS MASON thought the successful result in these cases depended rather upon the age of the children than on the treatment adopted, and asked if Mr. Owen would treat disease of the knee-joint in an adult in the same manner.—Mr. ROYES BELL alluded to two cases—one of wound of the knee-joint, and the other of an abscess secondary to necrosis of the tibia, which got well, under rest and dry application; but at the same time he considered that cases of suppuration of this joint did better when free incisions were made on each side with a drainage-tube passed across the joint; these incisions being done with strict antiseptic precautions. He though Mr. Mason's remark relative to adult cases judicious. Mr. Lister's method had the merit of enabling the surgeon to attack the disease in an early stage. The discharge came away through the drainage-tube, there was no tension from retaining discharge, there was less pain and less disturbance of the parts when the limb was dressed.—Mr. PEARCE GOULD remarked that Mr. Owen had laid stress upon his method of treatment as compared with Listerism; for his part, he considered a simple change of dressing under a spray once, or, at most, twice a week, more simple than the daily washing out of the joint, with more or less squeezing. The four cases shown, though exceedingly good, cannot be held to throw much light upon the discussion as to the value of Lister's treatment. Before that was introduced it was well known that such cases would recover, and it was important to remember that the mode of healing is the same in all cases, however dealt with. Mr. Lister's assertion is that by his method accidents, which sometimes, not always, follow wounds and inflammations, may be avoided. Could Mr. Owen show by his treatment there is less septicæmia and pyæmia than after Listerism?—The PRESIDENT, with reference to the question of age in relation to the efficiency of antiseptics in cases of joint disease or injury, mentioned the case of a man nearly fifty years of age who sustained compound dislocation of the elbow, with severe contusion from "buffer" injury. The wound closed after careful syringing with carbolic solution, and with but little purulent discharge. Recovery took place by nearly complete primary union, leaving a freely movable joint.—Mr. OWEN, in reply, said that his treatment for knee-joint abscesses in the adult was exactly the same as that which he had carried out in the case of these children, and he cited an instance in his own practice in which the treatment had been followed by an equally satisfactory result. He was aware that these three cases did nothing towards upsetting the value of surgical antiseptic treatment, but suggested that at any rate they were a contribution to the theory that perfectly satisfactory results can be obtained without the spray. He would not deny to any method, which involved early incision, free drainage and rest, equally good results. The cases had been desperately bad, and the benefit obtained by the treatment was no less decided. He had not brought them forward with any idea of "settling the grand question"; it would probably be long before the question was settled, but such results as these cannot be overlooked. He would not presume to reply to Mr. Gould's query, whether septicæmia and other grave complications would be more frequent if this method were carried out generally than if they were under special antiseptic treatment; but he held his own opinion on the matter.

Mr. FRANCIS MASON exhibited a man aged forty-two, whom he had shown at a meeting of the Society on Nov. 22nd, 1875. At that time he had a tumour involving the back of the hard palate, about the size of a walnut. Thirteen years previously he first noticed a small swelling, the size of a pea, in the centre of the hard palate. This gradually attained the size of a Tangerine orange. In 1875 he applied at St. Thomas's Hospital on account of some hæmorrhage from this part, which was arrested by perchloride of iron. There remained an ulcerated opening large enough to admit the forefinger; and the impression at the time was that the swelling was of cystic character. The patient being then in good health, and not suffering in any way, operative procedure was thought undesirable. The tumour now is steadily, but slowly, diminishing in size, and as it gives the patient no trouble he is content to allow it to remain as it is. There is little or no impairment of the voice.—Mr. MASON also exhibited a woman, aged fifty-two, the greater part of whose right upper jaw he had removed for Spindle-celled Sarcoma in April, 1877. The usual incision was made in the middle line of the lip, and the growth readily removed, the patient making a rapid recovery. She is now in fairly good health, and locally there is no return of the disease. She wears an artificial palate, which renders her speech perfect. The scar on the lip is scarcely perceptible; and Mr. Mason thought that this was due to the manner in which the incision was made, the knife having been first drawn lightly through the skin surface and the complete division effected by transfixing the remainder of the lip. It was customary, he added, to bring the edges of the lip together after such operations with harelip pins. He preferred the ordinary interrupted sutures of fine silk, which leave a smaller scar, and enable the surgeon to bring the parts into more accurate apposition.

Reviews and Notices of Books.

Diseases of Women. By T. GAILLARD THOMAS, M.D. Fifth Edition. London: Henry Kimpton.

THE work of Dr. Thomas was first published twelve years ago, and now it has reached a fifth edition, so that it must have obtained a hearty reception from the profession. The present edition is "thoroughly revised and enlarged," and evidently contains the mature views of the author. The character of the work is pretty well known to the student of gynæcology, as well as the views which the author holds on questions which still agitate the minds of obstetricians. Dr. Thomas belongs to that large class which holds uterine displacements to be morbid conditions of the highest importance, and mechanical and surgical means the panacea of suffering women. In proof of this statement we would adduce the following facts. In the chapters on anterior and posterior displacements alone there are at least fifty-two figures illustrating the displacements, the modes of reducing them, the instruments used in the reduction, and the instruments employed in maintaining the organ in the normal position. Surgical procedures are on all occasions described fully and minutely, while medical treatment receives but scant attention. Dr. Thomas is evidently a skilled manipulator as well as a dexterous operator, and it would seem that these accomplishments have led him to cultivate the mechanical and surgical aspect of the diseases of women at the expense of the medical, to the prejudice of his work and the injury of those who trust it as a guide. The parts devoted to mechanical and surgical treatment are by far the fullest and most elaborate in the work, and whatever differences of opinion may be held with regard to the directions given by the author as to *when* to operate, we do not think there will be any in respect of the mode of operating he recommends. The weak side of the work is its account of pathology and etiology; and unsatisfactory as our knowledge concerning these subjects is, yet we are somewhat surprised not to find any account of recent researches into the physiology and pathology of the uterus and ovaries when a whole chapter is devoted to the anatomy, physiology, and pathology of the perineum.

In discussing the pathology and etiology of diseases the author puts what he has to say into the form of tables which, at first sight, appear highly advantageous and satisfactory, but which, in practice, prove the very opposite. Many of the statements in these tables would be, and, indeed, are, called in question; but, setting aside this fact, the author has missed a great opportunity. To educe principles from collections of facts, and enunciate them, should be the first and greatest object of him who would aspire to teach any department of science. This work, on the other hand, would cram the student with facts, or what the writer supposes to be such.

There is a subject to which we would call attention, because in its discussion the first principles of medicine are lost sight of; and we notice it particularly as we believe it to be an error of the gravest character, and unfortunately inculcated and practised by many. We mean the unnecessary treatment of certain cases, many of which are absolutely free from danger or even from suffering. In the discussion of amenorrhœa we find no hint given that there are many cases of absence of the menstrual function, in otherwise healthy women, which should not be treated—cases in which emansio or suppressio mensium has given rise to no suffering of any kind, cases which it is not justifiable to treat, at least by means which may prove injurious, such as stem pessaries. In addition to constitutional means in the treatment of amenorrhœa this work recommends local stimuli, as tents, cupping, electricity, &c. Electricity is recommended, amongst other ways, in the form of a galvanic stem pessary; and the use of this instrument is recommended not only in amenorrhœa, but also in undeveloped and atrophied ovaries. With reference to these instruments we find it stated: "As these instruments must be left in place while the patients walk about there is always a danger of their irritating the walls of the uterus to too great an extent. To avoid this I have employed a stem composed of alternate bands of copper and zinc, held together by a small wire-rope, which passes through the centre of each, and is secured to the uppermost and to the vaginal disc below. This may by any movement of the uterus be bent at the required angle, and consequently can do no injury." We hardly think that the author means what is stated in the above passage, the danger of stem pessaries of all kinds being so well established, and so generally admitted. We cannot refrain from expressing our deep regret and astonishment that the distinguished author did not dwell fully upon the dangerous, in many cases fatal, character of stem pessaries. To recommend the use of such instruments in cases free from danger or suffering is in direct contravention of the first principle of medicine—"do no harm if you can do no good"—one which the teacher of gynæcology should in the present day be never weary of inculcating.

We have pointed out some of the blemishes as well as the excellences of this work; but we are disposed to think that even its excellences may produce bitter fruit in this over-surgical age, for the preponderance of mechanism and surgery over pathology and medicine cannot fail to have an injurious effect upon the student beginning the study of the diseases of women.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D. London: H. K. Lewis. 1881.

THE student of medicine in the present day has to learn so much within so short a space of time that he is apt to fancy that he must practise economy in the matter of reading, and to view with dread the gradually-increasing size of the text-books he is recommended to study. All students are not constituted alike, and it is perhaps unfortunate that if they read at all they must either have recourse to ingeniously-contrived digests of the subject, which require to be committed to memory verbatim, or else be compelled to study the subject (in the truest and fullest way) by the perusal of works which require thought as well as memory to be called into action. Dr. Carter has aimed at meeting the wants of those whose inclinations do not lead them to study the larger and well-known text-books; and he has succeeded well in producing a work which contains the essentials of medicine stated in clear and explicit language, without overburdening the reader with side issues and disputed points. The task could not have been an easy one, for it necessitates the presentation of facts in a dogmatic way, and precludes any attempt at proving the statements. Dogmatism, however, lies at the root of successful teaching, and has often to be assumed without sufficient reason for the purpose of driving facts home to the learner's mind. He must be taught the types of disease; in time to come he will find out how varied are the departures from these types, and he will see that bedside experience does not always harmonise with statements that are laid down in books.

The work before us is one which meets a distinct want; and many will doubtless avail themselves of its perusal before proceeding deeper into the subject, whilst those who limit themselves to its pages will find therein sufficient to enable them to pass their examinations, provided, always, that they bestow large attention upon their clinical work. If one part of the book be more deserving of praise than another, the sections devoted to therapeutics might be especially singled out, supplemented, as they are, by several pages of formulæ at the end of the book, which, by the way, is devoid of any "index" in the ordinary acceptation of the term.

THE
GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THE General Medical Council held a special sitting on Thursday, the 3rd inst., in order to transact business arising with reference to the Dentists Act of 1878.

The PRESIDENT, Dr. Acland, made a statement which appeared in our last week's issue as to the business to be brought before the Council.

Sir WM. GULL moved a resolution of condolence on the part of the Council with the widow and family of the late Mr. Andrew Wood. Occupying the position which Mr. Andrew Wood did as Chairman of their Business Committee, and considering how he had laboured from the very beginning of the Council most faithfully to advance the interests of medical education in this country, the Council would be wanting in its duty if it passed at once to the business before them without some expression of sympathy with Mr. Wood's family.

Sir JAMES PAGET seconded the resolution, which was unanimously agreed to.

Dr. HUMPHRY moved the election of the Business Committee, and said that on former occasions the election of that Committee had taken place almost in a formal manner, for they all had perfect confidence as to the efficient conduct of the business of the Council, as far as it lay in the hands of the Committee under the direction of its excellent chairman. Since that motion was put on a previous occasion a sudden visitation had inflicted the most irreparable loss which the Council could have sustained, in depriving it of the assistance of one of its oldest members. He could not bring forward this motion without expressing to some extent his feelings on the subject. It was not for them to sorrow altogether as men without hope for the future, for there still remained good and true men in the Council who would fill up the gap and carry on the work, he hoped, as heretofore. He proposed that the Business Committee should be elected, and should consist of the following members:—Dr. Pitman, Dr. Haldane, and Dr. Aquilla Smith, Dr. Pitman undertaking the duties of chairman. They could not have one more ready in his work, or more careful and considerate as to the wishes of the several members of the Council.

The resolution was seconded by Mr. TEALE, and was agreed to.

Dr. QUAIN moved, "That as, in accordance with Section 14 of Chapter 7 of the Standing Orders, it appears necessary that the election of an Executive Committee should take place on the first day of the meeting of the General Council that shall be held after the period of one year during which the Executive Committee continues in office, this Council, in accordance with Section 2 of Chapter 1 of the Standing Orders, resolves that the election of an Executive Committee be proceeded with, notwithstanding that such business has not been named in the summons convening the meeting of the Council." He said it was necessary to move this resolution, because a question arose whether the Executive Committee could be elected at a special meeting of the Council summoned for a special purpose, and they were advised by Mr. Ouvry that the best way of getting over the difficulty was by proposing a special resolution.

The resolution was seconded by Dr. AQUILLA SMITH, and agreed to.

The Council then proceeded to ballot for the Executive Committee. In the result the following members were declared appointed:—Sir James Paget, Dr. Pitman, Dr. Humphry, Dr. Haldane, Dr. Aquilla Smith, and Dr. Quain.

THE DENTISTS ACT.

The Report of the Dental Committee was then received and entered on the minutes. It stated that the Dental Committee having considered the corrected list of persons submitted to the General Council, and by the General Council referred to them for inquiry into the facts of the respective cases, had found certain facts with reference to them. It found, first, that certain persons in the list were at the time of making their declaration *bonâ fide* practising as dentists separately. Secondly, it found "the following persons have been registered on their declaration that they were *bonâ fide* engaged in the practice of dentistry in connexion with pharmacy, though the names of these persons are not to be found in the Pharmaceutical Register or in the Register of Chemists and Druggists. On application being duly made to these persons as to the grounds on which they had described themselves as practising dentistry in connexion with pharmacy, they have given explanations which show that they were managers, assistants, or apprentices to chemists and druggists, and considered that in that character they were practising pharmacy, and the Committee have no reason to doubt but that this was done from a misconception of the meaning of the Act, and without any fraudulent intention." Then followed a list of 115 names. After stating the facts with reference to a good many individual cases, the report gave a list of 68 persons who had at their own formal request been actually removed from the Dentists' Register. The report proceeded to state the particular cases. Cases which had been presented to counsel, together with counsel's opinion thereon, with regard to the Dentists Act, 1878, were then ordered to be read.

In answer to Mr. Simon,

Mr. OUVRY said he saw no objection to the publication of the opinions; they were very clear and decided, and were on matters affecting the public interest.

The first case was submitted to the Solicitor-General and Mr. Vaughan Hawkins, and the questions and opinions were as follow:—

QUESTIONS.	OPINION.
1. Must any proceedings to erase a name or qualification from the Dentists' Register, or to restore such thereto, be initiated by the General Medical Council?	1 & 2. We think that the power of initiating proceedings is vested in the General Medical Council, but that the Council may properly delegate to the Executive Committee, under the Medical Act, the power of receiving applications to the General Council, and of referring them to the Dental Committee under Sect. 15 of the Dentists Act, to investigate and report on the facts of the case, for the purpose of the matter being afterwards brought before the General Council.
2. Can the General Council delegate either to the Executive Committee under the Medical Act, or to the Dental Committee under the Dentists Act, a general power of initiating proceedings?	
3. Has the Dental Committee under the Act any power to originate proceedings?	3. We think the Dental Committee cannot itself originate proceedings.
4. Is the Dental Committee bound to hear the party interested before finding the facts?	4. We think the Dental Committee ought, before finding the facts, to give the party interested the opportunity of offering any explanations, and of being heard, if he desires it.
5. Where a person has procured his name to be put on the Dentists' Register as practising dentistry separately, but who, in fact, carries on some other trade, as a jeweller, hairdresser, &c., can the General Council remove his name from the Register?	5. We think that the name of a person cannot be removed from the Dentists' Register solely on the ground that he carries on some other trade, though the fact of his doing so might be material in considering whether he was *bonâ fide* engaged in the practice of dentistry at the passing of the Act.

Temple, August 6th, 1880.

FARRER HERSCHELL.
F. VAUGHAN HAWKINS.

CASE AND JOINT OPINION OF THE SOLICITOR-GENERAL AND MR. MUIR MACKENZIE.

The General Medical Council—Dentists Act.

The General Medical Council have carried out the registration of dentists in accordance with what they believed to be the meaning of the Act. Objections, however, have been raised which apply to the registration of persons who were registered on their declaration of having been in practice prior to the passing of the Act. These objections are founded more especially on the interpretation to be placed on Clause C of Section 6 of the Dentists Act.

Counsel are requested to advise the General Medical Council in reference to this section of the Act.

QUESTIONS.	OPINION.
1. What is the construction to be put upon the words "*bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy?"	1. We are of opinion that the words "*bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy," have no reference to any legal qualifications to practise medicine, surgery, or pharmacy. They are simply intended to indicate that if the person seeking registration is qualified to be registered by reason of his being *bonâ fide* in practice as a dentist, he is to be none the less so entitled because that is not his exclusive occupation, but is only carried on by him in conjunction with the practice of medicine, surgery, or pharmacy.
A. Do such words mean that a duly qualified dentist must be actually in business on his own account, or could a person otherwise duly qualified, and discharging all the duties of a dentist, but acting as assistant to another, be said to be *bonâ fide* engaged in the practice of dentistry?	A. We are of opinion that a duly qualified dentist need not necessarily be in business on his own account. If a person is discharging the duties of a dentist, and really practising as such, he is not disqualified from registration merely because he is acting as assistant to another. But he would be so if his duties consisted merely in rendering assistance to his employer, and not in the independent performance of dental operations.
B. Could a person competent of himself and duly qualified to practise medicine or surgery with dentistry, or	B. We are of opinion that the question whether the name of a dentist seeking to be registered in conjunction

to practise as a chemist and druggist and dentist, but whose name is not on the Medical Register nor on the Register of Pharmaceutical Chemists or of Chemists and Druggists, be said to be *bonâ fide* engaged in the practice of dentistry in conjunction with either medicine, surgery, or pharmacy?	with medicine, surgery, or pharmacy, is or is not on the Medical Register or the Pharmaceutical Register, is quite immaterial. The practitioner in dentistry is to be registered in respect of his dental qualifications only, and the Council need not inquire as to his right to practise medicine, surgery, or pharmacy.
C. Assuming that a person qualified as in the preceding clause can be registered in the form mentioned, will such person be disqualified from registration if acting as an assistant only?	C. The above answer applies to this question. It is immaterial whether the person seeking registration in conjunction with medicine, &c., is an assistant or not, provided he possesses the requisite dental qualifications.
D. Can apprentices to chemists practising also dentistry claim to be registered under the Dentists Act as *bonâ fide* practising dentistry in conjunction with pharmacy?	D. We think that apprentices to chemists practising dentistry cannot claim to be registered as *bonâ fide* practising dentistry in conjunction with pharmacy. The 37th section provides for the registration of apprentices and students in certain specified cases, but except in the cases provided for in that section we do not think that apprentices can claim registration.
E. Can a person duly qualified to practise dentistry claim to be registered in conjunction with pharmacy on the ground of his practising some form of pharmacy such as homœopathic or veterinary pharmacy?	E. We think it is immaterial what form of pharmacy a person practises, provided he satisfies the dental qualifications necessary for registration.
2. Much misconception having arisen on the part of persons applying to be registered under Clause (C) of Section 6 of the Dentists Act, as to the interpretation to be put on the words of that clause, and application having been made to the General Medical Council to strike off the Dentists' Register the names of persons stated to have made false declarations in connexion therewith, counsel are requested to advise on the following questions:	
A. Whether a person can claim to be registered on filling up the declaration as printed in the schedule to the Dentists Act, and nothing more?	A. We are of opinion that a person can claim to be registered under Clause C of Section 6 on signing, as prescribed in Section 7, the declaration in the schedule to the Act. The Registrar may, if he thinks fit, require the declaration to be affirmed by a statutory declaration, as provided by Section 7, but nothing more can be required.
B. Whether the General Medical Council can, at the request of persons now registered, omit from the Dentists' Register the words "with pharmacy," or any additional qualification that may have been entered on the Register, if the Council be satisfied that the request for insertion has been made through inadvertence or misconception?	B. The General Medical Council can, in our opinion, omit from the Dentists' Register the words "with pharmacy," or any like words, in every case in which they think proper to do so. Such words are, in our opinion, superfluous, and should not have been placed on the Register at all. The Register should, in our opinion, contain the names of the practitioners, with any dental diplomas or qualifications to which they may be entitled, but should not contain any reference to their qualifications or practice either in medicine, surgery, or pharmacy.
C. Can the Council require proof to be furnished of any additional qualification required to be registered, such as the production of any diploma, degree, or licence of any medical or surgical body, college, or institution?	C. We think that the only additional qualifications which should appear on the Register are those which express or imply fitness to practise dentistry (Section 11, Clauses 2 and 6). If a candidate for registration desires to have such additional qualifications registered, we think that the Council can certainly require proof of such qualifications by the production of the necessary diploma, degree, or licence.
D. In the absence of such evidence has the General Medical Council power to remove the words "in conjunction with medicine," &c., from the Dentists' Register?	D. We have already said that we think that the Council have full power to remove from the Register the words "in conjunction with medicine." We think further that in any case in which the Register contains incorrect statements of a dentist's qualifications, the incorrect statement may, under Section 13, be erased.

FARRER HERSCHELL.
Temple, Dec. 14th, 1880. MONTAGUE MUIR MACKENZIE.

With respect to the Reports by the Dental Committee and counsel's opinion, the Executive Committee thought that it might facilitate the action of the Council if it instructed Mr. Ouvry, the Council's solicitor, to indicate some of the results which appeared to follow from the advice given by counsel, as affecting the facts stated in the Reports.

On the motion of Professor TURNER, seconded by Dr. PITMAN, it was resolved that Mr. Ouvry's remarks should be placed upon the Minutes. They were as follows:—

"These Reports deal solely with facts, and the finding of the Committee as to such facts is, by the Dentists Act, conclusive on the General Council. The General Council has therefore to consider whether the facts so found call upon the Council in any of the cases under consideration either (1) To remove the names from the Dentists' Register; or, (2) To amend the entries in the Register with respect to such names. The great majority of the cases included in these Reports are those in which persons are registered on declarations made by them that they were practising dentistry with pharmacy, or with medicine or surgery, and in each and every case the facts are found by the Dental Committee. A distinction is made between those cases wherein the persons are either on the Pharmaceutical Register or on the Register of Chemists and Druggists, and the cases of those whose names do not appear in such Registers, but who still practise pharmacy in some form or other. The Dental Committee find no fraud in any of these cases. The Council will therefore have to consider whether, in the absence of fraud, the names of such persons should be struck off the Register, even if the Council should (1) Consider that such persons had inaccurately described themselves as practising pharmacy, medicine, or surgery; or, (2) Assuming it to find that such inaccuracy existed, should amend the Register by striking out therefrom the words 'with pharmacy,' 'with medicine,' or 'with surgery,' as the case may be. In determining these questions, the opinion of counsel has an important bearing. It will be seen that counsel express the opinion that the additional words above referred to are superfluous, and should not have been placed on the Register at all; and, further, that the Council has power to amend the Register by striking out such superfluous words. In fact, the opinion is that the Dentists' Register should contain the names of the practitioners, with any dental diplomas or qualifications to which they may be entitled, but should not contain any reference to other qualifications or practice in either medicine, surgery, or pharmacy; and that whether the name of a dentist seeking to be registered in conjunction with medicine, surgery, or pharmacy, is or is not on the Medical, Pharmaceutical, or Chemists and Druggists' Register, is quite immaterial. The practitioner in dentistry is to be registered in respect of his dental qualifications only, and the Council need not inquire as to his right to practise medicine, surgery, or pharmacy. It is further advised by counsel that a duly qualified dentist need not necessarily be in business on his own account, and that if a person is discharging the duties of a dentist, and really practising as such, he is not disqualified from registration merely because he is acting as assistant to another; but he would be so if his duties consisted merely in rendering assistance to his employer, and not in the independent performance of dental operations. This opinion of counsel on these several points may probably lead the Council to consider whether going beyond the names included in the reports of the Dental Committee the whole Register does not require to be amended, by striking out all reference to pharmacy, medicine, or surgery, allowing only the dental qualification to remain."

Dr. HUMPHRY said, for the purpose of taking practical action upon what had been presented to them, he had given notice of motion to the following effect: "That all qualifications now appearing in the Dentists' Register other than dental qualifications be erased therefrom." Anyone could be registered who at the passing of the Act was *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy; and as the Council thought in accordance with the clause of the Act, it issued a schedule differing somewhat from the schedule under the Act, and containing the following rider—"Is at the passing of this Act *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy." That schedule went forth into the world. They had now taken counsel's opinion, and it was to the effect that the Register was as stated in the Act, a Dentists' Register, and meant that and nothing more, and that they had no right to require anything more, or to insert anything more in the Register. That appeared clearly in counsel's opinion, and also in the statement made by Mr. Ouvry. It seemed perfectly clear that there never should have been any entry in the Register except those relating to dentistry. Then came the further question whether they should expunge those entries from the Register; it was clear that they had the power to do so, and to amend the Register by striking out these additions, and it seemed very important that they should do, for it would put an end to all questions which had arisen in such a large number of cases, as to whether persons were properly entered in the Register, or whether they had by misconception or by fraud added the words, "in dentistry, in medicine, and surgery." It was very important that the Dentists' Register should contain dental qualifications and no other, and for this reason, that they had no right to inquire whether those other qualifications were legal or not. He begged to move the resolution of which he had given notice.

The resolution was seconded by Dr. FERGUS.

Dr. MACNAMARA said, while agreeing with all that had fallen from the lips of the proposer of the resolution, he wished it to be understood that he did not subscribe to the doctrine, if that was involved in the statement they had heard, that the Council would go quite far enough by carrying this resolution, because unquestionably there were some men who had got on the Register by stating that which was absolutely false—they had obtained the titles "with medicine and surgery" through fraud, and with a declaration that they were practising dentistry in connexion with pharmacy, or surgery, or medicine. There were several cases where persons appeared on the Register as practising dentistry in connexion with medicine when they knew they were not, and now they wished to have their names taken off, stating that it had been done through inadvertence. How could they be so stupid as to practise dentistry "with medicine" when they knew they were not doing so; and now when they absolutely cried *peccavi* were they to escape any punishment whatever for making that which was a false assertion?

Dr. QUAIN said that the Dental Committee had found that there had been no fraud in any one case referred to by them.

Dr. AQUILLA SMITH observed that Mr. Macnamara had entirely misread the words of the motion. He had assumed that some of these men had acted fraudulently in getting their qualifications. The Council had nothing to do with that, the motion was simply to strike out the qualifications, and if the fraud was committed the names would remain on the Register, and they would be just as open to penalty and erasure hereafter. It would be a great waste of time to inquire how these qualifications were put on; the simple fact was that they were on the Dentists' Register, and counsel had distinctly advised that they should be removed.

The PRESIDENT said the motion before the Council was that the Dentists' Register be amended by removing from it all other than dental qualifications. That had no relation to individual cases which came before them in another category. They were not discussing whether persons were guilty of fraud, because that was entirely beyond the province of the Council. The law was that a committee was to judge as to the facts of the cases, and to submit them to the Council. It was for the Council to decide what should take place upon those facts, but they could not discuss the guilt or innocence of persons who had been adjudged by the committee not to be guilty of fraud.

Mr. SIMON asked whether the Council had no opportunity of judging whether the facts submitted to them constituted fraud.

Mr. OUVRY said the committee had investigated the facts. They had communicated with each of the gentlemen referred to and had received their answers, and they found as a fact that their declarations were not made fraudulently. He took it that that fact was binding on the Council just as any other fact found by the committee would be. If it were not so the Council would have to investigate the thousand letters that he had received from those gentlemen, and to found their opinion upon them as to whether they had made their application from a mistake or from actual fraud.

Sir WM. GULL, in supporting Dr. Humphry's motion, said it was quite beside the question to add any qualifications in the Dentists' Register as to a man's practising medicine, or surgery, or pharmacy. They might just as well insert that he was a farmer or a hairdresser, and so make the Register look ridiculous. They must therefore leave out all qualifications except such as related to dentistry.

Prof. TURNER said no doubt Dr. Humphry's motion would enormously simplify the Register, and their excellent Registrar would be only too delighted to have this burden removed from his shoulders. He, however, could not help, without in the least throwing any doubt upon the Council, inquiring why the words "Or in conjunction with the practice of surgery, medicine, or pharmacy" were put into the Act. There was an expression in a letter from Mr. Tomes which they ought not to pass over. Mr. Tomes was the moving spirit in the framing of this Bill, and it was under his auspices that the Bill was introduced. There was no doubt at all, from an expression in the letter, as to what was in Mr. Tomes' mind when the words "Either separately or in conjunction with medicine, surgery, or pharmacy" were introduced into the Bill. Mr. Tomes said, "The end might be gained by the use of an initial letter or by an asterisk; but it would be far better to use for the purpose the words of the Act—viz., 'In practice before July 29th, 1878, in conjunction with pharmacy, or medicine, or surgery, as the case might be,' and this would, at the same time, carry out most perfectly both the letter and spirit of the Dentists Act." From those words it was obviously in the mind of Mr. Tomes that there should be some indication in the Dentists' Register bearing on these matters. Why, then, were they put in the Act, unless they were to be brought permanently forward in the Dentists' Register? What information had the Medical Council on this question as to whether a person applying to be registered under Clause C was simply a dentist, or was a dentist and something more? They could have no information unless they asked for it, and it certainly seemed as if by the clause in the Act they were required to ask for it. If not, he could not understand why the alternative proposition was put into the clause.

Dr. SCOTT ORR said they could not ask what people meant in framing an Act of Parliament. The Council was no doubt desirous of registering higher qualifications than dentistry, and passed a resolution to that effect, which he had certainly opposed. Now that counsel's opinion had been given to the effect that they could only register dental qualifications, they must undoubtedly act up to that opinion.

It being four o'clock, the discussion was adjourned for a short time in order that the Council might deal with the case of Mr. John Hamilton, of 404, Oxford-street, who had been summoned to appear before them at that hour. The facts of the case are contained in the Report of the Dental Committee. Mr. Hamilton did not appear, and the Council, deliberating in private, resolved to erase his name from the Register.

Dr. STORRAR, in resuming the discussion upon Dr. Humphry's motion, said Professor Turner had made an allusion to the wishes and intentions of Mr. Tomes and the Association with which his name was identified. Mr. Tomes was a personal friend of his own; he knew his feelings upon this subject, and he felt that knowing them he ought to state those views, and the views of those with whom Mr. Tomes was associated as far as he could. Their great desire was to raise the position of their profession and to purge out a number of loose persons whom they knew took refuge in the profession of dentistry. At the same time it was their great wish not to be so limited as to exclude persons engaged as pharmaceutists, and who were to a certain extent practising as dentists. They found, when the period came for registration, a perfect rush of persons—he believed he should not be wrong in saying that more than double the number of persons presented themselves for registration than had been expected by Mr. Tomes and his coadjutors. Persons came forward and got themselves registered as dentists merely for the purpose of escaping being summoned on juries. Mr. Tomes and his friends not unreasonably thought that if persons declared themselves to be practising as dentists along with pharmacy, and their names did not appear on the Register of the Pharmaceutical Society, that would be a fair *primâ facie* ground for their removal. But the schedule which described the form of application did not carry out that intention, and the result was no doubt inevitable. It occurred to him whether it might be possible for the Registrar to make more ample use of the statutory declaration which it would be in his power to impose. There were many men who would come forward to sign an ordinary declaration such as the one contained in the schedule, who would probably think twice before committing themselves to a statutory declaration.

Dr. QUAIN said he quite agreed with the praise that Dr. Storrar had accorded to Mr. Tomes and his good intentions. The Council had nothing to do with intentions; they had only to deal with the Act of Parliament before them, and nothing could be clearer than the opinions expressed by those whom they have consulted. Mr. Tomes and his friends had tried impossibilities; they had tried to induce Parliament to say that a man should be engaged separately as a dentist and nothing else. Parliament would never consent to such a law as that.

Dr. HUMPHRY said, in reply, that he was glad that the Council had endeavoured to carry out the spirit of the Act in accordance with the intentions of those who framed it, and that they had acted when they made their first Dentists' Register in accordance with these intentions. There was, however, this consolation to be taken, that as time went on these evil things would gradually become less and less, and that ultimately, after the lapse of a certain number of years, those only would be admitted to the Register who had a qualification obtained from some of the medical authorities. It had been pointed out that the words of the resolution required some alteration. He would propose to alter the resolution in this way: "That all statements with reference to the practice of medicine and surgery and pharmacy now appearing in the Dentists' Register be erased therefrom." It did not alter the intention of the resolution, but simply put the words in a somewhat different form.

Dr. FERGUS agreed to the alteration; and if the Council would permit it it would more fully express their intentions.

The resolution as amended was put to the Council, and agreed to.

Dr. PITMAN moved, "That the Council is not in possession of evidence to show that any of the registered dentists named in the 'corrected list of persons' submitted by the honorary secretary of the British Dental Association (set forth in pp. 245 to 248 of vol. xvii. of the Council's Minutes), or of the registered dentists named in the letter of Dr. Jacob (Minutes, vol. xvii., p. 256), were not, at the time of their registration, *bonâ fide* engaged in the practice of dentistry, and is therefore not prepared to order the removal of any such person from the Dentists' Register." He said that the Council could scarcely pass any opinion on the facts set forth by the Dental Committee, but they must accept, and he hoped would accept, the motion which he proposed.

The resolution was seconded by Dr. AQUILLA SMITH.

Mr. SIMON said the form of the resolution did not refer to the preceding Report of the Dental Committee, upon which it was founded.

Dr. PITMAN said if they read the Report they would find it went fully into every question, and gave reasons for believing that the applications were not fraudulently made.

Dr. QUAIN said there was no evidence that any one of these men had obtained registration except on a declaration that he was *bonâ fide* engaged in the practice of dentistry, and the registrar registered no one who did not produce evidence to him which he deemed sufficient to show that he was *bonâ fide* engaged in the practice of dentistry. Therefore, until it was proved that he was not *bonâ fide* engaged in the practice, everyone of these persons must remain on the Register.

The PRESIDENT stated that the notice of motion had been drawn up with great care by the solicitor, and it was a statement, as far as it went, of that which the committee had in evidence, but it did not extend further. The committee had been very careful to state nothing beyond the facts which they had in their possession.

Mr. MACNAMARA said that any resolution which would sanction the retention of some of the names returned on the Dental Register could not meet with his approval. He wished to know if all the names printed in the Report were covered by the resolution. ("No, no.") What names, then, were? Mr. Simon had asked the question, and the answer was not at all satisfactory. He desired to have a clear, distinct statement as to what names were covered by the resolution.

Dr. PITMAN said the resolution referred to two lists set forth in pp. 245 to 248 of vol. xvii. of the Council's Minutes.

A few additional suggestions having been offered the resolution was eventually agreed to in the following form:—"That the Report of the Dental Committee not having put the Council in possession of evidence to show that any of the registered dentists named in the 'corrected list of persons' submitted by the honorary secretary of the British Dental Association (set forth in pp. 245 to 248 of vol. xvii. of the Council's Minutes), or of the registered dentists named in the letter of Dr. Jacob (Minutes, vol. xvii., p. 256), were not, at the time of their registration, *bonâ fide* engaged in the practice of dentistry, the Council is therefore not prepared to order the removal of any such persons from the Dentists' Register."

Dr. HUMPHRY moved "That the persons mentioned in Clause 5 of the Dental Committee's Report as having been actually removed from the Register at their own request, be, on their application, restored to the Register without fee, subject to the discretion of the Executive Committee as to the grounds on which their names were so removed." On reference to the Report it would be seen that the persons referred to were, first, those who had withdrawn their names in consequence of receiving threatening letters from the secretary of the British Dental Association. Those threatening letters had reference to the fact of their having registered as pharmaceutists without being on the Pharmaceutical Register; secondly, persons who had discontinued the practice of dentistry and pharmacy; thirdly, those who had withdrawn their names through misapprehension; and, fourthly, chemists' and druggists' assistants. The majority of these had withdrawn their names in consequence of a misapprehension into which they were led by the Council's schedule, and under those circumstances it was only right that they should, on application, be allowed to have their names restored without fee. The Council had decided that five shillings should be paid for such restoration, but under the circumstances of the present case he proposed that the names should be restored without payment of any fee, "subject to the discretion of the Executive Committee as to the grounds on which their names were so removed." The legal opinion in regard to chemists' and druggists' assistants or managers was, "We are of opinion that duly qualified dentists need not necessarily be in business on their own account." It was manifest, therefore, that all these persons had withdrawn their names under a misconception which was in part shared by the Council, and it was only reasonable that they should be allowed, if they so desired, to have their names restored to the Register, subject to the discretion of the Executive Committee.

Dr. QUAIN seconded the resolution.

Dr. AQUILLA SMITH regretted he could not vote for it. He quite admitted that those gentlemen withdrew their names under a misapprehension, but the Act said that the name of any person erased from the Dentists' Register at his own request or with his consent might be restored to the Register on his application and payment of a fee not exceeding the fee fixed by the Council; that fee was five shillings. No mention was made in the Act whatever as to the circumstances of the withdrawal, and unless the standing order relating to the fee was rescinded he did not think the motion could be agreed to.

Dr. FERGUS said the power of fixing the fee was in the hands of the Council, and therefore he could not see why they could not dispense with it in the present case.

Mr. SIMON said their present position was a somewhat humiliating one, but if they had led other people into error, of course it was desirable they should endeavour, so far as they could, to remedy it. He suggested that if it was thought fit to pass the proposed resolution some words should be added, such as the following: "And the grounds on which registration is claimed." It should be left open to the Executive Committee to review the cases. Of course, if the Council was responsible for these names being taken off the Register when they ought not to have been there should be no charge for reinstating them.

On the motion of Dr. AQUILLA SMITH, the standing order referring to the fees was suspended for the time being, and the resolution was agreed to, with the addition of the words suggested by Mr. Simon.

Dr. AQUILLA SMITH proposed, "That no evidence has been adduced to justify the removal from the Register of the name of Christian Friedrich Wilhelm Ackermann, whose case is set forth in Clause 17 of the Dental Committee's Report."

Sir JAMES PAGET seconded the motion.

Mr. MACNAMARA said this was one of the cases to which he must object. The Council was a deliberative assembly, and surely they were not going to proclaim to the world that dental surgery and dentistry consisted of nothing but the extraction of a few teeth, and that a man might be a dentist whose occupation seemed to be dressing hair and whose wife kept a tobacco-shop. In the interests of the dental profession and of surgery he most earnestly protested against the retention of such a person's name on the Register.

Dr. QUAIN said he thought Mr. Macnamara had seen those two persons, and must have noticed their intelligence and truthfulness. One of them had been engaged for three years in connexion with the German hospitals and the German army, and his father practised as a dentist before him. The person referred to in the resolution said, on being questioned, that he had pulled out six hundred and twelve teeth last year, and the impression left on the mind of the Council appeared to be that they would much rather have him extract their teeth than many of those whose names had been left on the Register. What was dentistry? It was true that dentistry had now extended to stopping and scraping teeth, but the reputation of the celebrated Cartwright himself was entirely founded on the pulling out of teeth. The men to whom Mr. Macnamara objected to were apparently men of great intelligence, and he could not, and would not, vote for their names being omitted.

Mr. SIMON trusted that Dr. Aquilla Smith would see his way to alter the form of the resolution, and let it read to the effect that the Council was advised that there did not exist a legal case for removing these gentlemen from the Register. It would be quite consistent to say that no evidence had been adduced justifying the removal of the names. The Act considered that it was expedient that provision should be made for the registration of persons specially qualified to practise as dentists, and he could not conscientiously say that there was any reason to remove the name of a man because he merely extracted teeth. He bowed unreservedly to the legal opinion, but he hoped the resolution would be so framed as to show that the Council was simply acting mechanically in obedience to the law. He would suggest that the resolution should read, "That no legal case exists for the removal," &c.

The PRESIDENT considered the word "evidence" bore that signification.

Mr. SIMON thought that evidence in a medical sense had been adduced, but in a legal sense it had not.

Dr. AQUILLA SMITH said the persons had answered in a very straightforward way the questions put to them, and the conviction of the Council was that they were more competent than many whose names were retained on the Register. He did not object to Mr. Simon's suggestion.

Sir WILLIAM GULL said he should be sorry if it went forth to the world that they as medical men had decided that dentistry was nothing but extracting teeth; dentistry consisted in preserving teeth.

The PRESIDENT said Mr. Ouvry had suggested that the resolution might read, "That on the evidence the Council do not see sufficient legal grounds on which to direct the removal from the Register," &c. That would leave it open to full discussion on medical grounds hereafter.

The resolution so altered was seconded by Sir JAMES PAGET and agreed to, as was also the following resolution:—"That on the evidence the Council do not see sufficient legal grounds on which to direct the removal from the Register of the name of August Leopold, whose case is set forth in the Dental Committee's report."

Dr. AQUILLA SMITH then moved, "With regard to Alexander Schocke, mentioned in Clause 19 of the Dental Committee's Report, there is no evidence before the Council on which it can act."

Dr. PITMAN seconded the motion.

Mr. OUVRY said that the person referred to had shut up his shop, and could not be summoned to attend; but he had gained courage, and reopened his shop.

The PRESIDENT said a new procedure was necessary under those circumstances, but at present there was no evidence which the Council could act upon.

The resolution was agreed to.

On the motion of Dr. PITMAN, seconded by Dr. AQUILLA SMITH, the following returns were entered on the Minutes:

Table showing Results of Professional Examinations held in 1880 for Qualifications granted under the Dentists Act.

Name of Licensing Body.	Diplomas.	Nature of Examination.	With Curriculum.		Without Curriculum.		Total.	
			Number Rejected.	Number Passed.	Number Rejected.	Number Passed.	Number Rejected.	Number Passed.
Royal College of Surgeons of England.	Licence in Dental Surgery.	Written, Practical, and *vivâ voce.*	1	17	0	1	1	18
Royal College of Surgeons of Edinburgh.	Licence in Dental Surgery.	Written and Oral.	0	1	0	4	0	5
Faculty of Physicians & Surgeons of Glasg.	Licence in Dental Surgery.	Written, Oral, and Practical.	0	0	11	23	11	23
Royal College of Surgeons in Ireland.	...	...	0	0	8	47	8	47
University of Harvard.	D.D.M.	Written & Practical.	5	11	0	0	5	11
		Totals...	6	29	19	75	25	104

The Council then adjourned for a short time, and on their return the Minutes of the previous meeting were read and confirmed.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 12, 1881.

DR. JAMES GREY GLOVER—whose name has for many years past been prominently associated with the question of Medical Reform, and who may be held to speak in the name and to represent the interests of the great body of general practitioners—has published a letter addressed by him to the Right Hon. A. J. MUNDELLA, M.P., Vice-President of the Council. Dr. GLOVER'S object is to urge upon the Government the need of prompt action, either by the adoption of a substantive proposal to Parliament, or by the reappointment of a Select Committee, with a view to the adequate solution of the vexed questions of medical education and the registration of professional qualifications. The "letter" puts the issue so clearly and tersely, that we let it speak for itself.

"Legislation contemplated by medical reformers has two principal objects. One of these is the improvement of the examining machinery for licensing persons to practise the medical art in all its branches. The second is an improvement in the constitution of the General Medical Council of Education and Registration, by which it shall be made more effective as a council; firstly of medical education, and secondly of medical registration. 1. As you are doubtless aware, owing to the one-sided nature of the medical corporations at present, nearly all the diplomas given by the bodies are only half diplomas, half qualifications, and for giving even these there is among nineteen bodies a certain amount of injurious competition, so that it is notorious that persons rejected in one part of the kingdom find easy entrance to the profession in another; or, rejected by a university, find ready admission into the profession through a corporation. These half diplomas admit to the Register, and, as a matter of fact, large numbers of practitioners have paid a great price for this imperfect document—a price for which they should have obtained a complete diploma. By the existence of such a system of half qualifications two parties are injured—the practitioner who finds himself legally unqualified for half his duties by the one-sided nature of his diploma, supposing him to have but one, and the public, who have not in such diplomas the guarantee of competence in all essential subjects of medical knowledge which a licence should imply. . . . . . 2. The reform of the Medical Council is the other and very urgent demand of a great majority of medical men, expressed in several great memorials to the Government and the Medical Council. The Medical Council exists chiefly for the purpose of controlling the education of the general practitioners of the country, and these practitioners have no direct representatives on it. Of twenty-three members of the Council, seventeen represent the educating and examining bodies, and are committed to the defence of the interests of these bodies, several of which are admittedly useless, and unfitted for further work. The remaining six members of the Council are nominated by Her Majesty, with the advice of her Privy Council. There is, besides these, a President, chosen by the Council. At the time of the passing of the Act of 1858, there was an understanding that the Crown appointments would be made out of the rank and file of the profession, which would have secured the representation of the body of general practitioners. Unfortunately, with one or two exceptions, gentlemen have been chosen for these appointments who are officially connected with medical schools or corporations, and so have only intensified the representation of pecuniary 'interests' in the Council. Thus it has come to pass that after twenty-two years' existence, and a very large expenditure of money, medical education is still in a very costly and inefficient state. Until the appointment of the Select Committee successive Governments had no opportunity of learning how this Medical Council did its work, or rather did not do it. Some light was then let in on its costly debates, constantly recurring on the same subjects, and only ending in recommendations, not binding on the educational or examining bodies. But the dissolution of Parliament, unfortunately, dissolved the Committee, and the eyes of all medical reformers are looking for its reappointment, or for legislation calculated to remedy the evils which have been exposed."

This very fairly states the present position of affairs, and may be accepted as representing the view taken of the situation by the profession at large. No measure can be satisfactory which does not in some way provide for the improvement of medical education. We have had, and the public has had, a sufficiently long experience of self-government by privilege. The licensing bodies have been supplied with a legally-created opportunity of improving themselves, and they have found their enjoyment in trifling with the intentions of the Legislature and the wishes of the profession and the community. They have been encouraged in this pastime—which SCHLEIDEN defined as waste of time—by the organisation so singularly misnamed "The Council of Medical Education." There is no time for further trifling; the period for action has arrived. "Priusquam incipias consulto, et, ubi consulueris; mature, facto opus est." There has been overmuch consultation; it is now necessary to *do* something. Ministers of the Crown and members of Parliament having no personal interest in the question of medical reform, or not recognising the intensely personal interest which every member of the population undoubtedly has in the subject, are asking whether medical reform will advantage the cause of public health, or provide better treatment for laymen in the hour of sickness? These are precisely the ends we seek to gain. If any member of Parliament broached the subject of medical reform in a private gathering of medical men, or proposed the question to his own medical attendant, he would receive the impression that it was *not* a burning question. This is one of the most significant facts about the movement, and it ought at once to convince statesmen that the action pressed upon them is demanded on public grounds, and those almost exclusively. In short, the profession is not asking something for itself. It matters little or nothing to the existing body of practitioners, in any personal or pecuniary sense, whether the medical man of the next generation is improved, or where or on what terms their successors in practice obtain their licences. There will be just as many quacks and ill-qualified practitioners after this question has been settled as exist now. What we want is to secure that the officially licensed, and so to say hall-marked, shall be in *fact* what they call themselves. The public must ever remain free to indulge its privilege of being maltreated at pleasure, but the risk run should be incurred with a knowledge of the danger. The crying evil against which Dr. GLOVER and medical reformers generally inveigh is the wilful—we had almost said wanton—perpetuation of a state of things in which the legal definition of "surgeon" or "doctor" may imply anything from scientific learning to conspicuous ignorance of the science and art of healing. We protest in the name of common prudence and the interests of the public and personal safety against a state of the law which allows young men who are plucked by one set of examiners to go directly and pass before another, in some instances positively coming back and obtaining *ad eundem* a qualification for which they have been pronounced incompetent. Is this satisfactory to the public? Cannot Ministers understand that facts like these are conclusive in spite of the apathy of individual members of the profession to whom they address themselves, and who, having secured the respect of their own *clientèle* by personal talents, are either too busy or too careless to contend for a reform in which they have no immediate interest.

The point we desire to bring out—and we have a special reason for enforcing it—is that the present demand for medical reform is in no sense a selfish or class movement. The profession has very little, if anything, to gain by it. The public is generally interested in the issue raised, and the concern of the profession is based on a desire for the progress of science and the advantage of the general health. The skill at the disposal of the community *will* be greater if the law affecting medical education is recast so as to be compulsory instead of permissive. As Dr. GLOVER very forcibly puts the case, the opposition to reform evinced by the licensing bodies is not surprising; on the contrary, it "is natural, and *constitutes an argument in its favour*. Old corporations are not generally parties to their own reform. They cannot be expected to do so here, neither can the Medical Council, which is a conglomeration of old corporations." This is the gist of the matter. The Legislature made the mistake in 1858 of entrusting the reform of medical education and the readjustment of the licensing power of the several examining bodies to a Council which represents not the profession or the public, or professional or public interests, but the universities and corporations and their interests. It was inevitable that matters should go on precisely as they have proceeded, to stagnation. The resultant of the nineteen forces combined has been a force known as the *vis inertiæ*. A party of convicted offenders have been Royally commissioned to consider their own penalties for the offence of neglecting golden opportunities of serving the profession and the public. They have elaborately considered and reconsidered the question for more than twenty years, and they would like to pursue the inquiry indefinitely, assembling in solemn conclave, and wasting money and time as occasion offered until the crack of doom! Meanwhile the public safety is disregarded, and medical education does *not* improve. Medical reformers, of whom Dr. GLOVER is a fair specimen, are seeking to press this significant version of the facts on the attention of the Government and the Legislature, and on public opinion. It is the true version, and we trust it will be accepted. If a statesmanlike policy animates the party in power it must be sooner or later, and if the community could only see the facts as we see them it would be convinced that this is not a question which can be prudently postponed.

LAST week, in reply to a question by Dr. FARQUHARSON, Mr. TREVELYAN stated that the scheme for the reorganisation of the Naval Medical Department had been virtually settled, and that its promulgation was delayed only until some minor points had been arranged with the Treasury. His explanation, however, was characterised by that hazy vagueness which so often distinguishes official announcements. "Ever since 1854 it has been understood that the pay and position of Naval medical officers shall be 7 per cent. better than the pay and position of Army medical officers, in order to counterbalance the advantages of the two services," and on this principle the new scheme is to be based. We confess our inability to understand, and we doubt Mr. TREVELYAN'S power to explain, in what manner the 7 per cent. scale of improved position is to be estimated, and we also note an absence of any allusion to the other prominent grievances under which the Naval medical officers labour. There is nothing said of the introduction of a new grade corresponding to that of Brigade Surgeon in the Army, nor of the intention to give practical effect to the right of choice of cabins according to date of commission, and a suspicious silence is observed as to the five years' service in the rank of Deputy Inspector, before being eligible for promotion. The 7 per cent. higher pay than in the Army was, we believe, introduced, and probably is now continued, to compensate for the compulsory half-pay to which the officers are liable when ships are paid off. But, as we have before pointed out, this is far from an equitable mode of remedying the evil. Under such a system the fortunate medical officer who has friends at the Admiralty may get considerably more than his fair share of compensation, while the unlucky man who has no interest at headquarters may have the mortification not only of having to wait an undue time before being again brought on full pay, but of knowing that another is enjoying what was intended to counterbalance the inequalities of the service. If the proposed scheme be adopted, the only mode of preventing injustice would be to keep a strict roster for re-employment of the officers compulsorily placed on half-pay.

But Mr. TREVELYAN added that "successful candidates will receive full-pay as surgeons from the moment of entering the service." Here, again, is the usual vagueness. Does he mean that surgeons on probation at Netley are to receive full-pay instead of eight shillings a day, as the Army and Indian probationers? or may this be supposed to foreshadow the abolition of the grade of probationers for the Naval service, and of the course of instruction at Netley? If the former, we shall not be long before hearing of discontent in the military services at the unequal treatment, and the favour shown to Naval candidates placed at Netley under exactly the same conditions as themselves. If the latter, we can only say that the Admiralty are about to inflict a very serious injury upon the Naval service generally and upon the medical officers individually. The advantage to the sailors of having the medical officers, before they are called upon to take up their important duties, thoroughly trained in all matters relating to the preservation of health and efficiency and the prevention of disease, must be obvious to all who have any practical acquaintance with the subject. The young medical officer must either acquire this special knowledge at Netley, or gain it at the expense of the unfortunate fellows entrusted to his care, as was the case under the old system before the school at Netley was established. The withholding of this training will materially affect the efficiency of the medical officers during the earlier period of their service, thereby inflicting injustice on our sailors and expense on the country. We still feel it to be our duty to advise candidates to withhold their applications till the conditions of service are published, or they may not improbably find that they have sacrificed position, comfort, and self-respect for a mere increase of pay. Meanwhile, if Mr. Trevelyan has any doubts as to the value of the special instruction given at Netley, we would recommend him to study the evidence given on the subject before Lord Herbert's Commission, and to consider well the wise and humane views entertained by that distinguished statesman and philanthropist.

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The feeling of the medical profession in reference to the Dentists Act and the Dentists' Register, and especially in reference to the readiness with which the General Medical Council undertook the administration of the Act, has always been one of great humiliation and regret. As an illustration of this we may refer our readers to Mr. Cattlin's address in another column. That feeling will be intensified by the Report of the proceedings of the Council at its one day's sitting of Thursday, the 3rd inst. The Council, it will be seen, was entirely in the hands of the lawyers. In Mr. Simon's apt words, "they bowed unreservedly to legal opinion, but he hoped the resolution would be so framed as to show that the Council was simply acting mechanically in obedience to the law." This "bow to the law" is indeed unreserved. Let us see what were the doctrines bowed to so meekly and without an attempt at resistance by the distinguished gentlemen constituting the Medical Council. Our readers will remember the deluge of dentists, or professed dentists, which succeeded the passing of the Act. The number registered on August 1st, 1879, was 5289, double that which was contemplated by the gentlemen who so confidently undertook this piece of legislation. Of this number 483 had licences in dental surgery from British Medical Corporations! The great majority were admitted to the Register on Section C of Clause 6, which entitles to registration *any person who, at the passing of this Act, was bonâ fide engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy.* It was over the use and construction of this clause by the Council that such humble and mechanical "bows" had to be made by Mr. Simon and his colleagues at the late meeting. It is difficult to say whether the persons registered by the Council or the Council itself were in the greater flutter. The time of meeting was, of course, most inconvenient. The cost of meeting we know, on the authority of the Treasurer, will be four or five hundred pounds. But all this had to be disregarded to settle the great questions arising out of Section C of Clause 6, which the President said affected the accuracy of the Dentists' Register in over five hundred cases. What were these questions? For a full answer to this we must refer our readers to the Report of the meeting, contained in our present impression. We will only here say that they were vital to the respectability of the Register. They were of this kind: What constitutes practice *bonâ fide* as a dentist? Is a man justified in declaring that he is in *bonâ fide* practice as a dentist when, in reality, he is only acting as an assistant to one who is so? Is "pulling out" teeth alone, by the hundred in the year, enough to constitute practice *bonâ fide* as a dentist? Can a man be said to be in practice as a dentist whose primary business is that of hairdresser, his secondary business that of tobacconist, and his third function that of tooth-drawing? Can a man be said to be in practice as a dentist *separately* who practises it in association with such businesses as the above? Can a man be said to be in the practice of dentistry in conjunction with the practice of medicine, surgery, or pharmacy whose name is not to be found on the Medical Register, the Pharmaceutical Register, or the Register of Chemists and Druggists? Finally, is the Registrar acting wrongly in putting into the Register a column describing the calling in connexion with which an applicant said he was practising dentistry? These were great questions affecting the respect to be paid by the medical profession and by the public to the Dentists' Register. We regret to say that the answer given to them all by counsel was exactly the opposite of that which, we presume, the framers of the Dentists Act hoped and expected, and, worse still, that the Medical Council accepted with scarcely any demur the decision of counsel. Thus the Register is to remain unpurged. The Council have resolved to keep on the names of hundreds of persons which have been challenged by the "British Dental Association," and they have the appearance of accepting the doctrine that men are to be considered in practice as dentists who were essentially hairdressers, and in practice as chemists, in spite of not being on any legal register of chemists, and not even in business as chemists.

This is, indeed, a humiliating position for a great Council of Medical Education to have come to. It has revived the race of barber-surgeons, which we had thought extinct. Mr. Simon somewhat ingeniously, and with a dash of severity, threw the blame of all this on the promoters of the Dentists Act, who, he said, no doubt thought they were securing that the new race of dentists were to be men in *bonâ fide* practice first, either as dentists *separately*, or actually registered as dentists, in connexion with medicine, surgery, or pharmacy. But are Mr. Simon and Dr. Quain quite right in shifting the blame of all this carelessness on the promoters of the Dentists Act? Is it not a fact that the clauses under which the deluge has happened were taken from the Lord President's Bill? Is it not a fact that this was done at the suggestion of the Medical Council? and that the Medical Council gave to this great subject only a fragment of time, and in this fragment expressed its willingness to accept the Bill, containing the clauses, amongst others, which have worked to the production of such a loose and worthless Register. The Council may well bow, not only mechanically, but morally, under such a responsibility.

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Vaginitis exfoliativa, or exfoliation of the epithelial lining of the vagina, is not an affection frequently observed; yet several cases of it have been recorded, and in some of these it was associated with membranous dysmenorrhœa. In a paper in the current number of the *Archiv für Gynakologie* Dr. Cohnstein describes an interesting case of this disease which was associated with severe dysmenorrhœa, but apparently not of the membranous kind. The chief interest of the paper, however, lies not in this case, but in the part of it devoted to membranous dysmenorrhœa, and more especially in the attempt therein made to explain the etiology of this form of menstrual disorder. Like most disorders of which we possess little real knowledge, membranous dysmenorrhœa has been the occasion of much theorising, rather more theorising than observing—some of it baseless and purely fanciful, and some of it with a show of reason. The attempt made in the paper referred to is quite refreshing in these days, when attention is concentrated upon local changes and mechanism, for it looks for the cause of the disease, not in the uterus or ovaries themselves, but in the general conditions of the system. Indeed, the author maintains that membranous dysmenorrhœa is not the result of local changes but of general disease. In support of this view he brings forward, in the first place, reasons for not regarding membranous dysmenorrhœa as a local affection. They are:—1. In by far the greatest number of cases of metritis, chronic catarrh of the uterus, tumours, &c., there is no expulsion of membranes. 2. Women who present no discoverable change in the sexual organs suffer from membranous dysmenorrhœa. 3. Of sixty-two cases collected, the author finds general disorders three times more frequent than local disease. 4. Cases are known in which a decidua menstrualis has been extruded without suffering. Such cases indicate that a general cause brings about the condition, and dysmenorrhœa is often only incidental. 5. Local treatment of membranous dysmenorrhœa is usually not followed by any good result; sometimes it produces more evil than good. Having given the above reasons for regarding dysmenorrhœa membranacea as not the result of local change, the author proceeds to give his reasons for believing in a causal connexion between hysteria and the disorder, and they are the following:—1. The frequent coincidence of a slight degree of hysteria with nervous dysmenorrhœa. 2. Dysmenorrhœa membranacea is not rarely associated with hereditary troubles. 3. In the course of hysteria the most various anomalies of secretion and excretion occur. 4. The occasional complete disappearance of the membrane, and its return after longer or shorter intervals; such irregularity cannot be due to a disorder of the genital organs. 5. The vaginismus and the suffering lasting through or only coming on during the intermenstrual interval, without apparent disease of the sexual organs. 6. In sixty-two cases collected by the author, in twenty the expulsion of membranes was said to be due to a local cause, while in forty-two it was ascribed to general disorders—as hysteria, anæmia, chlorosis, chronic dysentery, &c. Heartily sympathising as we do with the author in his attempt to elucidate the etiology of membranous dysmenorrhœa by having recourse to a wider base than the sexual organs, yet we cannot help feeling that with two exceptions the two sets of reasons given—those against regarding the disease as of local, as well as those for regarding it as of general origin—have no bearing upon the question. They prove nothing. The two exceptions are:—1. Women who present no discernible change in the sexual organs suffer from membranous dysmenorrhœa. Had we been able to state that women who present no change suffer, the author's first position would be proved, but it is well known that our means of investigation can discover only very coarse changes, while many even of these elude our search. 2. Were it true that two-thirds of the cases are due to general conditions, the author's second position would be a just inference—that is, that membranous dysmenorrhœa is due to general conditions. But, as a matter of fact, the general conditions presented by two-thirds of the cases were not those now described as the causes of the affection. In some of them, it is true, they may have been so described, but by no means in all. So long as our knowledge of the physiology of the female sexual organs remains in a state of uncertainty and doubt, we cannot expect that the pathology of the same structures will be better understood. The investigation both of the physiology and pathology of these organs is surrounded with peculiar difficulties, and this may be excuse enough for some theorising upon them; but we feel sure that we cannot arrive at a correct pathology until we arrive at a correct physiology, and any theory of the pathology or etiology of the uterus and ovaries which does not start from physiology will prove true, if at all, by accident only. Here we think Dr. COHNSTEIN has erred, and consequently missed his mark. We think with him that dysmenorrhœa membranacea has in many instances at bottom a general condition for a cause, though we do not believe it to be hysteria; that condition produces dysmenorrhœa by organic changes in the uterus resulting from it, though these changes may elude our means of research.

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THE announcement that the Metropolitan Asylums Board propose to increase by sixty the number of beds devoted to small-pox in the Fulham Hospital has produced great agitation among the inhabitants of South Kensington, Fulham, and Chelsea, in the immediate neighbourhood of the hospital. A movement is being rapidly organised with a view of appealing on the one hand to the Metropolitan Asylums Board to reconsider their decision, and on the other to the Local Government Board not to sanction the proposed increase. A public meeting is announced to be held at TATTERSALL'S on the 11th inst., with a view of protesting against the action of the Metropolitan Asylums Board in this matter, and of taking such further action as may be needed, other than the action above referred to, especially the bringing of the subject before the House of Commons at the earliest opportunity. So far as the opinions of the principal promoters of this movement have at present been expressed, it is not contemplated asking for more than a withdrawal of the decision of the Metropolitan Asylums Board to add to the number of small-pox beds in the Fulham Hospital. They do not propose at present to raise the question of the suitability of site of the hospital with regard to adjacent buildings, and so to add to the great difficulties which the Asylums Board have to contend in making sufficient provision for the isolation of cases with reference to the extending epidemic of small-pox. Whatever these difficulties may be, however, having regard to the believed spread of small-pox contagion from the Fulham hospital into the neighbourhood (it matters not to them how this extension may be explained), they view the contemptuous indifference of the Asylums Board to the interests and feelings of the inhabitants of that neighbourhood in proposing to increase the number of beds for small-pox in the hospital, as altogether scandalous on the part of an important public body. But they find it difficult to believe that the Local Government Board, when appealed to, will sanction the decision of the Metropolitan Asylums Board. And here we must confess the population living near to the hospital stand on firm ground. Is it possible that that Board can have so recently instituted an inquiry for the purpose of ascertaining the truthfulness of the reported extension of small-pox from the Fulham Hospital in the neighbouring houses, and, before the inquiry has been completed, can give assent to the increase of the number of small-pox patients in that hospital? Assuming, as we have now good reason for doing, that, as compared with neighbouring parts of the metropolis, a disproportionate number of small-pox cases have occurred in the vicinity of the Fulham Hospital—whether this disproportion arises from the diffusion of the contagion from the hospital through the atmosphere, as some think, or from the frequent passage and careless regulation of ambulances carrying small-pox cases through the district, also the influx of visitors to the hospital coming from districts infected with small-pox,—it must be obvious that in either case to increase the number of small-pox cases under treatment in the hospital will augment the danger of contagion to the population surrounding it. It is difficult to conceive that the Local Government Board will take upon itself so grave a responsibility and suffer the Metropolitan Asylums Board to perpetrate so hideous a blunder. Whatever the difficulties of that Board may be at this moment, they do not justify them in doing what may lead to serious local mischief. Other more innocent sources of escape from their difficulties doubtless are open to them. The time has come when these recurring agitations from the neighbourhood of the Board's small-pox hospitals can be appeased by the teachings of general experience. The Metropolitan Asylums Board and the Local Government Board have persistently refused during the last ten years to make such inquiry into the reported extension of disease from the Asylums Board small-pox hospitals as was required, and now they must suffer for their judicial blindness. Unfortunately, the ratepayers have to suffer with them in pocket and person, and we can only hope that the inquiry now, and at last, being made at Fulham for the Local Government Board by Dr. THORNE THORNE and Mr. W. H. POWER may be the beginning of somewhat wider and more rational views of hospital administration for infectious diseases among the metropolitan population than have hitherto characterised the operations of the Board. It will, however, be months before the report of the inspectors can appear!

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WE think too well of the Government to judge it by the gift of a Knighthood to a respected member of the medical profession, the elected head of the College of Physicians of London. A Liberal Government is not likely so to satisfy its sense of what is due, in the way of honour, to a liberal profession. The place of the medical profession in a high state of civilisation is not yet fully defined, and the deference which is its due, by every proper criterion that can be applied, has not yet been accorded to it. On the Continent the medical profession is rather a recommendation to political place and honour than otherwise. Here, hitherto, by statesmen it has been lightly esteemed. We shall not too curiously inquire how this has happened, or who hitherto has been to blame? But we will venture to say that with an unprecedentedly Liberal Government in power we confidently expect an unwonted liberal recognition of the claims to State honour of men who have saved life on a large scale, or who conspicuously represent a profession that has this for its great function.

It cannot be maintained that our statesmen hitherto have shown any adequate public sense of the value of life-saving. There is one member of the profession, now of more than European fame, who would be *fêted* in every capital where civilised men rule States. He began life in the Naval Service; thereafter he laid the basis of his future fame and usefulness in the broad ways of general practice. He saw a destructive disease destroying hundreds of lives every year. He undertook an operation for its relief, but the procedure was so formidable and bold, that the then recognised leaders of the profession denounced both him and it. Now the procedure is recognised and practised throughout the globe, and the introducer of it is correspondingly honoured. For the honour of the medical profession in England we are glad to say it now never loses an opportunity of according its own hearty reward. But where is the State recognition of such an achievement? One statesman at least, and he a distinguished ornament of the present Ministry, has studied the dimensions of this achievement, though even he can scarcely realise the obloquy and the difficulty through which success had to be attained. The present Lord Chancellor has spoken of the work we are alluding to "with admiration," as "one of the most splendid triumphs of modern surgical art and modern philanthropy, one of the greatest achievements of medicine or of surgery in any age." Of the workman the Lord Chancellor said, "he was as well deserving of the highest PUBLIC honour as any man living." At the time of the Lord Chancellor's speaking (1875) he estimated that Mr. SPENCER WELLS had, by his first 500 operations, added 10,000 years to the lives of European women." Since then his 500 cases have become 1000, and the general care and success of surgery throughout the world has been, it may safely be said, doubled. Surely the State would honour itself by honouring one of whom such a judge as the present Lord Chancellor could say such things. And there is no conceivable difficulty in the way, unless it be the want of precedent, which is the very reproach to wipe away which we look to the existing Ministry.

Past favours and honours have been well bestowed, but they have been too restricted both in character and number. It has looked too much as if only those who had rendered personal service to Her Majesty or her illustrious family were thought worthy of distinction. Her Majesty does not so restrict the gift of honours in the case of other professions, and it would be gross injustice to her to believe that she cannot appreciate a service to the race unless it takes a personal form. We will not believe that such is the rule by which she graciously dispenses her Royal meeds of praise. She has added to the glories, already great, of queenly reigns, and she would be unlikely indeed, under proper representation, to withhold honour from one of her own subjects who has done so much to diminish the disease and to add to the life and the happiness of women, and through them of the world.

If we have, for illustration, singled out one instance, it is not that there is only one which calls for liberal State recognition. There are many others—Simon, Lister, Brown-Séquard, and Andrew Clark—men who, by their labours, have extended the term of human life, restricted the bounds of epidemics, illuminated the mysterious processes of disease, or enlarged history by saving the lives of those who make it.

Annotations.

"Ne quid nimis."

SIR WILLIAM MUIR MUIR, K.C.B., M.D.

The near approach of the end of the term for which Sir William Muir Muir has held the office of Director-General of the Army Medical Department—a department greatly developed under his superintendence, and saved from many probable misadventures by his skilful guidance—has occasioned some not unnatural anxiety. We cannot but hope and anticipate that the present incumbent of the now very important Directorate will be retained at the head of the medical affairs of the Army for some time longer, in order that the work he has in hand may be matured, and the great inconvenience which his removal would entail may be avoided. The feeling of the profession is strongly in favour of Sir William Muir's continuance in office; and we trust the Secretary of State for War will find it practicable to gratify the desire expressed.

THE PUBLIC MEDICAL SERVICES.

The Examinations for Commissions in the Army, Navy, and Indian Medical Services commence on Monday next at Burlington House. For the Army Medical Department no less than 66 competitors have entered their names; the Indian Service is well represented with 40; while the Navy, in spite of Mr. Trevelyan's statement in the House of Commons that the incoming candidates will obtain the advantages of the new Warrant promised for the 1st April, musters only 8 candidates. It would seem that something more than a money attraction is requisite to make the Royal Navy popular with the young members of the medical profession.

TREATMENT OF PAIN BY MECHANICAL VIBRATIONS.

For some years past Dr. Mortimer Granville has been occupied with important researches upon the possibility of combating neuralgia by mechanical means. Proceeding largely upon theoretical considerations, he came to the conclusion that a series of interrupted mechanical shocks to a nerve would diminish its sensibility, and for that purpose invented a small instrument whereby a succession of rapid blows could be kept up upon the skin. Many physicians in London and Paris have seen and employed the apparatus, and spoken of it with approval; but Dr. Granville forbore to bring it under general notice until it had been thoroughly tested. He has paid the penalty of his patience, and the old story is repeated of the publication of an idea by another person by whom it was conceived long after the one who first thought of it, but who did not proclaim it to the world. In justice to himself Dr. Granville should forthwith point out how he arrived at the idea, and state his experience of its practical enforcement. Meanwhile it may be interesting to summarise the statements of M. Boudet de Paris, who writes on the subject in the current number of *Le Progrès Médical*. After alluding to Dr. Brown-Séquard's observation that chloroform applied over the skin of an animal produces general anæsthesia by its irritant action on the peripheral nerves, he points out that all irritants or revulsives may be placed in one category—such as actual cautery, hypodermic injections of water, application of metals, magnets, tuning-forks, electricity, vesicatories, sinapisms, compresses steeped in ether or chloroform, a motley group, but each intended for the same end—the relief of pain; they all operate by irritating the terminal twigs of sensory nerves. Vulpian long ago showed the good effect of the local application of chloroform; and Landouzy has recently pointed out the remarkable influence in controlling the cough of phthisis of hypodermic injections of water; whilst the cautery, acupuncture, and each of the forms of electricity are commonly applied to relieve pain. The action of metallic applications—metallo-therapy—of which we have heard so much in the last few years, was best explained on the theory of vibrations by Vigouroux, who proceeded to experiment upon the effect of sonorous vibrations, which he thought might have a direct mechanical effect upon the sensory nerves. By the aid of a large tuning-fork and sounding-board he caused hemianæsthesia to disappear, and provoked contractions in hysterical subjects at la Salpêtrière, as rapidly as with the magnet or electricity. The pains of an ataxic were subdued when his legs were brought under the influence of these sound-waves. M. Boudet de Paris then thought this might be applied locally over a nerve—the sonorous being changed to mechanical vibrations by means of a small button attached to the resonater, and applied over the nerve. He therefore contrived a small apparatus consisting of an electrically mounted tuning-fork, the vibrations of which were transmitted to a rod which could be easily applied over a nerve. In a healthy man this mechanical excitation produced rapid local analgesia, often anæsthesia, the maximum effect being produced by application over a nerve which could be compressed on a bony surface. When placed against the skull its walls vibrate in harmony with the tuning-fork, and a sensation of approaching vertigo, frequently followed by a desire for sleep, is produced. An attack of migraine can be cut short by the application. Neuralgia—especially of the fifth, where the nerves issue from bony canals—disappears after a few minutes' application of the instrument to the nerve at such points, but in the case of deeper-seated nerves, much protected by soft parts, it is more difficult to get good results. The writer suggests this treatment for the pains of ataxics and syphilitics; he thinks there is no limit to its applications, and suggests that perhaps cranial vibrations may induce cerebral and thus general anæsthesia. Its mechanical action is comprehensible, when we see how simple friction of the skin may soothe very acute pain. He does not regard the number of vibrations as important. This, however, is, we believe, a point on which Dr. Mortimer Granville lays the greatest stress.

WESTERN INFIRMARY, GLASGOW.

Some years ago Mr. John Freeland, a well-known citizen of Glasgow, died at Nice, and left the sum of £40,000 to the Glasgow Western Infirmary, to enable the directors to complete the original design of the building. As the hospital is erected in the "pavilion" style, the extension naturally took the form of additional arms. Twelve new wards, containing over 200 beds, have in this way been put at the disposal of the public, the new buildings having already been completed and in part made ready for occupation. The new wards have, of course, a general resemblance to the old ones, except in a few matters of detail, in which improvement has been suggested by experience. Thus in the wall-colouring, the old dull green has been replaced by a light cream-colour, picked out in squares, with a broad belting of rich brown. The heating and ventilation are all that could be desired. The wards are full of light; the end windows, in particular, come down to the floor—an arrangement which permits convalescent patients to enjoy the view from the balconies in fine weather. Connected with each ward is a smaller room, containing three beds for the treatment of special cases. At each landing a large open space is provided, which will serve as excellent recreation rooms for the patients. One of the most important of the improvements effected consists in the erection, behind the hospital, of a nurses' pavilion, containing apartments for fifty nurses. It stands apart from the main block, but communicates with it by a covered way. This arrangement enables the nurses to spend their spare time away from the scene of their labours. These additions almost double the accommodation provided by the Infirmary. Already about forty of the extra beds are occupied, and in a day or two twenty more will be ready. But the full number of beds cannot be made available just at present, as the institution's funds are low, and it is plain that an increase in the number of patients taken in means increased expenditure. Additional beds will be opened, however, as the directors feel themselves warranted. A portrait of Mr. Freeland has been painted by Mr. Jas. Macbeth, and is shortly to be placed in the new building.

THE CATGUT LIGATURE.

THE cases recorded by Mr. Treves and Mr. M'Carthy at the last meeting of the Medical and Chirurgical Society are sure to arrest attention, and form a very valuable addition to our knowledge of the effects of ligatures upon the coats of arteries themselves. It is well to ask at the outset whether the particular mode of dressing—Listerian—used in these cases, had any *special* bearing upon the changes in the coats of the arteries. It is true we often hear of wounds healing in accordance with the "antiseptic type," but there is an entire want of evidence to show that this is in any way different from the old-fashioned "healing by first intention;" and therefore the sooner the new term, so apt to convey a false impression, is abandoned the better. The question Mr. Treves raised was, whether healing by first intention is the best mode to secure the permanent closure of a ligatured vessel, or whether the inflammatory effusion attendant upon the process of granulation does not afford a necessary, or at least desirable support, to the weakened vessel, if, indeed, it does not take an active share in the union of its severed coats. Were this the case, the healing of a wounded artery would prove an exception to the general rule observed in every other tissue, where the results of primary union are better than of granulation, and it is controverted by the fact—we believe it to be more than an opinion—that undue disturbance of the artery in its sheath is liable to be attended with disastrous results, and that the more carefully, and with least injury of surrounding parts, the vessel is isolated and tied, the better the prospect of healing. We believe that the facts of these cases are best explained by a consideration of the peculiarities in the effects of the ligature upon the arteries. In Mr. M'Carthy's case there was clear microscopic evidence that none of the coats of the vessel had been divided, and in Mr. Treves' case there was an absence of proof that they had been severed, Mr. M'Carthy stating his opinion that they had not. Here then, surely, we have an adequate explanation of the sequel. If these coats were not divided there was nothing to excite the formation of a thrombus, nor was there a stimulus for an adequate cell proliferation or exudation of lymph to make the walls cohere. As Dr. Jones pointed out in his classic work, it is by wounding the artery that its obliteration is accomplished, and where there is no wound mere compression of the vessel will not suffice to cause its permanent closure. Thus these cases support the generally accepted doctrine of the action of the ligature, and are a proof that we cannot depart from our present practice of severing the two inner coats of an artery with impunity. If our view be correct, there is in these cases little that bears upon the discussion of the value of the catgut ligature, for the peculiar result was due to the mode of using the ligature rather than to the material of which it was composed. There is no evidence that the catgut softened sooner than is generally desired; indeed, the permanent constriction of the vessel points to an opposite conclusion. But this lesson we may with advantage draw from the facts, that the use of the catgut ligature does not introduce a *new mode* of obliterating arteries. Nature's action is the same as it always has been, the difference is in the ultimate destiny of the ligature and the constricted outer coat of the artery.

THE LATE THOMAS CARLYLE.

OF no human being may it more reverently be said, than of Thomas Carlyle—"He, being dead, yet speaketh." The man has passed away at a venerable age, but his work remains; the brain is stilled, but the thoughts it created mightily prevail. Though lacking the scientific spirit and not unfrequently in direct antagonism to the scientific method, Carlyle did nevertheless influence the character and modify the habits of several generations of scientific workers. He was, however, a moralist rather than a philosopher, and appealed more to the heart than to the head. Like his great prototype, Socrates, his chief endeavour was to acquire a knowledge of himself as the starting-point of all moral action, and as the surest means of affecting the thoughts of others. Truth, diligence, and duty were the virtues he ceaselessly inculcated; and he, more than any other Englishman of this century, has fostered in us a healthy hatred of shams of every kind. Honesty, he taught us, is the highest virtue, and work the noblest worship.

REGISTRATION OF INFECTIOUS DISEASES IN GERMANY.

WHILE the registration of infectious diseases in England seems as far off as it did ten years ago, although its necessity is increasingly felt by medical officers of health, there seems a great probability of its being adopted in Germany. The Imperial Sanitary Bureau is reported to be now engaged upon the organisation of a comprehensive plan for reporting and registering all cases of infectious and contagious diseases occurring throughout the empire. It is proposed that the sanitary and medical authorities of every district shall be provided with special post-cards, on which to make weekly reports to the Central Bureau, where all such reported cases are to be duly registered. Such a register would afford valuable information concerning the first appearance and progress of any epidemic. As an invaluable assistance to sanitary authorities in their efforts to control the prevalence and fatality of infectious diseases, a local register of such diseases is even more indispensable than such a central register as is proposed in the German Empire.

ADMINISTERING ALCOHOL TO CHILDREN.

WE believe it is not an uncommon custom in the country to administer spirit in various forms to infants and children. It is, we think, very objectionable, in the absence of medical advice, and little better than the administration of opium. Two cases of death, in one night, that of twin children, are before us, both dying suddenly at Tenby, without being seen by a doctor. They were only eight months old, and the mother's chief idea of treatment seems to have been beef-tea with brandy or sherry—very doubtful dietetics at eight months. Death from natural causes was the ready verdict, which we would slightly amend thus: Death from natural and unnatural causes. The kindness of the parents was not at fault so much as their intelligence. The medical man examined said he could not account for the death, but is afterwards reported as saying that teething was enough to explain death.

ABSCESS IN THE KNEE-JOINT.

THE cases of suppuration in the knee-joint cured by incision and free drainage shown by Mr. Edmund Owen and Dr. Alder Smith at the meeting of the Medical Society on Jan. 31st, are worthy of more than a passing notice. The completeness of the cure in at least three of the four cases is unimpeachable, and although by no means a novel fact in surgical practice, is yet so infrequently met with that it is not uncommon to hear the possibility of such an occurrence doubted. We venture to think that the pathological interest attaching to such results is greater even than the therapeutical, for it is a most striking and important fact that after the knee-joint has suppurated, the synovial cavity being distended with pus, the joint can so perfectly recover that full movement is painlessly accomplished, and the utility of the limb for support and progression not at all impaired. It is true that all the four cases were children—three of them quite young children—and the recuperative power of childhood, both local and general, is greater than that of later years in some respects. But the laws of pathology are the same at all ages, and the processes by which the recovery took place are not limited in their action to the earlier years of life. These histories are another evidence that the wonderful power of the *vis medicatrix naturæ* is but imperfectly understood, and that we are too prone to set a limit to it, which it can under certain circumstances overstep. Therapeutically, also, these cases are of great importance, but not quite in the way that was presented to the Medical Society. The therapeutical lesson they teach is surely that the free evacuation of pus from the knee-joint offers the best, if not the only, chance of recovery in such cases, for they show that where that is done perfect recovery may ensue, while all experience teaches that where that condition is not afforded no such result is ever obtained. It is noted that two of the patients were treated throughout as out-patients, and in none of them was Listerism employed, although Dr. Alder Smith stated that if called upon to treat a like case again he should certainly use Listerian precautions. The cases on this account do not afford any just ground for comparison with the results of Listerism; in all cases alike it is by natural powers that the healing is accomplished, powers which are not dependent upon the presence or absence of a germicide or antiseptic agent. All that any form of treatment can do is to bring about the conditions necessary for the normal working of these powers, and prevent the occurrence of certain accidents or interruptions in this natural process. The free incision and drainage in all cases alike fulfil the first purpose, and Mr. Lister contends that carbolic acid properly used does the second. Until the great mass of scientific evidence to show that septicæmia and its allies are the result of influences introduced into the body from without, and that these influences are closely similar to those producing fermentative and other changes outside the body, that can be studied in the laboratory, and there shown to be controlled and destroyed by carbolic acid and other germicides, can be rebutted, the narration of cases such as those we are alluding to cannot enable us to approach a determinate knowledge of the value of the alleged antiseptic treatment. Surely, it is true that, while a large majority of patients with open wounds and abscesses undergo healing in a more or less normal manner, a few of them fall victims to septic diseases, and demonstrate the danger to which all have been exposed. Mr. Lister asserts that these dangers can be averted by a scientific use of carbolic acid, and records of single cases which have recovered without the use of that agent do not controvert his proposition. Such cases show what nature unaided by germicides can accomplish; the evidence Mr. Lister brings is directed to prove that these results can be made uniform. Nevertheless, we would commend the study of these cases to some of Mr. Lister's followers who are more distinguished for zeal than knowledge, and who so constantly assure us that their results could not have been obtained under any other plan of treatment, as if the warding off of germs had added to the resources of nature in the healing art. It may safely be affirmed that antiseptic surgery has added nothing absolutely new in kind to the results of treatment; its highest aim is to make what has hitherto perhaps been considered the specially favourable if not exceptional course of a wound a constant event. Surely this is no detraction from the merit of the treatment! Injudicious friends of any cause are usually its most dangerous enemies, and we believe that few things have tended more to retard the reception of Listerism by the older members of the profession than the wild, exaggerated statements of some of its followers, which have been notoriously at variance with the teachings of a ripe experience.

ON TENDON-REFLEX.

AN interesting paper has been written by Dr. H. Senator on the physiological relations of the phenomenon known as tendon-reflex. A sharp blow on the tendon of the patella, when the legs are crossed, will cause the leg to be raised by the sudden contraction of the quadriceps extensor femoris, and a movement of the foot can be induced by a similar blow applied to the tendo Achillis. Tschirjew has shown that in the rabbit the centre for the reflex act in the patellar-reflex is situated between the fifth and sixth lumbar vertebræ, the afferent fibres proceeding from the tendon, and not, as Joffroy maintained, from the skin. These fibres run in the crural nerve, the division of which puts an end to the phenomenon. Senator corroborates Tschirjew's statement that division of the spinal cord opposite the fifth or sixth lumbar vertebra abolishes patellar tendon-reflex. He finds, further, that division of one lateral half of the spinal cord at this level abolishes the reflex on the corresponding side only. There is, therefore, no decussation of the nerve fibres. Division of the lateral column on one side produces the same effect. Division of the posterior cornua of the grey substance does not abolish the tendon-reflex. He concludes that in this part of the lumbar region both the sensory and motor fibres of the posterior extremities are exclusively contained in the lateral columns of the cord. It is remarkable that the patellar tendon-reflex can only be induced by one kind of stimulation—namely, mechanical shock or sudden extension by a blow. Neither electric, chemical, nor thermic stimuli have any effect. Nor has such stimulation as can be applied by pricking, cutting, or pressure. Senator discusses the views of Tschirjew in regard to its presence in health and disease, and appears to think that it is not always demonstrable in health, and not always absent in ataxy.

EXCISION OF THE STOMACH.

ON the 29th ultimo Professor Billroth of Vienna excised about six inches of the greater curvature of the stomach, including the pylorus, for infiltrating carcinoma. The patient was a woman aged forty-three, mother of eight living children, who was suddenly seized with grumous vomiting last October. Marked symptoms of cancer of the stomach and stenosis speedily followed. The operation was decided on in consequence of incessant and uncontrollable vomiting which threatened inanition. The operation lasted one hour and a half. There were extensive adhesions to the omentum and colon. Fifty silk sutures were used to unite the duodenum and the remaining portion of the stomach. On the 5th inst. (a week after the operation) the sutures were removed from the external wound, which had united without reaction. The patient was doing well, and was able to take coffee, tea, and other light nourishment. This is the second time the operation has been done. M. Péan did it in 1879, removing a carcinomatous pylorus. In that case catgut ligatures were employed. The patient died on the fourth day.

THE PIGMENTATION OF COMEDONES.

In Virchow's *Archiv* P. G. Unna has recorded some observations which he has made on the nature of the colouring matter of comedones. His results are entirely opposed to the view that the black specks so commonly seen on the face are the result of extraneous "dirt," forced into and obstructing the orifices of the sebaceous glands. He has found that the pigment exists partly in the form of free granules, and partly diffused in the horny cells at the upper part of the comedo; the free granules are also most numerous at the same part. The pigment is black, brown, or blue, and the granules vary much in size and in number in different specimens. The blue granules give many of the micro-chemical reactions of ultramarine. He explains that the blue colour of many comedones is due to the thin layer of pigmented matter seen by reflected light over a plug of fatty substance.

A case of suffocation during sleep from the fumes of incandescent coke, placed over coal in a fire bucket for the purpose of warming a bedroom, has occurred at Welby. The lethal influence of the fumes of burning charcoal in an unventilated room is generally recognised, but of the deleterious nature of the exhalations of coke under the same circumstances the public seem yet to require to be informed. The above fatal case may assist in affording the necessary enlightenment.

At a conference of the teachers of Anatomy and Operative Surgery, held on Wednesday evening, the 3rd inst., at the Middlesex Hospital, it was unanimously resolved "That a committee be appointed to make inquiries and to report to a future meeting, (1) in what respects the Anatomy Acts should be amended, and (2) how the supply of subjects can be increased under the provisions of the existing Acts.

Mr. Hamilton Labatt died at his residence, Fitzwilliam-street, Dublin, last week at an advanced age. Mr. Labatt was a graduate in Arts of the University of Dublin, a Fellow and ex-Member of Council of the Royal College of Surgeons in Ireland, and held the post for many years of medical officer to the South City Dispensary District.

At a late meeting of members of the Cahir Branch of the Land League, a resolution was adopted calling on the members of the dispensary committee in that district, where a vacancy for a medical officer had occurred, to elect a candidate who professed sympathy with the League, and oppose a candidate supposed to be the nominee of the landlord class.

Mr. Luther Holden, the late President of the Royal College of Surgeons, will deliver the biennial Oration in memory of John Hunter in the theatre of the College on Monday next, at three o'clock. The library will be closed on that and the following day.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Monmouth (*Rural*). — Area 82,977 acres; estimated population 26,088. Dr. Willis reports that "the health of the district during the past year (1880) has reached a most unusual standard and the death-rate of the whole (12·65 per 1000 population) is the most favourable yet attained. Again, of this death-rate he says that it is "probably the lowest death-rate in the kingdom for a population including in addition to the agricultural population, miners, colliers, quarrymen, and others in iron-works, tin-works, and brick-yards." Dr. Willis refers to an exceptionally good crop of potatoes and all vegetables during the past year as affecting favourably the health of the district, and draws attention to the connexion between a wet year (as 1880 was) and a healthy one. He describes in some detail the prevalence of fatal infectious disease in his district, but we must demur to his association of the appearance of scarlet fever at one farmhouse in June with the pumping out during a whole day of a well polluted with sewage close to the door, scarlet fever having occurred earlier in the year in the district. Dr. Willis notes measles imported into the district from both London and a distant part of Herefordshire. Nothing is said of the general sanitary condition of the district, but reference is made to a Board School of which the water-supply was unfit for the use of children. This is not the first instance by many in which the improper sanitary arrangements of schools have been referred to by medical officers of health.

Birmingham.—Dr. A. Hill's report on the health of this borough for the quarter ending Jan. 1st, 1881, shows a death-rate of 22·64, as compared with 27·08 for the corresponding quarter of 1879, and a birth-rate of 35·2, as compared with 39·4 for the autumn quarter of 1879. "This very considerable and satisfactory decrease in the death-rate, as compared with the fourth quarter of last year, is partly due, observes Dr. Hill, "to a large reduction in the mortality from zymotic diseases, and partly to a decline in the death-rate from local diseases generally, but more especially from diseases of the respiratory organs, in consequence, probably, of the mild weather which prevailed during December, in contrast with the severe cold of the last month of 1879."

Mexborough (*Urban*).—Estimated population 6300; inhabited houses 1326.—Death-rate 20·31 per 1000 population (as compared with 18·16 in 1879). Mr. Wm. Sykes reports the death-rate as unusually high, and "at least one very serious outbreak of enteric fever" occurred during the year. An immunity from fatal small-pox he attributes to the "extremely well vaccinated state of the districts," thanks to an energetic vaccination officer. The outbreak of enteric fever referred to was confined to a circumscribed locality and was found to have been connected with imperfect sewerage, much fæcal pollution of the atmosphere (from foul privies) and a contaminated water-supply. Good work appears to be done in this district, but when we read of privies constructed without drains, as if approved, it is evident that even the rudiments of privy construction have to be acquired.

THE DISPOSAL OF "DUST."

The movement on the part of several of the metropolitan sanitary authorities on the question of the "dust" disposal still continues. The City Commissioners of Sewers have been considering the report of a deputation sent to several northern towns to consider processes of disposal in use there, and it would seem probable that the process partly in use in Leeds will be adopted by the City—namely, the destruction of the accumulated refuse by fire—or rather the *reduction* of the refuse to a harmless and useful form by fire. The St. Pancras Vestry have also been considering the report of a deputation of its members and certain officers, including the vestry clerk, the chief surveyor, and the medical officer of health (Mr. Shirley F. Murphy), which has also visited several northern towns to study this question. The deputation has recommended :—"1, The vestry should decide whether the collection of dust should be in the hands of the vestry or the contractors, and your committee are of opinion that the collection should be in the hands of the vestry; 2, whether this is decided in the affimative or the negative, your committee should be authorised to prepare draft regulations for collection for the consideration of the vestry; 3, that if the contract system is to be continued, your committee should report on the modifications which are required in the present form of contract; 4, that whether the vestry decide upon doing their own work as dust collectors or not, the refuse should be partly or wholly burnt, and, therefore, your committee should be instructed to seek for a site for works, and that the vestry should offer a premium of £50 for the best scheme of disposing of refuse by fire, accompanied with plans and other details." This report gives reason to fear that the Vestry is still influenced more by considerations for the pecuniary interests of contractors than for the sanitary interests of the ratepayers and inhabitants generally. Let us hope, however, that recommendations 2 and 4 will meet with the approval of the vestry.

SMALL-POX IN THE METROPOLIS.

We have received the following circular from the Metropolitan Asylums Board:—

Metropolitan Asylums Board, 37, Norfolk-street, Strand,
London, Feb. 8th, 1881.

SMALL-POX.

DEAR SIR,—The managers at their meeting on Saturday last having had under consideration a report from the chairmen of the several hospital committees directing attention to the rapid spread of small-pox in the metropolis—no less than 330 acute cases of this disease having been received into the hospitals of the Board during the past fortnight—I was directed to state for the information of your —— that should the number of admissions continue at the present rate, all the accommodation the managers have or can provide (pending the decision of the House of Lords in the Hampstead Hospital case) will be exhausted in about three weeks, after which it will be necessary for the various sanitary authorities and Boards of Guardians to supplement the action of this Board by making provision for the accommodation of any additional cases of small-pox that may arise in their respective districts.

I am, dear Sir, yours faithfully,
To ——, Clerk to the ——. W. F. JEBB, Clerk.

THE VACCINATION ACT, 1867.

A voluminous Parliamentary Return has been published, moved for by Mr. Barran, showing the number of prosecutions in respect to England and Wales since the 1st day of January, 1875, to the 1st day of January, 1879, under the Vaccination Act, 1867, distinguishing (1) those who under section 29 have neglected to procure the vaccination of a child, and (2) those who under section 31 have disobeyed the order of a justice for the vaccination of a child, and how often prosecutions under this section were repeated for the same child; stating also the amount of penalty inflicted on conviction, whether imprisoned in case of default, and if discharged under section 31, and the grounds for that discharge. No attempt is made to summarise the facts given in the return under its separate headings, but it is left for each person to form his own summaries and deductions. There would appear to be very little uniformity in the mode of dealing with these cases by the magistrates in different districts.

COMBINATION OF SANITARY DISTRICTS.

We gather from the *North Wales Guardian* that the Local Government Board contemplates the combination of the rural sanitary districts of Curwen, Ruthin, St. Asaph, and Holywell with the urban sanitary districts of Abergele, Denbigh, Ruthin, and Llangollen, for the purpose of appointing a single medical officer of health. This project was under the consideration of the Rural Sanitary Authority of Ruthin at a recent meeting, Mr. Murray Browne, the general inspector of the Local Government Board for North Wales, being present; but the project met with much opposition, and in the end the subject was adjourned to the next meeting. The report of the proceedings in the local papers shows a very considerable amount of misapprehension on the position and duties of a medical officer of health and the object of the Local Government Board.

SUNDAY MILK.

At a recent meeting of the Greenwich District Board of Works it was moved and carried that the inspectors of nuisances should be instructed to take milk samples on Sundays. It would appear that the milk-dealer has been accustomed to have his own way in this district on that day, and one of the members of the Board expressed the opinion that it was as lawful to prevent children being served with milk-and-water on the Sunday as for any other good deed to be done on that day. It is probable that milk-dealers have been as quick to perceive their freedom from the restraining influence of the sanitary authority on a Sunday elsewhere than in Greenwich, and we commend the example of the Greenwich District Board to sanitary authorities generally.

At the recent meeting of the Yorkshire Association of Medical Officers of Health, at Wakefield, the President, Mr. S. W. North of York, asked the question, How long a patient recovering from infectious disease—small-pox or scarlet fever—should be detained in hospital before being allowed to go forth and mingle with healthy individuals? Mr. Butterfield, the medical officer of health for Bradford, in replying to this question, observed that he did not think "the usual six weeks" as at all sufficient. He had known cases last over eight weeks, and sometimes over three months. Obviously if periods of detention extending over even the least of these larger periods—viz., two months—have to be entertained by local authorities, other considerations than those of preventing the dissemination of infection will chiefly influence their action in the matter.

Colonel Bolton, the water examiner for the metropolis, in his report on the condition of the water delivered by the different metropolitan water companies in December last, says that the water in the Thames was indifferent in quality from the 1st to the 4th of December, when it improved, and remained good until the 15th, after which it became bad, and continued in that condition for the remainder of the month. The water in the river Lea was also generally bad during the greater part of the month. Professor Frankland states that the water taken from the Thames by the different companies, except the Grand Junction Company, was "efficiently filtered before delivery." The water distributed by the East London Company (including Thames water) was "slightly turbid through inefficient filtration."

A gentleman residing at Horsham has been summoned before the local magistrates for having failed to provide a proper supply of water to a "lodge" he had built upon his estate. He contended that a "lodge" was something different from a residence, and that there was water within a reasonable distance. The magistrates, however, inflicted a fine of 5*s.* with costs, but the defendant announced his intention to appeal.

It is noteworthy that the Paddington Vestry have successfully prosecuted the owners of certain barges for having moored their vessels for upwards of twelve hours, when laden with offensive matters, within 500 yards of inhabited dwellings. A fine of ten shillings, with costs, was inflicted in each case.

The "States" of Guernsey, it is reported, have repudiated the Burial Act by refusing to sanction its registration. The clergy, members of the "States," took an active part in speaking, as well as voting, against the Act.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Although the registered mortality last week showed a decline from the recent excess, it again exhibited some of the effects of the recent severe frost. In twenty of the largest English towns, estimated to contain in the middle of this year a population exceeding seven and a half millions of persons, 5891 births and 4092 deaths were registered last week. The births exceeded by 705, and the deaths by no less than 835, the average weekly numbers during last year. The deaths, however, showed a decline of 430 from the high number returned in the previous week. The annual death-rate in these twenty towns, which in the first four weeks of the year increased from 21·3 to 31·0, declined again last week to 28·0. During the five weeks of the current quarter, ending on Saturday last, the death-rate in these towns averaged 26·5 per 1000, against 26·0, the average rate in the corresponding periods of the five years 1876-80. The recent excess in the death-rate was remarkably small considering the late inclemency of the weather.

The deaths in the twenty towns referred to the principal zymotic diseases, which had been 390 and 373 in the two preceding weeks, further declined to 366 last week, and included 102 from whooping-cough, 70 from scarlet fever, 54 from small-pox, 49 from measles, and 41 from fever (principally enteric). The annual death-rate from the principal zymotic diseases averaged 2·5 per 1000 in the twenty towns, among which it ranged from 0·7 and 0·8 in Bristol and Leicester, to 3·6 and 3·9 in Norwich and Sunderland. Scarlet fever showed the largest proportional fatality in Norwich, Sunderland, and Oldham; while whooping-cough was most fatal in Leeds and Liverpool. The 20 deaths from diphtheria in the twenty towns included 12 in London, 3 in Bradford, 2 in Liverpool, and 2 in Birmingham. The death-rate from fever (principally enteric) was highest in Nottingham and Sunderland. Small-pox caused 58 more deaths in London and its suburbs, while no fatal case of this disease was registered in any of the nineteen large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 520 in the fourteen preceding weeks, further rose to 617 on Saturday last; this is a larger number than has been under treatment in these hospitals since June, 1878. The number of new cases of small-pox admitted to these hospitals, which had been 142 and 114 in the two previous weeks, rose last week to 234. The Highgate Small-pox Hospital contained 37 patients on Saturday last, against 27 and 30 at the end of the two preceding weeks; 30 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 371, 617, and 702 in the three preceding weeks, declined last week, under the influence of higher temperature, to 606, but exceeded the corrected average number in the corresponding week of the last ten years by 52; 441 were referred to bronchitis and 97 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 8·5 per 1000 in London, while the rate from the same diseases was 11·1 in Salford and 14·3 in Liverpool.

In the twenty towns last week the causes of 118, or 2·9 per cent., of the deaths were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·8 per cent. in London, while it averaged 3·9 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth or Norwich, while their proportion was largest in Oldham and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 28·9 per 1000 last week, against 24·6, 31·1, and 34·7 in the three preceding weeks; this rate was 0·9 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 18·4 and 18·9 in Greenock and Edinburgh, to 33·9 and 35·1 in Glasgow and Perth. The deaths referred to the principal zymotic diseases in the eight towns, which had been 107 and 125 in the two previous weeks, declined to 94 last week, and was equal to an annual rate of 3·7 per 1000; in the twenty large English towns the rates from these diseases did not exceed 2·5. In the eight Scotch towns the zymotic death-rate last week ranged from 1·9 in Greenock and Perth, to 4·8 and 5·2 in Glasgow and Leith. The fatal cases of scarlet fever in the eight towns, which had been 28 and 27 in the two preceding weeks, further declined to 14 last week, of which 9 occurred in Glasgow, 3 in Edinburgh, and 2 in Leith. The 34 deaths from whooping-cough were within 3 of the high number in the previous week, and included 20 in Glasgow and 8 in Dundee. The 10 deaths referred to "fever," however, showed a decline of 15 from the number in the previous week; 5 were returned in Glasgow and 2 in Leith. Eight of the 9 deaths from measles, as well as 5 of the 10 from diphtheria, occurred in Glasgow. Diarrhœa fatality continues to exceed the average for the season. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns, declined last week to 261, from 307 and 348 in the two previous weeks. These 261 deaths from lung diseases were equal to an annual rate of 10·5 per 1000 of the population in the eight Scotch towns; the death-rate from the same diseases in London did not exceed 7·6. The greatest fatality of lung diseases in the Scotch towns occurred again last week in Glasgow, Paisley, and Perth.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed but a slight decline from the exceedingly high rates in recent weeks. The annual rate of mortality from all causes in the city, which had been equal to 35·1, 45·7, and 47·4, in the three preceding weeks, was 46·5 last week. During the first five weeks of the current quarter the death-rate in the city averaged 41·3 per 1000, against 25·8 in London, and 24·0 in Edinburgh. The 297 deaths in Dublin last week showed a decline of but 6 from the number in the previous week, and included 31, or rather more than 10 per cent., which were referred to the principal zymotic diseases, against 37 and 34 in the two previous weeks. These 31 zymotic deaths in Dublin last week included 17 which were referred to fever (typhus, enteric or typhoid, and simple continued), 6 to whooping-cough, 3 to scarlet fever, 3 to diphtheria, and one each to small-pox and diarrhœa. The annual death-rate from these zymotic diseases was equal to 4·9 per 1000 in Dublin last week, while it did not exceed 2·9 in London and 2·2 in Edinburgh. The deaths referred to fever in Dublin, which had been 17 and 15 in the two previous weeks, rose again to 17 last week; during the past five weeks the annual death-rate from fever has been equal to 2·19 per 1000, and nearly nine times as high as the average rate from the same cause in the twenty large English towns in the same period. The 6 deaths from whooping-cough in Dublin last week corresponded with the number in the previous week, while the fatal cases of scarlet fever showed a further decline. The deaths of infants showed an increase, while those of elderly persons were only four less than the exceptionally high number returned in the previous week.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE "HOWARD" PRIZE ESSAY ON ORIENTAL PLAGUE.

The one fact of interest about this essay on "Oriental Plague" is that it has been adjudged by the Council of the Statistical Society the "Howard Medal" for 1880 and a grant of £20. It is from this point of view alone the essay deserves consideration. The terms of the competition required that the disease should be treated of in its social, economical, political, and international relations. No disease during the past ten years has occupied a larger degree of public and, so to speak, international attention than Oriental plague; yet of this there is not the slightest intimation in the essay, and, in consequence, the various social, economical, political, and international questions which have so recently had to be considered in this country on the subject receive no notice, and it does not appear that either the essayist or the Council knew of their existence. "Frequent reference," it is said at the beginning of the essay, "has been made to many works treating of the plague, these being specified at the end of the essay." The works specified are twelve in number, and do not include the great report of the French Academy of Medicine or one of the numerous reports on plague since its appearance in Western Asia in 1853. Much of the essay is taken up by a so-called "historical sketch," the value of which may be surmised from the fact that outbreaks of "dancing mania" and "sweating sickness" are mingled promiscuously with outbreaks of Oriental plague. Howard's work as to plague is mixed up inextricably with his work as to prisons. The chapter on the "Conditions under which the Plague arises" is written without any reference to the recent important light which has been thrown on the subject. The illustrations of the social effects of plague are derived from the older historians, although we have had the opportunity of studying them in our own days. Then, as to accuracy of language. Plague, we are told, appeared in 1813 in Malta and Gozo, killing between 4000 and 5000 people. A few lines after we read that plague has not been seen in Malta for one hundred and thirty-seven years! Again we read: "Plato recognised the contagious power of ophthalmia, and so in the fourteenth century Pope Clement VI. shut himself up in his house, and was one of the few persons saved"—from ophthalmia? Still, again, we read: "There has been a total absence of genuine Oriental plague [in England since the latter end of the seventeenth century], notwithstanding the great increase of trade, by which it was supposed to be imported. The improved condition of our quarantine laws is surely inadequate to produce such immunity." "The immunity from the plague, which all civilised countries now enjoy, is unquestionably due more to the improved sanitary condition of our towns and villages than to enforced measures of quarantine." But again we read: "The history of the prevention of this malady [Oriental plague] is very instructive, because it shows how suitable measures, when energetically carried out, can succeed in so perfectly conquering the severest of epidemic diseases, that it no longer occurs except in half civilised countries. This extraordinary result has been accomplished by quarantine measures rigidly carried out." We leave it to our readers who delight in literary puzzles to endeavour to reconcile the earlier with the later sentences here quoted. But it is possible that the Council of the Statistical Society do not know that the quarantine scheme for the protection of Europe from the importation of plague from the Levant was not completed until 1838—that is to say, two years before the disease disappeared from Europe, and six years before it vanished from Egypt. We do not dwell upon the confusion in the essay of the medical inspection of shipping and the sanitary improvements of places with quarantine, except to infer that such confusion must equally obtain in the Council of the Statistical Society. The shade of Howard may well cry to be saved from his assumed friends, but what of the reputation of the Statistical Society?

MEDICAL CERTIFICATES FOR CHILDREN.

The following recommendation of the District Education Committee has been adopted by the Liverpool School Board: "That the board do authorise the Committee to make arrangements with such medical men as the committee may from time to time select for the issue of medical certificates in cases where, for their own satisfaction, the committee may require such evidence to be procured by parents who allege the sickness of children as the reason for their non-attendance at school; and to make a payment of sixpence for each certificate so required by the committee." It is proposed to ask the dispensary medical officers to undertake the duty above-named.

Intelligence has arrived in Liverpool within the last few days of a serious outbreak of small-pox at Bathurst, British Gambia; also that quarantine restrictions are again in force at Goree, Senegal, probably on account of the reappearance of yellow fever there.

THE SERVICES.

BENGAL MEDICAL ESTABLISHMENT.—To be Surgeon-Majors: Surgeons John MacGregor, George Hutcheson, M.D., and Edward Reginald Johnson.

Surgeon D. H. Cullimore, I.M.D., formerly Resident Surgeon, Mandalay, has retired from the Service, receiving the half-pay pension of his rank and length of service.

THE TRANSVAAL WAR.

The following medical officers have arrived in Natal from India with the reinforcements despatched from that country for service against the Boers:—Surgeon-Majors S. B. Roe, J. A. Scott, W. Cherry, W. Keir, H. Waghorn, J. Barker, and H. Cornish; Surgeons R. W. Mapleton, J. A. Gormley, A. Kirwan, L. B. Ward, and G. T. Langridge. Surgeon-Majors S. M. Parkinson and Fraser and Surgeon Lloyd are on duty at Standerton, and Surgeon S. Wallis is with the wounded of the 94th at Prætoria. Dr. Wallis was with the 94th at the massacre on the march between Lydenburgh and Prætoria, and was the only officer who escaped unhurt. The hospital at Newcastle has been enlarged to accommodate 120 sick and wounded, and will form the Base Field Hospital of Sir George Colley's force. Surgeon-Major Babington acts as Senior Medical Officer of the column now at Laing's Nek.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Thos. Harvey to the *Monarch*, temporarily, in lieu of a surgeon; Staff-Surgeon W. Algeo to the *Woodlark;* Surgeons W. J. Christie, M.B., and M. V. Stace, to Haslar Hospital; Surgeons J. J. Dennis, M.D., and C. F. Wales, to Plymouth Hospital.

IMPERFECTIONS OF THE DENTISTS ACT.

Abstract of an Address delivered before the Association of Surgeons practising Dental Surgery on Jan. 26th, 1881.

BY W. A. N. CATTLIN, F.R.C.S., PRESIDENT.

AFTER some remarks on medical reform in general, Mr. Cattlin addressed himself to the question as it affects the dental profession in particular, and spoke as follows:—

I turn to the subject of dental politics with great reluctance. The dispute which is raging between the parties respecting the Dentists Act has not been conducted in a satisfactory manner.

In 1859 a charter was obtained by the Royal College of Surgeons of England, which enabled it to grant licences in dental surgery to candidates who were little better than half educated up to the standard of medical fitness required from its members. Thus was permanently introduced the questionable principle of authorising persons to practise an important branch of surgery who had only obtained a limited knowledge of the science. This bold step was undoubtedly an act of great injustice to every Fellow and Member of the College; yet they were in no way consulted in the matter. The only precedent I can find for granting a special degree in this country of late years is when the licence in midwifery was given by the English College of Surgeons to *three* persons who were not qualified practitioners; but the practice was immediately discontinued, and it has since been issued only to Members of the College. The dental licence has, however, been given to persons who are not members of the College for more than twenty years, and the practice is still continued. The Dentists Act goes still further than the charter, and extends the same evil to the Scotch and Irish colleges. It also encourages the mere "dentist" to assume the prefix of "surgeon," to the injury of those who have an exclusive right to the title. Finally, by establishing a separate register for dentists (which the public may easily mistake for the Medical Register) it completely divorces that branch of surgery from the whole science. These are the wrongs of which we, as members of the College, complain. The Dentists' Register is now crowded with ignorant pretenders, who are supposed to have made a false and fraudulent declaration, "that they were in practice as *bonâ fide* dentists when the Act became law;" but as there is no legal definition of the words *bonâ fide* dentist, I fear the General Medical Council will be unable to erase their names, and they will be a disgrace to the profession for a generation to come. There will be a meeting of the Medical Council shortly (at the cost of about £400) to consider what can be done to remedy this condition of things; but, unless they inquire into each particular case, and act upon the rules of common sense, I see no way out of the dilemma. The General Medical Council, under the circumstances, has power to expunge the names of impostors from the Dental Register, and their decision is final; but I fear they will be obliged to refer the matter to a court of law, and much time and money will probably be wasted before a legal decision can be obtained.

It has long been an established fact that a full knowledge of the science of medicine is absolutely necessary to the proper understanding and successful practice of any branch of surgery, and on that ground the Legislature requires its public officers to hold the double qualification. By this it will appear that the licensing of half-educated specialists is repugnant alike to the best interests of the public and to the medical profession at large. It also forms a bad precedent for future action.

My attention has been called by our secretary (Mr. Hamilton Craigie) to a short leader in THE LANCET of October 30th, 1880. It goes so much to the point that I will ask your permission to quote it *in extenso.* [Quotation given.]

A number of influential American dentists have formed the Oral Society of Boston, and no one is allowed to become a member of it who is not a qualified medical practitioner. They also hold that all special degrees in medicine should be abolished. This is a step in the right direction, and shows that the profession in the new country is becoming alive to the necessity of preventing its ranks from being overrun by a colony of mere specialists. In recognition of similar principles, which were initiated by this association, the Oral Society of Boston have invited your Secretary and President to become honorary members of it, to which they have assented, and I assure them we appreciate the compliment which has through you been paid to us.

It is simply idle to persuade any but the most prejudiced that a partial education is sufficient for the successful practice of any branch of medicine. A greater deception was never fostered by the mind of man, and yet the chief promoters of the Dentists Act have suffered themselves to be deluded by this false and ridiculous idea. The surprising effects which may result from even slight pressure or irritation of a very small branch of our complicated nervous system (producing serious disturbance in remote parts), can only be traced and understood by those who have a full and intelligent knowledge of its functions. The discoveries of Dr. Brown-Séquard have shown how necessary this knowledge is to the practice of dental surgery. What half-educated anatomist could trace the cause of deafness to irritation of the nerve of a tooth, unless he understood the great theory of reflex paralysis? and there are numerous complicated symptoms arising from diseased teeth (sometimes coupled with functional disturbance affecting the general health) which can only be skilfully treated by one who has a minute knowledge of all the resources of medical art.

Having answered the fallacious argument that the education of a surgeon is not necessary for a dentist, I will ask and answer the question, What difficulties are there to prevent a surgeon becoming a dentist, if he makes a special study of dental surgery after he has taken his diploma? I sincerely hope this practice will be adopted by young surgeons. It has been asserted that the time required to learn both dentistry and surgery would be too long, and that the hand can only be tutored in early youth to perform the delicate operations of dental surgery. This (so far as it is true) applies with equal force to delicate operations on the eye and other parts of the body, and yet there is no lack of skilful operators in every branch of surgery. Gold stopping is perhaps the only dental operation which requires considerable practice, but the necessity for the use of that particular metal has been greatly exaggerated. It is a fact, that has been proved by experiment, and is confirmed by experience, that only the few, however well taught, acquire the power of manipulation which is necessary to make a perfect gold filling in awkward positions within the mouth. Many large cavities in the molar teeth (if sufficient care be taken to prepare them) may be well filled by a person of ordinary skill with palladium amalgum, and some of the osteoplastic preparations are suited to the same operation in incisor and other front teeth. I do not desire to detract from the value of perfect gold stoppings, but I do say that only a few of the best dentists can make them perfect. It is trifling with common sense to deny that all the other operations in dental surgery can be well performed by the surgeon after a moderate term of experience. If further proof be required to contradict the false statement that proficiency in dentistry can only be acquired in early youth, let the honourable and brilliant career of such men as Bell, Craigie, Harrison, Arnold Rogers, and numerous others now living and equally skilful, who began to practise the specialty at mature age, proclaim the fallacy of such a doctrine. The truth is that mechanical talent is not uncommon; most men possess it, but in different degrees. Moreover, a delicate sense of touch (as contra-distinguished from what is called a heavy-handed person) belongs to the individual, and is generally born with him. It is a perfection of touch which is the gift of nature, and art cannot imitate it. On the other hand, a person who is peculiarly rough may improve in manipulation by experience, but he will never attain to the same degree of perfection as that to which I have alluded as the gift of nature.

Purposely omitting any reference to the mechanical branch of dentistry (which I think should be practised separately), let us seriously inquire what there is in the surgical branch which gives the slightest excuse for a special licence. Verily I believe the manner in which this document has been forced upon the public is as unjust as it is impolitic. It is a monstrous fact (that no longer should be tolerated) that before the student is allowed to pursue his studies at the Dental Hospital of London he is required to give a written undertaking that it is his intention to take out the dental licence.

Having arrived at this point, let us consider what the public duty of this Association is under the vexatious difficulties that lie before it. I think we should endeavour to convince our opponents that we hold our opinions solely because we believe them to be right. I am not one of those who think that an intelligent minority should, either from the love of popularity or the dread of defeat, go with the multitude to do evil; but it is always wise to show polite deference for the opinions of others. We should endeavour to obtain a just and reasonable compromise by the amendment of the Dentists Act, to the extent which I have indicated—namely, that no one but a qualified practitioner should be allowed in future to receive the dental licence, or use the title of "surgeon" alone or in conjunction with any other word or words, and that a clause to the same effect should also be inserted in the new Medical Amendment Bill; that the Dentists' Register should be purged and be made conspicuously dental; and that those who have been tempted to take the dental licence, thinking it to be a more honourable degree than it really is, should have the way made easy for them to acquire the diploma of member. I think this Association should show good feeling by helping them in every way. It is given to but few to possess so fine a judgment as will eneble them to perceive and correctly estimate the course of coming events in great and complicated matters, and to fewer still amid the din of strife and the force of rivalry so to direct their conduct that it shall tend only to the public good. "Bad as the world is, respect is always paid to virtue." Even our bitterest enemies will not dare to raise the treacherous voice of slander against us if we oppose them with generosity, and ever keep in mind the good old maxim, "To err is human, to forgive divine."

ARMY MEDICAL SCHOOL.

THE winter session of the Army Medical School at Netley terminated on Monday, the 7th inst., when, after the preliminary business of winding up the session had been concluded, the Right Hon. the Secretary of State for War, Mr. Childers, delivered an address to the assembled surgeon probationers and candidates for commissions in the different branches of the public service, and handed the prizes at the disposal of the Senate of the School to the successful competitors. Not only the benches of the lecture theatre, but every available portion of space in the area were occupied by officers and visitors, the latter including Mrs. Childers and a few ladies. Among the officers present were—General H.S.H. Prince Edward of Saxe-Weimar, commanding the Southern District, with Captain Lord A. Seymour, A.D.C.; Colonel Bray, Assistant Adjutant General, and Colonel the Hon. J. C. Dormer, Assistant Quartermaster General; the Director-General, A.M.D., Sir Wm. Muir Muir, K.C.B.; the Director-General of the Medical Department of the Royal Navy, Dr. Reid; Surgeon-General Sir J. Fayrer, K.C.S.I., Physician to the Council of India; Lieut.-General Sir J. M. Adye, K.C.B., Surveyor-General of the Ordnance; Colonel Sir C. Pearson, K.C.M.G., Commandant at Netley, with the military staff of the hospital; Surgeon-General D. R. Mackinnon, Principal Medical Officer, and the medical staff; Surgeon-General J. A. Woolfryes, C.B., C.M.G., Principal Medical Officer of the Southern District, with several medical officers from Portsmouth; Surgeon-General G. A. Shelton, M.D., Head of the Medical Branch in the Director-General's office at London; the Director-General of the Ordnance Survey of the United Kingdom, Col. A. C. Cooke, C.B., R.E.; Col. H. Burne, C.B., late Military Secretary to the Government of India; and various others. The candidates for commissions, one hundred in number, as they sat in their uniform presented the appearance of as fine a body of young men as could be seen anywhere in equal number.

After Mr. Childers had given his address, in which he chiefly referred to the importance of the duties which devolved on the medical departments of the public services in time of war, and in such climates as India, he requested the gentlemen who had gained the prizes to come forward, and to each in succession he made some kind and appropriate remarks. To Mr. G. M. J. Giles, M.B. Lond., of H.M.'s Indian Service, who had scored the high number of 5410 marks in the combined London and Netley examinations, Mr. Childers handed the Herbert prize and the Parkes Memorial bronze medal. The Herbert prize, which was founded in memory of Lord Herbert, to whose exertions the School mainly owes its existence, consists of a sum of £20, but no medal is attached to it. In handing the certificate for this award to Mr. Giles, the Secretary for War said, however, that he should ask Mr. Giles' acceptance of a medal, as a souvenir of the occasion, which he would personally present to him—an announcement which was received with much cheering. Mr. S. A. Crick, who heads the list of probationers of the British Service, received the Martin Memorial medal—a gold medal given at each session of the School to the gentleman who most distinguishes himself in the subject of tropical disease. This medal was established to commemorate the late Sir Ranald Martin, who not only took an active part with Lord Herbert in originating the School, but also subsequently, as a member of its senate, for many years exhibited a very active interest in its welfare. Another prize of an interesting origin, and specially given for the session of the School which has just passed, was carried off by Mr. J. Shearer, of H.M.'s Indian Service. It will be remembered by many that during the recent war in Afghanistan Lieutenant Maclaine, R.A., who was wounded in the battle of Maiwand, near Candahar, fell into the hands of the enemy, and after being kept a prisoner by them for several weeks, was cruelly murdered about the time when the troops under Sir F. Roberts defeated the force under Ayoob Khan. Among the papers of this unfortunate officer, which reached his family, was found a memorandum to the effect that, in consequence of his own sufferings from the want of surgical advice and attention, he felt a desire to do something for others, who might fall into the same need of surgical help, but who, unlike himself, might happily be within reach of it. Acting on this expressed wish, his family had set apart a certain sum, part of which—viz., £10—they offered as a prize, to stimulate attention to the subject of military surgery at the Army Medical School. There had been a keen, close race for this prize, and the result was so near that it was mentioned there was only a difference of twenty-five marks among the first six on the list of competitors. The marks gained by these gentlemen respectively in this competition were: J. Shearer, 775; J. R. Dodd, 770; S. G. Hamilton, 765; S. A. Crick, 763; A. R. Sedgefield, 760; and G. M. J. Giles, 750. Mr. Dodd stood second in the list, having only five marks less than Mr. Shearer, who won the prize. Mr. Childers handed this gentleman, who, it was stated, had trenched closely on all the other successful competitors, a handsomely-bound volume, the gift of Professor Longmore. After a few concluding remarks from Mr. Childers, the proceedings in the theatre, and the forty-first session of the Army Medical School, were brought to a close.

Mr. Childers, Prince Edward of Saxe-Weimar, and the officers and visitors who had been present in the lecture theatre, were subsequently entertained at luncheon in the spacious mess-room at the officers' quarters.

We publish on another page the lists of candidates for commissions in the various branches of the service, with the marks gained by them, who have just passed out of Netley.

MANCHESTER.

(*From our own Correspondent.*)

At the last monthly meeting of the Board of the Royal Infirmary, the Medical Superintendent reported that one of the wooden structures, which so long have been an eyesore to the citizens of Manchester, had been removed, having been purchased by the Corporation of Bury as a temporary hospital for the reception of small-pox cases; he further reported that since its removal the annoyance to patients from the noise of traffic in the adjacent streets had much increased, thus further demonstrating the importance of paving the thoroughfares round the hospital with wood or some other noiseless material, the present noise being very detrimental to the comfort and quietude of the patients. The "therapeutic advantages of quiet" have been very much overlooked by the Corporation of Manchester, for, with the exception of St. Mary's Hospital (in front of which institution one-half of the street is paved with wood), the hospitals in this city are much inconvenienced by the constant roar of traffic which ceaselessly beats round them. Two hospitals in the centre of the town, the Eye Hospital and the Throat and Consumption Hospital, are rendered specially noisy by the absence of wood pavement. The thin skin of asphalt which was laid down experimentally upon the granite setts having worn off and left matters as they were originally.

The recent appointment to Cheadle Convalescent Home has caused great dissatisfaction amongst the students of the Manchester School, and again brought to the front an old grievance, they, rightly or wrongly, alleging, that in all our hospitals an undue preference is exhibited towards men from a distance, every appointment worth having being filled by graduates of London, Edinburgh, and elsewhere, to the exclusion of Manchester students. This mistaken policy is not that of the Medical School, but of the lay Boards of Management who control the appointments at the various hospitals.

At the last meeting of the Manchester Medical Society, which was a large and interesting one, Dr. Lloyd Roberts showed an ovarian cyst of large size, said at one time to have contained five or six gallons of fluid; he made some interesting remarks upon the use of the drainage-tube in ovarian and other abdominal sections, attributing largely to their use the very favourable results now obtained. Mr. Hardie narrated the case of a patient who had a tooth-plate fixed in his œsophagus for five months, and which resisted all attempts at removal, though it could be caught by a coin-extractor. It was finally passed per anum, the patient having declined œsophagotomy. Dr. Simpson exhibited a patient the subject of an aortic aneurism, and whose life had doubtless been prolonged by repeated galvano-puncture of the tumour. Dr. Bury also detailed the case of a young child who suffered from intussusception, and where fluid injections, and injections of air, had failed to relieve.

The report has just reached me, and it is with the greatest pleasure that I give it currency, that Drs. Leech and Dreschfeld, respectively lecturers on Materia Medica and Pathology at Owens College, have been appointed Professors. This is a graceful and well-merited acknowledgment on the part of the Senatus of the sterling worth and high teaching powers of these two gentlemen.

IRISH MEDICAL ASSOCIATION.

The following resolutions were passed at a special meeting of the Council of this Association, held on Jan. 25th, 1881:—

1. That this Association, while reaffirming the resolutions of the Council adopted on the 27th July, 1880, as to the advantages of early notification of infectious disease, is of opinion that the proposal to compel the physician to make a formal written notification either to the Sanitary Authority or to the custodian of the patient, would, if carried into effect, be of doubtful advantage to the public and be oppressive upon the medical profession.

2. That this Association does not admit the principle that a physician should be required to apply to public uses the information obtained by him in his capacity of a private practitioner; and the Association furthermore apprehends that, if it be declared that the visit of a physician to a patient who may possibly be suffering from an infective disease shall be, of necessity, followed by the putting in motion of the Sanitary law with regard to the infected house, a great inducement will thereby be afforded to defer calling for the physician until the disease has acquired such intensity that it can no longer be concealed, and must be treated under great disadvantages.

3. That the Association cannot assent to the sacrifice of professional principles and medical interests, which the Bill now before Parliament involves, until the custodian of the patient has been made fully responsible, under penalties, both to ascertain from a medical practitioner the nature of the disease and to report the same to the Sanitary Authority; and until, after an effort made to enforce such responsibility with vigilance and firmness, it has been found to be impracticable to do so.

4. That, irrespective of the objectionable principles of the Bill already referred to, the proposals to pay to the physician one shilling for thirty days' notification of cases occurring in an infected house—to pay no fee whatever for such services in a public institution—to compel the physician to attend in court without fee to prove his certificate, if necessary, and to impose a penalty of £5 upon him for such omission to notify, are altogether unacceptable to the profession.

5. That, therefore, the Committee of this Association be instructed to take all necessary steps to cause the Bill to be modified in its passage through Parliament or to oppose its passing if necessary.

Correspondence.

"Audi alteram partem."

MR. LISTER'S ADDRESS.

To the Editor of THE LANCET.

SIR,—In the leading article which you have honoured me by devoting to my address to the Clinical Society on the catgut ligature you express a desire for further evidence as to the persistent strength of the new chromic gut after steeping in warm serum, the time during which I had tested it being little more than half an hour.

The serum which I employed for the purpose being derived from blood taken from a cow with antiseptic precautions, and being still perfectly sweet, I have made some further experiments, in accordance with your suggestion. I first tried the specimen of gut twelve years old, prepared by the old method, a portion of which I exhibited at the meeting steeped in serum. It is comparatively slender gut, having little more than half the thickness of the chromic gut with which I before experimented, the average diameter being 1⅔ hundredths of an inch. Two trials of it in the dry state gave 5 lb. 9 oz. as the average breaking strain,[1] and two other pieces, after steeping half an hour in the warm serum, broke at 3 lb. 14 oz. In other words, this especially well-seasoned sample of what the old method could provide was deprived by warm serum of about one-third of its strength in half an hour.

I next tested a piece of gut prepared three months ago by the new method, similar in thickness to the other—viz., having an average diameter of 1⅔ hundredths of an inch. Four trials with it in the dry state gave an average breaking strain of 6 lb. 15 oz. I then placed in the warm serum three other pieces of the same hank, after measuring their diameters. One of these pieces, with diameter 1⅔ hundredths of an inch, tested after it had been one hour in the serum, broke at a strain of 5 lb. 13 oz. Another piece, which when dry measured decidedly less in diameter than the first, was tried after being fourteen hours and a half in the serum, when it also broke at 5 lb. 13 oz. A third piece, just 1⅔ hundredths of an inch in diameter when dry, was left in the warm serum for twenty-four hours, at the end of which time it showed a breaking strain of 5 lb. 10½ oz. Thus the new gut continued as strong at the end of a day in the serum as it had been after the lapse of an hour, and lost in the serum only about one-seventh of its full strength in the dry state, a result corresponding very closely with that obtained in the former experiment with the thicker chromic gut after forty minutes' immersion. At the same time, the new gut being considerably stronger to start with than that prepared by the old method, its strength, after steeping for twenty-four hours in warm serum, was greater than that of the old kind in the dry state.

I felt pretty sure beforehand that the new gut would thus persistently retain its strength in the serum, because in numerous experiments which I had made as to its quality after immersion in that liquid, I had observed not only the holding power of a knot tied upon it, but also its consistence, and I had found it as firm after the lapse of two days as after a couple of hours. But in reality it is only for the tightening up of the knot that great strength of the catgut is required; and, having ascertained that the new gut was little impaired in resisting power by steeping in warm serum for as long a time as was ever likely to intervene between the passing of a thread by the surgeon and the tying of the knot, I felt I had all the evidence that I desired. For it has never happened, so far as I am aware, that a ligature of catgut, when once the knot has been secured, has proved treacherous in the way of rupture of the cord. When mishap has followed its use, it has been either from slipping of the knot, from premature softening and absorption of the substance of the catgut, or, last not least, from putrefaction having been allowed to take place in the wound.

I am not surprised you should have seen an apparent inconsistency in the idea that micrococci, which are harmless in ordinary wounds treated antiseptically, should have been the cause of the separation of the hempen ligatures by suppuration in the case of thyroid tumour. I may therefore, perhaps, be allowed to say in explanation that the difference in effect between the micrococci developing indefinitely in the interstices of the thick hempen threads and the same organisms on the surface of an organising blood-clot washed perpetually by serous discharge and occasionally by antiseptic lotions, seems analogous to the unhealthy ulceration occasioned by water-dressing left unchanged for several days, as compared with kindly healing under the same application daily renewed. The organisms present in the water-dressing are probably the same in both cases, but the longer duration of their fermentative agency gives rise to greater acridity of the products.

I am, Sir, yours obediently,
Feb. 8th, 1881. JOSEPH LISTER.

⁂ We are extremely glad that our remarks last week have been the means of eliciting from Mr. Lister the evidence which was certainly required to make the credentials of his new ligature unimpeachable. These results are such as to commend the thread very strongly to all surgeons. It is not desirable to mix up with this matter a discussion on the influence of micrococci upon the healing of wounds, but in reference to Mr. Lister's remarks on this point, we would merely state that the analogy he draws seems not quite parallel, and there is at least one other view of the matter to be taken. Does not the organising blood-clot, he refers to, by its own inherent vitality prevent the noxious development of these micrococci, while the secretions of a suppurating wound have no such power?—ED. L.

STATISTICS OF OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—I hold that the statistics of all hospitals are public property; I know that this is the view of many of the most eminent members of the profession, and I believe that it is general. Hence I cannot admit any breach of professional etiquette in using the statistics of the hospital to which I am surgeon; neither can I admit that my use of them was in any sense "an incomplete and *ex parte* statement of results," for I gave the complete ovariotomy statistics of the Samaritan Hospital for the nine years from the beginning of 1872 to the end of 1880, both inclusive. Had I known that Dr. Bantock regarded hospital statistics as private property, I might have confined my remarks to my own cases only; but it is of importance to all those who are anxious to compare different modes of practice, that the actual results should be made known, so far as they can be accurately ascertained.

I am, Sir, yours truly,
J. KNOWSLEY THORNTON.
Park-street, W., Feb. 8th, 1881.

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[1] It may be worth while to describe the manner in which the strength of the gut was tested in these experiments. A piece of steel of horseshoe form is suspended by a ring on the middle of its convexity, so that the horns of the horseshoe are dependent, these horns being perforated for the reception of a cylindrical bolt of steel, which thus lies horizontally, and can be removed at pleasure. A piece of the catgut having been tied in a double reef knot, the bolt is partially withdrawn and readjusted after the noose of the catgut has been slipped over it. Into the lower part of the catgut ring thus suspended is passed the upper end of a pot-hook, to the lower part of which are attached weights approaching what the catgut is likely to bear, and also an empty bag, into which shot is poured till the cord gives way. The shot is weighed, and the result, added to the other weights, gives double the breaking strain of the gut. For as the cylindrical bolt works with perfect smoothness in its bed, it adjusts itself so as to prevent inequality of strain in the two sides of the catgut ring, which thus take an exactly equal share in sustaining the weight.

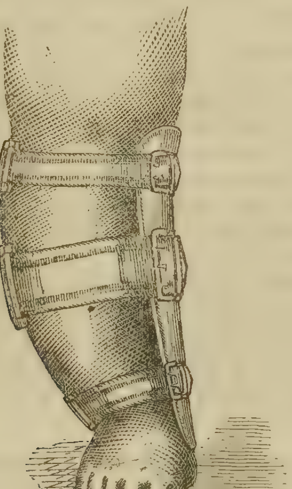
SPLINT FOR BOW-LEGS IN CHILDREN.

To the Editor of The Lancet.

Sir,—During twenty years' practice I have often found myself in a great difficulty with regard to treating the very common affection of bow-legs in young children, and especially in cases not depending on disease. I admit in starting that I have succeeded in straightening some with the leg-iron, but it is a cruel instrument to place on the leg of a child beginning to walk, owing to its weight being fully half a pound, together with the attached boot, which must of necessity be worn with it. Another drawback to it for general use is its great expense, which places it completely out of the reach of the majority. In fact, the leg-iron is only suitable for the different forms of talipes, but for want of a better appliance I have used it myself in cases of bow-legs, there being nothing beside it so far to be had except the common straight padded wooden splint, which is comparatively useless owing to the impossibility of keeping it in position unless the child be kept constantly lying, a resort to which would be out of the question in a healthy child of a year old, the proper time to interfere; besides, the common straight splint requires to be bandaged on, and if not done evenly must worry the little patient.

There is another great objection to those two appliances, their unsightly appearance, in itself enough to deter almost anyone from adopting them, even if the parents could be persuaded of their complete success, as they attract attention so much to the deformity. Very often, if you ask the parents, as their children are growing up with bow-legs, why they had not attended to them in infancy, the general answer is, "The doctor told us they would become straight as the child grew up." And why do the doctors say so? Simply because there is not an effectual light and cheap appliance to be had for the purpose.

The splint I wish briefly to bring before your notice, and of which I subjoin a woodcut, professes to remove those wants and disadvantages, as it combines lightness, cheapness, durability, easy application, together with sightliness and comfort to the child, the whole apparatus weighing little over two ounces, neither wood nor iron entering into its composition. It is adapted from the patent plastic felt, and for which there are already two patents, but neither of which has before been used for this purpose. When this material was first introduced to my notice I at once was struck with the idea of trying it for bow-legs. At first I applied it on the outside of the leg, making the bow part my fulcrum; but, from experience, found that did not suit; then I adapted it to the inside, making the fulcrum at the garter and ankle-joint, with the desired result.



In order to secure a perfect fit it is necessary to have it moulded to the leg in its soft condition, thus adapting itself closely to the parts, on which it is intended to press evenly, leaving the curve free. The top and bottom straps are merely for the purpose of keeping the splint in position, and the centre broad one to act on the curve with pressure as necessary. It covers the ankle-joint, to which it is moulded, slightly padded as well as at the top, and extends far enough below it to prevent the foot turning inwards, as it is generally inclined to do in those cases either with or without weak ankles, but not in the least impeding the action of the joint. As it is shaped to the calf, and extends more than half way around it, there is not the least fear of its changing position. This I have proved in several cases, and which I think one of its greatest advantages.

I have applied this splint in cases of rickety children, and with even more speedy success, as the bones adapt themselves with less pressure. It may be applied when the child is six months old, and, if the legs are not sufficiently straight, at twelve months. Shoes or light boots should be worn with it; but on no account to use strong leather boots with the idea of supporting the ankles.

Without encroaching too much on your space, I hope I have said sufficient to explain what I trust may be found a useful appliance in this very common deformity among children, and which I am confident requires only to be tried to prove its utility.—I am, Sir, &c.,

Oakley-street, Chelsea. H. Fisher, M.D.

"WOOLSORTERS' DISEASE."

To the Editor of The Lancet.

Sir,—Dr. Tibbits practically asks me to repeat in full detail, with drawings and specimens, my third and fourth Brown Lectures. In these lectures I dealt in detail with the points which he has raised, and subsequently demonstrated a large number of specimens, photographs, &c., on which the conclusions were based, and by which they are mainly sustained. I regret that in the nature of things it is impossible for me to repeat this in your columns. If, however, Dr. Tibbits will read the admirable abstracts furnished by your reporters, he will, I think, find many of his queries answered. For the rest, I trust that in my report on the pathology of the disease to be made to the medical officer of the Local Government Board he will find sufficient detail of evidence to satisfy him, and I shall always be happy to assist the Bradford Commission in any way in my power.

Yours faithfully,

Feb. 7th, 1881. W. S. Greenfield.

MEDICAL NOTES IN PARLIAMENT.

Noxious Gases.

In the House of Lords on Monday a Bill relating to Alkali Works was read a first time. The Marquis of Huntly said he proposed to take the second reading on the 15th inst.

Rivers Conservancy and Floods Prevention Bill.

On the motion of Earl Spencer the following Peers were nominated the Select Committee on this Bill:—Earl Spencer, the Duke of Somerset, the Duke of Bedford, the Duke of Marlborough, the Marquis of Huntly, the Earl of Derby, the Earl of Sandwich, the Earl of Jersey, the Earl of Camperdown, Viscount Bury, Lord Monson, Lord Penrhyn, and Lord Norton.

In the House of Commons on Thursday, February 3rd, the Burial and Registration Acts (Doubts Removal) Bill (Lords) was read a third time, and passed. The order for the second reading of the Medical Appointments Qualifications Bill was deferred for a week. The atmosphere in the House throughout this sitting was oppressively warm; and Sir G. Campbell gave notice of a question to the First Commissioner of Works on the subject.

On Friday a petition for inquiry into the East India Army Medical Department was presented from Arthur Barclay.

On Monday a petition was presented from John Picthall for redress in connexion with the Indian medical service. Returns were presented of correspondence and evidence relating to inquiries at Dromore and Belfast workhouses. In reply to Sir George Balfour and Mr. Pugh, the Marquis of Hartington said he hoped shortly to present to Parliament papers connected with the recent changes in the Indian Medical Department.

On Tuesday a return was moved for by Sir George Balfour on behalf of Mr. John Talbot, and ordered, of the number of all deaths in the metropolitan district in the year 1880 upon which a coroner's jury have returned a verdict of death from starvation or death accelerated by privation. The Universities (Scotland) Voting Bill passed through committee.

On Wednesday a further petition in connexion with the India Medical Department was presented from Nathaniel Hopkins. The second reading of the Coroners (Ireland) Bill was deferred for a week.

The Small-pox Epidemic.

Mr. J. G. Talbot asked the President of the Local Government Board whether he can inform the House as to the present condition of the epidemic of small-pox in the metropolis, and as to the available accommodation for small-pox cases in the hospitals which were under the control of the Local Government Board; and whether he would lay upon the table any communications which he had received from the managers of the Metropolitan Asylums District upon the subject? Mr. Dodson said the actual number of small-pox patients in the hospitals under the control of the Local Government Board was 700. Arrangements were being made by the managers, to whom great praise was due for their efforts, for increased accommodation, and 250 additional beds would be placed at their disposal. If it were not for the unfortunate proceedings pending in relation to the Hampstead Hospital case, 300 more beds would have been available for small-pox patients for that establishment. He had no objection to lay upon the table communications from the managers to the Local Government Board, and the replies of the Board thereto. Mr. W. M'Cullagh Torrens asked whether experience had shown that the aggregation of small-pox patients in the metropolitan asylums had frequently been attended with a serious outbreak of the disease in the surrounding houses; whether the number of deaths in the metropolis from small-pox since 1870 had not on the average been twice as numerous as in the previous eleven years; and whether any steps were about to be taken to provide more effectually than under the present system for the prevention and cure of the disease. Mr. Dodson said, it had been alleged that the residents of houses surrounding these hospitals had suffered from the small-pox, and he had directed an inquiry to be made as to the truth of the allegation. Until the inquiry had been made it would be premature for him to express an opinion on the point. In answer to the second question, he had to say that there was no doubt that the average number of deaths from small-pox in the interval since 1870 had been largely in excess of that in the previous eleven years, but that arose from the fact that the latter period includes the very exceptional year of 1871. The deaths since 1870 amounted to 15,533, of which 7878, or more than one-half, occurred in the following year of 1871. If, however, the twelve years of 1860-71 be compared with the nine years 1872-80 it would be found that in the latter period the average number of deaths was only 850, against 1425 in the former periods. As regarded the steps taken to prevent the spread of the disease, he had recently caused circulars to be addressed to the various sanitary authorities and Boards of Guardians, pointing out measures for adoption, with the view of securing vaccination and revaccination as far as practicable. He was glad to state that the local authorities generally had made a ready response to that appeal.

Obituary.

FLEET-SURGEON GEORGE HENRY DABBS.

MR. DABBS was a Fleet Surgeon in the Royal Navy at the time of his decease, which took place on Jan. 30th, at the age of seventy-nine. He was on the active list for over twenty years, serving on the West Indian station (in charge of the Jamaica-hill Hospital), in South America, and as one of the surgeons of the Legion which served under Sir De Lacy Evans in the Carlist war. Subsequently he became surgeon of the Convict Hulks at Woolwich, and while in this service did good work in the outbreak of cholera (of 1848?). While on duty at the hulks, Mr. Dabbs was assaulted by a prisoner with murderous intent, but recovered completely in all but the loss of his hearing, deafness becoming more and more confirmed as age crept on him. For many years, however, he did the whole of the duties, anaided, of the convict prison at Parkhurst, and was only superseded in the charge of the whole management of the prison rendering his supersession necessary. He lived subsequently, and practised a little, at Newport, Isle of Wight, removing latterly to Buckland, Hants, where he died. He was a man of a singularly mild, placid, and gentle nature; but with these combined futility of resource and boldness in action. His personal influence over prisoners was great, as was the esteem in which he was held by all who knew him. His affliction, which gave so much solitude to his life, never in the least interfered with the expression of his deep human sympathies, or with the free-handed if silent charity he even extended towards those who were in want, or those with whom he dffered in opinion.

Medical News.

BRITISH ARMY MEDICAL SERVICE. — The following is a list of Surgeons on probation who were successful at both the London and Netley examinations held in the present month. In the instances of these gentlemen the marks gained at Netley are not counted, and they retain the places taken by them in the competitive examination at London:—

	Marks.		Marks.
S. A. Crick	2510	L. W. Swabey	1610
J. R. Dodd	2240	R. Haselden	1605
A. J. Struthers	2230	R. E. Ricketts-Morse	1600
G. E. Twiss	2230	W. J. B. Lyons	1590
R. F. Adams	2225	W. Rowney	1590
C. G. D. Mosse	2135	T. J. R. Lucas	1565
A. B. Cottell	2075	C. J. Addison	1560
T. Archer	2035	A. G. Kay	1560
S. G. Hamilton	2035	W. W. Pope	1560
H. J. R. Moberly	1990	R. Porter	1560
A. P. Hart	1955	R. C. K. Laffan	1555
H. J. Barnes	1930	C. A. P. Mitchell	1555
R. H. S. Sawyer	1930	G. J. Coates	1550
W. G. A. Bedford	1920	G. W. H. Cook	1545
R. Jennings	1910	T. B. A. Tuckey	1535
S. C. B. Robinson	1880	F. A. Harris	1515
H. S. Parker	1840	C. B. Lewis	1500
T. F. W. Fogarty	1825	T. H. Parke	1450
R. W. Ford	1825	F. A. B. Daly	1445
G. J. Coutts	1820	A. S. Rose	1445
A. Sharpe	1800	D. L. Porter	1430
C. L. Young	1800	J. Battersby	1425
C. Reid	1780	J. Maconachie	1415
W. J. Baker	1770	A. H. Morgan	1405
A. T. Sloggett	1755	C. H. Dixon	1400
R. R. K. Elmes	1715	T. Moyniban	1375
H. K. Allport	1700	M. W. O'Keeffe	1370
E. Butt	1680	T. J. O'Donnell	1360
S. Townsend	1680	J. Osburne	1355
T. H. P. Woodhouse	1675	H. E. R. Wolrige	1355
J. Gibson	1650	R. P. Hetherington	1315
J. H. A. Rhodes	1625	R. C. Johnston	1295
A. Hickman	1620	T. A. Dixon	1270
T. C. Nugent	1620	W. C. T. Poole	1250
G. S. Lewis	1610		

INDIAN MEDICAL SERVICE. — The following is a list of candidates for commissions as Surgeons who were successful at both the London and Netley examinations held on Feb. 7th. The marks given are the total number gained by them at both the London and Netley examinations:—

	Marks.		Marks.
*G. M. J. Giles	5410	F. S. Peck	3890
A. R. W. Sedgefield	5017	K. H. Mistri	3800
J. L. Vangeyzel	4953	W. Deane	3785
A. F. Ferguson	4540	P. De Conceiçao	3715
E. F. H. Dobson	4305	G. E. Fooks	3657
†J. Shearer	4275	K. C. Sanjana	3615
S. Hassan	4230	J. W. T. Anderson	3555
R. J. Polden	4135	H. M. Hakim	3552
H. C. Banerji	4070	J. A. Burton	3550
H. N. V. Harington	4007	F. J. Doyle	3520
S. C. Nandi	3920	M. J. Kelawala	3514
G. M. E. McKee	3918	P. H. W. Boon	3430
A. H. Pierson	3895	M. P. Kharegat	3280

* Gained the Herbert Prize and the Parkes Memorial Bronze Medal.
† Gained the Maclaine Prize in Military Surgery.

NAVY MEDICAL SERVICE. — The following is a list of candidates for commissions as Surgeons who were successful at both the London and Netley examinations held in the present month:—

	Marks.		Marks.
W. J. Christie	3630	G. F. Wales	3150
J. J. Dinnis	3390	M. V. Stace	3030

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 3rd:—

Dunlop, James Hay, Upper Norwood.
Gabe, John Bernard, Morriston, near Swansea.

The following gentleman also on the same day passed his Primary Professional Examination:—

Cranstone, William Lefevre, University College.

At the Arts Examination recently held the following gentleman passed in the Second Class:—

Wakeham, Charles Henry.

GUY'S HOSPITAL.—Sir Richard Cross has just been elected a Governor of this institution.

ROYAL COLLEGE OF SURGEONS.—The library of this institution will be closed this day (Saturday), Monday, and Tuesday.

IT is proposed to establish a Cottage Hospital at Southend, and a provisional committee has been formed for the purpose of collecting subscriptions.

THE collections on Sunday, the 30th ult., in the churches and chapels of Hastings and the neighbourhood on behalf of the local medical charities amounted, so far as at present ascertained, to £401 12*s.* 1*d.*

SUPERANNUATION ALLOWANCES.—The following Poor-law medical officers have received superannuation allowances: Mr. J. E. M. Williams, lately of the Blean Union, £50; Mr. Edward Bates, lately of the Cardiff Union, £30; Mr. T. Collingwood, lately of the Rochdale Union, £75.

AT the annual meeting of the subscribers to the City of London Truss Society, last week, it was stated that since the foundation of the institution in 1807, 369,515 patients had participated in its benefits. The income during the past year had been £4780, and the expenditure £4718.

CARDIFF MEDICAL SOCIETY.—At the annual meeting the following gentlemen were elected officers for the present year:—President: Dr. M. G. Evans, Vice-President: Dr. Thomas Wallace. Committee: Messrs. Hardyman, Campbell, Buist, and Treharne. Honorary Secretary and Treasurer: Mr. T. Garrett Horder.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Mr. W. E. Baylie, of the Fourth District of the Blything Union. Mr. P. B. Stoney, public vaccinator for the Millom district of the Bootle Union (third time).

AT the annual meeting of subscribers to the Dewsbury and District General Infirmary it was stated that the project for erecting new buildings for the charity was making satisfactory progress. The amount in hand and promised has reached nearly £8000. It is expected that the work will have sufficiently advanced to allow of the corner-stone being laid in the coming spring.

ULSTER EYE, EAR, AND THROAT HOSPITAL.—During the past year the number of new patients treated amounted to 1949, which included 146 admitted to the wards of the hospital. Of the extern patients, 1295 paid a fee of one shilling, while 654 were treated without charge. The Managing Committee have also endeavoured to carry out the same principle in the intern department; some patients being admitted free; but the majority are paid for principally by the unions to which they are chargeable, and by these means a sum exceeding £200 has been obtained.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The thirty-third annual meeting of this Association was held at the Grosvenor Hotel on Friday, the 28th January, 1881. The report of the committee showed the growing prosperity of the Association, there now being 121 members. It was stated that the first annual dinner was held on the 25th ult., Dr. Simpson, President, in the chair. The attendance was large, and included visitors from Liverpool, Blackpool, Bolton, Oldham, &c. The following is a list of office-bearers for 1881:—President: Dr. John Roberts. Vice-Presidents: Drs. Henry Simpson and Thorburn, Messrs. Dacre Fox and R. B. Smart. Treasurer: Dr. Joseph Stone. Secretaries: Dr. A. Wahltuch and Mr. J. Broadbent. Committee: Drs. Addy, Ashby, Barlow, A. M. Edge, J. S. Fletcher, A. Emrys-Jones, Ledward, Mallett, Peatson, Pierce, Ward, and Mr. Cullingworth.

AT the Liverpool County Court a tradesman was fined £5 with costs for having used the title of "druggist," he not being registered. The action was brought under the Pharmacy Act by the Council of the Pharmaceutical Society.

PROFESSOR PARKER, F.R.S., commenced his annual course of lectures on the Structure of the Skeleton in the Sauropsida, in the theatre of the Royal College of Surgeons, on Wednesday the 2nd inst. The following is his programme of the nine lectures:—Lecture 1: The principal points in the Classification and Development of the Sauropsida. 2: Lizards. 3: Snakes. 4: Turtles. 5: Crocodiles. 6: Extinct Reptiles and Birds. 7: Struthious Birds. 8 and 9: Carinate Birds.

AT the sixth annual meeting of the Glasgow Association for the Relief of Incurables it was stated that since the formation of the Association in 1875 no fewer than 519 persons had enjoyed its life benefits. The income for maintenance purposes for 1880 was £3496, the expenditure £3570. This charity, being one of the few medical charities which do not rob medical men of their patients by providing gratuitous relief for those who do not require it, is worthy of the most hearty support.

HOSPITAL SUNDAY FUND.—On Monday afternoon a meeting of the Council of the Hospital Sunday Fund was held at the Mansion-house under the presidency of the Lord Mayor, M.P. A donation (the second) of £105 from the trustees of the late Mr. James Drew was announced. Sir E. H. Currie and Mr. R. B. Martin, M.P., were unanimously reappointed honorary secretaries, and Mr. Henry N. Custance secretary of the Fund. The General Purposes Committee and the Committee of Distribution were re-elected, and the meeting, which was simply formal, closed with a vote of thanks to the Lord Mayor for presiding.—A denominational analysis of the Metropolitan Hospital Sunday Fund, published by one of the religious journals, goes to show that of the £28,000 received at the Mansion House in 1880, nearly £22,000 was contributed by congregations of the Established Church, £500 by the Roman Catholics, £2000 by the Independents, and £1100 by the Baptists.

GLASGOW EYE INFIRMARY.—The fifty-seventh annual report of this institution states that in the year 1880 the number of cases dealt with was 9521, being 707 more than during the previous year. Of these, 4899 were dismissed cured by ordinary treatment, and 839 cured by operation; relieved by ordinary treatment 847; by operation 125; dismissed incurable 34. Thus it seems that no less than 85 per cent. of those passing through the institution had been completely cured either with or without operation, while 14 per cent. had been relieved, leaving barely one per cent. sent out as incurable. The financial position of the institution had also improved, an increase of income from every source being noted. This increase is specially noticeable in the artisans' subscriptions—a very pleasing fact, as it shows that the class for whose particular benefit the infirmary was established continues to appreciate its value.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ABBOTT, C. E., M.R.C.S.E., L.K.Q.C.P.I., has been appointed Medical Officer of Health to the Braintree Union Rural Sanitary Authority, at a salary of £150 per annum, until December 25th, 1883.

BATTERHAM, J. W., M.R.C.S.E., has been appointed House-Physician to the Royal Hospital for Diseases of the Chest, City-road, vice W. H. Jessop, M.B., resigned.

BEALE, E. C., M.A., M.B., M.R.C.P., has been appointed a Physician to Out-patients at the Great Northern Hospital, vice Dr. Ormerod, resigned.

BLANDFORD, J. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Norton District of the Stockton Union, vice Murray, resigned.

BLUNT, T. P., F.C.S., has been reappointed Public Analyst for the County of Montgomery.

BOTT, H. S., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Manchester Royal Infirmary.

CADMAN, A. W., M.R.C.S.E., has been appointed House-Surgeon to the Manchester Royal Infirmary.

CARTER, D'ARCY B., M.R.C.S.E., L.R.C.P.Ed., has been appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

CLARKE, W. B., F.R.C.S., Demonstrator of Anatomy at St. Bartholomew's Hospital, has been appointed Surgeon to the West London Hospital, Hammersmith.

DALE, F., M.B., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Manchester Royal Infirmary.

DOWDING, A. W. W., M.B., M.S., L.R.C.P., M.R.C.S.E., has been appointed a Clinical Assistant at the London Hospital.

DUKE, A., M.D., M.R.C.S.E., has been appointed Honorary Medical Officer to the Folkestone Infirmary and Dispensary.

FROST, W. A., F.R.C.S., has been appointed Assistant Ophthalmic Surgeon to St. George's Hospital.

GRAY, J. A., M.A., M.D., M.R.C.P.Ed., has been appointed a Visiting Medical Officer to the Leith Hospital, Edinburgh, vice R. Macnair, M.D., resigned.

GRIMWOOD, H. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health to the Pontefract Urban Sanitary Authority, vice Atkinson, whose appointment has expired.

HARVEY, Mr. S., has been reappointed Public Analyst for the Borough of Sandwich.

HATCH, W. K., M.B., C.M., Surgeon, Bombay Army, has been appointed Professor of Pathology in the Grant Medical College, Bombay.

JACOBS, H. R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Third District of the Brackley Union.

LITTLE, J., M.D., F.K.Q.C.P.I., L.R.C.S.I., has been appointed Consulting Physician to the Rotunda Hospital, Dublin.

PAYNE, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed House-Physician to the Manchester Royal Infirmary.

PEDDIE, A., M.D., F.R.C.P.Ed., has been appointed Consulting Physician to the Edinburgh Dental Hospital, vice Sanders, resigned.

PICKFORD, J. K., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant House-Surgeon to the Liverpool Dispensaries, vice Dr. J. E. Hiffernan, resigned.

RICHARDSON, C. S., L.K.Q.C.P.I., L.R.C.S.Ed., has been appointed Medical Officer for the Austrey District of the Tamworth Union.

STEELL, G., M.D., M.R.C.P.L., has been reappointed Resident Medical Officer to the Manchester Royal Infirmary.

STREET, A. F., M.A., M.B., M.R.C.S.E., has been appointed Junior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester.

WATSON, F. S., M.R.C.S.E., L.S.A.L., has been appointed Resident Obstetrical Officer to Charing-cross Hospital, vice W. J. Clarke, resigned.

WILCOX, R. W., M.R.C.S.E., L.S.A.L., has been appointed Honorary Surgeon to the Buckinghamshire General Infirmary, vice R. Ceely, deceased.

WILKINGTON, G. H., M.R.C.S.E., has been appointed House-Surgeon to the Manchester Royal Infirmary.

Births, Marriages, and Deaths.

BIRTHS.

BUSHE.—On the 29th ult., at Lower Leeson-street, Dublin, the wife of Cecil J. L. Bushe, Esq., M.B., Army Medical Department, of a son.

MURRAY.—On the 22nd December, at Idlewild, Hongkong, the wife of Surgeon-Major Murray, Army Medical Department, of a son.

REID.—On the 30th ult., at 12, Bridge-avenue, Hammersmith, the wife of John Reid, M.D., of a son.

SUTCLIFFE.—On the 7th ult., at Burnley, Lancashire, the wife of Alfred Sutcliffe, F.R.C.S., of a daughter.

YOUNG.—On the 31st ult., at Rose-bank, Merton-road, Bootle, near Liverpool, the wife of T. Frederic Young, L.K.Q.C.P.I., M.R.C.S.E., of a daughter.

MARRIAGES.

HUTCHINSON—WOOD.—On the 20th ult., at Christ Church, High Harrogate, S. J. Hutchinson, M.R.C.S.E., of Brook-street, Grosvenor-square, to Jeannie, youngest daughter of G. Wood, Esq., of Grosvenor Villas, Harrogate.

NEALE—CARSTENS.—On the 29th December, 1880, at St. Andrew's, Port Nolloth, Namaqualand, by the Rev. C. E. Jones, John Edward Neale, Surgeon, eldest son of Dr. Richard Neale, of South Hampstead, London, N.W., to Ellen Marie, second daughter of Captain R. Carstens, of Port Nolloth. No cards. Foreign papers, please copy.

RENTOUL—ISHERWOOD.—On the 5th inst., at the Pro-Cathedral Church, Liverpool, Robert Reid Rentoul, M.D., M.R.C.S., of Ballymoney, County Antrim, to Laura Constance, elder daughter of the late R. R. Isherwood, Esq., of Guisnes Court, Essex.

SANDWELL—LLOYD.—On the 9th inst., at the Parish Church, Thurles, co. Tipperary, by the Rev. Canon Harley, M.A., assisted by the Rev. C. S. Cooke, Rector, Edward Sandwell, L.R.C.P. & M.R.C.S.E., of Charles-street, Soho-square, W., to Eliza, second daughter of C. H. Lloyd, Esq., J.P., of Lisheen Castle, Templemore, co. Tipperary, Ireland. No cards.

DEATHS.

AITCHISON.—On the 3rd inst., at 8, George-square, Edinburgh, George Aitchison, M.A., M.D., F.R.C.P.E.

CAHILL.—On the 6th inst., at 26, Albert-gate, Hyde-park, after a protracted illness, Thomas Cahill, M.D. R.I.P.

DONALD.—On the 4th inst., at his residence, Sydney-place, Bath, after a long and painful illness, John Donald, F.R.C.S.E., Deputy Inspector-General of Military Hospitals, and formerly of Her Majesty's 24th Regiment.

HAYDEN.—On the 2nd inst., at Frogmore House, High Wycombe, William Henry Hayden, M.R.C.S.E., aged 68.

OLDHAM.—On the 5th inst., at West Hartlepool, R. Oldham, F.R.C.S.E.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 10th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 4	29·46	S.W.	48	47	..	51	45	·01	Overcast
,, 5	29·40	W.	46	43	..	50	43	·03	Overcast
,, 6	29·94	N.W.	36	33	..	42	32	..	Bright
,, 7	30·07	S.	34	33	..	49	29	..	Foggy
,, 8	29·21	W.	48	45	..	51	32	·36	Cloudy
,, 9	29·75	N.W.	45	42	..	51	42	·01	Cloudy
,, 10	29·04	S.W.	51	50	..	53	39	·30	Cloudy

Medical Diary for the ensuing Week.

Monday, Feb. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. Francis Hueffer, "On the Troubadours."

MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Gilbart Smith will exhibit a Specimen of Stricture of the Œsophagus due to Malignant Disease.—Mr. Royes Bell will show a Case of Atrophy of Testicle following a Blow.—Mr. J. C. Wordsworth, "On Defects of Sight said to be due to Railway Accidents."—Dr. J. Milner Fothergill, "On the Prospects of Cases of Valvular Disease of the Heart."

Tuesday, Feb. 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Series of Specimens of Tubercular Disease of Joints; Specimens of Synovial Tuberculosis; Abscess of the Liver; Congenital Truncation of Forearm; Unilateral Hypertrophy of Head and Face; Tumour of Spinal Cord; Degeneration of the Breast; Sacral Tumour containing Fœtal Structures; Congenital Sacral Tumour (card); Cystic Disease of Kidneys and Liver.

Wednesday, Feb. 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—7.45 P.M. Council Meeting.—8½ P.M. Mr. T. Edgelow, "On Casual Communications."

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. Sedley Taylor, "On the Participation of Labour in the Profits of Enterprise."

Thursday, Feb. 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Pauer, "On Drawing-room Music."

HARVEIAN SOCIETY.—8½ P.M. Dr. Woakes, "On Cases of Laryngeal Disease."—Dr. Cheadle, "On the Treatment of Empyema."

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC. — 5 P.M. Dr. J. Hughlings Jackson, "On Clinical Varieties of Hemiplegia."

Friday, Feb. 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

ROYAL INSTITUTION.—8 P.M. Sir John Lubbock, "On Fruits and Seeds."

Saturday, Feb. 19.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Ancient Egypt."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE REGISTRAR-GENERAL AND MEDICAL OFFICERS OF HEALTH.

A MEDICAL OFFICER OF HEALTH informs us that he recently applied to the Registrar-General asking to be supplied with information for use in the compilation of his annual report, and was refused on the ground that, owing to the number of such applications, he (the Registrar-General) finds it impossible to supply such information by letter in anticipation of the publication of his official returns. Bearing in mind that there are now about 1600 sanitary districts, and nearly as many medical officers of health in England and Wales, we cannot agree with our correspondent that this decision is unreasonable. We have turned to the Registrar-General's Quarterly Return, published last week, and find the information required by our correspondent. The birth-rate in England and Wales during 1880 was equal to 34·6, and the death-rate to 20·7 per 1000 of the estimated population.

A Constant Reader.—1. It depends wholly upon the action of the guardians, but we should think not.—2. We should suppose that the retention of the one appointment would militate against the superannuation allowance of the other.

Dr. H. M. Thompson.—Our correspondent is referred to Child's "Essays on Physiological Subjects" and to Ribot on "Heredity."

W. C. H. (Liverpool).—We are not aware that any observations have been made on this subject.

THE MORRIS FUND.

To the Editor of THE LANCET.

SIR,—Will you do me the favour to acknowledge in your next issue the receipt of the following sums on behalf of Mrs. Morris, for whom an appeal was made in your journal of the 5th inst. :—

A Surgeon, London, £5; Dr. and Mrs. Tuckwell, Oxford, £3 3s.; A. Steadman, Esq., Great Bookham, £1; W. Y. Martin, Esq., Walkden, 6s.

I am, Sir, yours very truly,

Ewell, Surrey, Feb. 9th, 1881. GEO. R. BARNES, M.D.

CHIAN TURPENTINE IN CANCER.

To the Editor of THE LANCET.

SIR,—Allow me just to mention, in reply to Dr. R. Neale's strictures in THE LANCET of Saturday last, that in the case of Mrs. C—— (which I recorded in the issue of January 22nd) the strychnine and iron mixture was not prescribed until she had been taking the Chian turpentine for fully three weeks. The improvement commenced within one week of the turpentine treatment, and was very marked, "the sleep and appetite returned, and the pain vanished." I simply ordered the strychnine and iron as nervine tonic and blood restorer, but relied chiefly on the Chian turpentine all through the case.

It is only a supposition on Dr. Neale's part that pain ceased because some sensitive nerves were destroyed or pressure removed by the breaking down of the mass. All I can say is that the poor woman began to get relief when she commenced the turpentine treatment, which, in my estimation, was more than a mere "coincidence," and fully persuaded me that we have in Chian turpentine a therapeutic agent of some power in at least giving great relief in the sufferings of cancer.

I am, Sir, yours truly,

H. A. ALLBUTT, M.R.C.P.E., &c.

Park-square, Leeds, Feb. 7th, 1881.

Mr. Oswald Orton.—There is no London agency for Hartnack's microscopes. Our correspondent must write to Messrs. Hartnack and A. Prazmowski, 1, Rue Bonaparte, Paris.

Dr. Byrom Bramwell's letter is, owing to its length, unavoidably held over till next week.

ANIMAL LIGATURES.

DR. J. L. NEILSON, of the Brooklyn Naval Hospital, contributes to the *New York Medical Record* the following historical note extracted from a southern professional journal dated September, 1847 :—

"Dr. W. S. Wragge, in a paper on the use of animal ligatures, states that he has been in the habit of using these ligatures for upwards of ten years, and for several years he has used none but these. In the course of this period he has tied the arteries of the fingers, hand, forearm, arm, leg, and thigh, and he has never seen any symptom result from which he could infer that the knot had not been removed by absorption. From the facts he has observed he deduces the following inferences : 1st, that the deer-sinew ligature, if properly applied, will effectually arrest hæmorrhage from vessels even of large size ; 2nd, that they produce less inflammation of the living tissues with which they are placed in contact, during the time they remain as foreign bodies in these tissues, than other substances ; 3rd, that they are susceptible of being absorbed and carried away by the action of the living parts in the midst of which they are placed."

DESQUAMATION AFTER SCARLET FEVER (?)

To the Editor of THE LANCET.

SIR,—My son is at a large public school near London. He was to have returned home for his Christmas holidays on the 20th of Dec. last, but on the 19th of Dec. I received a letter from the head-master, saying that on the previous day (Dec. 18th) he was found to be suffering from scarlatina, and, very properly, had been placed in the infirmary attached to the school, and of course could not be removed. I proceeded to the school at once, and saw the medical gentleman attending him, who informed me that the attack was unusually light, that there was an entire absence of fever, and that it was with the greatest possible difficulty he could detect any eruption. To my surprise I received a certificate from his medical attendant on Dec. 29th, stating "that my son might be permitted to join his friends on Saturday, the 8th of January, without the slightest risk to anyone." Notwithstanding this very decided opinion I followed the advice of medical friends, and, considering that the 8th of January was only three weeks from the date of the attack, and the other members of my household never having had this fever, I removed him to the seaside, and placed him suitably. On the 26th of January he was to have returned to school, and on the 24th, being at the same place where he was staying, in consequence of some representations made by the matron of the house he was in, I requested a very experienced and conscientious medical gentleman to inspect him and report to me his condition. Having done so, he told me he was actually peeling, and, of course, in an infectious state, and he confined him to the house, and forbad my daughter or myself to come in contact with him. Having communicated this to the head-master as an excuse for his not returning to school, he replied that he wished for my medical man's name, as he, not unnaturally, wished for his own sake to know the facts of the case.

You would much oblige me if you would publish the three letters which have passed between these medical gentlemen, of course omitting names and addresses, as I should be glad to learn from the general opinion of the faculty whether under any circumstances a person could be pronounced safe from disseminating scarlet fever infection three weeks after first being attacked, and more especially when no desquamation of the cuticle had taken place, before he was pronounced to be safe; and whether Mr. W—— had any justification for saying that the undoubted desquamation which took place six weeks after the boy was first attacked "was not the result of the scarlatina for which he had been under treatment." I enclose my name and address for your private satisfaction, and I remain, Sir, your obedient servant,

Feb. 5th, 1881. ENQUIRER.

[COPY.]

DEAR SIR,—Six weeks ago a pupil at —— College, of the name of ——, showed symptoms of scarlatina. The usual precautions were taken by me as medical officer of the college, and in due time the boy was permitted to return home after thorough disinfection. Having been informed that you have seen the lad within the last few days, and that you pronounce him to be still in an infectious state, I write to ask you if such is really stated by you, or whether, as I believe, there is not some misunderstanding respecting your opinion.

I am, dear Sir, yours very faithfully,

January 29th, 1881. ——.

DEAR SIR,—On the 24th of January I was requested by Mr. —— to call and see his son, who was said to be showing symptoms of desquamation. I had not seen him previously, and finding that such was undoubtedly the case, I recommended that he should be isolated, as well as kept indoors during the cold weather which has been prevalent.

I am, dear Sir, yours faithfully,

February 1st, 1881. ——.

DEAR SIR,—Thanks for your letter respecting young ——. I must be allowed to say, however, that when the lad left here, after three weeks' isolation (which began six weeks before you saw him), there were no signs whatever of desquamation of the cuticle. I must, therefore, give it as my opinion that, whatever may be visible now is not the result of the scarlatina for which he was under treatment here. I repeat that there was an entire absence of "fever" in the case—indeed, so mild was it that it was only owing to the great vigilance of our matron that it was brought under notice. The boy never suffered in the least, and it was with much difficulty I could detect any eruption.

I remain, dear Sir, yours faithfully,

February 2nd, 1881. ——.

EXPOSURE OF PERSONS SUFFERING FROM INFECTIOUS DISORDERS.

WE take the following from the *Local Government Chronicle*:—

"'Subscriber' writes:—'A domestic servant, aged fifteen, convalescent from scarlatina, but still in the infectious stage (as can be proved by two medical men who saw her after her arrival home), is sent a journey of over fifty miles by rail. Her removal was sanctioned by her employer's medical man, who had attended the girl. She was sent by her mistress, in charge of her mother, who was willing to take her. Will you advise your opinion—1. Was the exposure "wilful," after the medical man in attendance had sanctioned her removal as "safe"? 2. By whom should proceedings be instituted—the sanitary authority in whose district the station from which she started is situated, or that of the district to which she came; or by the railway company? 3. Against whom should proceedings be taken?'

"*Answer.*—We do not consider that in such a case a conviction under section 126 of the Public Health Act could or should be obtained. The case contemplated by that section is that of a person who, whilst knowing that he is suffering from a disease which is dangerous and infectious, exposes himself without proper precautions against spreading the disorder. Upon whom was the person, in the case referred to, to rely as to whether she could properly expose herself during the journey, if it was not the medical man who attended her during her illness? We can see no reason why the patient or any other person should be prosecuted for acting in good faith on the view of the medical man that her removal was 'safe,' which would necessarily mean, having regard to the disease from which she had been suffering, safe as regards the public as well as herself."

"BOOTS."

To the Editor of THE LANCET.

SIR,—In a very useful annotation on the subject headed "Boots" you call attention to the necessity of specially protecting the feet from the inclemency of the late severe weather, and recommend not only that boots should be of superior make and finish, but urge that the soles should be protected by hobnails and the uppers by dubbing. To a vast majority the former would be inapplicable, to few less so than to medical men, who would find hobnails, as a rule, very inconvenient, but who have often to sit for hours in a cold room after having trudged through the inclement weather; and it is because you are either unaware or have overlooked the claims of one material well adapted to meet the views you advocate that I call your attention to the fact, that, in my opinion at least, for such a purpose nothing answers all purposes better than vulcanite. This material I used for upwards of twelve months, and am doing so still, and can speak most highly as to its protective qualities. It is light and elastic, and wears better than leather. It was first introduced in the shape of a complete sole, but after being patented was found difficult to attach *it* to an upper, in consequence of which the patentee failed, when the stock was bought up by a few firms, one of whom was Saunders of Eastbourne, who used the material to clamp the soles of boots with, and as such I have used them for the period specified. If its merits were advocated it could be made to cover the whole sole, instep, &c., by having a thin part to cover the instep and heel; over the latter part a leather heel could be fastened, and this would keep it entirely in its place. Nothing is more pleasant to walk on, and it makes very little noise in going up an uncarpeted stair. As to dubbing, nothing answers better as protection to uppers than a composition of linseed oil, Barbadoes tar, and beeswax, well rubbed in over-night. It not only protects the uppers against the absorption of damp, as well as preserves the stitches when well rubbed into the seams, but is effective even in protecting from sea water. Having for many years spent my holiday in the hobby of marine zoology, I had one pair of boots for many years which for a month yearly were daily immersed in the sea water, and for which I used the above preparation. At last they came to grief by fire, not water. Pray consider the claim of vulcanite, &c., and endeavour to procure us another supply. It is a great boon to country doctors.

I am, Sir, yours obediently,
Feb. 2nd, 1881. GEO. MUNDIE.

To the Editor of THE LANCET.

SIR,—Allow me to supplement your very seasonable and sensible remarks on "Boots" by a hint how to make the "absorbent sole" non-absorbent. Having worn a new or newly-soled pair of boots for a few days to wear off the smooth surface of the leather, let them be perfectly dried, and every particle of dirt removed. Then with a small brush paint the sole and round the edges and seams with a good coating of common oak varnish; place them before a fire for a few minutes until the varnish dries in; repeat the process until the leather will absorb no more, and in a few hours they will be ready for wear.

If any of your readers will try the above plan they will be amply repaid for the very little trouble and expense. The soles will wear nearly as long again, and will not become soft or spongy, however long they may be worn, in snow or mud. I am, Sir, yours faithfully,
Feb. 4th, 1881. J. B.

Mr. R. F. Stockdale (Baltimore).—We do not prescribe.

Medicus.—The phenomenon is a common one in cases of partial loss of sexual power, and probably depends on the increased action of the spinal reflex centres during sleep, which are only weakened, not "destroyed." It has no diagnostic or prognostic significance.

D. F.—Any qualified medical practitioner would advise in the case.

BACTERIA IN THE CHOROID.

To the Editor of THE LANCET.

SIR,—This interesting discovery, which forms the subject of an annotation in your issue of 29th ult., lends support, and is my excuse for referring to an observation and suggested explanation which I submitted to your readers in a short note on "Muscæ Volitantes" (THE LANCET, May 4th, 1878). After some remarks on "the familiar riband-and-medallion-like form," I invited attention to "a distinct variety of muscæ suggestive of the presence of animalcules in the fluids of the eye, which I become conscious of when gazing steadily at a moderately bright patch of blue sky or homogeneous grey cloud. It consists of numerous minute shining points in unceasing choreic movement." I would now add that my eyesight has always been of the best; that I can at any time see these muscæ under favourable conditions of light, which must be daylight, and not such as to induce any sense of retinal fatigue, and that the character of their movements has confirmed me in my belief that they are microscopic organisms inhabiting the vitreous humour.

I do not grudge them the use of my globes, but trust none of their congeners will invade my cochleæ and semicircular canals, for though an admirer of the dance, I am no lover of dance-music.

I am, Sir, your obedient servant,
Islington, Feb. 6th, 1881. WM. MCLAURIN.

A Junior.—Announcement is only proper in the case of a provident dispensary, duly organised, and managed by a committee. The rules of the Northampton Dispensary are perhaps the best.

Mr. Jas. Wm. Smith (Doncaster).—Yes.

Inquirens.—The use of the title on such qualifications is misleading and indefensible.

FOREIGN BODY IN THE INTESTINES.

To the Editor of THE LANCET.

SIR,—The following case may prove of some professional interest:—W. G——, a soldier's son, aged ten years, had a fall last September, and in the effort to recover himself swallowed a pin which he happened to have in his mouth. He appears to have forgotten the circumstance soon afterwards, and continued in good health until the 23rd of January following, when he came under treatment for slight tenesmus and pain on defecation, symptoms which were relieved by a dose of castor oil. On the 27th he thought he felt a bone in the lower bowel, and an examination then revealed a sharp-pointed black pin, about 1¼ inch long, which had passed through the rectum, and was piercing the skin half an inch to the right of the anus.

Two days after the removal of the pin the parts were healed and the lad well—in fact, with the exception of the slight symptoms above mentioned, he suffered no apparent inconvenience from the four months' passage of the pin through his alimentary canal.

I am, Sir, yours truly,
Devonport, Feb. 4th, 1881. HENRY O'BRIEN, M.B.,
Surgeon-Major, A.M.D.

"MULTIPLE LIVER ABSCESS IN CONNEXION WITH DYSENTERY."

To the Editor of THE LANCET.

SIR,—In THE LANCET of January 8th, 1881, an interesting case of multiple liver abscess is communicated by Dr. Henderson of Shanghai. He concludes his instructive remarks by saying that he believes that Dr. Macleod and himself were the first to apply antiseptic precautions to the surgical treatment of liver abscess.

In the *Practitioner* for October, 1876, will be found a record of the antiseptic treatment of liver abscess, which Dr. Henderson has evidently not seen. I believe the date to be correct, but cannot verify it, as I am at present travelling in the south of Spain. At the same time I do not think that the matter of priority in this operation is of much importance, seeing that we are only humble travellers in the path pointed out to us by Prof. Lister.

I am, Sir, your obedient servant,
J. DICKSON HUNTER, M.D. Edin.
Malaga, Spain, Feb. 2nd, 1881.

"FOREIGN BODY IN THE EAR."

To the Editor of THE LANCET.

SIR,—Dr. White's cockroach in the ear reminds me of a child's ear stuffed with maggots, brought to me in my practice in Australia. Probe or forceps were no use, as they eluded the grasp, so I merely dropped into the ear a little spirits of turpentine, when the vermin wriggled out as fast as their contortions would enable them. They swim comfortably in prussic acid, but a drop of chloroform kills them immediately. I am, Sir, yours truly,
Feb. 5th, 1881. ALMER.

Dr. Francis E. Carey.—We could not go into details without having the other side of the question before us. There are ample rules, written and unwritten, for the guidance of partners and other medical men.

Dr. Wynn Williams' paper will be published in an early number.

Mr. H. J. Jones.—We must decline to take part in the discussion.

Appetitus rationi pareat.—We cannot say that a public appointment should be so regarded.

CHLORAL IN LABOUR.

A Subscriber, M.D., desires to be informed of the way and doses of giving hydrate of chloral in labour.

W. B. Roué, M.B., M.S.—The announcement appeared in THE LANCET of Jan. 29th.

Mr. B. Bell may refer to THE LANCET of June 7th, 1879, for information on the point.

TRACTION IN JOINT DISEASE.

To the Editor of THE LANCET.

SIR,—If you think the following case, from its apparent rare occurrence and its other surroundings, worthy a place in your columns, it is at your service:—

In 1878 a young gentleman (then in his fifteenth year) came home from school for his Midsummer holidays with a slight lameness referred to the right leg. The opinion and advice of one of the most eminent consulting surgeons in the metropolis were promptly sought, and the case was pronounced by him to be "scrofulous disease of the hip-joint." The prognosis unfavourable. The treatment recommended was perfect rest and a weight of seven pounds appended to the ankle by means of a cord passing over a pulley attached to the foot of the bed. It is not necessary I should enter into details concerning the progress of the disease from the above date to the present further than that it promises to end as favourably as could be hoped, with a shortening of the limb to the extent of little less than two inches. About two months ago, however, I discovered (quite by accident) that there was free motion in the upper part of the tibia, just below the knee-joint, and on a more close examination I discovered that it arose from a separation of the tibia from its epiphysis. Under the circumstances the first and most important thing to do, as it occurred to me, was to remove the weight, which obviously appeared to me to have been the sole cause of the mischief, and to treat the case in other respects as one of common or simple fracture. But from the uncertainty as to the length of time this condition might have existed, I felt doubtful as to the issue, and hence thought that, in addition to the other means adopted, it might be advisable to apply friction to the separated parts. This, however, in view of the patient's diathesis, I did not think proper or prudent to adopt on my own responsibility, and, with the sanction of the father, I went to London, and reported the complication to the same eminent gentleman who had been consulted before. On my stating the case to him, he appeared somewhat astonished, and, as it seemed to me, incredulous as to the possibility of such an event taking place, except, as he added, from disease or injury, and said emphatically that in a practice of forty years, "he had never seen such a case, that he had never heard of such a case, nor had he ever read of such a case." He also denied as emphatically that the action of the weight could have had anything to do in the case. From this, however, with due deference to so high an authority, I must beg leave to differ, and for the following reasons:—First, then, it appears obvious to me that the almost continuous traction exercised by such an appendage to the leg must (in a constitution such as the patient's) sooner or later have the effect of elongating the lateral ligaments of the knee-joint, and hence it would follow either that the bones constituting the joint must be separated or the tibia from the epiphysis. So far I grant that the former would be the more likely to happen, but the strong anterior crucial ligament within the joint already in a state of tension from the extended position of the limb would at once be in the best condition to offer resistance to a separation at the joint. It is evident, then, if anything yielded to the traction, it must be the union between the epiphysis and the tibia, as it did in this case unquestionably. The very rare occurrence of such a case, as exemplified in the remarks of the gentleman to whom I have alluded, gives it some interest, and must be my excuse for troubling you with it. In conclusion, I am rejoiced to be able to report that union has taken place between the separated parts, and that all is going on well.

I am, Sir, yours faithfully,

Jan. 1881. M.R.C.S., &c.

STOCKWELL SMALL-POX HOSPITAL.

THE statement respecting the spread of contagion from this hospital, referred to in THE LANCET of the 29th ult., was made in the course of the trial of the Hampstead Hospital case before Baron Pollock.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Byrom Bramwell, Edinburgh; Professor Longmore, Netley; Mr. O. Orton; Mr. Redmond, Gateshead; Dr. M. Duncan, London; Dr. Playfair, London; Dr. Duffey, Dublin; Mr. Judge, London; Dr. Macnaughton Jones, Cork; Mr. W. H. Smith, Birmingham; Dr. Lownds, Egham; Dr. Fentem, Bakewell; Dr. Morris, Cabul; Dr. Sweeting, London; Messrs. Worth and Co.; Mr. Stockdale, Baltimore; Dr. B. Fenwick, London; Dr. Mundie, Hessle; Dr. Dunkley, Balham; Mr. Karkeek, Torquay; Mr. Soper, London; Mr. McLaurin, London; Mr. Sutton, Sittingbourne; Mr. J. Williams, Brentford; Mr. J. Startin, London; Dr. Carey, Guernsey; Mr. Hill, Tottenham; Surgeon-Major H. O'Brien, Devonport; Mr. H. I. Jones, Scranton, Pa.; Dr. Hunter, Malaga; Mr. Berry, Wigan; Mr. Jalland, York; Mr. J. W. Dryland, Kettering; Dr. Gutteridge, Maldon; Mr. Doherty, Birmingham; Dr. Shears, Isleworth; Mr. H. White, London; Messrs. Street and Co., London; Mr. H. C. Fox, London; Mr. Jackson, Somerby, Datcham; Mr. H. Knowles, Leeds; Mr. E. Vitali; Dr. Newcombe, Gateshead; Mr. A. E. Chitty; Dr. Hawkes, St. Faith's; Dr. Beckett, London; Mr. H. A. Allbutt, Leeds; Mr. H. Smith, London; M. Lœflund, Stuttgart; Dr. W. S. Thompson, Peterborough; Messrs. Baildon and Son, Edinburgh; Mr. Davas, Liverpool; Mr. Fitchett, Edinburgh; Messrs. Douglas and Mason; Messrs. Harvey and Reynolds, Leeds; Mr. Jesse, Macclesfield; Mrs. Jackson, Sheffield; Mrs. Theobald, Leicester; Dr. McLeon, Broughton-in-Furness; Mr. G. B. Thomas, London; Mr. Harrison, Liverpool; Mr. Smith, Brighton; Mr. De Fraine, Aylesbury; Professor Lister, London; Mr. Easty, London; Dr. Reid, Newbiggin-by-Sea; Dr. Smart, Edinburgh; Dr. Hughlings Jackson, London; Mr. H. D. Jencken, London; Mr. Smoothy; Mr. Lithgow, Wisbech; Mr. Kemp, London; Mr. Malcolm Morris; Mr. Ilderton; Viator; M.D.; L.R.C.S.I.; Sanitary; A Junior; An Old Subscriber; M.D., Oxon; Inquirens; Medicus; A Constant Reader; Rector; Medicus; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Neale, Hampstead; Messrs. A. and C. Black, Edinburgh; Mrs. Chapman, Clapham; Dr. Hunter, Linlithgow; Dr. Gowers, London; Miss Cobb, Pendlebury; Mr. Wheeler, Manchester; Mr. Willey, Birmingham; Mr. Sutcliffe, Burnley; Mr. Johnston, Sheffield; Dr. Kirkman, St. Leonards-on-Sea; Mr. Crowther, Tasmania; Mr. Wood, Barnsley; Messrs. Porteus and Co., Glasgow; Mr. Leaver, Stratford-on-Avon; Mr. Glover, Shrewsbury; Mr. Jeffries, Chesterfield; Mr. Bullock, Warwick; Mr. Smith, Leeds; Mr. Ernst, London; Messrs. Chapman, Clapham; Mr. Ellis, Derby; Dr. Mulligan, Worksworth; Mr. Wall, Wigan; Mr. F. H. Windermere; Mr. Kemp, Castleford; Mr. Roberts, Alfreton; Dr. Fraser, Clitheroe; Mr. Cornish, Manchester; Mr. Cox, Winchcombe; Messrs. Maclachlan and Co., Edinburgh; Mr. Marsh, Hammersmith; Dr. Woakes, London; Mrs. Cavanagh, Coventry; Dr. Fagge, Lutterworth; Messrs. Callard, London; Mr. Anneson, Newcastle-on-Tyne; H. A. S., Reigate; Anthropon; M.R.C.S.; Caustic; Commander Blount, Chelsea; Alpha, Blackburn; Alpha, Chesterfield; B.A.; B., East India-road; Medicus, Castle Donnington; Medicus, Worksworth; Medicus, Leicester; Medicus, Brighton; M.D.; W. R. R., Birmingham; L. N. D.; Medicus, London; Theta; F. G. H. L.; M. O. H.; E. B., Leeds; D. W.; Medicus, Sowerby-bridge; Y.; &c., &c.

Poole and Bournemouth Herald, Animal World, Edinburgh Courant, Carlisle Journal, Grantham Journal, Middlesex County Times, Civil and Military Gazette, Peak Downs Telegram, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

A Lecture
ON THE
SHOULDER-GIRDLE AND ITS MOVEMENTS.

By JOHN CLELAND, M.D., F.R.S.,
PROFESSOR OF ANATOMY IN THE UNIVERSITY OF GLASGOW.

THE shoulder-girdle in mammals is by no means so fully developed as in the majority of other vertebrates. The scapula is the only element of it which is constantly well developed. While the suprascapula is represented, if at all, by nothing more than a cartilage or epiphysis, the coracoid is reduced to a mere process of the scapula, save only in the monotremata; and the clavicle, although well developed in some widely separate forms, is sometimes absent altogether, and sometimes represented by a mere vestigial nodule. I have expressed a doubt as to the morphological correspondence of the cartilage or epiphysis of the vertebral border of the scapula with the suprascapula, partly from recollecting a curiously deformed human fœtus added about twenty years ago to the anatomical museum of the University of Edinburgh, in which the scapulæ were united to the spines of the cervical vertebræ by a pair of elongated bones. But there are some mammals in which the circle of the shoulder-girdle is completed normally on the dorsal aspect by means of ligament. The most curious instance of this is in the mole, which has the shoulder-blades elongated into three-sided shafts, the posterior ends of which are united by a short ligament which crosses over the spinal column, quite unconnected with either it or the deep muscles, an arrangement which, while it prevents them falling asunder, does not interfere with their backward and forward movement on the fulcrum of the clavicle when the animal grubs with its paws in the earth. A less remarkable arrangement where there is no clavicle is illustrated in the horse. In it a stout ligamentous band, the representation of part of the trapezius muscle of man, but containing no muscular substance, attaches the base of the spine of the scapula to the withers, and causes the movements of that bone to revolve round it. Such a state of matters is obviously well suited to the wants of an animal without clavicle and with habits of swiftness, allowing as it does free play to the forward and backward sweep of the lower or humeral end of the blade, while the pivot of the movement is removed to the upper end. In this instance, as in general in those mammals which have no clavicle or none but a sesamoid rudiment, the shoulder-blade is directed from back to breast, so as to rest its glenoid fossa over the humerus, and serve as a fulcrum for the backward and forward movement of that bone in progression; but in those in which the clavicle is developed, the glenoid fossa is thrust outwards, and the scapula is pressed against the clavicle in those movements of grasping which the presence of a clavicle makes possible in perfection. It is curious to note that in the carnivora, while many genera have a notable though in all cases imperfect power of outward and inward movement of the forelimbs, the clavicle exists in most cases in a rudimentary form, but never comes in contact with either scapula or sternum, and cannot be of the slightest mechanical service.

The question may naturally be asked, seeing that those mammals without clavicles, or which have them rudimentary, include those which use their forelimbs most of all for support and locomotion, How are their bodies supported between their shoulders? The answer is that they are supported by means of muscles; being slung between the serrati magni muscles. Nor is this any true exception to the general rule that muscular action, being an expensive thing, is never made use of in animals, where ligament will serve the purpose; for though the substance of the sling is muscular, it is not muscular action, but ligamentous, which is employed. The experiment of Weber teaches that it is when in an unstimulated condition, not when consuming fuel in the exercise of its function, that muscular fibre offers the greater resistance to being stretched beyond its natural length; and this action of the serratus magnus in quadrupeds is not the only distinct instance of the ligamentous action of muscles being called into play when they are vitally at rest; for, as I pointed out ten years ago,[1] the shoulder-girdle in the human subject is similarly maintained in its place by the trapezius, and, when that muscle is obliterated, falls downwards and forwards on the chest.

At the articulation of the clavicle with the sternum, the clavicular rises above the level of the sternal surface, and the two surfaces are separated by the strong interarticular fibro-cartilage, which is attached at its upper border to the clavicle, and at its lower border to the cartilage of the first rib. Perhaps the whole articulation deserves more careful attention than is usually given to it; for although it is subject to a certain variety, the interarticular fibro-cartilage being sometimes perfect and sometimes more or less deficient, and the sternal surface in some instances much smaller than in others, the sternal surface especially has marked peculiarities, easily studied in instances in which it is well developed. The sternal surface may be described as, on the whole, concave from above downwards, though somewhat beveled at the back of the upper margin; and in the middle it is concavo-convex from behind forwards, while inferiorly it is flattened. The whole surface is, in fact, divisible into two parts: an upper part, convex in front, but showing a depression behind; and an inferior flat part, most developed in front. The concavity referred to at the back part is sometimes scarcely recognisable, but in the best-marked specimens it forms a distinct depression with the beveled uppermost edge separated from it by a convexity which becomes more prominent as it sweeps forward in front of it and dies away in a flat surface below. The clavicular surface, much more elongated from before backwards than the sternal, is at its back part, where it is continued on the projecting posterior angle of the bone, slightly prominent, and plays against the concave hinder portion of the sternal surface; inferiorly it becomes abruptly convex, and glides on the attachment of the fibro-cartilage and on the costal cartilage beyond. The joint is surrounded by a strong capsule, which is, however, sufficiently weak in some parts to allow redundant portions of synovial membrane to be sucked in between those parts of opposed surfaces which in any position are not in accurate contact. The fore and back parts of this capsule constitute the anterior and posterior ligaments, while above and below are two ligaments requiring more special notice. The ligament above the joint is called interclavicular, because many of its fibres, passing from the upper border of one clavicle, instead of being fixed to the sternum, arch onwards to the clavicle of the opposite side. It is continuous with the posterior ligament, and its fibres are directed forwards as well as inwards. The ligament below the joint is the costo-clavicular, and lies edgewise to it, its innermost fibres being close to the posterior ligament, and its outer fibres, which are much longer, extending as far out on the clavicle as the inner end of the origin of the subclavius, and there connected with the costo-coracoid membrane—circumstances notable as suggesting an important ligamentous function of the subclavius. When the shoulder is forcibly depressed, as in raising a weight, the convexity of the lower part of the clavicular surface is pressed against the lower division of the sternal surface and the attachment of the intervening fibro-cartilage; that structure and the interclavicular ligament are put on the stretch by the revolution of the clavicle round the convexity of its surface; while between the fibro-cartilage and the upper part of the sternal surface are invaginated plications of synovial membrane. When, on the other hand, the shoulder is elevated as in pushing, folds of synovial membrane are drawn in to fill a gap between the attachment of the fibro-cartilage and the lower border of the clavicular surface; and the costo-clavicular ligament, subclavius, and costo-coracoid membrane are put on the stretch.

Thus in the sterno-clavicular articulation there is beautifully exemplified a principle of construction seen in many other joints—namely, that instead of the surfaces being conformable in their whole extent, rubbing one against the other throughout their contact, there are areas which are brought into apposition in certain positions of stability and are separate in other positions, just as portions of a wheel come without friction into contact with the ground, and similarly retreat from it. Friction is confined to the gliding parts between the areas referred to, and thus the smallest possible amount of friction in movement is combined with the greatest possible stability in particular positions. But, besides the upward and downward movement, the clavicle is permitted a backward and forward movement round its sternal articulation, and this is much more considerable when the shoulder is elevated than when it is depressed. In its most completely depressed position the outer end of the clavicle is thrown forwards and cannot be moved backwards in the slightest without a marked degree of elevation—that is to say, without shifting its fulcrum upwards on the sternal surface. As, however, the sternum in a well-built man standing erect is in a sloping position, it will be well understood I do not mean that in such a position the shoulders are actually raised when thrown backwards. It is only meant that the clavicle moves in a direction which would be upwards and backwards were the sternum vertical. So long then as the arm is hanging at rest over a vertical sternum the lower parts of the surfaces of the bones are those in use, and the joint is in one of its positions of fixity, the fixity being secured by the clavicle resting immediately beyond the joint on the front of the first costal cartilage. But when the shoulder is slightly raised, or the lower end of the sternum thrown forward, which comes to the same thing, a large amount of backward and forward movement is allowed, the clavicle moving across the convexity of the sternal surface. When the clavicle is thrown as much forward as possible in this position, as in pulling a rope, the part of the sternum in front of the convexity is pressed on, and there is a gap behind; when, conversely, the clavicle is thrown back as far as possible in pushing against an object in front there is a gap in front, and this being a position in which strength of construction at the joint is required it has a large amount of stability given to it by the prominence at the back of the clavicle being pressed forward into the concavity at the back of the sternal surface, and against the convexity in front of this, which protects it from dislocation forwards. The beveling at the top of the sternal surface, which has been alluded to as not constantly present, but which sometimes forms even a distinct facet, comes into play when the arm is raised to its utmost, as in stretching towards an object above.

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[1] Journal of Anatomy and Physiology, 1871.

At the outer end of the clavicle, the acromio-clavicular articulation has its surfaces very small, surrounded with a strong ligamentous capsule, and with a more or less imperfect interarticular disc interposed between the surfaces. The joint permits revolution of the scapula in every direction, not prevented by the presence of the walls of the chest, or the contact of the coracoid process with the clavicle. The angle between the scapula and clavicle is opened to its utmost when the shoulders are thrown back and the arms allowed to hang, while it becomes most acute when the shoulder is shrugged. There is, then, in the passage from the one of these positions to the other a horizontal movement of the acromion round the clavicle. But there is likewise a vertical movement, for when the arm continues pendent and the shoulder is raised, the clavicle rises, while the acromion continuing horizontal is displaced from its position relatively to the clavicle in a downward direction; but when the arm is elevated, the trapezius acting, and the levator anguli scapulæ relaxed, the acromion revolves upwards on the clavicle.

The circumstances in which the coraco-clavicular ligaments are tightened are worthy of mention. The trapezoid ligament is fully stretched in pushing outwards against an obstacle, with the humerus pressed against the glenoid cavity, and in pulling across the middle line, as in drawing a bow-string. In those actions the conoid ligament is slack, except when the arm is much elevated, and the scapula thereby made to revolve, so as to separate the coracoid from the clavicle; then the inner fibres of the conoid are stretched. The conoid ligament is stretched in pushing forwards; the humerus being then pressed against the acromion and the tightened posterior fibres of the capsule of the shoulder-joint, and thereby pushing back the whole scapula, coracoid process included. The conoid ligament is likewise stretched and the trapezoid relaxed in pushing downwards, and in hanging by the arms from above. In pulling from the side to the middle line, both the conoid and trapezoid are relaxed, and the strong acromio-clavicular fibres stretched.

It is in pushing downwards and in shrugging the shoulder that the coracoid comes into contact with the clavicle, and this appears to me to have a certain surgical interest in connexion with fractures of the outer end of the clavicle. Surgeons are agreed that this injury is much more frequently produced by direct violence, and if it be asked why does the fracture always take place close to the trapezoid ligament, and most frequently internal to it, I think that one must not only note the flattened form of the outer end of the bone, but must answer that it is broken upon the coracoid process, precisely as the patella is fractured transversely by its middle facets being pressed against the femur when the quadriceps muscle and ligamentum patellæ are pulling at nearly a right angle one to the other, or as a stick held at both ends may be broken across the knee. The rarity of the occurrence of fracture of the outer end of the clavicle from falling on the hand arises from the circumstance that in falling with great violence the arm is usually outstretched, while it is only when the humerus is at less than a right angle with the humerus that the coracoid process is pressed against the clavicle. That is precisely what happens when the victim lifts his shoulder in wincing from an expected blow, but is not likely to occur from a fall, except when descent takes place vertically, feet downmost, through a hole, and the only support to clutch at is below the level of the hands. The elevated position of the arms in falling is favourable to the occurrence of the inner fracture of the clavicle, because the direction of the resistance of the ground to the outstretched hand is such as to give a further bend to the great curve of the bone.

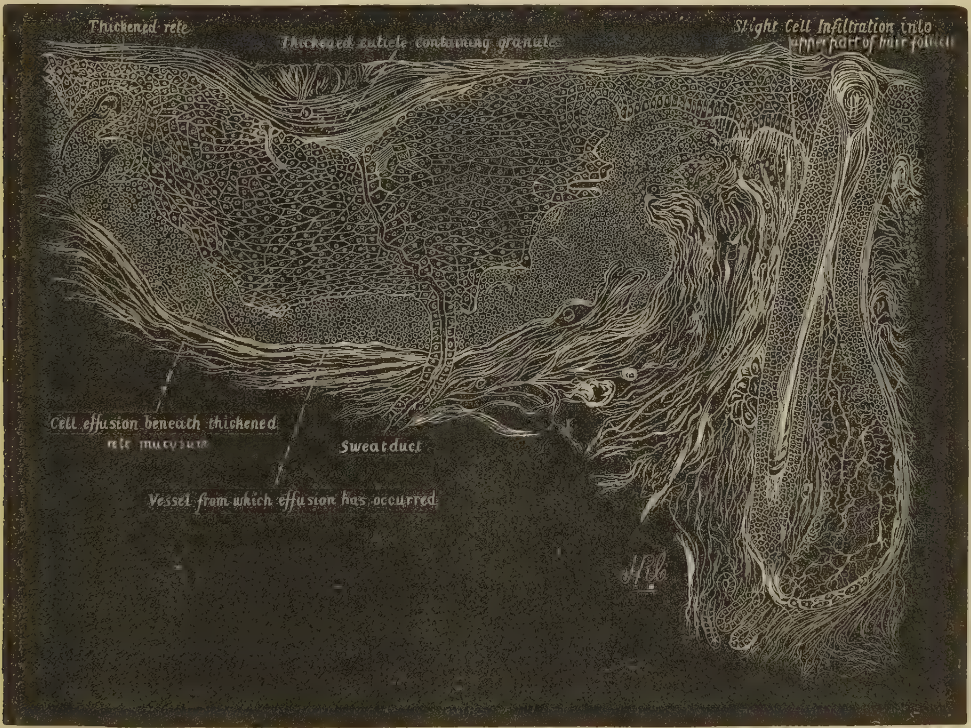
ABSTRACT OF THREE
Clinical Lectures,
WITH MICROSCOPICAL DEMONSTRATIONS,
ON
TRUE LICHEN AND ITS VARIOUS FORMS.
Delivered at University College Hospital,

BY H. RADCLIFFE CROCKER, M.D., M.R.C.P,
PHYSICIAN TO THE SKIN DEPARTMENT OF THE HOSPITAL.

LECTURE I.

ADOPTING Hebra's definition of Lichen as "those cutaneous affections which are attended by papules the result of a definite morbid process, and undergoing no metamorphosis in their entire course," I shall include under this definition—1. Lichen Planus or Ruber: (*a*) general; (*b*) limited. 2. Lichen Scrofulosorum. 3. Lichen Pilaris. I shall also allude to some other papular diseases which are still classed among the lichens by some authors.

1. *Lichen planus.*—Having discussed the clinical features, I will now pass on to its histology and pathology. All writers have laid great stress upon the implication of the hair follicles as being the especial feature of the disease, and, moreover, that the process is a deep one leading to an hypertrophy of the root sheaths about the papilla of the hair, so that the hair root has a knobbed appearance like the lobes of a racemose gland. Hebra, Neumann, Kaposi, and Biesiadecki have examined portions of skin from Lichen ruber, but they appear to have all been chronic cases, and the sections I show you now are, I believe, the first taken from recently formed papules. Now, I do not dispute that in the advanced stages the appearances are as Neumann describes, and that some, at all events, of the hair sacs and root sheaths do undergo hypertrophic changes. These, however, are but sequential to the early part of the process, and do not represent the true pathology of the disease. In addition to the sections, I have placed under the microscope hairs pulled from the centre of lichen papules, in which atrophy not hypertrophy, is the feature, while other hairs, to which the internal root sheath is still attached, appear unaltered. Dr. Fox, on the other hand, figures a hair which he removed from a papule, in which there was hyperplasia of the attached root sheaths, but the hair was unchanged. In spite of this I believe I can adduce clinical as well as microscopical evidence to show that, so far from the hair follicles being the chief seat of the disease, they are in most cases rather the exception than the rule, and, so to speak, almost an accident of the disease. In saying this I am, I know, diametrically opposed to the hitherto received views, but the facts appear to point strongly to this conclusion. The skin on which these re-


Thickened rete
Thickened cuticle containing granule
Slight Cell Infiltration into upper part of hair follicle
Cell effusion beneath thickened rete mucosum
Sweatduct
Vessel from which effusion has occurred

marks are founded was taken first from the front of the thigh in the case of a woman aged forty; secondly, from a man aged fifty-six who had had an infiltrated patch on the side of the leg just above the ankle for some years, and while under observation a copious outbreak of papules appeared on the forearm, especially on the front, the sides of the legs, the thighs, flanks, and lower parts of the abdomen. Portions of skin with papules were removed close to the infiltrated patch, and from the front of the forearm. I have examined upwards of a hundred sections made from these portions of skin, and you can verify the following observations for yourselves. First, in the skin taken from the thigh you will see that the papule is formed by a cell effusion from one of the vessels of the superficial plexus pushing up the superimposed epithelial layers. This cell effusion comes entirely from the upper wall of the vessel, there being no cells or other changes below, and in this particular papule the cells show an indication of being in lines, as if streaming directly away from the vessel; several papillæ are involved in this process, and here and there a sweat duct may be traced passing through the papule, and generally one can be made out in the centre. The cell effusion terminates abruptly at the sides. The papillæ are somewhat flattened out, and the cells of the rete mucosum have undergone a moderate amount of proliferation; the horny layer is but little changed, there is a slight loosening of the upper layers over the centre of the papule, but that is all. You will note that in this case the cell effusion forms three-quarters of the papule. In the skin taken from the forearm of the man the appearances are somewhat different, owing to the relative proportion of the component parts of the papule being altered. The greater part of the papule is not here made up of the cell effusion, but of the enormously proliferated rete mucosum, which is, in its turn, three times as deep as the cell effusion. The cells at the lower part of the rete are flattened instead of being perpendicular, while the upper layers, the stratum lucidum, and granular layer are also abnormally distinct. The horny layer is only thickened over the centre of the papule, and shaped like a broad inverted cone, which fits into a corresponding depression of the rete like a plug. Now if this horny layer should be thrown off, as we know is frequently the case, we should get the appearance of umbilication, which is sometimes seen, and is usually explained as the open mouth of a hair follicle, and may be true of some papules. Scattered through this layer are some minute refracting globules, which, Neumann states, resist ether or chloroform; their nature is not at present explicable. Externally, the horny layer is at the same level in the centre as at the sides. The apex terminates in the orifice of a sweat duct, which can be traced through the papule, and for a short distance beyond the lower side of the vessel. The cell effusion does not terminate so abruptly as in the first series, but embraces two or three papillæ which are enlarged both laterally and vertically, the interpapillary processes coming down lower than usual. The papillary vessels are abnormally distinct. I have chosen the section now under the microscope, because close to the papule a complete section of a perfectly normal hair and its sebaceous gland is seen. There are a few cells from the adjoining papule immediately adjacent to the hair sheath, just beneath the rete, but nothing more. On the other side of the hair there are no cells in immediate relation to it, but two of the papillæ just beyond it contain a little cell effusion, and there are a few cells also, about the upper part of the sweat duct, which comes down a little way from the hair. Except that some of the orifices of the hair follicles are funnel-shaped and tightly packed with horny scales, this is all the change that any of the sections show in the hair follicles. The difference between the first and second series of sections may be explained by the supposition that the processes differed in intensity; consequently, in the first series, where the inflammation was more acute, the cell effusion was the main feature, while in the second, of less intensity, epithelial proliferation characterised them. The third series were made from the skin taken at the border of an infiltrated patch. Here the cell effusion, though limited below by the superficial vessel as before, was much more diffused laterally; all the vessels of the affected papillæ were markedly dilated. The rete was much increased in depth; but the horny layer very little, if at all, thickened. The interpapillary processes were much larger, and some broader; and thus the papillæ also were enlarged in length and breadth. On the left side of the section the commencement of the infiltration is visible, accompanied by the downgrowth of the rete mucosum. No changes in the hair follicle were observed in this series; indeed, only an occasional transverse section of a hair was observed. Now, from the sections alone, all that can be actually proved is that the process is a superficial inflammation in the early stage, and that it may occur independently of the hair follicles. Still, I was struck by the fact that in a disease in which the hair follicles were supposed to play the most important part, skin taken from three regions of the body showed no marked perifollicular inflammation, and

I was thus led to study again the clinical aspects and the analysis of cases, and the consensus of authorities revealed the curious fact that this so-called follicular disease most frequently attacked the regions where there were the fewest hairs, such as the front of the forearms, especially near the wrist, the flanks, inner side of knees over vastus internus, and the side of the legs, especially above the ankles; to say nothing of the palms, soles, nails, and mucous membranes being occasionally involved; while only in a small minority were the backs of the forearms and hands, and other situations where the small hairs are abundant, involved, many of these cases having begun in the more usual situations, and subsequently implicated the other parts. Since these considerations were forced upon my notice I have only had the opportunity of examining two cases; one that we have seen to-day, the other a mild case in private, a man in whom there was a single patch, the size of the hand, below the knee on the inner side and back of the leg; about a finger's breadth of the patch encroached on the hairy part of the leg, the rest was on the nearly hairless part; there were a few papules also on the outer side of the leg above the ankle. In both these cases I searched carefully for papules situated round the hairs, and in neither were there well-marked instances of it. There were, comparatively speaking, a few hairs with some redness round, and some broken short, as though their nutrition had been interfered with, but among the number of well-marked papules, I could find not one with the hair in the centre, though it was quite common to find a well-developed papule with a healthy hair almost touching it.

Of course, there are plenty of cases where the hairs are more implicated than in these two; but even then I am inclined to think that it will be found that follicular papules will be far outnumbered by the papillary ones. Even if in some cases this were not so, and the follicular inflammation predominated, I still contend that the disease stands in relation to the hair follicles very much in the same position as eczema, in which, though usually a disease of the flexor surfaces involving all the skin structures, it sometimes picks out the hair follicles as the seat of the inflammatory process. These cases were formerly reckoned among the lichens, but are now recognised as mere varieties of eczema. I have pointed out to you that a sweat duct can generally be traced in the centre of the papule, and two or three may be involved in it, and that the apex of the cone of the corneous layer coincides with the orifice of the sweat duct. Is this an accident of situation, so to speak, or has the sweat gland or its duct anything to do with the production of the papule? With regard to the sweat gland, I regret to say that the skin was not removed sufficiently deeply to speak with absolute certainty about many of them; all that I observed were healthy, but I am inclined to think, from the frequency of its central position, that it constitutes a determining point for the formation of the papule round it, just as the hair undoubtedly does in some cases, though, I contend, not so frequently as general opinion would ascribe to it. There is another fact which tends in this direction. Mr. Hutchinson, with his usual accuracy of observation, has noticed that wherever the clothes are fastened in close contact with the skin, such as the waist, the site of the garters, the pad of the truss when a hernia exists, &c., there the papules are most thickly distributed. In the case before you this is very noticeable below the knees, where the garters are fastened. Mr. Hutchinson ascribes this to pressure. May it not be, however, that the increased heat produced by close contact is the real agent? The general conclusions I would draw, therefore, are—

1. That the process at its commencement is entirely superficial.

2. That it consists of an inflammatory effusion from the superficial plexus of vessels, the cells in the horizontal vessels coming only from the upper wall.

3. That all the vessels of this plexus are notably dilated and the papillæ enlarged by down-growth of the interpapillary processes.

4. That all the epithelial layers undergo proliferation, those in the rete mucosum taking the most prominent part in the formation of the papule.

5. That the involvement of the hair follicles is not an essential nor the main feature of the process in most cases; but—

6. That the sweat ducts have more often an influence in determining the position of the papule.

"TREATMENT OF PAIN BY MECHANICAL VIBRATIONS."

By J. MORTIMER GRANVILLE, M.D.

The publication of certain results obtained in an investigation which I have been pursuing for some years past having been to a large extent anticipated by a paper which appeared in *Le Progrès Médical* of the 5th inst., from the pen of M. Boudet de Paris, ancien interne des hôpitaux de Paris, I have no alternative but to bring my researches, together with such *facts*, real or imaginary, as I have succeeded in eliciting, under the notice of the profession here and on the Continent. Indeed, I owe some explanation to many friends in England and in Paris for having so long delayed to report the progress of my experiments. Nevertheless I break silence thus early with the greatest reluctance, and only under the pressure of circumstances. As regards the accident of "forestalling," if I am not mistaken M. Boudet de Paris will have greater cause than I have to regret what I cannot but feel is the premature announcement of a discovery. On the 5th of August, 1878, Professor Brown-Séquard wrote me as follows:—"If it (the instrument employed in these experiments) has the power you state, you have certainly made a very important discovery." I could not but feel that there was a virtue in that "if" to enforce reserve until other judgments besides my own were fully satisfied. Such grave responsibility attaches to every member of the profession who ventures to suggest a new, or seemingly new, method of treatment, and who dares to hold out a hope of remedy or relief for the miseries of mankind, that I, for one, must confess to a great shrinking from the hazard of rushing into print prematurely. This feeling alone has induced me to keep silence during the last three or four years, and I am convinced the same motive has influenced the several physicians who have kindly tried my method and employed my Percuteur, to wait until convinced of their validity and value before giving to either the sanction of their authority. Among the gentlemen to whom I have submitted my speculations, and shown my instrument, I may mention Professor Brown-Séquard, Professor Ball, and Dr. Oscar Jennings of Paris, and Drs. Ringer and Gowers of London. These names are in themselves sufficient to guarantee that if the results obtained by experiment had been such as to establish my conclusions they would long since have been announced, and unless I am greatly mistaken the results recorded by M. Boudet de Paris cannot, in any therapeutical sense, be more trustworthy than my own. I will now tell the story of my investigations, and thus mark the point reached in the search for a new remedy.

As far back as 1862–3 I was, in the course of certain clinical studies of mental and sensory phenomena, induced to believe that many forms of the sensation we call "pain" were, in fact, unnecessary, and might be *interrupted* by appropriate mental and physical methods and appliances. My first observations were made in connexion with the paroxysmal, or recurrent, pains accompanying the uterine contractions in the natural process of parturition. On the 4th of May, 1864, Dr. Graily Hewitt was good enough to communicate the results of my experiments and to show certain apparatus, to the Obstetrical Society of London. In a paper "On the Application of Extreme Cold as an Anodyne in the Pain attendant on Parturition," a short abstract of which will be found in The Lancet of July 9th, 1864, I contended that the sensations of pain experienced by the parturient woman were *not* invariably synchronous with what, for want of a better name, we term the pains of labour; and from this and other premisses—for example, the circumstance that they are commonly "referred" to regions more or less remote from the contracting uterus, or the dilating external passages, in which the real seat of the pain might have been supposed to be located—I deduced that the pain attendant on labour is *neuralgic* in character. I had constructed small boxes or chambers of such sizes and shapes as to admit of their being applied to the *supposed* seats of the pain. These were filled with freezing mixture, and the effect of sudden contact in some thirty cases was to arrest the sensation of pain without in the least degree lessening the force of the uterine contractions. The experiment was of course simply interesting as bearing on the *nature* of the pain, as this process was too troublesome to admit of its adoption in practice; albeit some of the persons on whom I had the opportunity of trying my method experienced such striking relief that on subsequent occasions I believe they asked that the measure might be repeated. Having so far persuaded myself that this form of pain was neuralgic, and that if the nerve affected could be strongly impressed, so as to *change* its state of irritation, the pain would cease, I proceeded to try the effect of rapidly tapping the skin over the fifth nerve in ordinary facial neuralgia with a Bennett's percussion hammer, using the ivory pleximeter as a shield. The results obtained by this method were very remarkable. Still, I simply thought of arresting the morbid action by *shock*. Later on—it is only possible to sketch the outline of the inquiry—I was led, by the light thrown on Newton's doctrine of concords and discords, by Grove's generalisation as to the correlation of forces, and more recently by Professor Tyndall's beautiful series of experiments with sensitive flames and musical burners, to believe that the results of the tapping were not, like the interruption with shock produced by the sudden application of cold, due to a mere arrest of the painful state of irritation into which the nerve had been thrown, but were, in fact, brought about by the extinguishment of a morbid—that is, either inordinate or disorderly—set of vibrations by the superimposition of another, incompatible or discordant set of vibrations, mechanically produced. With this notion I set to work to devise an instrument which should give a known number of blows per second, and thus admit of this new phase of the inquiry being pushed farther. Such an instrument was made for me at the establishment of Mr. Streeter, of New Bond-street, from a sketch and specification dated Jan. 5th, 1877. With the "percuteur" thus made, and others by M. Collin, of Paris, results which I would characterise as *suggestive* rather than *conclusive* have certainly been obtained. They are, in brief, as follows:—

The sensation produced by the application of the instrument over a healthy nerve, so situated as to be readily thrown into mechanical vibration, closely resembles the effect of a weak dose of the interrupted current of electricity, and if it be prolonged the vibration extends its area, exciting first formication or tingling, then a sensation of numbness, and finally some twitching of the superficial muscles. A nervous headache, and even migraine, may be induced by the application of the percuteur to the frontal ridges or the margins of the orbit. By the intervention of a thin plate of metal, or even stiff paper, the vibration may be readily propagated through a considerable region of the surface of the body, and in time the deeper muscles will frequently begin to act. I have even produced an involuntary movement, not unlike tendon-reflex, by applying the percuteur for some time over the tendon of the rectus femoris above the patella. Still more notable has been the fact that by laying a sheet of paper over the abdomen, and moving the percuteur slowly in large circles round the umbilicus, the intestines have *seemed* to be excited to vermicular movement, and the bowels commenced to act. These results have not been constant, but have occurred with sufficient frequency to indicate that the experiments already made are worthy to be repeated.

With respect to the relief of neuralgic pain, the operations of the instrument are certainly very remarkable, but not, in my judgment or in that of other observers, such as to justify the assertion that it constitutes an appliance for the relief of pain. In some instances—pretty numerous—the pain of neuralgia in the branches of the fifth has been quickly arrested by its application, and has not soon returned, or, if it has done so, has again unmistakably yielded. In other instances the sensation has been aggravated by the augmented state of vibration into which the nerve has been thrown through the shaking of the adjacent tissues. And here I must mention a point to which I attach the greatest moment, and which, I think, will hereafter be found to prove the key to the whole phenomena. A comparatively high number of vibrations per second seems to relieve a dull aching, a "massive" or grinding pain, while an acutely pitched and quick pain is most frequently arrested by a slower movement of the instrument. If I may step beyond the province of a simple reporter of clinical phenomena for one moment, I will take leave to say that I think these results go to support my theory that it is by the introduction of *discord* into the rhythm of the morbid vibrations of the painful "state" the change which brings relief is effected. To apply the percuteur with a high rate of blows per second will aggravate the morbid state when that is itself a series of rapid vibrations, and in the same way a low speed of percussion increases, instead of relieving, the pains of a low-pitched and slow "boring" or "grinding" sensation. Acute or sharp pain is, I believe, like a high note in music, produced by rapid vibrations, while a dull, heavy, or aching pain resembles a low note or tone, and is caused by comparatively slow vibrations. A slow rate of mechanical vibration will therefore interrupt the rapid nerve-vibration of acute pain, while quick mechanical vibration more readily arrests the slower. The aim—if I am right in my conjecture—should be to set up a new set of vibrations which shall interrupt or change the morbid set by introducing discord. Failure in the application of this principle will, I believe, be found to explain the failure to put an end to the pain; and I have, accordingly, set as much scientific value on my failures as on my successes.

My percuteurs are all defective in one particular: although they consist of a simple train of cogged-wheels worked by a spring and acting on the lever, which carries an ivory hammer, and are provided with an indicator, which shows the speed, and a screw movement to control it, they do not obey the will of the operator, because the slightest pressure of his hand shortens the arc in which the hammer works, and proportionally accelerates the stroke. M. Collin has modified my instrument, but he has not, so far as I am aware, entirely remedied this defect.[1] If M. Boudet de Paris can so improve his instrument as to obtain control of its movements and to propagate a *known* set of vibrations, he may succeed better than I have done; but I should be glad to find that the result could be obtained without the use of electricity, as it is important to the scientific interest of the instrument—and as yet it cannot, I am convinced, be said to have a therapeutic value,—to show that the vibrations are purely mechanical, and propagated through the tissues by a force acting externally. It would be one thing to induce change of the organic vibrations by internal force, and quite another to overpower the internal movements by force operating from without. The result may be the same, but the two methods of reaching it are essentially different.

That all nerve action is vibratile, and that the neuralgic state consists essentially in an abnormal set or series of vibrations into which the nerve has been thrown—perhaps by a jet of cold air, or a mechanical or chemical irritant—I have no doubt. That this state may be changed by mechanical vibrations propagated to the nerve-sheath and its contents through the adjacent tissues I am convinced. I have not, however, as yet, got one step further than persuading myself that these are genuine propositions, and capable of demonstration by experiment—to wit, the causation of neuralgic pain and the induction of the neuralgic state generally by mechanical vibrations, and the relief of these conditions, when they exist, by the same method. The essence of the process is disturbance and change of the rhythm. When I began to study the effect of cold, I thought the results obtained were reached by deadening the nerve or "lowering its sensibility," as we say; but I soon found that the effect was proportioned to the intensity of the shock produced by the sudden contact with the cold substance, not the duration of the chilling process. When cold gives relief by its continuance, rather than instantly on its application, I think that is because the morbid vibrations of the nerve cannot, for some physical reason, be interrupted by shock; possibly the nerve is situated too deeply, or is covered by dense tissues, or lies so loosely amid its surroundings as to be practically insulated, and the morbid vibrations are not arrested until the cold contracts the surrounding tissues, and causes them to mechanically grip the terminal twigs of the nerve which is vibrating painfully. In some instances the percuteur is so powerful as to arrest the morbid vibrations on one side and propagate a painful set of vibrations through the centre to the other side. This may strike the reader as a mere assertion, but I am persuaded it will be found to be borne out by experiment. If I am not greatly mistaken, the percuteur, or some more perfect mechanical vibrator, will do all that "metallo-therapy" has achieved in the same class of cases. We do not sufficiently appreciate the effect of subtle or subtily-applied forces acting on the organism. When the so-called mesmerist induces a state of hypnotism in his patient by simply blowing on the face, or when by "passes" he impresses the retina, he acts *physically* on the terminal twigs of highly sensitive—and generally educated—nerves, and induces a set of actions which, though notable in themselves, are no more mysterious in the manner of their production than the involuntary strong muscular action excited by the "tickling" of a hair or a feather, or the crawling of an insect. As a matter of fact, the surface is generally more *powerfully* impressed by these minor applications of mechanical force than by the greater. If you touch an exposed sub-cuticular surface lightly you give extreme pain; if you grasp it somewhat firmly you cause less suffering. This is quite as likely to be because, in the first case, the terminal twigs of the sensitive nerves are set vibrating, whereas in the latter vibration is prevented, as due to the local blood-change to which these results are commonly attributed. While a poultice is moist, and clings to the surface of a sore, it soothes by holding the nerve-fibres still; when it begins to dry, and they are liberated, the poultice becomes an irritant. The physical basis of the so-called hysterical state, or the peculiarity of nervous organisation which predisposes to hysteria, is, I think, simply a class or type of structure which renders the nervous elements especially liable to vibrate in their sheaths, and thus exposes them to the risk of falling readily into any rhythm which the will, the physico-mental environment, or perhaps even the proximity of similar structures vibrating in other bodies characterised by the same physical organisation, may suggest. If musical burners supplied from different reservoirs of gas will presently vibrate in concord; if strings or reeds vibrating at the same time, though a short distance apart, will fall into harmony, why is it unlikely that nervous organisms possessing the same qualities of physical structure should exhibit a corresponding affinity? Science points clearly to physical states as the basis of nervous and mental phenomena. The female organism is characterised not inaccurately, though popularly, by the phrase "finely strung nerves." It is literally *mobile*, and it is chiefly among females the phenomena of hysteria, and the allied states, are observed. When the symptoms and conditions so designated do occur in the male, the individual organism is generally of a feminine character.

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[1] The French instrument may be seen at Messrs. Weiss and Son's, 62, Strand.

In conclusion, I would venture to predict that it will be found that nerve action, both normal and abnormal, consists of vibrations, and that *other* mechanical vibrations set up and propagated by any mechanical apparatus or appliance, acting from without and propagated through the tissues, may be made to modify the internal movements; that normal vibrations consist of movements of the constituent parts of a nerve within its sheath, and that when these become inordinate or disorderly they are propagated to the sheath itself, and then become painful; that under this last-mentioned condition the wave of vibration is likely to be propagated along the sheath of the nerve, and through it to the sheaths of other nerves with which the first in order of disturbance may be mechanically related, either by direct contact or through intervening tissues; that the action of irritants applied to the skin is mechanical, producing contraction of the tissues, and either first gripping and then relaxing the terminal twigs of the nerves, thus throwing them into mechanical vibration, or so changing the constitution of the bed in which these terminal twigs lie as to oppose a mechanical obstruction to their natural vibration, and thereby convert it into a morbid rhythm. This, indeed, has been demonstrated by Dr. Ringer, in his classic treatise on Therapeutics, in connexion with the *modus operandi* of blisters. These may be set down as crude speculations, but they are the results to which experiment and common-place reasoning point, and they are in harmony with a view of the phenomena of nerve-action and pain which the inquiry I am pursuing forces upon me, and by which nearly all the wonders of the hysterical school of medical philosophy may be explained. I cannot claim to have discovered a "cure" for neuralgia, or even a *certain* method of treatment for its relief. The time has not arrived when it may be possible to commend this *new method* to the notice of the medical profession as a known agency for the alleviation of suffering; but as the facts have been prematurely published I think the method should be tried.

Welbeck-street.

ON A NEW METHOD OF SUPPLEMENTARY ALIMENTATION.[1]

BY A. ERNEST SANSOM, M.D. LOND., F.R.C.P.

I WISH to bring under notice a plan of treatment which, I think, is scarcely known in this country, but which shows promise of much practical usefulness. Every practitioner will, I am sure, acknowledge to an aching of heart over cases in which he feels that a little addition to the powers of nutrition, a little supply to the tissues of the materials necessary to their well-being, may turn the scale from death to life, and yet that little "aliquid" is not to be found. The difficulty presents itself in acute as well as in chronic cases, in conditions of immediate as well as prolonged emergency. Take the case of fevers in which a number of factors co-operate to induce a condition of danger—nutrition is not only in abeyance, but there is rapid waste. It is unnecessary to say that an increase in nutrition or a lessening of waste may make all the difference between death and life. Then, in chronic affections such as pulmonary phthisis the experience of late years tells to the effect that if by means of a healthier general nutrition the pernicious metamorphosis of tissue which results in caseations or tubercles can be modified, we may turn the scale towards recovery. In sudden emergencies, as from alarming hæmorrhages, the craving for a rapid supply to the exhausted organism prompts us to adopt transfusion of blood, and in a like condition brought about by chronic maladies such as prolonged anæmia, we are sometimes called upon to consider the question of this most perilous method of treatment. We have presented to our view every day of our lives the probability of a case coming before us in which, if we could only suggest a method of conveying to the tissues the pabulum which they need, we might have the satisfaction of seeing our patient recover.

Of course in all the cases now presented to us I assume that we have made up our minds that appeals to the stomach are unavailing. We have done, and still do, what we can to ensure to the full the absorption and assimilation of all that we can present to the alimentary tract through the mouth. Yet nutrition fails, and we have to think of plans of administering food by the rectum, by the skin, or by injection into the blood itself.

It is only *feeding by the rectum* that I shall now ask for consideration. The experience of every medical practitioner, I am sure, will tell of cases in which nutritive and stimulant enemata have been of essential service. We can point to cases kept alive—barely alive probably, but alive—by them. Of nutritive and stimulant enemata hitherto employed I may briefly refer to the following:—

1. *Hot Water.*—It has been recommended in certain conditions of collapse to administer, by the rectum, water at about the temperature of the blood. This would appear to repose on a reasonable basis. In many such conditions of halt on the part of the circulation a mere addition to the volume of the circulating blood has been successful in re-establishing, at least temporarily, the action of the heart. This is the rationale of action in the cases in which the injections of weak saline solutions into the veins in cholera collapse have been followed by improvement. There is no doubt that fluid is absorbed from the mucous surface of the large intestine, and so enters into the circulation. In sudden collapse, therefore, the practice of administering a warm fluid enema is decidedly to be recommended.

2. *Alcohol and Diffusible Stimulants.*—There is no doubt that the mucous surface of the lower bowel absorbs alcohol, ammonia, &c. The addition of these agents to a fluid enema may be considered as a matter of discretion. While reasonable and scientific additions to simple aqueous enemata, however, it is well to point out that alcoholic admixtures with nutritive enemata consisting of solutions of albumen are unscientific and unsound, the alcohol tending to coagulate the albumen.

3. *Medicinal Agents.*—It is well known that medicines may be absorbed from the mucous surface of the rectum.

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[1] A paper read before the East London and South Essex District Branch of the British Medical Association.

This is proved to us by our frequent experience with regard to opiate enemata, as well as by the action of the hosts of medicated suppositories so commonly employed. We find that absorption of the medicine is not so complete as when it is presented to the stomach; so we are accustomed to administer larger doses per rectum. Moreover, we learn that rectal absorption is more tardy. Dr. A. H. Smith found that eight grains of fluid extract of rhubarb in twenty grains of water, at a temperature of 73° F., gave the characteristic red colour to the urine, on the addition of caustic potash, in sixteen minutes after injection into the stomach. In cases where the same quantity at the same temperature was injected into the rectum the period after which the reaction was evidenced was sixty-five and seventy minutes. But when the temperature of the enema was raised to 108° F. the reaction was obtained in forty minutes.

Whilst absorption, then, of medicines by the rectum is more tardy and less complete than absorption by the stomach, there is abundant evidence of administration by the bowel being a very important means whereby fluids, stimulants, and medicines enter the blood.

4. *Solutions of Albumen.*—Here also we have evidence of absorption, but under narrowly-defined limits. The rectum is but a passive pouch; it has no power of preparing albuminous bodies for absorption as the stomach has, and such absorption is only effected by dialysis into its venules. It follows, therefore, that albumen is only absorbed when it is in aqueous solution. We know how very limited is the absorbability of unmodified albumen. It is evident, therefore, that of the albuminous contents of nutritive enemata as commonly employed only a fractional proportion is taken up into the blood-current to subserve any useful purpose of nutrition.

5. Lastly, there is fair evidence to show that fatty matters, such as those pertaining to milk and cod-liver oil, are capable in some degree of absorption from the rectum. (For formulæ for enemata falling under the foregoing classification, see Tanner's "Practice of Medicine," vol. ii., p. 480.)

Such, then, were the enemata long in common employment, and such are those which now are very generally employed. A very great improvement was, however, effected when efforts were directed to render the albuminous constituents of a nutritive enema more capable of absorption. I have already said how very limited is the amount of albumen possible of absorption in an ordinary nutritive enema. The improvement consisted in administering the albuminous constituent of the enema in the form of *peptone*, such peptone being produced by the action of pepsine or pancreatine upon albuminous bodies. Pepsine used to be employed, but more recently preference has been given to pancreatine. Dr. Leube mixed one part of finely minced pancreas with three parts of scraped meat, adding warm water sufficient to make a small injection, and sometimes a slight proportion of fat. He found by experiments upon dogs that a considerable quantity of nitrogen was thus conveyed to the body. Dr. Horace Dobell has given the following formula:—Cooked beef or mutton, finely grated, ¼ lb.; pancreatic emulsion (Savory and Moore), 1 oz.; pancreatic powder, 20 grs.; pepsine (pig's), 20 grs. Mix the whole in a warm mortar quickly, and add one tablespoonful of brandy, and enough warm water to bring the mixture to the consistency of treacle. Inject from an elastic enema bottle as quickly after the mixture has been made as possible, and let it be retained. More recently pancreatic extracts have been employed as peptonising agents. The liquid extract or the saline extract of pancreas is added to milk, milk-gruel, or juice of meat, and kept for some time at a temperature of about 140° Fahr. The mode of preparing such peptones, whether for administration by stomach or by bowel, is fully described in Dr. W. Roberts's valuable Lumleian Lectures "On the Digestive Ferments, and the Preparation and Use of Artificially Digested Food." Speaking particularly of administration per rectum, Dr. Roberts's says, "The enema may be prepared in the usual way, with milk-gruel and beef-tea, and a dessertspoonful of liquor pancreaticus should be added just before administration. In the warm temperature of the bowel the ferments find a favourable medium for their action on the nutritive materials with which they are mixed, and there is no acid secretion to interfere with the completion of the digestive process. I have now had some experience in this method of alimentation, and have been satisfied with its success. In one case, a patient suffering from post-pharyngeal abscess, which entirely occluded the œsophagus, was nourished exclusively for a period of three weeks (until the abscess broke) on enemata of milk-gruel mixed with pancreatic extract."

(To be concluded.)

ON THE ADVANTAGES OF CLOSING THE SAC BY CATGUT SUTURES IN HERNIOTOMY.

BY F. A. SOUTHAM, M.A. OXON., F.R.C.S.,
ASSISTANT-SURGEON TO THE MANCHESTER ROYAL INFIRMARY.

IN the operation of herniotomy, where the sac is opened, it is, I believe, the usual custom (excluding, of course, those cases where a radical cure is performed at the time of operation), after dividing the stricture and returning the bowel into the abdomen, simply to bring together the margins of the cutaneous wound with sutures of silk or silver wire. If, however, the cut edges of the opening in the peritoneal sac are in addition accurately brought into contact by means of catgut sutures, considerable benefit is derived, both as regards the more speedy healing of the wound and the prevention of extension of inflammatory action from the superficial structures to the interior of the sac.

The advantages of this simple proceeding are as follows. In the ordinary method of operation, when skin sutures are merely employed, and where, consequently, the edges of the wound in the sac are not brought into accurate contact and maintained in that position, but are left to adjust themselves as they best can, even though a drainage-tube be used, a ready way is left for the drainage backwards of inflammatory discharges into the sac through the opening that remains in its walls. If, however, the margins of the opening in the sac are brought into exact apposition by means of catgut sutures, this result will not occur, for as wounds in the peritoneum heal very rapidly, union of its cut surfaces will probably have taken place before any discharges have formed in the wound; consequently, instead of draining backwards into the sac, where they would tend to set up a local peritonitis which may afterwards spread, they will make their way downwards between the integuments and outer surface of the sac to the lower part of the skin-incision, where they will discharge themselves externally, if a drainage-tube has been inserted or an opening left for that purpose. For the same reason, if any recurrent hæmorrhage takes place after the conclusion of the operation, it will make its way externally, instead of gravitating backwards into the sac.

Though the operation of herniotomy may be performed antiseptically, yet from the situation of the wound and from the movements of the patient often tending to loosen the dressings and allowing the air to penetrate beneath their margins, difficulty is not unfrequently experienced in the after-treatment in keeping the wound perfectly aseptic. By the employment, however, of strict antiseptic precautions during the operation, and by the closure of the opening in the sac at its conclusion, the operation itself may in a sense be compared to one in which the sac has not been opened, and even if septic particles should subsequently, from some unpreventable cause, gain access to the wound, so that putrefactive changes are induced in its interior, the same condition may still be considered to exist; for under the most unfavourable circumstances it is not likely that this complication will occur within the first eighteen or twenty-four hours, by the end of which period considerably firm union will probably have taken place in the wound of the peritoneal sac, forming a barrier which will completely shut off its cavity and prevent the entrance into it of any septic matter.

I have recently availed myself of this modification of the method usually employed in closing the wound in six cases of herniotomy performed antiseptically in the Manchester Royal Infirmary, having, after reducing the bowel and clearing away all the blood clots and fluid from the interior of the sac, carefully adjusted the cut margins of its peritoneal walls, and brought them as nearly as possible into exact contact by catgut sutures introduced at a distance of about a third of an inch from each other and afterwards cut off short close to the wound. The margins of the skin-incision were then brought together by sutures of carbolised silk in the usual manner.

In five out of the six cases the result was most satisfactory, the skin-incision in each instance healing at once by first intention, with very little general elevation of temperature, and without a trace of that deep-seated local pain and tenderness which are so often present, and which then indicate a certain amount of localised peritonitis.

In the sixth case death ensued from perforation of the bowel about twenty-six hours after the performance of the operation; but in this instance also union was apparently taking place by first intention, and, on post-mortem examination, the margins of the opening in the sac were found to be firmly adherent together.

Peritonitis is, without doubt, the most formidable complication that we have to encounter both before and after the operation of herniotomy, and is, in the majority of cases, the immediate cause of death. Though we often find this condition already present or impending at the time of operation, yet in many instances it only makes its appearance after an interval of thirty-six or forty-eight hours, and in those cases where there is nothing in the condition of the sac or its contents at the time of operation to account for its subsequent appearance, it seems not unlikely that it may arise simply in consequence of extension of inflammatory action from the cutaneous wound, especially in the case of the old and feeble, whose powers of repair are not so great, and where the wound, not healing so readily, is more liable to become the seat of septic changes. If, then, by this simple proceeding, adopted merely as a safeguard against some of the later complications of herniotomy, and without any idea of producing obliteration of the sac, as in the operations for radical cure, we can, to some extent, prevent the extension of inflammatory action from the superficial wound to the interior of the sac, we at once eliminate one of the causes upon which the occurrence of peritonitis after herniotomy must, in many instances, depend.

Manchester.

STERILITY DUE TO ANTEFLEXION OF THE UTERUS, TREATED BY STEM AND SHIELD.

By A. WYNN WILLIAMS, M.D.

IN reference to Dr. Herman's remark,[1] I can only state that I cannot give the absolute number of cases where pregnancy has followed after the introduction of a vulcanite stem and shield; for in many instances, especially in hospital practice, we are frequently not informed of the result, and the cases under my care have been too numerous to follow to their own homes. Early in January a young woman brought her child to me at the Samaritan Hospital for advice, pregnancy having taken place after wearing a stem and shield for four months. She had been married three years and a half, previous to consulting me, without issue. I am of opinion that more sterility is due to anteflexions of the uterus than any other cause, probably more than all the other causes put together. In other displacements or flexions we often find impregnation taking place; but I cannot call to mind one single instance of impregnation occurring where an acute anteflexion existed. I will relate two typical cases. I select these for two reasons—1st, because both cases had been treated by other gynæcologists, and one by gynæcologists of both sexes; 2nd, because one was about the first case I treated in the way I am about to relate.

CASE 1.—M. R——, aged twenty-three, married between three and four years; no family. She informed me she had been attended by a lady doctor, who told her she had a tumour in the womb. She had also attended as an out-patient at St. Mary's Hospital, where she was advised to come to the Samaritan, her case having been diagnosed as displacement of the uterus. She had not menstruated before marriage, but did so soon after, with very great pain in back and left ovary, which commenced two or three days previous, and this had always been the case at the catamenial period, followed by the passing of clots, terminating in a nasty, thick, offensive discharge, and during the time was unable to get about. She also suffered great pain on connection. On examination I found her suffering from a very acute anteflexion of the uterus, into which I could only pass the sound by giving it a very considerable curve, and introducing the point downwards about three-quarters of an inch, then turning it upwards. After undergoing various methods of treatment at different times at the hospital, and wearing different kinds of stems—elastic and otherwise—without any material improvement, in July, 1874, a stem and shield, with socket to receive the button of the stem in the lower end, so as to fix the uterus in its natural position, were introduced. This she wore until November (four months), with great relief and comfort. When it was removed, she shortly after became pregnant, and is now the mother of three children. The only treatment during these four months was the syringing out of the vagina with Condy's fluid, a drachm to eight ounces of water, to prevent any disagreeable odour.

CASE 2. — Mrs. B——, aged twenty-eight, married about six years, consulted me on June 23rd, 1876. She informed me that she had suffered more or less at her catamenial period ever since she commenced to menstruate, with pains in the back and left ovary. (I cannot explain the reason why, but it is generally the left ovary that is sympathetically affected.) Since marriage all the symptoms have become aggravated, and for a day or two at the commencement of each period she is completely prostrate until she is relieved by the passing of blood clots. There is considerable leucorrhœa at all times; there is also a slight lateral curvature of the spine in the lumbar region. She stated that both her husband and herself were particularly anxious to have a family; that she had been under the care of several eminent medical men, but had failed to obtain any relief; that she had worn, amongst other instruments, a flexible india-rubber intra-uterine stem. On examination per vaginam, the body or fundus of the uterus and os were found looking (if I may so term it) towards the symphysis pubis; the mucous membrane of the vagina was inflamed, and the os uteri slightly excoriated, due to the muco-purulent discharge. A sound, a malleable one, was introduced in the same manner as in the previous case. After some preparatory treatment, on Aug. 1st an intra-uterine stem and shield were inserted, which she wore until just previous to the second menstrual period, when it was removed by my son, Mr. T. Wynn Williams of Brixton, during my temporary absence. She shortly after conceived, and was delivered of a fine girl in due course by a gentleman in Liverpool, whose name I unfortunately cannot recollect.

Montagu-square.

CASE OF SNAKE-BITE.

By F. CHARLES HEIDENSTAM, M.D.,

DISTRICT MEDICAL OFFICER OF THE LARNACA HOSPITAL, CYPRUS.

I HAD often heard that persons here in Cyprus had suffered, and that some had even died, from the venomous effects of a bite from a snake called by the natives *Kouffi* (Κοῦφυ), which is in reality the Vipera mauritanica, but I had never had the opportunity of watching or treating a case of this kind till recently, as Cypriot peasants have great faith in charms and in drugs of their own composition, which they believe to be almost infallible in cases of snake-bite, and in consequence they rarely seek medical advice.

At about 10 A.M. on 17th June, Ismail Abdullah, a Turkish zaptieh (police), aged twenty-one years, was brought to the hospital from Tohkni, a village about twenty miles distant. His story was that a snake-charmer had charmed and persuaded him that he could take hold of any snake without being bitten. Coming across one on the previous day he seized it, feeling confident that it could do him no harm, and was bitten on the back of the right hand. He felt a smarting pain of a burning character immediately he was bitten. A few hours afterwards vomiting set in, and his hand and arm became greatly swollen. On being admitted to the hospital his state was as follows:—The whole of his right hand and arm were much swollen and presented a mottled marble aspect. The marks of two punctures were plainly visible on the back of the right hand, surrounded by a dark circle a little more than an inch in diameter. On scarifying the two wounds blood of a darkish colour issued from them. The constitutional symptoms were: great prostration, profuse cold sweat, slight dyspnœa and great restlessness. Temperature 101°; pulse 116. Ammonia was administered to the patient internally, and also applied externally to the swollen arm and bitten hand. The patient was delirious and passed an exceedingly restless night.

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[1] See THE LANCET, Jan. 1st, p. 35.

The following morning the arm and hand presented a phlegmonous erysipelatous appearance, with glandular enlargement and suppuration; dyspnœa had increased; there was diarrhœa and an appearance of jaundice. Temperature 102°, pulse 122.

During the following three days the patient's state was much the same as that on the day following his admission to the hospital. Ammonia and stimulants were continued.

On the fifth day the external aspects of the limb seemed to have improved, but high fever and restlessness continued. On feeling the arm I found that its entire length from the back of the hand to the shoulder was soft, and on making an incision above the wrist oozing matter ran from it abundantly. Similar incisions were made along the arm at three different places, the same kind of discharge made its appearance at all of them. Suppuration and sloughing continued for several days, during which antiseptic dressing was used. On July 22nd the patient had quite recovered with the exception that his arm and fingers were rather stiff.

Larnaca.

ON THE USE OF A NEW SILVER SALT IN THE TREATMENT OF ORGANIC NERVOUS DISEASE.

BY ALLAN M. LANE HAMILTON, M.D.,

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I HAVE no doubt my own disappointment in the use of various remedies recommended by different authorities for the treatment of organic nervous disease is shared by many who have given even the most promising a fair trial. Nitrate of silver, a drug with an ancient reputation, is one of the few not to be despised, for occasionally it proves of great service, but, as a rule, it is entirely inefficacious. We are, therefore, too apt, in a great majority of instances, to resort in a routine way to iodide of potassium, or mercurial treatment, with variable results.

About three years ago it occurred to me that the combination of phosphorus with silver might well be worth trying. I therefore, through the kindness of Dr. Doremus of Buffalo, procured a sample of the tribasic phosphate of silver, a salt prepared in the following manner:—Precipitate a solution of argentic nitrate with a solution of trisodic orthophosphate, wash with distilled water, and dry in the dark. The process may be expressed as follows:—$3NO_3Ag + PO_4Na_3,12H_2O = Ag_3PO_4 + 3NaNO_3 + 12H_2O,Ag_3,PO_4$.

A second sample of the drug was made by Mr. Frazer, of Caswell, Hazard, and Co., New York, according to the above formula. It was a heavy powder of a lemon-yellow colour, and was slightly darkened by exposure to the light.

The tribasic phosphate of silver possesses advantages over the other silver salts which entitle it to a fair trial. I have given it for months in doses varying from one-third to half a grain without any skin discoloration whatever, and its administration is unattended by the gastric irritability that so often follows the use of either the nitrate of silver or the phosphide of zinc. At the same time its therapeutical effects are much more pronounced. It is best given with some such excipients as argol and glycerine, for vegetable substances tend to decomposition; and for this reason I have discarded the confection of roses as an element of the pill mass.

In the first edition of my work upon Nervous Diseases[1] I directed attention to the probable advantages of this drug, especially in sclerosis of the posterior columns. The experience of two years has convinced me that it is my duty to urge others to make use of the remedy. In two class of cases it has proved to be of great value—1. In those of more or less acute myelitis with disturbance of the bladder and rectum. Not only in such cases of transverse disease has there been a decided improvement in the matter of control over the functions of these organs, but there has been a decided gain in the muscular power. This has been conspicuous in a very remarkable case of chronic meningo-myelitis seen in consultation with Dr. Todd of Ridgefield, Conn. 2. In cases of sclerosis of the nervous substance. In seven cases of posterior spinal sclerosis there has been a subsidence more or less in the violence of the pains, and in those who have taken the drug for over a year the power of locomotion is materially increased.

In six cases of inveterate epilepsy, as the result of gross inflammatory intracranial changes, the patients have been relieved, judging from the diminution in the number of the attacks.

I am now giving the drug to patients with cerebral tumour and general paralysis, and while it would be out of the question to expect anything like permanent cure in such hopeless diseases, I do believe that a persistent and proper use of the silver salt will do much more for the patients than any of the drugs hitherto used. I can find in medical literature no record of the use of the phosphate of silver, nor am I able to learn by inquiry that it was used prior to 1878. I sincerely hope that others may be prompted to publish their experience.

East 33rd Street, New York.

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[1] Nervous Diseases: their Description, &c.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

MIDDLESEX HOSPITAL.

HYSTERICAL VOMITING OF EIGHT MONTHS' DURATION.

(Under the care of Dr. COUPLAND.)

THE following summary may be of interest in connexion with the case read by Dr. Sutherland at the last meeting of the Clinical Srciety:—

Bridget S——, aged twenty-four, a domestic servant, unmarried, was admitted on May 2nd, 1879, under Dr. Greenhow, and subsequently came under the care of Dr. Coupland. She had never been ill before, was habitually constipated, but menstruated regularly. Seven months before admission she was attacked with giddiness, faintness, and vomiting after food; she did not bring up blood at this time, but she stated that six weeks later bright blood was vomited. From that time vomiting had continued at intervals, and she suffered from continuous pain at the pit of the stomach, periodically worse every three weeks. Vomiting, which ensued immediately on taking food, always relieved the pain. The patient's appearance was certainly not that of one suffering from organic disease. She was pale, stout, and flabby, and although at first apparently suffering pain, her expression was for the most part calm and placid, and even apathetic. The pain she complained of was seated between the shoulders and in the epigastrium; there was limited tenderness in the latter region, where pressure also excited dorsal pain. Tongue was clean; bowels constipated. No other organs objectively deranged. Temperature 98·5°, pulse 88, full and regular. Urine, sp. gr. 1025, acid, no albumen. Before the evening she had vomited a large quantity of greenish fluid, neutral in reaction, containing bile. It may be added that the vomited matter was always of this character, clear (unless mixed with curdled milk or other ingesta), and of a grass-green tint, sometimes assuming an olive colour after long exposure. The vomiting proved to be the predominant symptom, recurring several times a day, but the pain and tenderness varied in intensity, in duration, and in situation. Sometimes there was nausea with or without vomiting, and very frequent attempts at vomiting. On the 20th of May Dr. Hall Davis was consulted, but the greatly contracted hymen prevented uterine examination, nor was there any reason for suspecting uterine derangement.

On admission she was put upon a diet restricted to jelly, beef-tea, and three pints of milk, all solid food being interdicted, and the milk given with lime-water. Next morning calomel and magnesia were given, which relieved the constipation that had lasted four days. On the 4th, as the food seemed to induce vomiting, nutriment was entirely administered by enemata every four hours, a few drops of laudanum being added to ensure their retention. On the 5th a sinapism was applied to the epigastrium, and on that day the vomiting was certainly less, and the pain easier, an amelioration which continued throughout the following day. On the 7th bismuth and hydrocyanic acid were prescribed, and the sinapism to epigastrium was repeated. The vomiting did not cease, although the quantity ejected was less, and on the 9th a blister was applied locally, and a small quantity of beef-tea allowed by the mouth, which was discontinued next day, as the sickness recurred violently, and hypodermic injections of morphia (one-sixth of a grain) were commenced. On the 11th she was allowed a little egg and brandy by the mouth, and the carbonate of bismuth given in place of the liquor. There was no abatement of the vomiting however, and the nutrient enemata were still continued. On the 13th ice caused pain, and vomiting still persisted. Oxalate of cerium was prescribed on the 14th, and on the 15th she was free from sickness for twenty-four hours, but under the same treatment the vomiting recommenced on the 16th.

From May 18th to June 8th the vomiting still continued, and the quantity of vomited matter was compared with the amount of urine excreted every twenty-four hours—viz. :

	Vomited matter.	Urine.	Bowels.
May 18th	6 oz.	10 oz.	Open twice.
,, 19th	10 ,, ...	28 ,, ...	—
,, 20th	18 ,, ...	18 ,, ...	—
,, 21st	30 ,, ...	*	Open twice.
,, 22nd	28 ,, ...	16 ,, ...	—
,, 23rd	26 ,, ...	10 ,, ...	—
,, 24th	22 ,, ...	10 ,, ...	—
,, 25th	26 ,, ...	(?)	Open once.
,, 26th	28 ,, ...	12 ,, ...	—
,, 27th	43 ,, ...	26 ,, ...	—
,, 28th	34 ,, ...	12 ,, ...	—
,, 29th	26 ,, ...	18 ,, ...	Open.
,, 30th	$31\frac{1}{2}$,, ...	8 ,, ...	—
,, 31st	20 ,, ...	36 ,, ...	—
June 1st	20 ,, ...	16 ,, ...	Open.
,, 2nd	20 ,, ...	18 ,, ...	—
,, 3rd	12 ,, ...	10 ,, ...	—
,, 4th	20 ,, ...	12 ,, ...	—
,, 5th	8 ,, ...	12 ,, ...	—
,, 6th	12 ,, ...	(?)	Open freely.
,, 7th	22 ,, ...	8 ,, ...	—
,, 8th	2 ,, ...	24 ,, ...	—

* Passed under her.

The treatment during this period varied as much as before, the chief measure being hypodermic injections of morphia ($\frac{1}{6}$ gr.), and atropia ($\frac{1}{120}$ gr.) every six hours, until the 5th of June, when they were finally discontinued; ice was applied to the epigastrium on May 24th, and an ice-bag to the spine on the 29th. On the 25th some fish and jelly were given by the mouth, the enemata still being continued. Most of this food was retained; and on the 2nd of June it was decided to discontinue the rectal alimentation entirely, especially as it was likely that, after a course of four weeks' uninterrupted administration, the absorbent power of the mucous membrane must have been somewhat exhausted. The fish diet, with beef-tea, milk, and an egg, was therefore given on the 2nd, with the addition of custard-pudding on the 5th, when also the hypodermic injections were left off. The result of this change in treatment proved very satisfactory. On the 8th only two ounces were vomited, and from that date the sickness ceased. She was allowed to get up, encouraged to exert herself, having during the whole time lain in an apathetic inert condition. Meat was allowed on the 10th, and she had no return of pain. Throughout the temperature had been normal or subnormal, and the pulse rate from 84 to 96. The urine was free from abnormal constituents. The patient left the hospital on June 27th.

Remarks.—In spite of the resemblance of the symptoms to those of chronic gastric ulcer, which led to the measures employed in the first instance, it became obvious after a time that the vomiting was of a neurosal character. The aspect and well-nourished condition of the patient, the occurrence of vomiting independently of taking food (even when no food was taken by mouth); the character of the vomited matters, from first to last free from blood; and the act of vomiting itself—all combined to favour the hysterical hypothesis. Indeed, it could hardly be called vomiting; it was often little more than a simple regurgitation or fluid eructation, not accompanied or preceded by straining, or notable contraction of the diaphragm or abdominal muscles. A note made on May 22nd illustrates this point:—"Pressure over the epigastrium causes a sense of nausea, and at times even actual sickness. Whilst the abdomen is being palpated very gently, without manifest pain, some clear fluid is ejected from the mouth without any effort or the usual mechanism of vomiting being brought into play." The result of allowing her solid food, of calling into play her dormant volition, and of ceasing to regard herself as an incurable invalid, seem to place the purely functional character of the affection beyond a doubt. At the Clinical Society last year Dr. Graily Hewitt recorded a remarkable case where vomiting had continued persistently for ten months, unalleviated by all measures of treatment. The patient was reduced to an extreme degree of emaciation, and the vomiting ceased after measures had been taken to rectify a malposition of the uterus. In the present case there was no evidence of any uterine derangement, and, in spite of vomiting (which before admission had occurred intermittently for some months), her general nutrition was unaltered.

COUNTY HOSPITAL, LINCOLN.

GUNSHOT INJURY; DESTRUCTION OF RIGHT KNEE-JOINT AND AMPUTATION OF THIGH; ANEURISM OF LEFT FEMORAL ARTERY TREATED BY DIGITAL PRESSURE AND ESMARCH'S BANDAGE.

(Under the care of Mr. SYMPSON.)

FOR the following notes we are indebted to Mr. W. J. Cant, house-surgeon.

J. T——, aged forty-six, was admitted on August 22nd, 1880, with a severe gunshot injury of right knee, left thigh, and both hands, caused by the discharge of a fowling-piece at a distance of about twenty feet. The tissues were not much torn, but there were marks indicating the entrance of numerous shots. The patient suffered from severe shock, soon followed by well-marked inflammatory reaction. The knee-joint was poulticed and fixed immovably on a McIntyre splint. Both hands, after suppurating freely, gradually healed. Numerous abscesses formed round the knee-joint, which were opened, allowing the escape of large quantities of laudable pus. The temperature was always more or less above normal, and on two or three occasions reached as high as 103°. There was continuous intense pain, radiating from the knee-joint, with increasing formation of pus, which discharged from numerous sinuses. Symptoms of exhaustion were setting in. On Oct. 2nd a consultation was held, when it was decided that the thigh should be removed at the junction of the middle and lower thirds.

On opening the knee-joint after its removal it was found to be extensively damaged, the cartilage over the head of the tibia was torn and ulcerating; both condyles of the femur were denuded of cartilage, and the cancellous tissue was broken up. The operation was performed under the antiseptic treatment.

On the day before the operation a small pulsating swelling was found connected with the femoral artery of the left thigh, which, on careful examination, was proved to be an aneurism. The tumour was rapidly increasing, and on Oct. 3rd, was found to have reached the size of a small orange. At two o'clock of the same day digital compression of the femoral artery at Scarpa's triangle was commenced and continued for two hours, when Esmarch's bandage was applied from the toes up to the aneurism, and then to the thigh above the aneurism, thus leaving the tumour exposed. Digital compression was continued, as the pressure from the Esmarch's bandage was not sufficient to stop the pulsations (ether was not administered). The bandage and pressure were continued for eight hours, when on their removal the pulsations had ceased, and the tumour consolidated.

The thigh-stump healed completely in about three weeks, without any formation of pus, showing a firm and linear scar. The aneurism gradually diminished in size, and on Nov. 8th, when the patient was discharged cured, scarcely anything could be felt of it; the femoral artery pulsated above and below the tumour.

CUNNINGHAM HOSPITAL, ST. KITTS, WEST INDIES.

CASE OF ELEPHANTIASIS OF THE LEG; AMPUTATION; SECONDARY HÆMORRHAGE ON THE TWENTIETH DAY; LIGATURE OF FEMORAL ARTERY; DEATH.

(Under the care of Mr. A. BOON.)

S. G——, a delicate-looking negro labourer, forty-five years of age, was admitted into hospital on Oct. 27th, with elephantiasis, and an extensive ulcer of the left leg. The elephantiasis extended up to the knee, and slightly above it; the ulcer occupied the lower third of the leg; it was deep and foul, discharging profusely, and of many years' duration. The right leg was not affected. Urine normal. Had had syphilis and dysentery several times. As the ulcer was very large and incurable, and therefore a great drain on his strength, and as his general health was better than it had been for some time, it was determined to amputate, which was accordingly done on the 30th, by the circular method, the bones being sawn through at a line about one inch below the tuberosity of the tibia. The elastic tourniquet, on being applied before the operation, broke, the india-rubber having been spoiled by the climate, so an ordinary tourniquet was put on. The venous hæmorrhage was pretty severe, which is often the case; several large veins and about a dozen arteries required ligature. The stump was swabbed with a solution of chloride of zinc, and enveloped in carbolised tow. Carbolised catgut ligatures and horse-hair sutures were used. After the operation all went well. By the end of the first week the flap had united, except at two points. At first there was the profuse watery discharge that is always seen in such cases; afterwards a small quantity of inodorous pus was found on the dressing which was renewed every two or three days. The patient's general health improved steadily; his temperature and pulse remained at normal; his appetite good; his bowels regular; his sleep unbroken. So things progressed; he was far in advance of a man in the next bed, whose leg had been removed a week before his for traumatic gangrene of the foot.

On the evening of the twentieth day the patient foolishly got out of bed on to the floor: frightful hæmorrhage came on; the alarm was given, and the resident assistant, Mr. Winter, was speedily on the spot and applied a tourniquet, which effectually controlled the bleeding, but in the few minutes several pounds of blood had been lost. Mr. Boon was sent for, and on his arrival found the man in a state of collapse. Stimulants were given, and he rallied to some extent. Mr. Boon then, with the assistance of Dr. Waldron, opened up the flaps, which were very firmly united except at the two points mentioned above, and sought for the vessel from which the hæmorrhage had come, but was unable to find it; the man was in such a condition that it was not safe to relax the tourniquet. It was, therefore, decided to tie the femoral artery in Hunter's canal, which was done. Though the vessel was empty, in consequence of the tourniquet being still on the limb, and the operation had to be done by lamp-light, there was not much difficulty in finding the vessel and applying the ligature. But the loss of blood had been too great, and the patient died shortly after.

The next day a careful dissection showed that the hæmorrhage had come from the popliteal artery; the vessel tapered a little at the cut end, which was patent, the diameter of the opening being equal to about one-third of that of the vessel. It was evident that the catgut had behaved much in the same manner as an ordinary silk ligature. The artery itself seemed to be healthy except at a point about one-fourth of an inch from its extremity, where there was an irregular opening of about the same area as the one already mentioned, which had the appearance of being the result of an ulcerative process in the coats of the vessel. Finally, there was merely a slight trace of an internal plug, a few shreds of blood-stained tissue adhering to the sides of the vessel and in no way obstructing its calibre.

Remarks by Mr. BOON.—Though the questions of the advisability of operating, and the method of operation, in such cases of elephantiasis may be discussed at another time, this case is of interest from the fact that the carbolised catgut ligature was used, and secondary hæmorrhage ensued at an unusually late date. I am satisfied, however, that there was no connexion between the form of ligature and the hæmorrhage. No doubt the patient getting out of bed was the immediate cause of the catastrophe, but I am inclined to think that, sooner or later, the vessel would have given way. It is not so clear what was the cause of the almost complete absence of the internal plug. Probably the syphilis, the hæmorrhage at the operation, and the general condition of the patient, all three, had something to do with it. I may add that the carbolised catgut was above suspicion, having been procured from Weiss.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Congenital Truncation of Forearm.—Tubercular Disease of Joints.—Abscess in the Liver.

THE ordinary meeting of the Pathological Society of London was held on Tuesday, Feb. 15th, Dr. Wilks, President, in the chair. The chief subject considered was the presence and influence of tubercular growths in the synovial membrane and bones of diseased joints, introduced by Mr. Croft and illustrated by microscopical preparations by Drs. Greenfield and Mercer and Mr. Makins. Dr. Andrew Clark brought forward a case of Abscess of the Liver which presented features of considerable interest.

Mr. BARWELL showed two living specimens of Truncated Malformation of the Forearm. This deformity has latterly been considered to be due to intra-uterine amputation by shreds of indurated fibrin. No doubt intra-uterine amputation does occur, for in some few rare cases the amputated portions have been born. He had found of such cases only three on record—in one, the foot was amputated and born afterwards; a second, in which the foot was born hanging to the amputating thread; and a third, in which the foot was born some days before the child. Simpson speaks of the little finger-like growths at the end of the stump as the results of secondary reproduction. Both the women shown had a truncated forearm; the younger one has four small digits and a little depressed pucker; the elder one has four fingers and thumb and a palm, all rudimentary; no pucker; no nails in either case. There is considerable voluntary movement of adduction and rotation of these fingers as a whole. We cannot believe that these muscles and nerves are formed by rudimentary reproduction, and, therefore, in most of these cases the theory of intra-uterine amputation also falls to the ground. Most of these cases are really lack of development. He had seen many cases, and in all of them but one there had been rudiments of fingers.—Dr. N. MOORE thought the view of arrested development fully borne out by facts. These cases were most interesting in comparison with the sirenia—aquatic herbivora—in which the hind-limbs are not developed; these animals are probably descended from terrestrial herbivorous animals, with perfect hind-limbs. In all the instances of undoubted reproduction of amputated limbs, as in amphibia, the new limbs are perfect.—Dr. WILTSHIRE bore testimony to the accuracy of Mr. Barwell's statements. He had never seen a case of true intra-uterine amputation. The rudimentary digits in the cases shown were of the size of a fœtus of four months, and this fact suggested that the developmental error occurred at that time. Cretinoid fœtuses show well a condition of truncated arms and legs, which, if carried further, would simulate Mr. Barwell's cases. It is an arrest of development, and very rarely amputation.

Mr. CROFT showed a series of microscopic specimens to illustrate the occurrence of Tubercle in Bone and Synovial Membrane. He premised that by tubercle he meant a small-celled growth surrounding epithelioid cells, with giant cells, and a fine reticulum, non-vascular, and tending to caseation in its older forms. The patients from whom the specimens were obtained were all in delicate health; their joints progressed very tediously; there was great hyperplasia, and abscesses with carious pus. Case 1, aged twenty, had effusion in knee-joint for three months; the leg was amputated; tuberculosis of synovial membrane was found; he subsequently died of intestinal phthisis; his grandparents had been phthisical. Then followed three cases of chronic hip disease, aged four, six, and twelve, who had suffered for six months, one year, and two years. One died from tubercular meningitis, another died of rapid general tuberculosis. The near relatives of two of them were consumptive. Case 5, female, aged twenty, disease of knee two years; died after excision. There was tubercle of lungs and spleen. Case 6, girl, aged eight, chronic disease of ankle more than three years; the grandparents were consumptive. The microscopic examination had been conducted by Dr. Clifford Mercer, under the direction of Dr. Greenfield, to both of whom he was greatly indebted. Dr. Greenfield had drawn up a report, which was as follows :—

CASE 1. P——. (Knee-joint.)—*First series of sections, through the semilunar cartilage and a mass of fungating granulations* growing from it. The outline of the fibrocartilage is distinct at the lower part, and its structure there appears unaltered. On the upper surface is a mass of granulation tissue more than half an inch in thickness, from the edges and surface of which project vegetations, some of which are polypoid. The upper layers of the fibro-cartilage show some signs of inflammation, and the fibres are separated by rows of leucocytes. Continuous with this surface is a layer of granulation tissue of ordinary character, which resembles in every respect organising cicatricial tissue, and contains vessels of new formation. This layer of granulation tissue is about half an inch thick, and forms by far the larger proportion of the thickened mass; towards the surface it becomes somewhat more cellular in structure. Completely covering it, both on the surface and at the edges, and penetrating for a short distance between the granulation tissue and the fibro-cartilage near the free edge of the latter, is a layer of tissue of entirely different structure, and abruptly defined. This has the structure usually seen in rapidly caseating tubercular infiltrations. This layer has the following characters. At the surface it consists of amorphous granular material, contains a few nuclei and the remains of cells (caseating mass). At the deeper surface, where in contact with the granulation tissue, it is limited by a more or less uniform and dense layer of small round cells, which stain deeply with reagents (leucocytes). In the intermediate layer are seen all grades of rapidly growing and degenerating tubercular granulations. These are, as usual, made up by the aggregation of small rounded or ovoid masses (tubercle follicles), united by a more or less perfect adenoid tissue. Only very few of the tubercle follicles present the perfectly developed typical form. These have the usual characters of one or more multi-nucleated cells (giant cells), with branching protoplasmic processes, which are continuous with a reticulum, formed mainly by branching flattened endothelial cells, and containing in the interstices rounded, ovoid, or variously shaped cells with relatively voluminous protoplasm. In many the reticulum is indistinct, or only seen here and there. They consist of one or two, or more, giant cells, spheroidal or polygonal cells, and spindle cells, especially at the periphery, all massed together. In others two or three enormous giant cells form the greater part of the mass. Caseation is common at an early stage, and fibrous change is rare. The caseated follicles have the usual appearance—an amorphous central mass, containing sometimes the remains of a persistent giant cell, towards the edge ovoid or elongated nuclei running outwards and merging in the tissue around. In some parts of the mass, and especially in torn edges, there are seen, as composing the growth, many large spheroidal or polygonal cells with a single or double nucleus (so-called epithelioid cells), many large spindle cells with ovoid nuclei, and large multinucleated cells. In fact, in all its characters this layer is identical in appearance with a layer of tubercular infiltration of the peritoneum, or of any organ. Scarcely any capillaries are visible in this layer of the granulations; it is almost entirely non-vascular.—*Second series of sections, through the edge of the articular cartilage and the bone*, and a mass of vegetating granulations at the free margin. The bone and articular cartilage show no marked change. The structure of the vegetations is identical with that seen in the first series of sections, the deeper layers being ordinary granulation tissue, the more superficial consisting of imperfectly formed tubercular granulations. In some places the synovial membrane is continuous over the layer of tubercle, and appears but little altered.

CASE 2.—W. R.—(*a*). *Sections of thickened synovial membrane.*—The thickened membrane formed a mass about a quarter of an inch in thickness, nearly smooth on the surface. In this could be distinguished a thin deep layer, consisting of the remains of the synovial membrane and ordinary granulation tissue, and a superficial, somewhat dense layer of caseous material; but by far the greater part is composed entirely of a mass of tubercular granulations. These are extremely typical, the follicles being very well developed, the giant cells and reticulum large and prominent. There is scarcely any caseation except at the surface, and the growth of the tubercle is orderly and apparently gradual. In the intermediate tissue between the tubercle follicles a relatively large proportion of newly formed vessels is seen, and towards the caseating superficial layer these gradually become blocked by concentric proliferation of their walls, which are entirely cellular. (*b*). *Sections of bone from the head of the femur, near the epiphysis.* (*c*). *Perpendicular sections of the bone after softening in chromic and hydrochloric acid.* A few grey granulations are visible with the naked eye in the sections, near the surface. Microscopically, they present the same characters as the tubercle in the synovial membrane; they are entirely situated in the medullary tissue—i.e., they do not appear to affect the bony trabeculæ.

CASE 3.—F. R—— (Mr. MacCormac's case.)—(1) *Sections through articular cartilage of the head of the femur, and a cauliflower-like mass of vegetations on its surface and projecting at the edge* (these formed a ring at the margin of the cartilage). The cartilage itself is but little altered, except some small cavities filled with granulation tissue. The chief substance of the vegetations is composed of granulation tissue. At the surface a condition closely resembling that in Case 1 (P——), viz., superficial caseation, and a layer composed of imperfectly formed tubercular granulations. Here, however, they are even less perfectly formed, and caseation is more advanced. Many consist merely of masses of epithelioid cells varying much in size and shape, contained in an ovoid or rounded cavity formed by imperfect lymphoid tissue. Only a few contain giant cells fully formed, or a complete reticulum. (2) *Sections of bone* from the head of the femur show no tubercle.

CASE 4.—Harriett P—— (knee-joint), 1 and 2. *Two series of sections from thickened synovial membrane.* In one series there is a deep layer of fat which is unaffected. In other respects the two series show very similar changes. The fibrous layers are swollen and show ordinary inflammatory changes, and upon the surface is a layer of ordinary vascular granulation tissue. Here and there in this layer are seen isolated tubercle follicles. Superficial to this is a layer of much greater, though variable thickness, consisting of ordinary tubercular infiltration. Upon the surface of this is a caseous layer of variable thickness. It is not easy in all parts to distinguish the tubercular zone from the zone of ordinary granulation tissue, the two seeming to shade off into one another in some parts, or the tubercle follicles to be embedded in the layer of granulation tissue. But in the completely formed tubercular zone the structure is very perfectly developed.

CASE 5.—Florence W—— (ankle-joint).—1. *Sections of a rounded mass of swollen synovial tissue*, consisting largely of fibrous bands. Owing to imperfect preservation the structure is not well brought out, but there is apparently an infiltration of the tissue with tubercle. In some parts the tubercular structure is very clearly seen.

CASE 6.—Lizzie F—— (hip-joint).—1. *Bone.*—The sections are from the head of the femur in the same position as in Case 3, and they show a similar condition—viz., the presence of scattered tubercular granulations—very few in number, and best seen near the surface of the bone. The periosteum over the part where it remains shows merely inflammatory thickening. 2. *Synovial membrane.*—No tubercle was found in any of the sections of the small piece examined.

CASE 7.—Hector W—— (hip-joint).—*Sections apparently of the round ligament, which is somewhat irregularly swollen.*—These sections consist entirely of ordinary newly formed young connective tissue, which is highly vascular, and in many places of myxomatous type.

Summary.—It appears from a comparative examination of these specimens from the hip, knee, and ankle joints, that in all the six in which the synovial membrane and bone were examined, tubercle was found; whilst in one in which only the thickened round ligament was examined, no tubercle was present. In the thickened synovial membrane a combination of common inflammatory changes with tubercular infiltration is present, and usually three zones may be distinguished: 1, a superficial caseous zone; 2, a zone of tubercular infiltration, usually forming a large proportion of the entire mass; and 3, a zone consisting of the fibrous structures of the synovial membrane in a state of chronic inflammation. In the latter zone, as well as in the bone, isolated tubercular granulations are seen. In the articular cartilage in these cases nothing beyond some spaces filled with granulation tissue was seen. It is, of course, often a question whether the fungating mass examined is synovial membrane or newly formed fibrous bands, as the structure of the synovial membrane, if present, is quite obscured. I have not hesitated to call the structure in all these cases "tubercular" on the ground that it is identical with that seen in tuberculosis in whatever organ it may be examined, and that microscopically it is indistinguishable from tubercular infiltration of a serous membrane, whilst it is entirely distinct from the ordinary products of inflammation, whether acute or chronic. With regard to the majority of the specimens, those in which the growth is made up of rounded masses, themselves in turn composed of grouped follicles in which the structure of tubercle—giant cells, reticulum of flattened epithelioid cells, &c.—can be distinguished, I suppose there will be little doubt. But, in the other cases, where although the structure is similarly arranged, the follicles contain giant cells and epithelioid cells, without definite visible arrangement of reticulated stroma, there may be some who would prefer to call the change scrofulous inflammation. I have adhered to the term tubercle for these reasons. 1. That the same structure is met with in the rapid growth of tubercle elsewhere—it appears, in fact, to be a question of completeness of organisation before caseation occurs. 2. That a like condition is found in some parts of nearly all tubercular infiltrations in other organs, and is especially common in some—e.g., the spleen and liver. 3. That in the specimens where there are the most typical tubercular granulations this condition also occurs in many places. 4. That in other respects these specimens are precisely similar to the unquestionably tubercular, differing only in more rapid caseation. Additional evidence in favour of this view is found in the fact that in Case 3, where this imperfect organisation was most apparent, there was the most extensive tuberculosis of other organs, including tubercular tumour of the cerebellum and tubercular meningitis, and tubercle in lungs, liver, kidneys, and peritoneum.

Mr. CROFT considered that these cases raised seven points of interest. First, he thought there could be no doubt that the changes were really tubercular, and not simply inflammatory. Then, although it was impossible to be certain whether the tubercular affection was primary, and not preceded by any simple inflammation, he inclined to the opinion that there was some primary simple inflammation followed quickly—how quickly he could not tell—by tubercular growths. As to the question of infection from caseous deposits, in five out of the six cases there was no reason to think any caseous deposits pre-existed, but the joint lesion was really primary; but in the sixth it may be presumed that some caseous calcified mediastinal glands were of older date than the joint trouble, which was of two years' standing. Three died from general tuberculosis, suggesting systemic infection from foci in the joints. Again, if tubercle be non-vascular, and incapable of organisation, does not its presence constitute a strong argument for early removal of the diseased tissues? Quoting Volkmann, Köster, Cornil and Ranvier, Wilks and Moxon, in his support, he urged that there is a class of cases characterised by primary tubercular disease of the synovial membrane. In approaching the larger question of the existence of a true primary tubercular arthritis and its frequency, he quoted Erichsen, Holmes, and Bryant, as expressing the common view of English surgeons, that if ever found it is very unusual; and König, Bidder, Billroth, and Volkmann, as maintaining its great frequency. He hoped that further investigation would clear up this discrepancy, and strongly urged the importance of careful microscopic examination in all cases of excision for chronic joint disease.

Mr. MAKINS showed specimens of a case of Tubercle of Synovial Membrane from the Elbow-joint. The man had no history of tubercle or signs of tubercle elsewhere, and no affection of bone. The sinuses left since the excision are apparently affected in a similar manner.—Dr. D. POWELL asked if there was anything known of the family history, and whether there was any history of injury.—Mr. MAKINS could not find any trace of phthisis in the family, and there was no history of injury in the case.—Dr. POWELL said Mr. Croft's cases showed the effect of injury in determining the disease in certain positions, in the same way as gout or rheumatism might be localised. Other cases show the effects of disease of bone in setting up general miliary tuberculosis. Primary miliary tuberculosis of one joint was certainly a most striking fact, and required a very great deal of evidence in its support. None can doubt that the cases shown are really tubercular.—Mr. BRYANT could not deny that these cases are really tubercular; but was the disease in its origin tubercular? for, surely, the existence of tubercle in bones and synovial membrane is very rare. He had seen tubercle in synovial membrane with the same affection elsewhere, and these cases showed no special clinical symptoms. He thought that in these cases the tubercle was part of a general affection, and secondary to some earlier chronic inflammatory disease. A large number of old cases of joint-disease die from general tuberculosis or tubercular meningitis. He thought we ought not to set up a separate variety of diseases of joints tubercular in their origin.—Mr. GODLEE asked if in any number of cases of supposed tubercular nature these special structures had always been found; and in cases not supposed to be tubercular whether they had been present. In his examination of the granulation tissue of a joint, contributed to the Pathological Society in 1877, he did not meet with any signs of tubercular follicles, and he still adhered to his former hypothesis that the changes seen are merely a phase in the organisation of chronic inflammatory tissue.—Mr. BARWELL thought we ought to be careful in distinguishing tubercle of bone and synovial membrane from tubercle of inflammatory products. Many cases of disease of joints result from injury, they are very chronic, and in some there are caseous patches, but it is doubtful whether these are really tubercular. He did not think that tubercle of bone proper exists.—Mr. MACNAMARA, after repeated examinations, had found tubercle in a great number of cases in the cancellous ends of bones. He had found a tissue precisely the same as that called tubercle elsewhere, and especially in the synovial membrane of the ankle-joint. In cases of joint disease with continued high temperature, there is tubercle which will eventually infect the other parts of the body. The disease is most often set up in the soft tissues between the epiphysis and diaphysis, frequently from injury; but tubercle may occur primarily in the synovial membrane; most of these cases occur in members of tubercular families.—Mr. TREVES thought the specimens of bone were not conclusively tubercular, the giant cells there seen were not characteristic of tubercle. But the changes shown in the synovial membrane were undoubtedly true tubercles. He doubted whether Mr. Croft had made out his case in regard to bone.—Mr. CROFT had purposely omitted reference to the clinical symptoms of tubercular disease of joints, for we must first decide whether such a disease really exists. Mr. Bryant's cases had not been examined microscopically, and it must be remembered that what appear to be grey granulations seen with the naked eye may not be tubercle, and tubercle when present may not be seen without microscopic examination. The question really is what is the relation between tubercle and inflammation of joints? Can simple caseous degeneration give rise to tubercle? It was not one, but the collection of several characters that indicate tubercle. He was glad to have Mr. Macnamara's support, as he had made careful microscopical examinations. Only these six cases had been examined. In one other case the round ligament only of the hip-joint was examined, but was not tubercular, though expected to be so from its naked eye appearance.

Dr. ANDREW CLARK brought forward a specimen of Abscess of the Liver, which was of clinical rather than pathological interest. A man, aged forty, admitted into the London Hospital in November last, died in January. Good personal and family history; perfect health up to June, 1880. Then after leaving Calcutta he lost flesh and strength, and was feverish. At Durban an enlarged liver was detected. On admission Dr. Clark found nothing definite, and the liver smaller than natural; not tender. Other organs normal. He presumed he had matter somewhere, and probably about the liver. At his next visit he found a dry friction sound over base of right lung. He aspirated from the axilla from right to left, and after some trouble twelve ounces of purilage was extracted. For a week the man improved, but then he failed again. The liver dulness rose in front to nipple line, and higher behind. The base of lung was consolidated. The abscess was again aspirated from the front two or three times without finding the pus. The man speedily died. A few days after the first aspiration the man coughed up a few pellets of purilage, containing bile pigment and elastic fibres. At the post-mortem the liver was found to contain a large abscess in the right lobe passing up as high as the root of the right lung, and many other small abscesses nestled in the liver. The colon was ulcerated in the cæcum and ascending colon, the ulcers being older below than above, but none of them of long duration apparently. Possibly the material of any causative emboli did not come from the ulcers. When the liver is small, and there are no tender spots, it is well to aspirate from right to left, as the abscess is in that way more likely to be reached. Friction is not a sign of adhesion of the two surfaces of a serous membrane. The abscess ought to have been opened at once when the fact of an abscess was once shown.—Dr. GREENFIELD asked if there was any displacement of the heart's apex, as that sign had assisted him to recognise an hepatic abscess spreading upwards. Were there any rigors after the first aspiration?—Dr. CLARK: The apex beat was normal. Fresh imperfect rigors and profuse sweats with irregular pyrexia occurred after the first tapping.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Chronic Vomiting treated by Koumiss.—Gangrene of Arm from a Poisoned Wound; Amputation of Shoulder.—Sarcoma of Dura Mater, encroaching on left Temporo-Sphenoidal Lobe of Brain.

THE ordinary meeting of this Society was held on the 11th inst., Professor Lister, F.R.S., President, in the chair.

Dr. H. SUTHERLAND brought forward a case of Chronic Vomiting, in which no food was taken, except koumiss, for eighteen months. The patient, a girl, aged twenty-four, on admission had been for five years under his care at the St. George's Hanover-square Dispensary. The vomiting commenced one year and nine months ago, the attacks coming on at first only once a fortnight, but lately they had occurred always once, and sometimes five or six times a day. As far as could be ascertained there was no organic disease of the stomach, no tenderness on pressure, or cachexia, nor any other constitutional symptoms. Every known remedy was tried to allay the vomiting—bismuth, opium, hydrocyanic acid, creasote, carbolic acid, hyposulphites—all without any satisfactory result. All attempts to cure the case by dieting had failed, and the patient could keep nothing on the stomach, as food, except koumiss, which she had taken for sixteen months. She is, however, able to retain a quinine and orange mixture, and also sherry in small quantities; but brandy makes her sick immediately. The uterus was not displaced. The object in bringing the case before the Society was to ask if any member could suggest any remedies or mode of treatment in this distressing case. — Dr. JAGIELSKI had found koumiss of value in cases of intractable dyspepsia, improving the digestive organs, as well as allowing them rest from other food. Dr. Sutherland's case was, however, quite unique. He had never read of a case where koumiss was the only article of diet for eighteen months. The patient, too, would seem to have increased in weight, and the cause of the rejection of all other food was an interesting matter. Some cases of this nature do well on other remedies and on concentrated foods—e.g., where vomiting has continued for several days, especially when pure milk is rejected, buttermilk, sour milk, or whey can be retained. He was inclined to think that koumiss was best retained because it has undergone a double fermentation, the lactic and the alcoholic, and the casein, therefore, probably is intimately intermingled with carbonic acid, which would render it more easily capable of assimilation. The most difficult case he had had to treat by this means was one of phthisis; but the good state of nutrition of Dr. Sutherland's patient was most surprising.—Dr. BROADBENT said the case was interesting as showing that apparent health and good condition could be kept up on a diet of koumiss alone, and he asked what amount of work the patient did during the time. The case appeared to have all the characters of hysterical vomiting, and other features of the case, the mental irregularities, &c., pointed to the hysterical condition, by which he did not, of course, imply that hysteria meant mendacity, and she may have lived on koumiss. The case might be compared with the instances of "fasting girls" and such like.—Dr. ROBINSON inquired whether any local treatment, such as blistering to the epigastrium, had been employed.—Dr. W. ROGERS agreed with Dr. Broadbent's view of the case, and asked what were the mental states of the patient, and thought the uterus might be at fault. He had seen many cases of persistent vomiting due to uterine derangement.—Dr. B. O'CONNOR had a similar case under treatment for the last four months, and finally applied nitrate of silver to the os uteri, on the ground of the stated efficacy of that measure in the vomiting of pregnancy. The vomiting ceased, but afterwards returned. Milk diet gave no benefit, but cream was retained better, and small doses of Valentin's extract of meat. Dr. Sutherland's case pointed to pulmonary and uterine conditions being the cause of the vomiting.—Dr. WILBERFORCE SMITH asked as to the diet presented before the koumiss was resorted to. Success was best obtained by abstaining from nitrogenous food, and thus giving physiological rest to the stomach. This principle applied to organic disease of the stomach as well as vomiting of nervous origin. In such cases he had found cream and fatty foods retained, and also the essences of meat, which were devoid of nitrogenous material; or entire rest might be maintained by nutrient enemata. He mentioned a case of chronic ulcer, with dilatation, seen with Dr. Fenwick, in which this line of treatment was successful.—Dr. DOWSE asked how much koumiss was taken in the twenty-four hours. He thought the vomiting was of nervous origin, due to inhibition of the vagus; and suggested that fluid nutriment should be given up and the patient fed on solids for twenty-four or forty-eight hours.—Dr. SUTHERLAND, in reply, said that goat's milk, sour milk, and buttermilk had been tried unavailingly. The patient does no work, but is not confined to bed. She is sometimes very melancholic and sensitive, but not hysterical. He would try Valentin's extract, but nutrient enemata were of no use, and he did not think solid food would be retained. She took two pints of koumiss daily. He had not tried blistering to the epigastrium.

Mr. CHRISTOPHER HEATH narrated a case of Gangrene of the Arm from a Poisoned Wound, amputation at the shoulder, and recovery. The patient was a nurse, aged thirty-four, who, in laying out the body of a lady who had died of puerperal septicæmia, pricked her thumb with a pin. Notes of the puerperal case were given by the physician who had attended her, and it appeared that she was a primipara in good health, and was the first patient attended by the accoucheur after his holiday, and that strict antiseptic precautions were employed. On the fourth day a rigor occurred, and the temperature was 105°; pulse 120. Subsequently the temperature went up to 107°, but was reduced to 102° by an ice-cap and cold-water bed. On the seventh day, however, the left pleura filled, and the patient sank. A nurse in attendance pricked her finger on the day of the rigor, and had a sharp attack of lymphangitis with recovery. The second nurse carried out the attendance till the patient's death. This nurse applied nitrate of silver to the puncture on the evening of the day she received it, and the next day the hand was swollen and painful. She had no further advice until the fourth day, when she was admitted to University College Hospital with the whole arm swollen and tense. Free incisions were made, but the next day the hand and forearm had gangrened. At first the gangrene seemed limited to the forearm, and the swelling of the upper arm decreased for a few hours; but a relapse taking place Mr. Heath amputated at the shoulder-joint. The patient made a rapid recovery, and was discharged in a month. Mr. Heath remarked upon the virulence of the puerperal poison, and protested against the common practice of applying nitrate of silver to punctures received at post-mortem examinations. He believed that the application of belladonna was most useful in cases of local inflammation, coupled with free incisions, when necessary.—Mr. CRIPPS related the particulars of a similar case lately under Mr. Holden's care at St. Bartholomew's Hospital. A healthy, temperate man pricked his finger with gorse three days before admission. The thumb became swollen and painful, and the back of the hand œdematous. When seen the hand was black, and there was swelling half-way up the forearm. Free incisions were made into the palm and back of the hand, and a small quantity of thick-clotted blood and serum escaped. Two days later the swelling increased; but after consultation amputation was deferred for twenty-four hours. At the end of that time the swelling had greatly extended, and Mr. Holden amputated at the shoulder-joint, through tissues already inflamed and swollen. Antiseptic precautions were taken, and the temperature fell from 103° to 99°. The patient improved for four or five days, but at the end of the sixth day he had a rigor, and the œdema extended to the neck. Incisions were small, but the cellulitis spread; the side of the face became black and gangrenous, and death ensued. Mr. Heath's case showed the advantage of early interference, and Mr. Cripps thought there should be more definite rules in surgery as to the indications for such interference.—The PRESIDENT said these cases confirmed the old surgical rule that, in spreading gangrene, amputation should be performed without delay. It was done in time in Mr. Heath's case, but not in Mr. Holden's. Koch's researches had shown that the condition depended on some organism. They proved that there were some organisms which produced a real blood disease—as the bacillus anthracis; others which caused septicæmia in a mouse; and another well-marked organism (occurring in chaplet-like rows), producing spreading gangrene—a progressive necrosis without general blood infection. Evidently in these cases the organism was one which tended to produce such local mischief rather than general.—Mr. HEATH said the rule of procedure was not only to amputate early in such cases, but also *high up*. The gangrene would spread in such cases as these unless the surgeon were prepared to amputate at the shoulder at once, without waiting for consultation, which deferred action.

Dr. WHIPHAM then read a case of small, Round-celled Sarcoma of the Dura Mater, encroaching on the left temporo-sphenoidal lobe of the brain, and producing extensive softening in its neighbourhood. A railway guard, aged thirty-five, was admitted into St. George's Hospital on January 25th, 1880. He had served on board ship in former years, and when in foreign parts had suffered from ague, dysentery, and acute rheumatism. At the end of December, 1879, he caught cold, had rigors and pain in the chest, and dyspnœa, but continued his occupation as a railway guard. During the fortnight previous to his admission he had been laid up with headache in the frontal region. About thirteen days before he came under observation he felt unwell, and became languid, and on the day following he shivered and felt pain in the frontal and temporal regions. The pain recurred in severe paroxysms with intervals of entire cessation of pain. On admission, the patient was well nourished, but somewhat dull and stupid; his tongue was coated; pulse 72, small; he had severe headache, and said he felt "stuffy in the head." The pain was referred to the left temporal region and to the left eye. There was a purulent discharge from the right ear, and Mr. Dalby reported a large perforation of the tympanic membrane. Shortly afterwards the patient became restless at night, and on the seventeenth day after his admission had passed into a comatose state, but still indicated by gestures that he was suffering pain on the left side of his head. Slight want of power in the right hand and leg was detected, but there was no real paralysis. The patient died on Feb. 24th. He was a left-handed man. At the post-mortem examination a lobulated tumour was found attached firmly to the middle fossa of the skull on the left side, and extended into the substance of the left temporo-sphenoidal lobe of the brain, involving or causing softening of the anterior parts of the three temporo-sphenoidal convolutions and the island of Reil. The softening extended to within one-twentieth of an inch of the level of the upper surface of the corpus striatum, but did not involve that ganglion. The important feature in the case was its bearing on the question of localisation of the functions of the brain. Although none of the motor centres were actually involved in the disease, it seems more than probable that the pressure exerted by the growth must, to a certain extent, have interfered with the functions of those convolutions situated directly in the line of such pressure. Thus may be explained the partial loss of power which existed in the right arm and leg, seeing that the upward pressure of the tumour would more especially affect the posterior part of the left superior frontal convolution, the upper part of the ascending frontal and probably part of the superior or posterior parietal lobule; those regions, that is to say, which Ferrier and others have shown to preside over the movements of the arm and leg. Further, the actual lesions which were demonstrated at the autopsy tend to show that the deafness in the right ear was the result rather of the injury to the brain than of the perforation of the tympanic membrane. Finally, the facts of the patient being a left-handed man, and the injury to the brain being on the left side, are interesting as bearing on the question of aphasia.—Dr. WILTSHIRE asked if any opthalmoscopic examination had been made. He had recently seen a case supposed to be puerperal mania, where, however, a chronic discharge from the ear had ceased the day after confinement, and he concluded that the case was one of meningitis due to extension from the ear. The patient died five days after the cessation of the discharge. No post-mortem was obtained.—Dr. ALTHAUS asked whether the condition of smell and taste had been examined, the centres of which appeared, from Ferrier's researches, to be in the superior sphenoidal convolution.—Dr. DOWSE asked whether the pain was localised to the side affected, or did it extend over the head, down the neck and arm. In several cases he had found pain thus radiating over a wide area, and a more or less paretic condition to exist on the side on which the tumour was growing.—Dr. BROADBENT said the case illustrated the fact of a tumour attaining a considerable size without any ill effects. The symptoms were those of an acute disease and not a chronic one, and probably corresponded with the time at which softening set in. The disease did not involve the centres of taste and smell, but did attack those of hearing; and hence the observation of deafness was of interest. The case would have been even more interesting had the man not been left-handed. He would attribute the paralysis to pressure on the corona radiata containing fibres from the motor centres. Some observers would shift the speech centre from Broca's convolution to the island of Reil; but when the latter is involved, fibres coming from that convolution are cut off. It was remarkable that there was an entire absence of vomiting in the case. If it came to be that tumours so situated were not attended with vomiting, another important localising fact would be established.—Dr. SILVER said that it would be interesting to know in these cases how deep the lesion required to be as regards Broca's convolution. In a case which had been under his charge, and where there was no paralysis, the surface of the left inferior frontal convolution at its posterior part was decidedly softened; the island of Reil to a much greater and more marked extent. There was slowness of speech, together with a certain amount of difficulty, depending on dulness, but there was no aphasia in the strict sense of the term. The suggestion by Dr. Broadbent that the radiating fibres might be intersected by diseased structures would tend to do away with the necessity for localising all such conditions in connexion with the left inferior frontal.—The PRESIDENT asked whether Broca's convolution was at all affected in Dr. Whipham's case, or only the island of Reil.—Dr. WHIPHAM, in reply, said that no ophthalmoscopic examination was made. The pain was chiefly dull, on the frontal and left temporal regions, and in the left eye. No vomiting occurred from first to last. There was no apparent lesion of Broca's convolution, but the island of Reil was entirely softened.

Mr. GODLEE showed the patient whose case had been brought before the Society by Dr. Sturge and himself early in the session, when he had stretched the facial nerve for spasmodic tic. The operation took place thirteen weeks ago, and was followed by facial paralysis until five days ago, when power began to return.—The PRESIDENT remarked that the interest was that so long a period should have elapsed before the return of function, and it would be further interesting to learn if the twitching should also return.

The Society then adjourned.

[Press of matter compels us to postpone the publication of reports of the Medical, the Obstetrical, the Epidemiological, and the Harveian Societies.]

ON Tuesday the Duchess of Edinburgh paid a visit to King's College Hospital. Her Royal Highness was received by General Sir Richard Wilbraham, Chairman of the Committee of Management, and was attended in the wards by Dr. Playfair and Dr. Beale, Professors Wood and Lister, surgeons of the hospital. Her Royal Highness the same afternoon visited the General Lying-in Hospital, York-road, accompanied by Lady Harriot Grimston and Dr. W. S. Playfair. She was received by the Chairman, the Treasurer, the Secretary, and the physicians to the hospital, Drs. John Williams and F. H. Champneys. Her Royal Highness was conducted through the different wards by Mrs. Clarke, the Lady-Superintendent.

Reviews and Notices of Books.

Mittheilungen aus der Ophthalmiatrischen Klinik in Tübingen. Herausgegeben von Dr. ALBRECHT NAGEL. Zweites Heft. 1880. pp. 118. Tübingen: H. Laupp. This part is entirely occupied with a paper by S. Rembold on the important subject of the movements of the pupil, and their significance in diseases of the central nervous system. That the conditions of the pupil are extremely valuable in assisting diagnosis in various states of the system has long been known, yet it is rare in treatises of medicine to meet with precise and express statements in regard to the size of the pupil and the mobility of the iris; and it is still more rare to find the sharpness of vision and the state of the fundus even alluded to, much less accurately given. Rembold's work, which is an enlarged prize thesis of the University of Tübingen, is an endeavour to supply information on this neglected point. He commences his description with an account of the anatomy and physiology of the iris, in which the literature of the subject is given, and devotes the remainder of the work to the consideration of the condition of the pupil in regard to size and mobility in various conditions of cerebral and spinal disease. He finds that pupillary symptoms are not of very great importance in aiding the diagnosis of diffused cerebral disease, so long as the conditions of the pupil are alike on the two sides, and that motionless pupils are of more serious import than contracted ones; but if one pupil is more dilated than the other, and simple hyperæmia or anæmia be excluded, it may be presumed that, in such cases of diffuse disease, exudative processes affecting the meninges on one side more than on the other are present. On the contrary, the conditions of the pupil are of great importance in cases of local disease, and of progressive degenerative processes in the brain—indicating, to some extent, the position of the disease and the prognosis that may be given. Tumours in the cerebellum are frequently associated with mydriasis, but also sometimes with myosis. In regard to spinal diseases myosis may be the expression of diminished activity of the spinal cord, and mydriasis may be a symptom of irritation of the cord, occasioning contraction of the dilatator and of the vessels, owing to stimulation of the sympathetic.

Handbook of Chemical Physiology and Pathology. By VICTOR C. VAUGHAN, M.D. Third Edition. Ann Arbor Publishing Company. 1880. — The rapid succession of editions of this work indicates that the study of physiological and pathological chemistry on the other side of the Atlantic is being pursued with interest. The revival of humoral pathology is one of the great features of the present day. In Germany and in America great progress has been made in this direction, and signs are not wanting that more attention will be paid in England to this branch ot scientific inquiry than has hitherto been the case. Dr. Vaughan's work is a trustworthy guide, plainly and unaffectedly written. It is probable, however, that had the third edition not been called for so soon after the second the author would have had more time to revise certain portions of it and import into its pages some of the more recent observations. To be a little behindhand, however, is no fault in a work purporting to be a text-book. It is undoubtedly better for a student to confine himself to well-ascertained facts than to expend labour in wading through a mass of unverified observations. For the worker engaged in original research, however, a summary of what is being done by others in the same subject is very useful. It would be well, therefore, in forthcoming editions, if Dr. Vaughan gave in an appendix a reference to such work. In this way the student's attention would not be distracted from the consideration of actual facts, whilst those engaged in original research would be able to judge what others were doing in the same direction.

The Journal of Anatomy and Physiology. Conducted by Professors HUMPHRY, TURNER, M'KENDRICK, and CREIGHTON. Vol. XV. Pt. 2. January, 1881. Macmillan and Co.—The chief articles contained in this part are—1. The Bones, Articulations, and Muscles of the Rudimentary Hind Limb of the Greenland Right Whale (Balæna mysticetus), by John Struthers. 2. An Infective form of Tuberculosis in Man identical with Bovine Tuberculosis, by C. Creighton. 3. Case of Medullary Neuroma of the Brain, by Dr. W. Osler. 4. Dissection of the Genito-Urinary Organs in a case of Fissure of the Abdominal Walls, by Alban Doran. 5. Description of a Polygraph, by David Newman. 6. Remarks on the Mechanism of the Secretion of Sweat, by C. Handfield Jones. 7. Anomalous Growth bearing Pilose Skin in the Pharynx of a young Woman, by P. S. Abraham. 8. The Histology of Granular Kidney, by Robert Saundby. 9. Notes on two cases of Cerebellar Disease, by Thomas Oliver. 10. Some Observations on the Colouring Matter of Jelly Fishes, by Professor M'Kendrick. 11. The Nerves of the Hind Limb of the Thylacine and Cuscus, by D. J. Cunningham. 12. Pulse Dicrotism, by W. Fleming; and, lastly, some Anatomical notices.

The Journal of Physiology. Edited by MICHAEL FOSTER. Vol. III. No. 2. January, 1881. Published at the Cambridge Scientific Instrument Company's Works. — This number contains—1. An article, by S. H. Vines, on the Proteid Substances contained in the Seeds of Plants. 2. Sydney Ringer, on the Influence of Season and of Temperature on the Action and on the Antagonism of Drugs. 3. Charles S. Roy, the Elastic Properties of the Arterial Wall. 4. Isaac Ott, on Crossed Hyperæsthesia, and notes on Inhibition.

The Popular Science Review, Jan. 1881. No. 17. Edited by Mr. J. DALLAS, F.L.S. D. Bogue.—This number contains four original articles. The Planet Jupiter in Oct. and Nov. 1880, by W. F. Denning. The Anatomy of the Stag Beetle, by A. Hammond. On Fog, by W. H. Stone, and Some Facts about Fishes, by Mr. Dallas. The paper on Fog, by Mr. Stone, is interesting. He combats Dr. Carpenter's statement that fog is essentially due to carbon particles diffused through the air; for if foggy air be passed through a cotton-wool filter the gain in weight of the filter is very slight; and, again, the microscope shows even a diminution in the number of particles ordinarily present in clear weather. He observes that the weight of carbon in a cubic foot of black smoke is not equal to a single grain, and believes that whilst London fogs are deepened or darkened by the carbon present, they are mainly attributable to climatic conditions. Various suggestions are noticed for the diminution of smoke with the retention of our present open hearths. One of the most feasible, perhaps, is that a form of coke should be introduced into common use, in which the gases should not have been so completely extracted as at present, and which, whilst still yielding a paying amount of gases and ammoniacal compounds, should yet retain sufficient to give a cheerful fire when burnt in an open grate. Another plan, which seems to us reasonable, but which we do not remember to have seen noticed, is that the chimneys containing unconsumed gases might in new houses be made to open beneath the kitchen grate, which would be fed by them, and would thus, by burning the carbon, materially reduce the quantity of it thrown into the atmosphere. It appears that five millions of tons of coals are annually burnt in the metropolis.

The Plumber and Sanitary Houses. By S. S. HELLYER. London: B. T. Batsford.—It is a good sign that works on the technical arts which ensure health in our houses are issuing from the press almost daily, and we may hope before many more years have passed that the journeyman plumber will be armed with so much knowledge of the evils of bad workmanship and ill-devised apparatus that even he will try to help and not to hinder the work which all sanitarians have so much at heart. The volume which is the subject of the present notice is written by a member of an eminent firm of plumbers, and although the view taken of the questions dealt with appears to be that which is only natural in one who is a plumber, a tradesman, and a patentee, the amount of information to be gleaned from it by those who have mastered some of the principles of sanitation is very large indeed. It is somewhat alarming to note the ever-increasing complications of our dwellings. Each constructor pursues his own method, and then exerts his ingenuity to conceal from the purchaser or dweller what his intentions may have been. The book is well got up, is nicely printed and profusely illustrated, and is likely to be of service to builders and health-officers, whether medical or otherwise.

Streets' Indian and Colonial Mercantile Directory for 1880–1. London: G. Street & Co., Cornhill, and Street Brothers, Serle-street.—In these days, when the relations of British medical practitioners with the Colonies and India are more extensive than ever, and health resorts are sought in every quarter of the globe, such a reference-book as this is almost indispensable even to the medical profession. In addition to trade returns, tariffs, and facts regarding populations, Streets' Directory contains particulars of the steam and other communications with the various places named, together with the times and rates of transit, &c. The names of physicians and surgeons resident in the towns and cities of the Colonies and India are given, with information of all kinds likely to be useful to those who are intending to go out, or who have professional or commercial connexions with our colonial possessions. Maps also are furnished of all the principal countries of which particulars are given in the letterpress.

House and Home: a Journal of Social and Sanitary Information for the People.—The number of this useful and unpretending penny journal for the 22nd January gives Professor Fleeming Jenkin's lecture on "Sanitary Houses," delivered before the Society of Arts on the 12th January, in full; a biography of Mr. George Smith, the friend of our canal population and of our outcasts generally; and numerous instructive items on social and sanitary matters.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—The sub-committee appointed by the British Medical Association for the purpose of inquiring into the vexed question of medical education have issued their report, which is now in the hands of the individual members of the Association. Personally I think it is a matter of regret that the members of the Committee have given so little attention to that all-important subject—the clinical teaching of medicine and surgery. Doubtless the entire machinery of medical training requires reform, if not complete remodeling; but before this, which must of necessity take time for its accomplishment, can be brought to pass, cannot anything be done for the better training of our medical students?

As matters now stand, all we can hope for is that the student contemplating merely a pass degree should be launched as a practitioner well acquainted with general principles of medicine and surgery. At present our Examining Bodies fail to guarantee that this shall be so; or perhaps I should rather say, there are unfortunately so many loopholes available to the student anxious to avoid our higher diploma granting bodies, that many a degree can be now obtained which, as an index of knowledge, is worthless. Powerless as our professors are to prevent the half-educated student from practising his profession upon his fellow-creatures, still they hold in their hands that monopoly of material which enables the student to present himself before the examining table; and whether the standard of the examiner be high or low, it should be incumbent on the teacher to secure that each individual student should be compelled to submit to a course of clinical instruction in medicine and surgery, which would, at any rate, be some security that in future practice the rudiments of his profession are well known. Of the vast mass of material which our teachers have ready at their disposal for the purposes of clinical teaching, it would be idle now to speak. Could not this wealth of material be better utilised?—utilised so as to prove not only of more benefit to the student, but assuredly in no less direct degree to the public, who have so large a stake in the careful training of our medical men.

Speaking generally, the clinical teaching of our hospitals and schools is defective—defective in principle, from the fact that it obeys no system, and often drifts into mere desultory repetition of the history and symptoms of the patient under notice. Every observant physician must, I think, recognise the patent evils of our medical course. Though at the moment powerless to alter the regulations of our examining bodies, it remains for our professors to see if more cannot be done in improving the efficiency of our students, as regards their knowledge of the natural course of disease, and in relation to its recognition, its treatment, and, above all, its prevention. That our medical students are harassed beyond description by lecture after lecture, the accumulative benefit of which amounts to but little, is continually forced upon our minds; but still that all-important subject of professional education, the study of clinical medicine, remains unhampered. Might not more be done to improve the instruction received under this head? For instance, might not our out-patient rooms be used more freely as fields for teaching in a systematic manner the rudiments of medicine and surgery? No better ground could be found for inculcating lessons as to the very first commencement of disease; but for such teaching to be carried out with good result there must be not only systematic teaching, but systematic attendance on the part of the student; in other words, compulsory attendance on a systematic course of clinical teaching.

Such class instruction once commenced, it would be easy for the physician in charge to produce a syllabus of work to be gone through during term. By an arrangement of coloured tickets a series of cases would follow one after the other into his room, and the student would thus have the advantage of not only comparing the different types of disease, but, perhaps what is of greater importance, of noting, in rapid serial order, the various stages of disease, with their attendant degenerations and complications. By some such organised system as this the physician might be expected to take greater pleasure in his work, which now but too often resolves itself into mere perfunctory accomplishment of duty. His work would become more definite, more exact, and far more productive of good, both to himself and to his class. He would be acquainted beforehand with the work of the day, and would have the advantage of coming primed as to the subject for discussion. Developing the system but little, students would have the means of knowing that on such and such a day cases representing diseases of the heart, lungs, kidney, &c., would be followed in detail, and manifestly, so studied, must prove of far greater value than seen, as they are now, intermingled with cases of but little comparative interest.

Moreover, by a pre-arranged division of subjects each physician would be enabled to select that class of case to which he desired to give special attention, and by knowing the requirements of his colleagues would have the opportunity of passing on those patients whose diseases might offer any special point of interest to them. Carrying the same system into the wards a definite series of cases would be particularly examined at each visit of the full physician, who would have a class awaiting him far better prepared as regards the fundamental principles of medicine than now appears to be the case.

It had been my original intention to have sketched more in detail the scheme which I have but shadowed above—a scheme which, if carried out in its entirety, would give opportunity, for both physician and student, of making far more practical use of that precious mine of clinical material which only the work of a large hospital can give.

I am, Sir, yours obediently,

Green-street, Park-lane. D. W. CHARLES HOOD, M.D.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 19, 1881.

THE physicians of Boston, United States, have inaugurated a measure of internal reform which the medical profession in England would do wisely to imitate forthwith. They have formulated a provision of their ethical code to the effect that "a physician should not append his name, or permit it to be appended, to certificates in laudation of speculative health resorts, health excursions, nutritive or dietetic preparations, proprietary formulæ, wines, mineral waters, beverages of real or supposed medical efficiency, or other hygienic materials." This is a sweeping and practical, but highly necessary, act of self-purgation that the body to which we belong, and in the name of which we claim to speak, sorely needs, and which would sensibly enhance its social and scientific status. The growing practice of attaching the names of members of our cloth to articles sold to the public has reflected no little discredit on the profession in general, and on the individuals who have lent themselves to the more than equivocal practice at which this timely resolution has been aimed. It is not important to inquire whether we in England or our brethren in America or on the Continent are the greatest offenders; let it suffice to recognise that the procedure is an offence. There can be no room to question what the giving or lending of names, colourably to accredit the places, remedies, and appliances with which they are connected, *really* means, and to what it amounts. The name of the person is more in request and estimation than the name of the locality or article to which it is prefixed or appended. When a physician allows himself or others to affix his *imprimatur* to anything which is destined to be advertised, he is plainly permitting *himself* to be advertised. It is useless to mince matters. This is the long and short of the proceeding. Unless, therefore, the medical profession is prepared to place itself on the footing of a fraternity of tradesmen, advertised and recommended by the goods they sell, a stop must, in some way, be put to this form of touting.

We are not disposed to adopt impracticable views of the professional life and its permanent interests. It may be assumed that physicians must live, and live by their calling; but there are two totally distinct and divergent ways of seeking prosperity. The practitioner may strive to make good his reputation by the diligence and excellence of his work, or he may resort to forced and artificial means of acquiring publicity. Practically there is little, if any, difference between allowing a name to be emblazoned on the label of proprietary medicine, or printed at the foot of a testimonial to the excellence of some article of commerce, or inserted in the pages of a guide-book, and displaying it on handbills to be distributed in the street. We will not hesitate to say that when, as happens nearly every week, we are asked to denounce the "unprofessional conduct" of some struggling practitioner who, perhaps, touts for patients by the distribution of printed cards or handbills, we are bound to remember that some of the best known names in the profession are advertised in a fashion not one whit less objectionable. It may seem more respectable to advertise indirectly and under cover of giving a guarantee to the value or purity of some drug or dietetic compound, than to vaunt the skill of an individual directly, but the practical question involved is at the most only one of method. The deed done is the same under all its various forms and disguises. We do not find barristers courting publicity in this way. Why should physicians and surgeons, and the practitioners of medicine generally, be less jealous of the dignity of their calling than those who practise in the law? It is time to look this question of internal reform fairly in the face, to recognise this artifice in its true character, and to reform it altogether.

No man ever made a lasting and honourable reputation in the practice of the healing art who did not first and chiefly owe his fame to the profession of which he was a member. The medical body is not grudging in its acknowledgments of merit; and as a rule its judgment of men and their work is characterised by justice and strict impartiality. Only those who have failed or, in their impatience of the legitimate road to success, have resorted to by-paths and equivocal devices complain of a too tardy recognition. Let the conscience of the practitioner decide this question for itself. Where shall we find any notable number of instances in which genuine ability has had to go a-begging for favour, or true and honest work failed to command respect? There may be instances in which individuals have had to stem the tide of adverse fortune; but if they have not by their own folly or awkwardness missed the flood, they have not failed to reach the desired haven of prosperity. Young men are ever to the fore, and if the elders sometimes seem to lose their footing, that is because they are either remiss or too adventurous, and in their anxiety to keep the lead blunder into deep water. Looking to the reasonable prospects of success with which men enter the medical profession, they will be found, on the whole, to succeed. And the only success worth waiting and striving for is that which attends the man who has so discharged his duty in life as to command the respect and confidence of his fellows. The appeal for recognition lies to the profession itself, and not to the public. The popular voice can only echo the opinion of the profession. The lay community has no means of judging whether a physician is worthy of its confidence except by the results of his enterprise. It is nothing to be widely known or much talked about unless the profession ratifies the opinion which finds expression. The story of the lives of the most successful members of our body would show that the recognition of their interests was first made by their brethren. Speaking generally, we may say that a professional man's repute is well advanced in his own circle before the outside public even hear of him. Those err grievously who think or act as if they thought the profession would accept and honour them, because they had by some stratagem contrived to make their names household words with the community. Such men may be notorious, but not in any worthy sense famous; nor are they commonly—in the long run—successful. It is neither possible to force a reputation in medicine nor to secure the permanent favour of the lay community, except by the countenance and favour of the profession.

There are, moreover, grave and public reasons why the profession should especially set its face against the form of advertising which the physicians of Boston have just stigmatised as unprofessional. A wrong impression is conveyed to the public, and the lay community is misled. The unreflecting are apt to think that if a particular physician has been solicited to give his testimonial to any special article of commerce, he must needs be himself possessed of exceptional powers of judgment in respect to the matters accredited. A moment's consideration will show how easy it would be for a man acting on this suggestion to create a fictitious reputation for his name by gratuitously attaching it to a few judiciously-selected articles. We do not assert that reputations have been made in this fashion, but it is easy to see that they might be so created, and though they would be bubble reputations, unendorsed by the judgment of the profession, it is necessary in the public interests to discourage a practice which may possibly give rise to such untoward results. Every physician of genuine repute and real ability who allows his name to be paraded as the guarantor of a remedy or appliance is personally augmenting the facility with which men of no mark or ability may, by following his lead, come to stand by his side as respectable authorities before an uninformed public. The profession owes it to the community to prevent the possibility of this form of imposture. Again, by lending their names to tradesmen physicians expose themselves to the obvious risk of giving a false character to goods of pretended quality. It is manifestly impossible to ensure that any sample of an article submitted for the judgment of an expert shall be a fair specimen of the commodity in bulk, or that another issue under the same name shall be of equal value. This is a most important consideration, and we venture to think it is one which ought to deter the members of an honourable profession from lending or selling their names for trade purposes. It is, in fact, impossible that any certificate or testimonial can really hold good for any specimen except that to which it immediately relates—that is, the particular sample supplied. The loan of the name for use in the future is therefore an act which can only be characterised as one of moral hardihood and social temerity. It is no part of good citizenship to make the venture.

Look at the matter in what light we may, whether as a piece o personal advertising or indiscreet guaranteeing, it is indefensible and unworthy. We wish there were the smallest ground for hope that the Royal College of Physicians would be stirred to emulate the vigorous self-purgation so gracefully achieved by the physicians of Boston. Unhappily there is not the remotest probability of the dignified but lethargic corporation in Pall-mall being aroused to healthy activity by example or remonstrance of any kind. Nor is the Royal College of Surgeons without responsibility in this matter. It includes, among its members, men whose names figure conspicuously in the public prints. The profession must act for itself if it is to be cleared of a standing reproach, and its honour is to be vindicated. Personal action may do much, but there must be concerted action if all that the occasion demands is to be accomplished. It would be well if something like a *pronunciamiento* of the medical profession in relation to this question could be elicited. What the physicians of Boston have done, the physicians of the United Kingdom can do. Let those who have sinned in this matter sin no more, and let those who have not as yet flagrantly offended resolve to avoid offence. It will be well for the profession, and for the interests of commerce too, when the practice of giving and vaunting medical testimonials, and parading the names of physicians and practitioners in the manner denounced by our brethren across the Atlantic, is finally abandoned.

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AT the time of our writing we have good reason to believe that the Government has not decided on the appointment of a Royal Commission for the purpose of settling the questions connected with the amendment of the Medical Act of 1858, to which two or three Governments have been committed, as well as the Medical Council and the whole of the medical profession. A leading contemporary was at least premature in speaking confidently as to such a step. It is no doubt true that the Government have some thought of such a course, and it is possible that the opponents of reform may think in this way to prolong their untenable position, and perhaps to postpone indefinitely those changes which, in the estimation of all outside, are needed in the Medical Council and the medical examining system of the country. But we repeat that our contemporary was in haste in the matter.

We hope the Government will deliberate well before taking a course which seems to unsettle everything and to cast discredit on so much good evidence. Is it possible for the case of the Medical Council and the existing corporations to be set forth by better witnesses than Dr. ACLAND, Mr. SIMON, and Sir JAMES PAGET? Can the inefficiency of the Medical Council, the inequality of the examining boards, and the defects of the best of the corporation examinations be made more clear than by the admissions of these witnesses, and by the unrefuted statements of the few who have yet been examined on the side of reform? Is all this evidence to be disregarded and wasted, when the examination of a few more witnesses would complete the case? We certainly fail to see the necessity. There may be an indisposition on the part of the members of the present Parliament, excited and distracted by other questions, to complete an investigation very well begun, and the break in the continuity of the inquiry by the dissolution of Parliament may justify the creation of an entirely fresh one. But these are points really very doubtful, and worthy of the consideration of the Government, which we believe will be accorded to it.

At the same time, if a Royal Commission is to be nominated, we shall heartily bow to that mode of investigating a question which we must admit to be technical and seemingly difficult, though—apart from pecuniary and corporation considerations—exceedingly simple. A Royal Commission has certain advantages over a Select Committee. It is not necessarily confined to members of Parliament. Any suitable person can be nominated a Royal Commissioner. Its investigations are not suspended when Parliament is sitting, as in the case of a Select Committee. It can continue its work in the interval of the sessions. These are the chief differences between the two modes of inquiry, and perhaps they show a balance of advantage on the side of the Royal Commission, if it be well and impartially chosen. It is of course very easy to elect a Royal Commission that will see nothing but beauty and perfection in the actual and traditional, as any other form of inquiring body. But we have some confidence that the Government, if it accepts the responsibiltty of disregarding all that has been said and done in this cause for ten years past, will elect a Commission so fair and so strong in its intelligence and impartiality as to hold out a prospect of the termination of a "schism in the medical profession," as Mr. SIMON has called it, and of a controversy of which we, at least, are heartily tired. We repeat our conviction that a Royal Commission is unnecessary; that the facts are admitted or indisputable; that a Select Committee should be able by the middle of May to present an admirable report laying a secure foundation for sound legislation. But believing in the anxiety of the Government to do what is right in regard to old and in some instances perfectly effete corporations, and to a most costly and inefficient Medical Council, we shall bow to its decision.

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THE elasticity of the arteries, though it is well known to exert a powerful influence on the circulation of the blood, has hardly been studied with the attention it deserves. ED. WEBER was the first to institute the ingenious comparison between the elasticity of the arteries and that of the air in the air-chamber of a fire-engine, and to show clearly that its principal action is to convert the intermittent flow caused by the rhythmical contractions of the heart into a comparatively uniform and continuous current; but few have occupied themselves with determining with precision the degree of elasticity in particular vessels, the extent to which they yield on pressure, and their resistance to rupture. MOENS, indeed, found that the elasticity was equal in the longitudinal and transverse directions, and that its coefficient increased with the weighting. VOLKMANN observed that the carotid of a sheep sustained without rupturing a pressure of 2·25 meters of mercury, which is about fourteen times greater than that of the ordinary blood-pressure. All experimenters agree that the elasticity of the arteries is very perfect, though small; that is, that whilst they are easily extended or compressed according to the mode in which the force is applied, they recover their original form very perfectly.

Dr. ROY has just made an important communication to the subject in the pages of the last number of MICHAEL FOSTER'S *Archives of Physiology*. He states that he entered upon the consideration of the elasticity of the arteries with the view only of determining by direct experiment the relation that exists between the intra-arterial pressure and the cubic capacity of any given portion of artery; but as he continued to work at the subject new points arose, the examination and discussion of which have led to the publication of the present memoir. In the first place, he finds, with WERTHEIM, that whilst inorganic substances, such as metal wires or glass rods, extend in proportion to the weighting—at all events within certain limits,—in the case of moist animal tissues the increments in length produced by the addition of successively increasing weights diminish gradually in proportion to the weights employed. Dr. ROY next proceeded to investigate whether the thermo-elastic properties of animal tissues were identical with those of inorganic substances. Now, with one or two exceptions, all bodies on being compressed become warmer, and on being stretched cooler. But the animal tissues agree with the exceptions to the rule—to wit, bismuth and caoutchouc—in becoming warm when stretched, whilst their temperature falls on being relaxed.

On examining by experiment the relation between the internal pressure and the cubic capacity of the arteries, Dr. ROY found that the aortic walls are most elastic at pressures corresponding more or less exactly to the normal blood-pressure, and no difference can be detected in the degree of elasticity between the time of death of the animal and the period when putrefaction has commenced. The elastic properties of the arteries taken from different animals, even of the same species, may vary considerably, and still greater differences result from malnutrition, such as that produced by febrile processes. But in a functional point of view it may be said that the elastic properties of the aorta and large arteries of any given animal are identical, so that the ratio of increase of volume to increase of pressure is the same in the aorta and its branches. Dr. ROY in subsequent sections discusses the effects of disease and of age on the elasticity of the arteries, and demonstrates by diagrams the considerable modifications that are produced by diseases affecting the general nutrition, and the fact that the elasticity is perfect only in childhood. The whole paper is a valuable contribution to our knowledge of this subject.

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THE aims of the forthcoming International Medical Congress are very properly purely scientific, and we trust that much advancement in the science of medicine may be effected by the discussions on various topics which are to be conducted in London in August next by so many illustrious medical professors. The Congress has not been forgetful of the adage that the mind is reached more quickly through the eye than through the ear, and accordingly a museum of objects of scientific interest will form, as it were, one of the sections of the Congress, a section which will have intimate and necessary relations with all the others. The Museum Committee of the Congress felt very strongly that its work lay mainly in collecting pathological specimens illustrative of discussions which were to take place in the other sections; but, on the other hand, it felt that in the wide domain of medicine there were many other objects — new inventions, new instruments, new drugs, and the like—which ought to be exhibited to the members of the Congress. The extension of the museum beyond the domain of pure science was, however, a difficult matter. Besides the difficulty of selection and the invidious duty of rejection there was the still greater difficulty of finding space sufficient for anything like a complete exhibition of what one may call the medical industries. When, therefore, the hon. secretary of the Parkes Museum made the suggestion that possibly the Committee which he represented might be willing to organise an exhibition illustrative of every branch of the medical and sanitary sciences, that suggestion was welcomed by the Museum Committee of the Congress and met with unanimous support from the Executive Committee of the Congress, to which the matter was referred. When the Executive Committee of the Parkes Museum, backed by the Executive Committee of the Congress, made application for space to hold the proposed Exhibition in the Exhibition Buildings, at South Kensington, the Royal Commissioners for 1851, feeling no doubt that the proposition was one which met with the cordial approval of the heads of the medical profession in this country, gave their ready assent, and promised to place at the disposal of the Parkes Museum Committee all their available space in the buildings at Kensington-gore. Thus it has come about that an International Medical and Sanitary Exhibition on a scale probably never before attempted is to be held in London in July and August next.

The Parkes Museum Committee have, wisely, we believe, instituted a Special Committee for the purposes of the Exhibition, and this Committee—with the President of the College of Surgeons as its chairman, and numbering among its members the President of the Pharmaceutical Society, six physicians and surgeons from five different medical schools and hospitals, together with other members eminent as architects and sanitarians,—is, we think, likely to command the confidence of the profession and those who are interested in the various industries connected with medicine and hygiene.

The Exhibition will open a fortnight before the sittings of the Congress commence—namely, on the 16th of July—and will close on August 13th, five days before the termination of the Congress. The exhibits, which will comprise everything that is of service for the prevention, detection, cure, and alleviation of disease, will be arranged in two chief sections, Medical and Sanitary, and a third Miscellaneous section, in which, we doubt not, anything that is of interest to the medical profession will be able to find a place.

The Medical Section will include surgical instruments and apparatus; appliances for the ward and sick room; drugs, disinfectants, dietetic articles, and mineral waters; electrical and optical instruments, and other apparatus employed in the investigation of disease; appliances used for the treatment of the sick and wounded during war, street ambulances, &c.; appliances used in teaching medicine, books, diagrams, models, &c. The Sanitary Section will include domestic and hospital architecture; ventilation, lighting, warming, and decoration; sewerage, drainage, waterclosets, sinks, baths, &c.; water-supply and filtration; health resorts, sanitaria, &c.

The Exhibition is to be international, and we understand that every effort is being made to make it known on the Continent of Europe and in America. The secretaries of the Congress have, at the suggestion of the secretary-general, undertaken to circulate the prospectuses of the Exhibition, printed in English, French, and German, with the various documents which they are scattering broadcast over the world, and this in addition to other means will certainly secure a good representation of foreign exhibitors. We trust this will be so, and we hope that such a chance of learning whatever our foreign brethren have to teach will be appreciated by manufacturers in this country. On the other hand, we hope it will be remembered that this country has a reputation to maintain. English manufacturers have been in great repute throughout the world for a century past. In the art of practical sanitation we have for a long time stood alone; English cutlery has ever been regarded as the best that can be obtained. England, with its thousands of ships and colonies extending to every corner of the earth, is the great market for the various organic and mineral products which form the staples of pharmacy. Thus our foreign guests may fairly expect to find that the English exhibitors have provided an instructive show worthy of a nation which is nothing if not practical; and we trust that English manufacturers will be put upon their mettle, and will remember that it is their duty to see that our reputation is maintained in the eyes of our foreign guests.

Annotations.

"Ne quid nimis."

HÆMORRHAGIC SMALL-POX AMONG ESQUIMAUX IN PARIS.

IT is not often that an opportunity is afforded of witnessing in Europe the effect of acute specific diseases on individuals of races which have been little exposed to their action. Such an opportunity was, however, presented lately by a sad epidemic of small-pox among some Esquimaux who had come for exhibition at the Jardin d'Acclimatation, where they arrived from Crefeld on January 2nd, having previously been at Darmstadt, Frankfort, Prague, and Berlin. One of the troupe, a girl aged sixteen, had died at Darmstadt, twelve days after leaving Prague, without presenting any eruption. At Crefeld a woman of forty died, also without any eruption, and a young child, who died on the second day after the appearance of a distinct eruption of small-pox. Four or five days after their arrival in Paris the rest were vaccinated, on the 5th and 7th of January. All were ill, and as a young child presented an eruption, they were all sent to the small-pox ward of the Hôpital St. Louis, under the care of Dr. Landrieux, who has related the cases in *L'Union Médicale.* The variola began in all before or immediately after vaccination, and hence this had no effect. They all (eight in number) died, three in the period of invasion, without skin eruption, but with intense headache and pain in the back. Four others died during the period of eruption, and all presented almost continuous hæmorrhage from the bronchial tubes, and passed urine which appeared to be pure blood. The eruption came out slowly, the pustules being distended with blood, and some had the appearance of bullæ of pemphigus. The temperature varied between 103° and 105°. In one of these cases also there was no rash; death occurred without delirium by septicæmia or asphyxia. The unfortunate men had led temperate lives, and had not been addicted to alcohol. In four cases post-mortem examinations were made. The internal organs presented abundant hæmorrhages. The blood presented a large excess of leucocytes, and the red corpuscles were, as is usual in such cases, crenated, and did not form rouleaux. The liver in each case was enormously enlarged, pale, and friable, and offered all the characters, naked-eye and microscopic, of intense fatty degeneration. The mesenteric glands were much enlarged, without any corresponding alteration in the mucous membrane of the intestine. The spleen was natural in size, but the kidneys were greatly enlarged by congestion and fatty degeneration. The heart also presented fatty degeneration. The condition of the liver, to which, perhaps, too much weight is given by Dr. Landrieux as the cause of the rapid mortality, is ascribed to the habitual food of the people. The occurrence, however, teaches very strongly the lesson of the importance of the vaccination of such natives of uncivilised countries, brought to Europe for show, immediately on their arrival. The public authorities ought invariably to take means to ensure effective vaccination.

OCCLUSION OF THE CORONARY ARTERIES.

AN instructive case has been recorded by Dr. Karl Dehio of Oldenburg. A man, thirty-one years of age, had suffered from attacks of sudden cardiac distress, accompanied by a sensation of painful pressure in the region of the heart, and a feeling of great anxiety. These attacks ultimately recurred daily. At last a very severe seizure occurred, characterised by pallor of the skin, feeble impulse of the heart, indistinctness of the sounds, and apparently failure of the left ventricle, while the right ventricle continued to contract forcibly. There was also acute œdema of the lungs, the progress of which could be watched during the attack, in which he died. It was found that "sclerosis" of the wall of the aorta had led to occlusion of the entrance to the left coronary artery, and had narrowed that of the right. There was fatty degeneration of the walls of the heart. The previous attacks were ascribed to the gradual narrowing of the vessels, which rendered the blood-supply to the heart insufficient to enable it to respond to the call for any extraordinary exertion.

It is of interest, in connexion with this case, to note some experiments on the effect of sudden occlusion of the coronary arteries which have been communicated by MM. G. Sée, Bochefontaine, and Roussy to the Académie des Sciences. The first to observe the effects of artificial closure of the coronary arteries was Chirac. In 1842 his experiments were repeated by Mr. Erichsen, who found that, in the dog, ligature of these arteries causes progressive retardation of the pulsations of the heart, followed by its arrest in from three to twenty-one minutes. He found that the contractions cease in the following order when the left artery is ligatured: first in the left ventricle; then in the right auricle; then in the left auricle; and, lastly, in the right ventricle. Schiff has maintained that the ligature of one coronary artery causes *immediate* paralysis of the cardiac region which it supplies, while the neighbouring parts preserve their usual rhythm. The experiments of the French investigators were made upon dogs under the influence of curara, morphia, and chloral, of the two latter combined, or of daturine and curara, artificial respiration being kept up. The coronary arteries were suddenly tied at their origin, while the heart was still beating vigorously. At the end of a period of one or two minutes, the rhythmic ventricular contractions, a little retarded, ceased suddenly, and were replaced by a disordered, tremulous movement, more or less violent, of the muscular fasciculi of the ventricles, analogous to that which has been observed to succeed the faradisation of the heart. It was most intense in the right ventricle. Soon the two ventricles became swollen, the auricles continued to supply them with blood, and the arterial pulse disappeared. In order to produce this effect it is not necessary to tie both the arteries at their origin. In one animal the posterior coronary artery was tied, and then two principal trunks of the anterior artery—the auricular and ventricular trunks—leaving free the branch which passes in the interventricular septum. The ventricular contractions became weakened in the same time, and then suddenly ceased, being replaced by disordered contractions, while the auricles, after a moment's pause, resumed their rhythmical pulsations, which gradually became weaker, and ceased. In another experiment the ventricular branches of the right and left coronary arteries alone were tied. The same results followed, and were also produced when the whole of the anterior coronary artery, or its two principal trunks, were closed. In one experiment similar phenomena were produced in six minutes by the closure of the posterior coronary artery alone. In another, the ligature of this vessel for five minutes produced no effect whatever. The anterior artery was then tied, and the disordered action of the heart immediately commenced. The division of the vago-sympathetic trunks in the neck did not modify these phenomena, and they were unaffected by strong faradisation of the peripheral extremity of the superior cervical ganglion.

The conclusion drawn from these facts is that the arrest of the circulation in the heart, by obliteration of the coronary arteries, modifies the contractility of the muscular fibres of the heart, so that they become incapable of contracting in their normal rhythmical manner. It may be objected that the condition of the ventricles is due to the excitation of the peri-vascular filaments, which, irritating the intra-cardiac ganglia, derange the normal action of the fibres. In order to ascertain the force of this objection, water charged with lycopodium spores was injected into the aorta by a branch of the anterior coronary artery. The systolic flow carried the lycopodium spores to all parts of the heart. In a minute and a half or two minutes the ventricles became pale, and immediately the tremulous movement, characteristic of the occlusion of the coronary arteries, set in, and presented the same characters as when produced by their ligature. The phenomena observed were thus simply the effect of the arrest of the blood-supply.

THE SHEFFIELD POISONING CASE.

THE facts of this remarkable case are briefly as follows:—Mr. Booth, his wife, an invalid son, and a daughter, resided at Gell-street, Sheffield, their servants being Parker, a housemaid, and Horton, a cook. In addition there resided with Mr. Booth's family an elderly lady named Roberts. On Sept. 1st, 1880, Annie Wilmot, a nurse, was engaged to look after the invalid son. This son died suddenly in convulsions on Oct. 8th. Notwithstanding the death of her patient, Wilmot, who had ingratiated herself with the family, was asked to remain. On Oct. 16th, Miss Booth died suddenly in convulsions. On Oct. 16th also, Mrs. Booth, who was much depressed by her double bereavement, began to suffer from cramp and twitching of the left leg. On the 17th the twitching had extended to the face and fingers. On the 18th these symptoms (which suggested the possibility of strychnia poisoning to Mr. Pye-Smith and Mr. Thorpe, the two medical men who were called in) continued. On the evening of the 18th Mrs. Booth was better. On Oct. 21st, Mrs. Booth's symptoms were those of opium-poisoning, and she remained unconscious for some time; she vomited, and the vomited matter on analysis by Mr. Bell and Dr. Tidy was found to contain morphia. Mrs. Booth ultimately recovered. Wilmot was charged at the Leeds Assizes, before Mr. Justice Manisty, with attempting to murder Mrs. Booth by administering poison to her, and at the trial the following facts were elicited:—1. That Wilmot had been seen at 10.15 on Sunday, Oct. 17th, to come out of the surgery with a bottle of white fluid in her hand, which she was measuring carefully into a medicine-glass. This was done openly; the bottle was left upon the kitchen-table, and what the bottle contained was never proved. 2. On Oct. 19th Wilmot sent the housemaid to the chemist's to get a bottle (belonging to a small portable medicine-case) filled with tincture of opium. The bottle and case have since disappeared. 3. On Oct. 21st Wilmot sent the housemaid to the chemist's for some morphia. 4. Before the magistrates she had denied sending the housemaid either for opium or morphia. 5. She told the housemaid on the 17th that Mrs. Booth desired her to go for the tincture of opium, which was contrary to the fact. 6. On the 19th Wilmot gave Mrs. Booth some hock, which was "nasty and repulsive," and caused Mrs. Booth to refuse to take any more, and to ask Wilmot "what she had put in it?" 7. On the 20th Wilmot gave Mrs. Booth some whisky-and-water, which looked muddy, and which tasted nasty.

There was no formal defence, but in the cross-examination of the witnesses for the prosecution it was proved:—1. That Wilmot had made no secret of her sending for narcotics, &c.

2. That other persons besides Wilmot had administered food and medicine to the deceased. 3. That the sending of the maid Parker to the chemist's was not an extraordinary occurrence in Mr. Booth's establishment. 4. That no poison was ever detected in the dregs of any article of food or drink given to Mrs. Booth. 5. That no adequate motive had been discovered for the crime. 6. That Wilmot had always been kind to Mrs. Booth, and seemed really distressed at her dangerous condition. 7. That the prisoner had always borne a good character. 8. That the cook who had prepared the food had since gone to Australia. The verdict was to the effect, "That Wilmot had administered morphia to Mrs. Booth, but with what intent there was no evidence to show."

THE PERIOD OF LATENT SENSATION.

A SERIES of investigations by Vintschgau and Hönigschmied on the interval between the application of a sapid substance to the tongue and the resulting sensation of taste led to the conclusion that the power of discrimination in different parts of the body had a considerable influence on the interval which elapses before a sensation is perceived. Vintschgau has examined the facts bearing on this relation afresh, and has compared his results with those obtained by previous investigators—Helmholtz, Hall, v. Kriess, &c. His investigations were chiefly made upon the tongue, which he finds particularly adapted for the experiments. The tongue was touched with a point, while the person examined broke an electrical current with his left hand as soon as he perceived the sensation. The average of the whole series of observations on the first individual tested was for the middle of the tongue ·1908 sec., for the tip of the tongue ·1607 sec., the difference between the two parts being ·0301 sec. On exclusion of some doubtful observations, the average was for the middle of the tongue ·1877 sec., for the tip ·1522 sec., giving a difference of ·0355 sec. Observations on a second individual showed that the period is longer for the root of the tongue than for the middle or tip. Similar results were obtained on a third and fourth person. Observations made by Vintschgau on himself gave no difference between the middle and the tip.

Further observations were made on the palmar skin of the first and third phalanges of the middle finger, on the dorsal side of the first phalanx, and over the head of the metacarpal bone of the middle finger, in three persons. In the first individual tested it was found that the interval, excluding some doubtful observations, was on the palmar aspect of the third phalanx ·1629 sec., on that of the first phalanx ·1597 sec., on the dorsal surface of the first phalanx ·1822 sec., and on the knuckle ·1977 sec. The touch on the dorsal side was thus always noted later than that on the palmar aspect, which corresponds with the degree of tactile discrimination. In a second individual there was no notable difference between the interval for the dorsal and palmar aspects. But in both persons the interval for the palmar aspect of the first phalanx was shorter than that for the palmar aspect of the third phalanx, a fact for which no explanation is given. On himself Vintschgau only examined the intervals on the palmar aspect of the third phalanx and the knuckle, and found the period longer for the former than for the latter. It is possible that the cause of these differences may be in the sensorium, but it seems more probable that it is to be found in the different development of the power of localisation. At any rate, the observations corroborate the fact that the latent period of sensation varies in different parts, and that it varies in the same parts in different individuals in a manner not altogether easy to explain.

Another fact demonstrated by Vintschgau is that an electrical stimulation is sooner perceived on the tip of the tongue than on the tip of the finger. This might be expected from the longer course of nerve which the sensation has to travel; but it may be in part also due to the greater power of tactile discrimination possessed by the tip of the tongue, in accordance with the facts ascertained regarding touch.

THE PEABODY FUND AND CLASS MORTALITY.

THE trustees of the Peabody Donation Fund have just issued their Sixteenth Annual Report, which, although as usual exceedingly terse, is full of interest from a social, sanitary, and financial point of view. It is, at any rate, useful to be reminded once a year of the almost silent but steadily progressive influence for good of this noble gift to the poor of London. Glancing at the capital account, we find that Mr. Peabody's successive gifts, which amounted to half a million sterling, have, with the addition of accruing rent and interest, already increased by 50 per cent., and become three-quarters of a million, which is all employed in furthering that incalculable boon to the poor of London—the improvement of their dwellings. At the close of last year the trustees had housed 9899 persons in their improved dwellings, and had purchased no less than six other plots of ground from the Metropolitan Board of Works, on some of which the new buildings are approaching completion. Before the close of the present year the trustees hope to complete additional accommodation for 760 families, or upwards of 3500 individuals, which will raise the aggregate population of the Peabody Buildings to 13,500 persons. It is often asserted that these improved dwellings are not used by the class for which they were intended, but it is interesting to learn from the report before us that the average weekly earnings of the heads of families in residence at the end of last year were rather less than 23*s.* 6*d.*, and that the average rent of each tenement was 4*s.* 4*d.* It is evident that the population of the Peabody buildings is distinctly a working and weekly waged class population. From this point of view the statement that the death-rate during last year in the Peabody buildings was equal to 19·7 per 1000 of their population has especial interest. But for the fact that the population belongs exclusively to the poorer of the working classes, a little surprise might be felt that the death-rate in these improved dwellings was only 2·5 per 1000 below the average rate in the whole of London, as this apparent deficiency in the death-rate would disappear if the due proportion of deaths in public institutions (workhouses, hospitals, and lunatic asylums) were added. As a death-rate, however, among a class of population in which the average earnings of the heads of families is but 23*s.* 6*d.*, this result is one which raises great expectations of the future effect of the Peabody Fund, together with the effect of Associations for improving the dwellings of the poor upon the sanitary condition of London.

GLASGOW LOCK HOSPITAL.

IN the seventy-fifth annual report of this institution it is stated that of 414 patients treated during 1880, 390 were dismissed cured. The average cost of each patient dismissed was 34*s.* 6*d.* Some of the other statistical facts presented in this report are of considerable interest. Thus it is shown that the great majority of the patients were young persons. Some of them were mere children. In such cases the police authorities were, whenever possible, communicated with. The average age of those dismissed cured did not exceed twenty-one years and a half; of these patients 235 were inmates for the first time, 93 for the second, 43 for the third, 13 for the fourth, 3 for the fifth, 2 for the sixth, and 1 for the seventh. More than 10 per cent. of the patients during the year were restored to their parents and relatives, or, at their own desire, sent to a reformatory institution. The medical officer's report also stated that the disease for the cure of which the hospital was opened had become milder in its type, altogether less fatal and more amenable to treatment than formerly, while at the same time its prevalence had become greatly diminished, and its sad effects, formerly to be seen upon the young and innocent, even among the better class of the people, were not now so often encountered.

THE TREATMENT OF MALIGNANT PUSTULE.

M. Verneuil, in an important communication to the Académie de Médecine on this subject, reminded his hearers that the malignant pustule consists of three zones or regions: first, the slough or gangrenous zone with its characteristic vesicles; secondly, an indurated zone presenting on its surface other vesicles; and, lastly, the zone of œdema. Until recently surgeons have concentrated their attention on the central or gangrenous zone, have applied almost no treatment to the indurated zone, and always none to the zone of œdema beyond poulticing and leeching. According to M. Verneuil it is important to apply to each zone special and energetic treatment. These are—first, to destroy or excise the gangrenous part; secondly, to incise and cauterise deeply the zone of induration; thirdly, to disinfect, by antiseptic hypodermic injections, the zone of œdema; lastly, to employ general antiseptic treatment, such as the internal administration of iodine or some other efficient internal antiseptic. The experiments of Davaine have shown that iodine, even in small doses, has an efficient neutralising action on the virus of anthrax, and it is possible, according to M. Verneuil, to introduce into the circulation a sufficient quantity of iodine to produce this effect. The hypodermic injections into the œdematous zone should also consist of iodine, ten drops of a one-half per cent. solution. The first case thus treated was one of malignant pustule on the arm, in which the actual cautery had failed, and amputation was contemplated; the treatment was perfectly successful. In another case the pustule was situated on the eyelid, inoculation having been effected by inadvertently scratching a pimple there. The eyelid was much swollen, and presented the characteristic vesicles and bullæ, and there was considerable œdema of the whole of that half of the head. The temperature was 103°; the patient was delirious, sleepy, and vomited continually. The pustule was destroyed by means of the thermo-cautery. In the zone of induration a series of punctiform cauterisations were made with the same instrument, to a depth of one-third of an inch, and then the solution of iodine was injected in the œdematous part at intervals of five centimetres. The temperature rapidly fell. The delirium, somnolence, and vomiting ceased as if by magic, and on the third day the patient was out of danger. In the discussion which followed M. Léon Labbé agreed with M. Verneuil as to the necessity of cauterisation in the zone of induration, and employed it even in the œdematous region. He was inclined to attribute more importance to this measure, employed in an energetic and even, as it might seem, barbarous degree, than to the injections of iodine. M. Gosselin urged the importance, before applying the treatment to every pustule which had a malignant aspect, of ascertaining if it were really anthrax, by microscopical examination of the serum in the vesicles and of the blood. M. Verneuil, speaking from the standpoint of practical surgery, maintained that better indications could be drawn from the clinical aspect of the affection than from the presence or absence of bacteria. He had seen cases in which bacteria were found in the vesicles and in the blood, although the symptoms were benign, and others in which, in spite of the absence of bacteria, the augmenting gravity of the affection necessitated the use of the most energetic remedies.

THE ARMY ESTIMATES.

The estimated expenditure on account of the medical establishment and services for the year from April 1st, 1881, to March 31st, 1882, amounts to £300,480, being £7960 under the estimate for the current year. The reduction is due to several causes: chiefly, the retirement of a large number of officers in receipt of the maximum rate of pay, a decrease in the number of civil practitioners employed in consequence of the Army Medical Department having nearly reached its normal establishment, a decrease in the number of surgeons on probation at Netley, for the same reason, and to the Irish militia not being called out this year for training. In addition to the above sum, however, there is a charge of £5750 for the staff employed at the Army Medical Board, and one of £6434 for the medical school at Netley, while £1875 should be deducted as the charge for the unnecessary military staff at Netley, which we regret to see still borne on the estimates. The aggregate expense, therefore, of the Army Medical Service may be stated in round numbers at £310,800. As regards the *personnel*, the numbers of the medical officers employed are the same as last year, with the exception of an addition of three Acting Medical Officers employed at Brigade Depôts, and a reduction of one Deputy Surgeon-General at the Medical Board, where the sanitary and statistical branches have been combined under one head—a paltry saving of very doubtful expediency. In the estimates provision is made for 30 surgeons on probation at Netley, instead of 100 as last year—a very satisfactory proof that the present Warrant has enabled the authorities to bring up the number of medical officers to the authorised establishment.

The sum required for the pay of army medical officers on the Home Establishment is £176,018, with servants and mess allowances of £7180; and in the colonies, £51,705, with £2880. Under the head of "pay of civilian medical practitioners and medical bills," £11,000 are required for home, and £125 for the colonies, the former being a reduction of nearly £6000 and the latter of £750 compared with last year. For the pay of nurses in female hospitals, miscellaneous labour, &c., £2720 are taken, and for departmental and extra duty pay of Army Hospital Corps £20,646. The amount for these two items was not stated separately in last year's estimates, but there is an increase on the aggregate of £1277.

We have on several occasions called attention to the injury done to such an establishment as the great invaliding hospital of the army by attaching to it a discharge depôt for time-expired men. We sincerely trust that Mr. Childers will repeat his visit to Netley, and take the opportunity of making inquiries into the injurious influences of this arrangement. We feel confident that the result of such a course would be an immediate change of system, reserving Netley exclusively for invalids and sick, and forwarding all time-expired men to their Brigade Depôts, to be discharged to their homes or place of enlistment when the necessary formalities of completing their documents and settling all claims for pay or pension have been completed.

HOSPITAL SUNDAY IN MANCHESTER.

The *Manchester Guardian* publishes a very sensible letter from the Rector of Christchurch, Salford, on the system of giving "recommends" to the clergy in return for collections. Until the whole system of giving letters is abolished in favour of admission on a strict system of merit and urgency, it is unreasonable not to give clergymen a *quid pro quo*. They are naturally brought into contact, sometimes very painfully, with sickness. Their interest in Hospital Sunday is greatly increased by acquiring some means of helping the poor to admission into hospitals. If the rules permit the churches or the committee to require too much, the proper remedy is to alter the rules, but by no means to allow any defect of this kind to interfere with a hearty support of the approaching collection.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting of the Epidemiological Society, held at University College on February 2nd, the President, Sir Joseph Fayrer, in the chair, it was resolved to utilise the constitution of the Society for the purpose of investigating the following points, and special committees were appointed for this object:—1. The evidence which the present state of medical knowledge supplies as to the conditions affecting the protection against Small-pox afforded by Vaccination. The committee to consist of Dr. Robert Cory, Dr. John McCombie, and Mr. Shirley Murphy. 2. The circumstances under which Enteric Fever originates, and the means by which it is disseminated. Committee, Dr. Alexander Collie, Dr. G. C. Henderson, and Dr. E. J. Russell. 3. The circumstances under which Diphtheria originates, and the means by which it is disseminated. Committee, Dr. J. B. Longstaff, Mr. A. H. Smee, and Dr. William Squire.

THE death of Mr. F. J. Short, of St. Bartholomew's, under very sad circumstances, has caused an unusual amount of sorrow and sympathy, as especially evidenced on the day of his burial. Several of his fellow students attended, and letters from others were received, expressing in very strong terms their grief at their loss, and appreciation of his character. One says, "He was my ideal of a perfect Christian gentleman, and if ever man was ready to meet his end he was." He seems to have been universally respected, and many living on the "upper Thames" will remember the tall, quiet, gentlemanly man, who for months together was sketching there. He entered the medical profession a few years ago, had gone to assist his friend Mr. Taylor, of Bocking, on the 2nd inst., and died of malignant small-pox on the 10th, contracted while acting as a temporary assistant in London.

THE College of Physicians in Ireland, as trustees of Sir Patrick Dun's Hospital, have achieved a success in the matter of recovery of rent which has served to put a different complexion on the political affairs of Waterford. The lawful seizure of a tenant's cattle for arrears, and the effective sale of the stock through the agency of the Property Defence Association, and under the protection of a large force of constabulary, seem to have so cowed the adherents and dupes of the Land Leaguers that a large number of tenants on the estate paid up outstanding accounts at once, and the remainder have promised to pay, alleging fear, not destitution, as the cause of delay.

OUR correspondent from India writes: "What a sad business there was at Guy's about the nursing! We went through exactly the same sort of thing out here in Madras. At first the nurses *and priests* had it all their own way; but ultimately, thanks to the shrewd common sense of the Duke of Buckingham and his daughter, Lady Mary Grenville, they were found out, and had to pack up and go."

DR. JOHN WATT REID, Director-General of the Navy Medical Department, has been appointed Honorary Physician to the Queen, in the vacancy created by the decease of Dr. Davidson.

AN effort is being made, it appears, to consolidate the Medical Colleges of Cincinnati into one, to form the medical part of the State University. A similar attempt, made some time back, proved abortive.

THE Medical Council did wisely in appointing, in the place of the much lamented Dr. Andrew Wood, a London Chairman of the Business Committee; and of the London members of the Council, none could have been found more fit by habit and varied experience for the duties of the post than Dr. Pitman.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Cemeteries.—Under the Public Health (Interments) Act, 1879, sanitary authorities are empowered to establish and maintain cemeteries, and, with the sanction of the Local Government Board, to borrow money for defraying the cost. Under these circumstances, the Board has thought it desirable to issue a memorandum on the sanitary requirements of cemeteries, setting forth those points which presumably will influence the Board in its judgment on the suitability of the site of a proposed cemetery. This memorandum has been prepared by Dr. H. Franklin Parsons, and embodies the principles laid down by various English and foreign authorities as requisite to be observed in the establishment of a cemetery to prevent it from becoming a source of nuisance and danger to the living. The memorandum presents an admirably clear view of cemeteries in their sanitary relations. Dr. Parsons deals successively with the questions of soil, situation, particularly in relation to water-supply and sufficiency of space. He does not confine himself to a mere recapitulation of already accepted principles. He makes a suggestion which we do not remember to have met with before, and which commends itself equally to the sanitary worker and to the individual who regards a cemetery from the point of view of sentiment. "In view of the evils which in former times have undoubtedly arisen from the practice of intramural sepulture, and also because the erection of houses near a cemetery interferes with the free play of air around and over it, it is desirable that the site of the cemetery should be in a neighbourhood in which building is not likely to take place, and also that so far as practicable a belt of ground should be reserved between the graves and the nearest land on which a house may be built, in order to obviate to some extent the risk of contamination of ground-air and subsoil water with decomposing matters. This is especially necessary where houses are constructed with cellars. It is, therefore, highly desirable that interments should not be made up to the extreme edge of the cemetery, and it would be possible without great waste of space to reserve in all cases a strip of ground free from interments, fifteen to thirty feet in width, around the whole cemetery on the interior of the boundary fence. This strip would afford room, on the inside, for a gravel or asphalte walk to give access to all parts of the cemetery, and on the outside next the fence to a belt of shrubs or trees, the rootlets of which penetrating the soil would arrest and assimilate any decomposing matters percolating to the exterior of the cemetery."

Faversham (Urban).—This is a report of an inspection made by Mr. W. H. Power, in 1880, to ascertain what had been done in this district by the sanitary authority since a previous inspection in 1875. The first inspection disclosed many shortcomings, and the second inspection showed that while some things had been done by the sanitary authority in the intervals of the inspections, other things had been left undone. But what is to be expected from a sanitary authority which does not, as we learn from Mr. Power, know, as it ought to know, the sanitary circumstances of its own district (possibly does not wish to know)? We must be thankful, then, for the smallest indications of improvement, hoping that such will serve to make more and more prominent to the ratepayers the shortcomings of the administration.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Halifax.—The medical officer of health for Halifax (Mr. Daniel Ainley) has presented to the Sanitary Committee of the Corporation a report on the recent severe localised outbreak of scarlet fever in his district. The report is not dated, but it appeared in the *Halifax Guardian* of Jan. 29th, and at the time of its presentation, and during the month, 319 cases of the disease, of which thirty-three were fatal, had occurred within a limited locality of the borough. Five deaths only from scarlet fever, it is stated, had been registered in the borough in the month of December. The great outbreak of the malady appears to have happened in the course of the first three days of January, and as "nearly every one" of the cases obtained milk from one milk-dealer, suspicion was early excited as to this article of food forming the medium for the dissemination of infection, a suspicion apparently strengthened by the failure to discover any other probable common source of infection. This suspicion was seemingly confirmed subsequently by finding that the family of a man in charge of and whose duty it was to milk certain of the cows from which the milk-dealer obtained a portion of his supply had scarlet fever in his family, and that he was in such close relation with the sick as, in Mr. Ainley's opinion, to make it certain he had been the medium through which the milk had become infected. Moreover, the manifestation of the infection of scarlet fever in this attendant's family had preceded, it is inferred, by at least three days the outburst in the borough. Mr. Ainley thinks he establishes a reasonable probability that the infection of the disease was, as he believes, distributed through the infected milk. But the details he gives as to the relations of the several cases of scarlet fever to the implicated milk, and the times of occurrence of the cases of scarlet fever in the cow-attendant's family—details upon which the validity of the whole argument depends—are curiously wanting in precision. Indeed, Dr. Britton, the medical officer of health for the Halifax (Rural) Combination of Sanitary Districts, within whose district the cow-attendant and his family live, and whose duty it has been to inquire into the circumstances of the prevalence of scarlet fever in the family, has already published data in respect to them, which appear to be irreconcilable with Mr. Ainley's conclusion. This outbreak has caused so much local anxiety that a numerous and influentially signed petition has been presented to the Local Government Board, asking for a special medical inquiry. The Board has assented to the petition, and Dr. Ballard has been instructed to make the desired inquiry.

Mexborough (*Urban*).—Our attention has been directed to a sentence in our notice of the Medical Officer of Health's Annual Report for 1880, for this district, which appeared in THE LANCET of the 12th inst., and which contains an unfortunate misprint. The words "privies constructed *without* drains" should read "privies constructed *with* drains." We entirely agree with the official report of the Local Government Board on this subject, in condemning the use of drains in privies.

THE TOTTENHAM LOCAL BOARD.

For some little time back the Tottenham Local Board has shown an excellent example to the Local Boards in the suburbs of London by the steady care with which it has carried out its duties, and the excellent effect their due performance has had upon the sanitary condition and general health of the district. We greatly regret to find that indications are being manifested of a tendency to fall off from the standard that this Local Board has maintained. At a recent meeting of the Board the medical officer's annual report was presented. The report would seem to have given a faithful account of the sanitary state of the district and its general health condition, and after its reading, as customary, we believe, a motion was made and seconded that 2000 copies of the report should be printed and put in circulation. Whereupon an amendment was proposed, on the ground that there were statements in it "likely to create a very great deal of prejudice against the board's officers," that the report should be "amended and revised," that is to say from what followed, purged of everything that it was most desirable that the ratepayers should know, before being printed. This amendment was carried by a majority of one, and the Local Board will therefore "amend" the report so as to make it palatable to the ratepayers and themselves. Tottenham used to have a Citizens' Sanitary Association which once did excellent service in a somewhat similar contingency. Let us hope that it still exists, for it would be deplorable if the Local Board were to be allowed to lapse into that neglectful state of sanitary administration which, not many years ago, excited so much prejudice amongst outsiders as to the health-condition of the district.

NOXIOUS VAPOURS.

The Report of the proceedings for 1880 of the Manchester Association for Controlling the Escape of Noxious Vapours and Fluids from Manufactories, although of the briefest, contains several interesting particulars. The Association is so disappointed with the prospects of general legislation on this subject, that they raise the question whether Manchester and Salford should not endeavour to obtain local legislation, by private Act, if the probabilities of general legislation do not quickly improve. With regard to the mitigation of the smoke nuisance in November last they suggested to the Nuisance Committee of the Manchester Corporation that the prohibition of dense smoke should be made *absolute*, instead of so many minutes in the hour being allowed. They found, however, that this suggestion had been anticipated by the Committee and was already acted upon, but the Committee had found it desirable to proceed cautiously in carrying it out. Salford does not appear to have had the same lively sense of dealing with the smoke nuisance as Manchester. Reference is made to the movement started in the metropolis with the object of trying to abate London fogs; and it seems, from a communication from Chicago addressed to the Association, that even the new-world city is occupied with the question of abating smoke nuisance.

FULHAM SMALL-POX HOSPITAL.

The public meeting to which we referred in our last week's impression as about to take place at the Subscription Rooms, Tattersall's, with respect to the small-pox hospital at Fulham, was held as announced, Mr. Lammin, the Fulham representative of the Metropolitan Board of Works in the chair. The course pursued was that which we had foreshadowed. A deputation was appointed to wait upon the Metropolitan Asylums Board and the Local Government Board, and urge that the number of small-pox patients to be received into the hospital should not be augmented, as was proposed by the Metropolitan Asylums Board. A committee was also formed to further the objects of the meeting. A letter from Mr. Francis Godrich, describing the influence which, in his opinion, the hospital exercises upon its neighbourhood, was read to the meeting. A public meeting has also been held at Chelsea on the same subject, Mr. J. B. Firth, M.P., presiding, and a plan of procedure was decided upon similar to that which had been determined by the previous meeting at Tattersall's. In the course of the meeting Mr. Firth remarked that blame was being cast upon the Asylums Board, but that the local authorities must take the blame to themselves for not having done their duty.

An outbreak of scarlet fever in the Toxteth Park district, adjoining Liverpool, is attributed to the dissemination of the infection of the disease through a milk supply. It is further reported that although it was known that scarlet fever existed on the dairy premises, and cases were occurring among the customers of the dairy, no proper precautions were taken to prevent mischief from the milk distributed, out of consideration for the dairyman's business, as if it were any part of his business to distribute scarlet fever! A local journal regards, however, this further report "as *almost* incredible."

Dr. Collum claims from the Lower Thames Valley Main Sewerage Board *thirty* guineas for services rendered to it. The Board have replied to the claim by voting a sum of *five* guineas, which Dr. Collum has properly refused to receive. The Board, however, adheres to its decision; having lavished thousands of pounds over its legal expenses, it seeks to establish a reputation for economy by practically repudiating its medical expenses.

It would appear that the Preston Board of Guardians and the Preston Corporation are squabbling about their respective duties in dealing with cases of small-pox, the population of the town meanwhile (whose protection from the disease they are mistakenly presumed to have in view) being left a prey to the contagion.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The registered mortality showed a further marked decline last week. In twenty of the largest English towns, estimated to contain in the middle of this year a population exceeding seven and a half millions of persons, 5569 births and 3347 deaths were registered last week. The births exceeded by 383, and the deaths by only 90, the average weekly numbers during last year. The deaths showed a further decline of not less than 745 from the high numbers returned in recent weeks. The annual death-rate in these twenty towns, which in the three previous weeks had been equal to 28·8, 31·0, and 28·0, further fell last week to 22·9. During the six weeks of the current quarter, ending on Saturday last, the death-rate in these twenty towns averaged only 25·9 per 1000, against 27·6 and 28·5 in the corresponding periods of 1879 and 1880.

The deaths in the twenty towns referred to the principal zymotic diseases, which had been 390, 373, and 366 in the three previous weeks, further declined last week to 316; of these, 71 resulted from scarlet fever, 71 from whooping-cough, 52 from small-pox, and 37 from fever, principally enteric. The annual death-rate from these zymotic diseases averaged only 2·2 per 1000 in the twenty towns, and ranged from 0·9 both in Oldham and Sunderland, to 3·3 and 4·4 in Liverpool and Nottingham. Scarlet fever showed the largest proportional fatality in Wolverhampton and Nottingham; while whooping-cough was most fatal in Leeds and Nottingham. Of the 23 deaths referred to diphtheria in the twenty towns, 17 occurred in London, 2 in Liverpool, and 2 in Portsmouth. The death-rate from fever (principally enteric) was highest in Newcastle-upon-Tyne, Nottingham, and Leicester. Small-pox caused 54 more deaths in London and its outer ring of suburban districts, while no fatal case of this disease was registered in any of the nineteen large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 617 in the fifteen preceding weeks, further rose to 683 on Saturday last. The number of new cases of small-pox admitted to these hospitals, which had been 114 and 234 in the two previous weeks, were 176 last week. The Highgate Small-pox Hospital contained 46 patients on Saturday last, against 30 and 37 at the end of the two preceding weeks; 16 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 617, 702, and 606 in the three preceding weeks, fell last week to 408, and were no less than 127 below the corrected average number in the corresponding week of the last ten years; 269 resulted from bronchitis, and 91 from pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·4 per 1000 in London, while the rate from the same diseases in Liverpool was 8·7.

In the twenty towns last week the causes of 81, or 2·4 per cent., of the deaths were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·0 per cent. in London, while it averaged 3·7 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton or Newcastle-upon-Tyne, while their proportion was largest in Wolverhampton, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 24·3 per 1000 last week, against 34·7 and 28·9 in the two preceding weeks; this rate was 1·4 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 9·7 and 18·7 in Perth and Edinburgh, to 27·8 and 37·1 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 125 and 94 in the two previous weeks, further declined to 89 last week, and were equal to an annual rate of 3·5 per 1000, which was 1·2 above the average rate from the same diseases in the twenty English towns. The zymotic death-rate last week in the eight Scotch towns ranged from 0·0 and 1·8 in Perth and Edinburgh, to 4·3 in Glasgow and Leith, and 6·4 in Paisley. The fatal cases of scarlet fever in the eight towns, which had been 27 and 14 in the two preceding weeks, were 16 last week, of which 7 occurred in Glasgow, 3 in Edinburgh, 3 in Leith, and 2 in Greenock. The 28 deaths from whooping-cough showed a further decline of 6 from the numbers in the two previous weeks, and included 11 in Glasgow, 6 in Dundee, 4 in Paisley, and 3 in Edinburgh. The 16 fatal cases of diphtheria showed an increase, no less than 12 being recorded in Glasgow. The 8 deaths referred to "fever" were fewer than those in recent weeks. All the 7 deaths from measles, and 9 of the 14 from diarrhœa, were returned in Glasgow. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns, further declined last week to 200, from 348 and 261 in the two previous weeks. These 200 deaths from lung diseases were equal to an annual rate of 7·9 per 1000 of the population in the eight Scotch towns; the death-rate from the same diseases in London did not exceed 5·1. The greatest fatality of lung diseases in the Scotch towns occurred again last week in Glasgow and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, although still markedly excessive, showed a further decline last week. The annual death-rate from all causes in the city, which had been equal to 45·7, 47·4, and 46·5 in the three preceding weeks, declined to 41·8 last week. During the first six weeks of the current quarter the death-rate in the city averaged no less than 41·4 per 1000, against 25·9 in London, and 23·1 in Edinburgh. The 267 deaths in Dublin last week were 30 fewer than the number in the previous week, and included 22, or little more than 10 per cent., which were referred to the principal zymotic diseases, against 37, 34, and 21 in the three preceding weeks. These 22 zymotic deaths in Dublin last week included 7 which were referred to fever (typhus, enteric or typhoid, and simple continued), 5 to scarlet fever, 4 to measles, 3 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not 1 to small-pox. The annual death-rate from these zymotic diseases was equal to 3·4 per 1000 in Dublin last week, while it was only 2·3 in London, and 1·8 in Edinburgh. The deaths referred to fever, which had been 17 and 15 in the two previous weeks, declined to 7 last week, but were equal to an annual death-rate from fever which was more than four times as high as the average rate from the same cause last week in the twenty large English towns. The fatality of whooping-cough in Dublin showed a further decline last week, while the fatal cases both of measles and scarlet fever were more numerous. The deaths of elderly persons showed a further considerable decline last week, while those of infants had further increased.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE PUBLIC HEALTH ASPECTS OF THE IRISH CRISIS 1879–80.

The Dublin Mansion House Relief Committee have published a general report of their proceedings during the Irish crisis (as it is now the fashion to term the deplorable period of destitution through which the population of the sister island passed) in 1879–80. The story of the circumstances which led to that destitution, of the efforts made to relieve it, and of the part the Dublin Mansion House Committee performed in promoting that relief, is told eloquently and well. Altogether the report forms an invaluable contribution to the contemporary history of an eventful period, and it should have the careful reading of all English persons who would acquire a competent knowledge of the terrible crisis which Ireland has barely escaped from, and who would form a true judgment upon the matters which concern the future social condition of that island which are now impressed upon the public attention. The medical elements of the report, particularly the portions contributed by Dr. Sigerson and Dr. Kenny, were in the main commented on in the columns of THE LANCET at the time they were communicated to the Committee. From the information then before us we considered that the health aspects of the distress were of graver moment than appeared to be generally regarded by our contemporaries. We must confess, after reading this report, that we rather underrated than overrated the consequences from the public health point of view of this great disaster. The Committee lament that English sympathy should have been so largely warped in its consideration of the terrible miseries which the Irish population has so recently undergone by the political questions relating to Ireland, which were forced upon their attention at the same time, and it is to be feared that similar reasons may deter many from seeking to inform themselves at the present time of the real nature and extent of that misery. But we trust that this will only be in a very limited degree the case, and we would commend to all who take a thorough interest in the well-being of their fellow-men a perusal of this report. It possesses a terrible enthralment, and the general reader will not rise from its perusal without an acuter sympathy for the distressed in the sister island; the medical readers without thankfulness to this committee, and cognate committees, by whose exertions we were saved—barely saved, it may be—but saved from a repetition of the horrible scenes of the famine of 1846-47.

THE MONSALL FEVER HOSPITAL, MANCHESTER.

The Monsall Fever Hospital, Manchester, is, in reality, a detached section of the Royal Infirmary of the city. The trustees of that institution are required, we believe, by the deed of their appointment, to maintain a certain number of beds for infectious diseases, and out of this portion of their responsibilities has grown the large infectious disease hospital at Monsall, in the outskirts of the city. But the trustees have not contented themselves with providing hospital accommodation for the cases of infectious disease sent in ordinary course to the General Infirmary, but have also become the purveyors of such accommodation for the sanitary authorities of Manchester and Salford, and numerous other sanitary authorities in the environs of the city and neighbouring town. The trustees, in taking this course, had in view the facilitating the isolation of cases of infectious disease in hospital under unusually favourable circumstances, to wit, the use of a hospital for sanitary purposes which was organised and administered by the body responsible for the organisation and administration of the Royal Infirmary. We regret to learn that the project has failed in one very important particular. The charges made to the several sanitary authorities who have decided to benefit by the Monsall Hospital have proved to be fixed at so low a rate as to leave the trustees of the Royal Infirmary considerably out of pocket for its administration. The subject is now under the serious consideration of the trustees, and it is to be hoped that a readjustment of charges may be possible, and the original project of the trustees in regard to Monsall carried out without detriment to the funds of the parent institution.

PREVENTABLE DISEASES.

Dr. Smart has been lecturing in Edinburgh before a highly appreciative audience on "Preventable Diseases and their Causes." The lecture was one of a series of "Health Lectures for the People," and was delivered in the Free Church Assembly Hall. Dr. Smart described a preventable disease as one which arose or spread in consequence of the wilful, careless, or ignorant violation of those laws the proper observance of which we know to be necessary to the preservation of health and to avert the spread of disease. He next gave statistical details showing the great loss of life and the vast amount of sickness caused by the principal zymotic diseases, and explained the theory of zymosis. He dwelt also upon the nature of infection and the means necessary for preventing the spread of infectious diseases, and expressed the opinion that local authorities should be entrusted with a discretionary power of compulsory removal. "This discretion," he added, "would never be abused." In illustration of the wide-reaching play of infection, he referred to cases of small-pox imported into Edinburgh from London. He referred also to the proposition to convert the buildings of the old Royal Infirmary, Edinburgh, into a hospital for infectious diseases. Indicating the wide use he would have made of infectious-disease hospitals, he stated that the late Sir James Simpson had expressed his determination to be treated in hospital in the event of his suffering from an infectious disease. The lecture occupied an hour and a half in delivery, and was frequently interrupted by the applause of the crowd which filled the hall.

THE SOCIETY OF ARTS "SANITARY" MEDALS.

The Society of Arts propose to give a series of silver medals for plans showing the best Sanitary Arrangements in houses built in the metropolis, such plans to be exhibited in the Society's Rooms, Adelphi, in June, 1881, and to be sent in on or before May 12th, 1881. We forbear referring to the proposition in greater detail until we obtain some explanation of the following extraordinary statements in the prospectus. The judges in the competition, it is said, will be guided in considering their award "by the suggestions of plans for main sewerage, drainage, and water-supply, made under the Public Health Act, 1875." We thought ourselves tolerably familiar with the Public Health Act, 1875, but we confess this puzzles us, and what follows in a foot-note puzzles us still more. A foot-note to the words quoted above reads—"The Public Health Act has been revised to 1878, and published by her Majesty's Stationery Office. Price, with plans, three shillings." That the revision of public Acts should be handed over by the Legislature to the Stationery Office and issued with plans, is indeed a startling bit of news. The Society of Arts is, however, responsible for it; and we would advise intending competitors to ascertain if the Society really knows what it is about before expending time and trouble on the competition.

THE PARKES MUSEUM LECTURES.

Mr. Rogers Field, M.I.C.S., has been lecturing at the Parkes Museum on house drainage. By voice, experiment, and drawings he endeavoured to bring his great knowledge on this subject within the reach of the most ordinary capacity, and strange, but most hopeful to say, he spoke as if he fully believed it to be within the limits of possibility that builders and their employers might with due patience, and in the fulness of time, be taught the principles of correct house-drainage. True, he told a quite fresh story of a builder who prided himself on laying socketed drain-pipes, by laying them loose in the sockets, discarding packings of cement or other material, not only as useless, but positively harmful. This surely must have been a near relative of the man, if not the man himself, who has tickled the economy of his employers by using simple "butt" pipes for house drains, placing them merely end to end, and adapting them to curves by the simple process of partial junctions. It may also be that ingenious builder who, improving upon engineers' notions, lays all his S-traps horizontally. With admirable clearness and distinctness Mr. Rogers Field set forth the principles of a perfect system of house-drainage, teaching, however, not only what should be done to secure one, but what should be avoided.

At the last meeting of the Public Health Committee of the Edinburgh Town Council, the medical officer stated that the epidemic of scarlet fever, which had been prevailing in the city, is now steadily decreasing. Several owners of houses which had been found to be in an insanitary condition were ordered to have the premises put in a proper state of repair or to shut them up. In view of the increase of the small-pox epidemic in London, instructions were given to have a ward prepared in the Canongate Hospital for the reception of such patients, in the event of an outbreak of the disease in Edinburgh. No cases of small-pox have yet been reported in the city.

A short time ago attention was directed to the circumstance that several deaths had taken place in Glasgow from typhus fever, caught while "waking" the body of a person who had died of the same disease. The medical officer of Govanhill reports a death from scarlet fever, the disease having been contracted under precisely similar circumstances. The clergy might very properly use their influence to put a stop to the absurd and dangerous practice of "waking."

The Seamen's Hospital.—Lord Northbrook presided at the annual court which was held at Willis's Rooms on the 9th inst. The chief feature of interest was the presentation of an illuminated address to Mr. Burdett, the late secretary. During the past year, in addition to the ordinary routine work of the hospital, a dispensary has been opened in Wells-street, London Docks, for the benefit of sick sailors. Severe cases are at once sent from the dispensary to the hospital, and this plan has been found to work most satisfactorily.

THE SERVICES.

SIR FREDERICK ROBERTS AND HIS MEDICAL STAFF.

In congratulating Sir Frederick Roberts on his reception at the Guildhall on the 14th instant, we deem the occasion a fitting one for thanking him for the ungrudging manner in which he has at various times recognised the services of the medical officers attached to his column, and also for publicly drawing attention to the assiduous anxiety he displayed regarding the state of his sick and wounded, and the careful supervision he exercised over the sanitary arrangements both of camp and hospital. The result was to render the medical officers attached to his column devotedly loyal to their general, and we may point with pride to many gallant deeds performed by the medical staff of General Roberts's force. One of the most conspicuous acts of bravery was performed by Surgeon Duke, I.M.D., on the occasion of the explosion of the first magazine in the Bala Hissar on Oct. 16th, 1879, and whilst there was every expectation of the second magazine also becoming exploded, Surgeon Duke, on hearing that some Goorkhas were lying wounded within the fortress, climbed over the walls and succeeded in carrying them out. At the time Surgeon Duke was exposed to cartridges which were exploding in all directions. He was assisted in rescuing the Goorkhas by Surgeon Simmonds and Surgeon-Major Bourke, who afterwards came up. Surgeon Duke was also mentioned in despatches by Major-General Roberts "for his unremitting attention to the wounded under a heavy fire" during the fighting on the days previous to the investment of Sherpore. Surgeon Coates, I.M.D., also distinguished himself by the way in which he, in conjunction with Major Hills, of the 28th Punjaub Native Infantry, defended the native Field Hospital at Sherpore during the final attack and attempted escalade by the Ghazis. Surgeon Lentz, I.M.D., was likewise mentioned in despatches for his conduct under fire. On one occasion he had to cross a hill to attend to some wounded men, being exposed in his passage to a heavy fire the whole time. Similarly we record how Surgeon-Major Catkins, I.M.D., attended to the wounded in the fighting line. The above instances at any rate show that the surgeon is exposed to equal risks with those of his "combatant" brethren.

Again, Surgeon Simmonds, I.M.D., on the occasion of the march of reinforcements to aid Colonel Money when the Ghilzais were attacking him on the Shutargarden, took charge of the heliograph, and rendered essential assistance, as there was a paucity of signallers with the small column. This assistance was promptly acknowledged by General Roberts publicly thanking him before his regiment on the return march.

We must not omit to mention Surgeon Andrew Duncan, who was dangerously wounded at the time of the first assault on Cabul. This officer received his wound whilst standing by the side of General Baker, during the severest part of the engagement. We are pleased to be able to report that Dr. Duncan has now recovered from the effects of his wound, and that he was able to be present on Monday night at the Guildhall banquet. Others of the Medical Staff, however, were less fortunate. The death of Surgeon-Major Porter was one of the greatest losses incurred during the campaign; and the order published by Sir F. Roberts on the occasion fully testified how the officers and men had lost a friend whose skill was beyond question, and whose kindly disposition endeared him to all. A few days after Surgeon Porter's death Surgeon Keith died from pneumonia, the effects of constant exposure to the snow and frost during the anxious days of the investment of Sherpore. These facts, which only represent a tithe of the gallant and important services performed by the Medical Staff under Sir Frederick Roberts, testify, however, to the response given by this department to his just and generous treatment. In this respect the conduct of Sir Frederick Roberts stands in favourable contrast with that of many other general officers, who, after being greatly indebted to the indefatigable exertions of their Medical Staff, have subsequently ignored their claims for distinction or reward.

MEDICAL OFFICERS' MESSES.

We trust that the Army Medical Department will soon have clubs or messes in the various home garrisons. No arguments are needed to prove how valuable such establishments are to the *morale* of the Department. Quite apart from other advantages, the social intercourse of the medical officers with each other is very important. What has been done at Aldershot may be effected elsewhere, and we hope soon to be able to record the opening of similar institutions in our English garrisons. From small beginnings great things grow, and we hope the Secretary of State for War will do his part in aiding by a money grant these much needed Institutions.

NURSES FOR THE TRANSVAAL.

The War Office have arranged for the despatch of a lady-superintendent and three trained nurses from the Royal Victoria Hospital, Netley, by the mail steamer of the 18th, to Natal, for employment in the Base Field Hospitals. The Director-General, Army Medical Department, at the commencement of the Boer campaign suggested that a party of trained nurses should be sent to the Transvaal; but Sir George Colley decided that the ones he had engaged, locally assisted by the sisters from Bloemfontein, would be sufficient for the war. Now, however, that the campaign has assumed larger dimensions, an addition of thoroughly skilled and trained nurses will be a valuable accession to the medical staff.

A reinforcement of medical officers and Army Hospital Corps, with large supplies of medicine, surgical stores, equipments, and medical comforts, will be sent to the Transvaal by the troopships leaving early next week for Durban.

ARMY MEDICAL DEPARTMENT.—Brigade-Surgeon Andrew Semple, M.D., has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Thomas Moriarty, M.D., has been granted retired pay; Surgeon Denis James O'Flynn, M.D., half-pay, resigns his commission.

Surgeon-Majors J. H. Robotham, J. Middleton, J. E. P. Aitchison, and Surgeon T. J. Gallwey, Army Medical Department, are on passage home from India in H.M. troopship *Malabar*.

Surgeon-Major C. Haines, A.M.D., has been ordered home to England on medical certificate for six months, and is pronounced unfit to do duty with troops on the voyage.

Surgeon-Major J. Cody, Bombay Medical Service, has been appointed secretary to the Surgeon-general with the Government of Bombay.

MILITIA MEDICAL DEPARTMENT.—Surgeon Thos. Wm. Spink Locke, West Suffolk Militia, to be Surgeon-Major.

ADMIRALTY.—Surgeon William Algeo has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet, with seniority of 7th February, 1881. The undermentioned have been entered as Surgeons in Her Majesty's Fleet, with seniority of 2nd October, 1880:—William Joseph Christie, M.B.; John Jeffreys Dinnis, M.D.; George Frederick Wales; Malcolm Vincent Stace.

The following appointments have been made:—Staff Surgeon Thomas O. Sullivan to the *Duncan*, in lieu of a Surgeon; Staff Surgeon H. Beaumont to the *Arab;* Staff Surgeon Robert Grant to the *Champion*, temporarily; Surgeon G. H. S. J. Bankier, M.D., to the *London*, vice White.

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—William Little, Esq., to be Honorary Surgeon; Frank Thomas Paul, Esq., to be Surgeon.

THE LONDON FEVER HOSPITAL. — Lord Devon presided at the annual meeting of governors of this instituton, held last week at Freemasons' Hall. The report, read by Dr. Cayley, showed that 1011 cases of fever and diseases of a contagious character had been treated in the hospital during the year, but the amount of support afforded to the institution, notwithstanding the appeal made for funds, had been so small as to create fears that the future usefulness of the hospital might have to be curtailed. It is as remarkable as regrettable that the whole of the contributions for the year amounted to only £660. Mr. Hugh Owen, the hon. secretary, retired after twenty-three years' services, Mr. M. D. Chalmers being elected to fill the vacancy. Earl Devon was again elected president, and thanked for his services.

THE HUNTERIAN ORATION.

This biennial discourse in memory of John Hunter was delivered on Monday last in the theatre of the Royal College of Surgeons, by Mr. Luther Holden, late President of the College. The large theatre was crowded with members and visitors. The President, Mr. J. E. Erichsen, F.R.S., was in the chair, supported by the Vice-Presidents, Messrs. Erasmus Wilson and Spencer Wells, and most of the members of the Council.

Mr. Holden commenced his oration with the well-known words, "Let us now praise famous men and our fathers that begat us." He could find, he said, no better words than these wherewith to invite his audience to welcome the theme which had brought them together that day to do honour to the father of English surgeons, whose fame was so high that we but honoured ourselves in bearing witness before the world how much we honour him as loyal disciples in self-devotion and the pursuit of truth. Some natures, it was true, were disheartened by the contemplation of the great achievements of genius which mapped out the history of our race, and here and there an indolent man might be found who has buried his own talent because it was not ten. Though this temper of mind was happily rare in the profession of which his hearers were members, which daily brought them face to face with the painful aspects and emergencies of real life, it was nevertheless very desirable that they should always keep before them such brilliant examples of successful genius. To the striving and earnest man they were full of encouragement; not only did they urge him on the path of common duty, but they raised him, as it were, to an eminence from which he might overlook the past, and by seeing the results of the aspirations of his predecessors, assure himself of the reasonableness of his own. As English sailors were proud of Nelson, English soldiers of Wellington, English poets of Shakespeare, English physicians of Harvey, so were English surgeons proud of Hunter.

The orator proceeded:—"I shall claim from you some recognition of my especial attachment to my theme if I can contribute a new item of information towards that part of Hunter's history which is the most obscure. We are told by John Hunter's biographers, most of whom seem to have copied from each other an unpardonable inaccuracy, that John Hunter, the father, died when his son John was but ten years old, and that before and after that time, up to the date of his coming to London, he led a completely idle life, only broken into by a short and unsuccessful apprenticeship to a cabinet-maker in Glasgow, who had married his sister, and to whom he was sent for the purpose of helping him out of some embarrassment in his trade. His father was, we know, within two years of fourscore when he died; and the partiality which he must naturally have felt in his declining years for the high-spirited son of his old age is represented as the cause of his having dealt too leniently with him, to the neglect of his real interests. The outlines of the picture are easily sketched: up to ten years the darling of a decrepit father, after ten the pet of a widowed mother, spoilt, humoured, encouraged in idleness, unchecked, untrained, uneducated; such, I say, are the outlines, leaving a blank to be filled in according to the fancy of the biographers, who have rather dwelt upon this extraordinary contrast between the boy and the man—a contrast so complete and unintelligible that, if 'the boy is father of the man,' it requires a miracle to interpret it; and in the miracle lies some of the charm of their story. Thus one orator writes, 'He seems to have led the idle life of a wayward, petted boy until twenty years of age.' Another depicts him as having 'up to twenty years of age, passed a life of idleness, dissipation, and amusement, with no definite object, no settled employment—his highest occupation that of a cabinet-maker, and his education entirely neglected, threatening to destroy all stability of character and all capacity for sustained exertion.' And the same account is the *textus receptus* on the Continent. Thus Fischer, in his 'Chirurgie vor 100 Jahren,' says, 'Hunter was destined by his father to be a ship's carpenter, and in his twentieth year, when he came to his brother in London, he could scarcely read and write.' Again, one of the latest and the most eloquent of the Hunterian orators has thus expressed the same story:—'In the first twenty years of his life he appears to have had no inclination to science or to the arts that minister to it, or indeed to any intellectual pursuit. Had he succeeded in helping his brother-in-law, who was a bankrupt cabinet-maker, cabinet-making might have been the business of his life. Happily he failed; and then after two years more idleness, what was to be done?' Well, we all know what John Hunter *did*. He came to London to work under his brother William at anatomy; and the true history of the man, as he was known to his contemporaries, begins with the famous story of the dissection of the muscles of the arm, wherein he so satisfied Dr. William, at the very first outset, with his skill and proficiency, that he received at once the promise of his unlimited patronage, and in the very next year was engaged by him to prepare anatomical subjects for the public lectures, and to give instruction to the pupils. It is not necessary to point out to you, gentlemen, the significance of this fact, nor to remind you that it was not only the professional reputation of William Hunter, but even the advancement of anatomy in England, that was made over to John Hunter without hesitation......" Continued searches proved that John had received the same schooling as his brother, Dr. William Hunter, and that he had matriculated at the University of Glasgow in Nov. 1745. Mr. Holden was inclined to distinguish John Hunter the human anatomist, from the comparative anatomist, and to say that we had in him an admirable example of the method of the two studies, and of the manner in which they should both be pursued for the advancement of medical science. The term "comparative anatomy," strictly taken, included human anatomy, and if human anatomy had become a science on its own account it was due to the fact that when the anatomist investigated his own body the importance of the subject and the interest of his inquiries made this study paramount; and were it not for the unquestioned pre-eminence of man and the habit which he naturally had of considering himself the centre of the universe, this might scientifically be called an accident. After paying a tribute to the genius of Aristotle, the orator proceeded to speak of the anatomy of Galen and his school, and of all anatomists who preceded the Renaissance, as well as of many who lived to see the sciences reviving and revived. Comparative anatomy, he pointed out, actually stood in the way of human anatomy so as to obstruct it. Human bodies were so difficult to procure for dissection, and the study of them consequently was so rare, that the necessary observations were, as Aristotle said, supplemented from the dissection and investigation of the corresponding organs of the lower animals. As illustrating the relations of human and comparative anatomy, Mr. Holden stated that the physicians in attendance on the Margrave of Baden-Durlach, disputed among themselves as to the position of the heart in the thorax of the Prince, one of them contending, with Galen, that it lay in the middle, the rest being bold enough to affirm that it was on his left side. As this unfortunate doubt assumed the aspect of a serious practical difficulty when it came to determining the precise spot on which should be applied the plaster which was destined to relieve the sufferings of the Margrave, it was decided to appeal to nature. A pig was therefore brought into the royal chamber and opened in the presence of the sick man. The position of the heart was demonstrated to him; if in a pig, therefore in a prince. His highness gave way before this argument, and the plaster was placed accordingly; while the physician, who still had the temerity to defend himself by drawing anatomical distinction between man and pig, was dismissed from the court. In remarking on the teaching of the present day, as painfully illustrated by the large number of rejections of candidates by examining boards, Mr. Holden was unwilling to impute this entirely to the severity of the examiners or to the remissness of the students. After a feeling allusion to the deaths of certain members of the profession since the last oration was delivered, especially those of Mr. Henry Hancock, a former orator and president of the College, and of Mr. G. W. Callender, the orator concluded by dwelling on the advantage of a classical training for medical students, stating that as an old teacher he found those pupils who had received a good public school training could be taught more in two months than others in six. He urged that the youths who were to be the future representatives of English surgery should not be looked upon as "symbols" of an inferior education.

In the evening the President and Council entertained a large and distinguished party at dinner in the library of the College. Among those present were the Lord Chancellor, Earl Granville, Sir R. Cross, the Bishop of London, the Dean of Westminster, and Mr. James Russell Lowell, the American Minister.

Correspondence.

"Audi alteram partem."

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I regret that I erroneously associated Naunyn's name ith the chlorotic murmur. That the error is to some extent excusable is, I think, proved by the fact that such writers as Dr. Bristowe[1] and Dr. Fothergill[2] make the same mistake.

I unfortunately was not acquainted with the article in THE LANCET to which Dr. George Balfour refers me, or I certainly should not have mistaken his views as I have done. My statement of his views was based on the impression which I derived from the perusal of Chapter VI. of his "Diseases of the Heart." Taking that article as representative of Dr. Balfour's views, most readers would, I think, conclude, as I did, that he denied the arterial character of the basic murmurs in anæmia. His whole argument, as I read it, and the following passages in particular, tend towards that end.

"But if we can show, as I hope to do, that the cardiac portion of these murmur is not simply hæmic or purely functional in character, but is the product of an actual cardiac lesion, then we link blood disease with cardiac lesion in a very striking manner, and obtain the important pathological information that some cardiac lesions are certainly and permanently curable" (page 158). "But the venous murmurs which accompany chlorosis are for many reasons of very much less interest and importance than those heard in the cardiac area. As already mentioned these are systolic in character, and are most frequently heard in the pulmonary area, less frequently so in the aortic area, and most rarely in the mitral area" (page 159). "This so-called arterial murmur is, therefore, not arterial at all, but strictly auricular in its source" (page 160). . . . . . "In all febrile diseases, whatever their character, the sequence of the phenomena, as observed by myself, has been precisely similar to that observed in chlorosis. That is: first, we have had the venous hum; second, the auricular murmur, propagated into the pulmonary and aortic areas, either as an impure or prolonged first sound, or as a distinct systolic murmur; and, lastly and more rarely, a systolic murmur in the mitral area" (page 168). . . . . . "*The arterial murmurs are therefore not of independent origin* [the italics are my own], but are propagated from the mitral valve, which permits slight regurgitation between its segments, which are unable to close perfectly because the ventricular lumen is somewhat dilated" (page 169).

The exact mode of causation of the reduplicated second sound in cases of mitral stenosis is confessedly somewhat obscure. The very emphatic way in which Dr. George Balfour—for whose opinion on this and all subjects relating to the circulation I have great respect—expresses himself against the theory which I have adopted, makes me think that it is perhaps wrong. Still it is a view which is not without its weighty supporters. Thus Rosenstein, who writes the article on Mitral Stenosis in Ziemssen's "Cyclopædia,"[3] not only concludes that the aortic valves close before those of the pulmonary artery, but brings actual clinical proof of the fact, when he states, that the second portion of the reduplicated sound may be heard much more accentuated over the pulmonary artery than over the aorta. He says, "Geigel called attention to its frequency—(i.e., frequency of reduplicated second sound)—of occurrence in stenosis, and explains it by the unequal tension in the aorta and pulmonalis, which may prevent synchronous closure of the valves of the two vessels, since the aorta with its smaller contents contracts quicker, and thus closes its semilunar valves an instant before those of the pulmonary artery. The fact that the second part of the reduplicated sound may be heard much more accentuated over the ostium of the pulmonalis lends a great probability to the view that it is produced by the valves of this artery."

Sibson, too, in his elaborate article on Endocarditis in Russell Reynolds' "System of Medicine," in speaking of doubling of the second sound in connexion with mitral murmurs, says: "On the second day there was doubling of the second sound over that (i.e., the pulmonary) artery. The second sound was louder than the first, and this proved that the later sound was the pulmonic, the earlier the aortic, sound. In this instance the doubling of the second sound, which lasted to the 60th day, disappearing on the 69th, *was due, I consider, to the longer time occupied by the right ventricle than the left in emptying itself, owing to the resistance to the flow of blood through the lungs.*"[4] (The italics are my own.)

Hayden, in his work on "Diseases of the Heart and Aorta," states: "Where the second sound is reduplicated in connexion with mitral stenosis, the element deranged is most likely that produced in the pulmonary artery, the entire pulmonary system and the right chambers being engorged by obstruction at the mitral orifice. *In the effort to overcome this obstruction the systole of the right ventricle is protracted and the reaction of the pulmonary artery proportionately postponed.* (The italics are my own.) The reaction of the aorta is, on the other hand, in mitral stenosis, most probably anticipated where the left ventricle is reduced in capacity, as always is the case where mitral or aortic reflux does not co-exist. Hence it is likely that in simple mitral stenosis two causes of doubling of the second sound are in operation—namely, diminished capacity of the left and dilatation of the right ventricle."[5]

To some of the general statements I have in my lecture made, exceptions, of course, occur. Thus, for example, the tone of the same murmur may occasionally differ at two different parts of the chest wall; the inorganic murmurs of anæmia are sometimes associated with important disturbances in the heart and circulation, &c.

In speaking of the altered character of the first sound in mitral stenosis I say that it is due to the small amount of blood which gets into the left ventricle, and omit to mention as a cause the altered condition of the mitral cusps. Students who have attended my lectures, and who know that I am in the habit of teaching that the chief cause of the first sound is the tension of the auricular ventricular valves, will readily understand that this is an unintentional omission. Others might from the statement think that I am one of those who advocate the purely muscular, as opposed to the valvular, character of the first sound.

With these explanations I must leave the lecture to receive from the profession such measure of approval or disapproval as it may deserve.

I remain, Sir, yours very truly,

Edinburgh, Feb. 7th, 1881. BYROM BRAMWELL.

ANIMAL LIGATURES.

To the Editor of THE LANCET.

SIR,—The interest so generally felt in this subject will, I trust, justify reference to two eminent authorities, one of which is probably not generally accessible to your readers. Professor S. D. Gross,[1] in his chapter on Diseases and Injuries of the Arteries, records that "animal ligatures were first introduced to the notice of the profession by Dr. Physick early in the present century, and they have ever since been occasionally employed by different practitioners, chiefly American." Luigi Porta teaches: "Amongst the substances applicable to the ligature of arteries, gut-cord is without doubt the strongest and the most homogeneous."[2] He gives the results of eighty experiments to bear out this statement, and expresses himself confidently on the absorption of the animal ligature.

I am, Sir, your obedient servant,

Birmingham, Feb. 12th, 1881. SAMPSON GAMGEE.

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[1] The Theory and Practice of Medicine, p. 474.

[2] The Heart and its Diseases, p. 51.

[3] Ziemssen's Cyclopædia of the Practice of Medicine, p. 129.

[4] Russell Reynolds' System of Medicine, p. 488.

[5] The Diseases of the Heart and Aorta, p. 129.

[1] System of Surgery. Fifth Edition (1872), vol. i., p. 670.

[2] Delle Alterazioni Patologiche delle Arterie per la Legatura e la Torsione, esperienze ed osservazioni di Luigi Porta, Milano 1845, p. 21 et seq.

THE UNIVERSAL HYSTEROPHORE.

To the Editor of The Lancet.

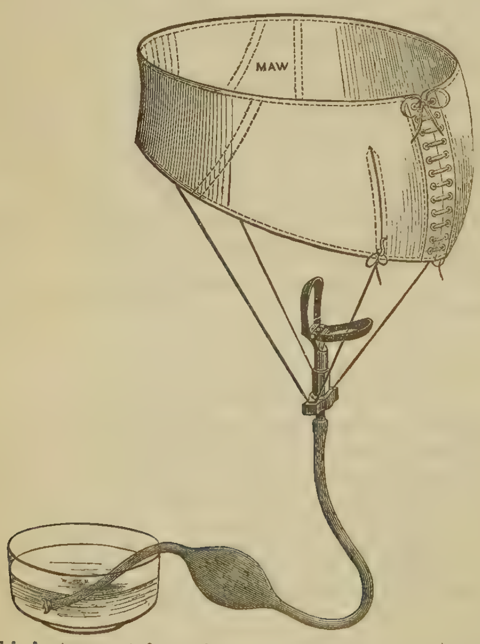
Sir,—I would ask a little space in your invaluable journal in reference to a hysterophore or pessary which I have had made by Messrs. Maw, Son, and Thompson.

I have been much disappointed with the pessaries in common use, and in some cases have found those which are considered the most efficient to be entirely useless, and in cases where they did prove of service, that they were very deficient in many most important points.

The hysterophore is made of vulcanite, and consists of a stem and two blades.

The stem is two inches and a quarter in length, with a tube running through the centre; to the upper end the blades are attached by hinges, which blades can be separated and approximated at pleasure by means of a screw, which forms part of the lower end of the stem. Around the lower end of the stem is a movable cylinder, through which pass two caoutchouc cords, one opposite the other. The blades are concave and elongated. Each blade has a large hole in the centre, which adds to the lightness, and permits the escape of injected fluids. One blade is two and a half inches in length, and one inch longer than the other, and is immovable. The shorter blade is of the same formation, and is so constructed that by the action of the screw in the stem it is made to approach or recede from the longer when desired.

The hysterophore, when closed, is lemon-shaped. The smaller blade, with its rounded edges, falls slightly into the concavity of its fellow. The cords are hooked on by means of strong elastic bands. Each band is perforated with three holes, each hole one inch apart, and through either of these the hook passes. The other ends of the cords are passed behind, and attached in like manner. To the lower end of the stem of the hysterophore the silver point of an india-rubber syringe can be attached, so that injections can be applied to the uterus and vagina at any time, without disturbing the hysterophore. The woodcut represents the syringe as attached to the instrument.



This instrument is made in three sizes; also a modification in three sizes, which is essentially the same, with two exceptions—viz., (1) the blades are of equal length, and (2) the blades are equally movable.

The instrument, as first described, is intended to rectify any flexion or version of the uterus. If there is anteflexion or version, this is rectified by introducing the hysterophore so that its long blade with its convex surface will be anterior. This blade that is fixed, and longer than the other, passes up in front of the cervix and body of the uterus, and thus raises the uterus to its natural axis in the pelvis, and is supported on the opposite side by the opposing blade. At the same time the cervix is free, and subjected to no undue pressure. In retroflexion or version the long blade is passed up in like manner over the posterior surface of the cervix and body, and similarly in the lateral displacements. The hysterophore, with its blades of equal length and mobility, is intended for prolapsus uteri.

I have found the advantages embodied in this hysterophore to be the following:—1. That by means of one instrument all displacements can be adjusted. 2. The instrument always presents a convex surface externally. 3. In marked cystocele or rectocele, more especially where the vulva is large and yielding, and in aged women where there is senile decay and general absence of adipose tissue, it will be impossible to get even a Hodge to act. 4. The attached elastic bands, which are hooked on in front and behind to the abdominal binder, yield at every movement of the body and inspiration, thereby permitting all natural movements of the uterus; thus avoiding all danger of violence, which unyielding supports would cause. 5. On account of the beveling of its edges, the instrument is free from the risk of nipping the parts in extraction. 6. By the use of the syringe injections can be thrown up so as to come in contact with the external surface of the uterus and internal surface of vagina, thereby keeping the parts healthy, and free from the offensive discharge, liability to inflammation, and ulceration. Where congestion and ulceration do exist with displacement, the hysterophore can be worn with comfort, and the uterus kept in its proper axis, while the curative treatment may proceed uninterruptedly.

I remain, Sir, yours faithfully,

John McG. MacCormac, L.R.C.P. & L.R.C.S. Ed.

Lindley, Huddersfield, Jan. 26th, 1881.

EDINBURGH.

(*From our own Correspondent.*)

At a recent meeting of the Royal Medical Society a patient was shown on whom an interesting Taliacotian operation had been performed, with a successful result. About eight years ago the patient sustained a severe burn of the head, which destroyed the whole of the scalp, ear, and outer table of the right side of the cranium. In process of time the dead bone became removed; but owing to the great tension a satisfactory cicatrix could not form, and the young epidermis broke down and ulcerated continually. Skin-grafting on such an unhealthy surface was impracticable. To remedy this state of affairs the cicatrix was "rawed," two flaps were dissected from off the inner side of the upper right arm, and held in position with catgut sutures and collodion, while the arm was secured to the head and the whole incorporated in a suitable plaster-of-Paris apparatus. In eight days the flaps were cut free and the arm brought down. Subsequent progress was so satisfactory that the patient was exhibited with a soundly healed scalp, free from tension and with complete epidermic continuity.

It is stated that Dr. James Russell will be appointed Inspector of Anatomy, in place of the late Dr. Andrew Wood.

IRELAND.

(*From our own Correspondent.*)

Dr. MacCabe, Local Government Board Inspector, in his half-yearly report in respect to the South Dublin Union states that he has long been of opinion that both the North and South Dublin Workhouses, in reference to the accommodation they afford, are quite inadequate for the requirements of the destitute poor within the city of Dublin and the surrounding electoral divisions. He adds that in the South Dublin Workhouse on the 1st of January last the number of inmates was 3489, so that the building contained 84 in excess of the number which could be properly accommodated, having regard to cubic space and the reservation of certain wards as day-rooms only. Of the total number of inmates about 2500 are hospital cases, and aged and infirm people, classes amongst whom a high mortality might be expected to prevail, yet the death-rate during the past six months amounted to less than 33 per 1000, and was actually below the death-rate among the general population included in the Dublin Registration District during the same period. This fact, as Dr. MacCabe points out, affords striking evidence of the good sanitary condition of the workhouse.

In Kilmainham Small-pox Hospital there were 118 acute cases of this disease, and in addition 61 convalescent cases were received from the Hardwicke Hospital. Of the acute cases the mortality among those who bore vaccination marks was at the rate of 13·8 per cent., while of those in which vaccination marks were absent 90 per cent. died.

It has recently been urged in Belfast that a hospital for consumption and other pulmonary affections is much required in that town, in consequence of the large number of work-people engaged in flax-spinning, and who, from the nature of their occupation and their mode of life, are peculiarly liable to be attacked by phthisis. More especially is the want of an institution of the kind felt in consequence of a regulation of the Belfast Royal Hospital, which practically excludes phthisical patients—at all events, in the later stages of the disease—from the only general hospital in Belfast. This rule was adopted in consequence of the heavy expense of maintaining such patients, while the curative result was *nil*. It is true that a provident dispensary has been for some months in operation in Belfast, for supplying advice and medicine to applicants; but as there is no intern accommodation the amount of good done can only be of service in the very early stages of the disease. The Society for Providing Nurses for the Sick Poor has been of considerable use in these cases, and has visited and relieved many hundreds of phthisical patients.

A Local Government Board Inspector opened an inquiry at the Town Hall, Wexford, last week, in reference to the condition of the borough graveyards, it having been represented by the local medical officers that these burial-grounds were much overcrowded and dangerous to health. Dr. Pierce, sanitary officer, gave evidence to the effect that he had examined the several urban burial-grounds, that they were overcrowded, and that any further interments would be dangerous to the public health. The inquiry has been adjourned.

At a recent meeting of the Governors of Cork-street Fever Hospital, Dublin, the Registrar reported that although the number of admissions in typhus fever cases had steadily declined during the month of January, yet the disease was still very prevalent in the city and suburbs. Cases of small-pox are also again on the increase.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, 10th inst., a return relating to the superannuation of medical officers in Ireland was ordered to be printed. A petition was presented by Dr. Farquharson from the National Health Society against the proposed Guildford, Kingston, and London Railway.

On Friday Mr. Chamberlain stated to Mr. Ross that the Board of Trade were preparing a Bill dealing with the subject of druggists' measures. A petition was presented from the St. Saviour's District Board of Works praying for inquiry into the affairs of Guy's Hospital. Mr. Woodall brought in a Bill to provide for the better education of blind and deaf-mute children.

On Monday a petition for redress in connexion with the Indian Army Medical Department was presented from Arthur P. Holmes. A petition was presented from Athy Union, for alteration of the law of poor relief in Ireland. Mr. Tottenham gave notice that on Thursday he would ask the Chief Secretary to the Lord Lieutenant of Ireland, under what circumstances the claims of the Assistant Resident Medical Superintendents of the Irish Lunatic Asylums were overlooked in the recent appointment of the Resident Medical Superintendent of the Carlow Asylum; and whether the gentleman who received the appointment had any special qualifications justifying their supersession, or had ever served as an assistant in any lunatic asylum.

On Tuesday Sir William V. Harcourt, in answer to Mr. A. O'Connor, stated that a deaf and dumb boy, aged fifteen, who was sent to a reformatory in 1877 for five years, was now under instruction by an instructor sent from a deaf and dumb asylum.

On Wednesday the second reading of the Coroners (Ireland) Bill was further deferred to Friday.

Carlow Asylum.

On Thursday, in reply to Mr. Tottenham, Mr. Forster said the claims of none of the applicants for the appointment of Resident Medical Superintendent of Carlow Asylum were overlooked. They all received careful consideration, and the gentleman selected was already intimately acquainted with the asylum, from the fact of his having attended there during the official visits of his father, the late visiting physician, and having on several occasions discharged the duties of the late resident medical superintendent when that official was absent on leave. The question of the hon. and gallant gentleman seems to imply that some gentleman was superseded by the appointment that was made, but that was not the fact. The assistant resident medical superintendents have no claims to appointment as resident medical superintendent.

Obituary.

FERDINAND JENCKEN, M.R.C.P., &c.

ON the 5th inst. we briefly noticed the lamented death of this gentleman at Kingstown on Jan. 11th, caused by blood-poisoning in opening an abscess in the arm of a patient suffering from erysipelas.

Mr. Jencken had during his career been a contributor to several of our leading journals, his papers on "Atmospheric Dust" and "Modified Inoculation of Cow-pock for the Prevention of Rinderpest" having attracted attention at the time; whilst his treatises on "Cholera" and "Vaccination" may be consulted with advantage on these much-discussed questions. Early in life Mr. Jencken showed great aptitude for music, and whilst only eleven years old he dedicated a piece of his composition by permission to H.M. the Dowager Queen Adelaide. The deceased forms one of those instances which prove how much may be effected by mere determined industry. Born blind, and only partially able to use his sight after an operation for cataract, he persevered, and, despite the enormous disadvantage his physical defect entailed on him, not only obtained the Membership of the College of Physicians, but boldly entered into the sphere of literature, which it would have been thought needed eyesight to ensure success. Wiegand's "Birth of Man," the father of obstetric science, has been translated and annotated by Mr. Jencken, and was ready for the press at the time of his death; in addition, he has left a work on "Organic Life" as well as a translation of Madame de Staël's "Letters on England," which no doubt at some future day his family will place in the hands of the English public. We can but regret the loss of so valuable a member of our profession just at a period when he was ready to add to the literature of the day, garnered during years of study and experience—a further tribute to the great wealth of learning of which this century may be justly proud.

DR. JOHN DAVIDSON, C.B., INSPECT.-GEN. R.N.

DR. DAVIDSON died at his residence, Bosworth Lodge, Willesden-lane, on Jan. 31st, and was interred in the cemetery of Greenwich Hospital on the 5th inst., his funeral being attended by a number of his late brother officers.

The deceased gentleman entered the Naval Service in July, 1839, and was shortly after sent to China, where he was present at the captures of Canton and Chapoo, and throughout the operations on the Yangtse-Kiang river. In 1843 he was appointed surgeon to H.M.S. *Dido*, and in her served in Borneo. From 1850 to 1851 he was surgeon in charge of the Naval Hospital at Ascension, from which he returned with impaired health. At the commencement of the Russian war he was despatched to the charge of the Naval Hospital at Therapia, where he received promotion to the rank of Deputy Inspector-General in March, 1855, at the early age of thirty-eight years, continuing to serve there to the end of the war in 1857. His subsequent services were rendered at home, being Deputy Inspector of Haslar from 1859 to 1866, Inspector-General of Greenwich Hospital during 1867, and of Plymouth Hospital from 1868 to 1873, when he sought retirement from active service, on account of greatly impaired health, attributable to his duties.

Dr. Davidson was greatly esteemed in the Navy as a skilful surgeon and a sound physician, and as a liberal, honest, and generous man.

GEORGE H. AITCHISON, M.D. EDIN.

DR. AITCHISON was born in Kilmarnock, in 1845, and gave promise of achieving great distinction as a physician in Scotland. During his period of study in the University of Edinburgh he took the first place in the Latin and Logic classes, whilst his fluency of speech and breadth of judgment made him conspicuous in the debating societies in connexion with his Alma Mater. After obtaining his B.M. and C.M., Dr. Aitchison commenced practice in Yorkshire, but he soon returned to Edinburgh and took the M.D. in 1878, becoming a Fellow of the College of Physicians in the same year. He had scarcely, however, laid the foundation of a prosperous career when the symptoms of his fatal malady appeared, and frustrated all his hopes. It is believed that a poisoned wound received in the practice of his profession was the exciting cause of an illness which, after two years of suffering, terminated his valuable life.

Medical News.

UNIVERSITY OF CAMBRIDGE.—The following gentlemen had conferred on them, on the 10th inst., the degree of M.B.:—

Young, Arthur, Caius College.
Nichols, Frederick Peter, St. Catharine's College.
Gover, Henry John, Trinity Hall.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 10th:—

Cranstone, William Lefevre, Barrington-street.
Partrige, William Stroud, Newhall-street, Birmingham.
Humphreys, William Carr, Bank House, Bromsgrove.

The following gentleman also on the same day passed the Primary Professional Examination:—

Jennings, Charles Egerton, London Hospital.

THE salary of Dr. Porter, medical officer of the Bow district of the Poplar Union, has been increased to £150 per annum.

MR. W. F. FULLER, late Assistant Medical Officer of the Parish of St. Marylebone, has received a superannuation allowance of £80.

THE 13th inst. was observed in Manchester as Hospital Sunday, when collections were made in all the churches and chapels of the town. The proceeds of the collection have not yet been made known.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—In the list of gentlemen who were successful in the second professional examination of the above, and which appeared in THE LANCET of February 5th, the name "F. G. Marchment" should have been F. G. Maidment.

RIVERS CONSERVANCY.—Mr. C. N. Cresswell is to read a paper on this subject before the Society of Arts on Wednesday next, the 23rd inst. The paper will deal principally with the three important topics of Floods Prevention, Rivers Pollution, and Water Supply.

CHARING-CROSS HOSPITAL.—It is satisfactory to learn, from the report of this institution read at the annual meeting of the governors on the 9th inst., that the special appeal to the public put forth in the past year met with a generous response. The result of the appeal has not, however, been ample enough to warrant the council in bringing again into use the thirty beds they were, some months ago, compelled to withdraw from the wards, the expenditure (£16,113) still exceeding the receipts by £2680.

ROYAL FREE HOSPITAL.—The report read at the annual meeting of the governors of this hospital, stated the receipts from all sources last year to have been £15,610, the ordinary expenditure £9367; whilst repairs and other improvements had involved an outlay of £6705. The number of in-patients had been 1360; 1242 had been discharged recovered, and 88 had died. A festival dinner in aid of the funds would, it was announced, take place in the ensuing spring.

LONDON TEMPERANCE HOSPITAL.—The new buildings of the London Temperance Hospital, in the Hampstead-road, will be opened on Friday, March 4th, by the Lord Mayor, who, with the Sheriffs of London and Middlesex, will attend in state. The buildings, when complete, will hold fifty in-patients.

LONGEVITY.—The obituary column of a contemporary, on the 10th inst., gives the deaths of four females, whose united ages number three hundred and ninety years, yielding an average of ninety-seven years and six months to each. Their respective ages were 93, 94, 99, and 104 years.

FRENCH HOSPITAL AND DISPENSARY.—The thirteenth annual dinner in aid of the funds of this institution was held on the 12th inst., when the French Ambassador, M. Challemel-Lacour, presided, and a distinguished company assembled. The Lord Mayor, as one of the executive of the Hospital Sunday Fund, bore testimony to the efficiency and economy of the management of the hospital, and the *réunion*, at its close, was voted an undoubted success.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. E. B. Noden, late of Brixton, bequeathed £1000 to the Manchester Royal Infirmary, £500 each to the Cancer Hospital, Fulham-road, and the Brompton Consumption Hospital, £300 to the Royal Hospital for Incurables, £250 to Miss Marsh's Convalescent Home at Brighton, and £200 each to the London Hospital and St. Mark's Hospital. The Leeds General Infirmary has received a legacy of £19 19*s.* from the late Mr. McConnochie, and £50 from the workpeople of Messrs. Briggs and Co.'s Collieries. The Belfast Hospital for Sick Children has received £50 from "Subscriber." Messrs. Guinness have given £60 to Steevens' Hospital; and the trustees of Bishop Stearne's charities have handed a donation of £60 to St. Mark's Ophthalmic Hospital, Dublin. By the will of Miss M. V. Durell, late of Oxford, the Radcliffe Infirmary becomes entitled to £300. Miss Farme, late of Edinburgh, bequeathed £500 to the Edinburgh Hospital for Incurables. Miss Isabella Still, late of Aberdeen, bequeathed £50 to the Aberdeen Royal Infirmary.

ST. MARK'S HOSPITAL.—The annual meeting of the subscribers to St. Mark's Hospital, in the City-road, was held on the 10th inst., at the Mansion House. The annual report stated that during the forty years the charity had been in existence more than 43,000 sufferers, of both sexes and of all ages, had sought relief from their distressing and painful maladies, the greater part of whom had been either cured or sufficiently relieved to enable them to resume their labours. Over 2000 patients annually received the benefits of the hospital. As the demands upon it continued to increase without a commensurate increase in its income, the committee hoped that the charitably-disposed public would aid them in carrying on the good and benevolent work, which, up to the present time, had been so successful. The committee of management were unhappily unable to speak very cheeringly of the financial state of the hospital, as this year again the accounts showed a deficit of £767 10*s.* 4*d.*

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ABBOTT, C. E., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer of Health to the Braintree Rural Sanitary Authority.

BLAKESLEY, H. J., M.R.C.S.E., has been appointed Assistant Medical Officer to the Leicestershire and Rutland Lunatic Asylum.

BLOMFIELD, Dc. A. G., House-Surgeon at the West Norfolk and Lynn Hospital, King's Lynn, has been elected House-Surgeon to the Devon and Exeter Hospital, vice H. Gordon Cumming, resigned.

BLOXAM, T. A., F.R.C.S.E., has been appointed Surgeon to Charing cross Hospital, vice Hird, appointed Consulting Surgeon.

BODDY, H. W., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Workhouse of the Prestwich Union, vice Buckley, resigned.

BUDD, S., M.D., F.R.C.P.L., has been appointed Consulting Physician to the Devon and Exeter Hospital.

CHEESBROUGH, H. A., M.D., has been appointed Honorary Consulting Physician to the Blackburn and East Lancashire Infirmary, on resigning as Honorary Physician.

CLARK, S., M.D., C.M., has been appointed Certifying Factory Surgeon for the District of Cullen.

CLARKE, W. B., F.R.C.S., has been elected Assistant-Surgeon [not Surgeon, as announced last week] to the West London Hospital.

COX, F. A., M.R.C.S.E., has been appointed Assistant Medical Officer and Chloroformist to the Hospital for Women and Children, Vincent-square.

DAVY, H., M.B., M.R.C.P.L., has been appointed Physician to the Devon and Exeter Hospital, vice Dr. Budd, resigned.

FISHER, T. J., M.D., M.Ch., has been appointed Medical Officer for the Fifth District of the Hackney Union.

HEMSTED, E., M.D., M.Ch., has been appointed Surgeon to the Southampton Dispensary, vice Hobley, resigned.

HIGGINS, W. H., M.B. & C.M., M.R.C.S.E., has been appointed Medical Superintendent of the Leicestershire and Rutland Lunatic Asylum, vice J. Buck, M.R.C.S.E., deceased.

HIRD, F., F.R.C.S.E., L.R.C.P.Ed., has been appointed Consulting Surgeon to Charing-cross Hospital.

KEMPE, A. W., M.R.C.S.E., L.R.C.P.Ed., has been appointed Surgeon to the Exeter Dispensary, vice W. A. Budd, resigned.

LUBBOCK, Dr. M., has been appointed Assistant-Physician to the West London Hospital, vice Dr. J. M. Fothergill, resigned.

MOLYNEUX, J. L., M.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Upholland District of the Wigan Union.

MORGAN, J., F.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Medical Officer for the Workhouse of the Langport Union, vice Tims, resigned.

MORGAN, W., F.C.S., has been appointed Public Analyst for the Borough of Haverfordwest. £5 5s. per annum, and fees.

SETH, O., F.F.P.S.G., L.M., L.S.A.L., has been appointed Medical Officer for No. 9 District of the Brighton, Hove, and Preston Provident Dispensary, vice F. Blaker, resigned.

UPTON, A., M.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Medical Officer for No. 7 District of the Brighton, Hove, and Preston Provident Dispensary, vice H. C. Upton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARCLAY.—On the 5th inst., at Grantown, the wife of W. M. Barclay M.B., C.M., Edinburgh, of a daughter.

BOND.—On the 10th inst., at Delahay-street, St. James's-park, S.W., the wife of Thomas Bond, F.R.C.S., of a son.

COCKCROFT.—On the 10th inst., at Manor Lodge, Chislehurst, Kent, the wife of T. H. Cockcroft, M.D., of a daughter.

COOPER.—On the 9th inst., at South-hill-park, Hampstead, N.W. (the residence of her father, Luke Dowell Smyth, M.D.), the wife of the late Thomas Henry Cooper, M.R.C.S.E., of a posthumous son.

SMITH.—On the 11th inst., at Richmond-hill, the wife of Dr. R. Shingleton Smith, of a daughter.

WINSLOW.—On the 3rd inst., at Hayes-park, Middlesex, the wife of Henry F. Winslow, M.D., of a daughter.

MARRIAGES.

DOBSON—DOUGLAS.—On the 14th inst., at the residence of the bride's father, Edwin Francis Horatio Dobson, M.A., C.M., Her Majesty's Bengal Army, eldest son of Francis Horatio Dobson, of Happy Hall, Rangoon, Burmah, to Emily Ann (Emmie), fourth daughter of Thomas Douglas, of Airy Hall, Aberdeen.

JONES—SMITH.—On the 16th inst., at St. George's, Hanover-square, by the Rev. Frederick Smith (father of the bride), Thomas (Young) Jones, M.R.C.S.E., L.R.C.P.Ed., to Mary Agnes Coare. China and Australian papers please copy.

MASTER—MANBY.—On the 10th inst., at the Parish Church, Morecambe, by the Rev. M. N. Kearney, M.A., Canon of Elphin Cathedral, and Rector of Strokestown, co. Roscommon (brother-in-law to the bride), George Reginald, youngest son of Alfred Master, Esq., F.R.C.S. & J.P., of Norwich, to Emily Caroline, youngest daughter of the late Rev. E. F. Manby, Rector of Morecambe.

WALKER—DESHON.—On the 9th inst., at St. Michael's, Teignmouth, Ernest Octavius, son of G. J. Walker, Esq., of Brook Hill House, Teignmouth, to Rosa Eacie Anne, fourth child of the Rev. H. C. Deshon, M.D., Rector of East Teignmouth.

DEATHS.

ALTY.—On the 8th inst., at Birkdale, Southport, Lancashire, John Daniel Alty, M.R.C.S.E., late of Demerara, aged 69.

BARTLEY.—On the 6th inst., at St. Helier's, Jersey, John Metge Bartley, M.D., Surgeon on the Retired List of the Army Medical Department, and formerly of the 1st Dragoons and 39th Regiment, in his 94th year.

BIGSBY.—On the 10th inst., at Gloucester-place, Portman-square, John J. Bigsby, M.D., F.R.S., in his 89th year.

CRESSY.—On the 14th inst., at his residence, Bedford House, Gravesend, Theodore Grant Cressy, M.R.C.S.E., L.S.A.L., youngest son of the late Edward Cressy, Architect, of South Darenth, Kent, in his 51st year.

MASON.—On the 12th ult., at his residence, The Vinery, Wellington, Herefordshire, Thomas Mason, M.R.C.S.E., &c., aged 49.

TALBOT.—On the 21st ult., at St. Ann's Bay, Jamaica, Joseph Bindley Talbot, L.R.C.P.L., M.R.C.S.E., suddenly, of heart disease, aged 29.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 17th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 11	29·01	N.W.	43	41	..	43	39	·13	Overcast
„ 12	30·01	N.	34	32	..	42	30	..	Bright
„ 13	29·98	S.W.	39	35	..	41	31	..	Bright
„ 14	29·78	S.E.	39	36	..	41	35	..	Overcast
„ 15	29·78	S.E.	40	38	..	44	36	·26	Raining
„ 16	29·93	S.E.	39	38	..	48	35	·06	Foggy
„ 17	29·93	N.E.	38	37	..	44	35	..	Foggy

Medical Diary for the ensuing Week.

Monday, Feb. 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Samuel Osborn will show Two Cases of Hydrocele cured by Simple Tapping and subsequent application of Pulvermacher's Suspensory Bandage.—The President, Mr. F. J. Gant, will read a Case of Epithelioma of the Tongue; organ removed by Buccal Operation; both the specimen and the patient will be shown.—Dr. Gilbart Smith will exhibit Photographs of the Mechanical Means used by Dr. Lauder, of Stockholm, for Exercising Weakened Muscles.—The President may also show Gale, the Pedestrian.—Mr. Royes Bell will show a Specimen of the Tongue Removed by Nunneley's Operation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Tuesday, Feb. 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Spencer Wells, "On Two Hundred additional Cases, completing One Thousand Cases of Ovariotomy, with remarks on recent improvements in the operation."—Dr. George Thin, "On the Development of a Layer of Elastic Fibres in Duct Cancer of the Breast."

Wednesday, Feb. 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

HUNTERIAN SOCIETY.—8 P.M. Introductory Address by the President.—Mr. T. E. Adams, "On Diphtheritic Ophthalmia."—Mr. G. T. B. Stevens, "On a Case of Erysipelas of the Scrotum and Penis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. W. H. Preece, "On Recent Advances in Electric Lighting."

Thursday, Feb. 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Pauer, "On Drawing-room Music."

Friday, Feb. 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1¼ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Dr. J. S. Burdon Sanderson, "On Excitability in Plants and Animals."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Hilton Fagge, "On a Case of Paralysis due to Partial Disease of the Nuclei of the Motor Roots of the Fifth Nerves."—Mr. Teale (Scarborough), "On a Case of Quiescent Scirrhus."—Dr. Crocker, "On Cases of Erythema Iris."—Dr. F. Taylor, "On Cases of Pemphigus and Herpes Iris."

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

Saturday, Feb. 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Ancient Egypt."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

REGISTRARS AND UNCERTIFIED DEATHS.

WITH reference to cases in which the Registrar of Births and Deaths is in doubt whether a medical practitioner be registered or not, a correspondent asks whether a registrar cannot demand of the practitioner to see his certificate of registration. We are glad to say that neither the law nor the regulations issued to registrars by the Registrar-General give any such right or instruction to registrars. A registrar is, however, precluded from recognising as legal the certificates of, or from supplying forms of certificates to, any unregistered practitioner. It is therefore necessary sometimes to make a personal or written inquiry of a practitioner as to whether he is registered, but registrars are instructed "ordinarily to accept the statement of a medical practitioner that he is duly registered, but that in cases of doubt the circumstances must be reported to the Registrar-General for instructions." If any registered practitioner becomes aware that the written statements of an unregistered practitioner are being accepted as legal certificates, it is clearly his duty, both to the profession and to the public, to report the case to the Registrar-General. In the case of a deceased person, however, who has not been attended by a registered medical practitioner in his last illness, the registrar is acting strictly in accordance with his instructions, to accept the statement of the unregistered or unqualified practitioner for what it is worth, and to enter the cause of death in his death register as uncertified. In the present state of the law no other course is open to him, since the registrar is liable to a penalty if he does not register the death, and there is no possibility in such cases of getting a legal certificate, unless the local coroner should see fit to hold an inquest.

Dr. William Price.—We do not recommend, specially, physicians or surgeons for particular diseases.

Rickmansworth will not, we fear, readily procure what he desires except by specially advertising for it.

Mr. Geo. R. Barnes.—Application might be made to one of the nursing homes.

SMALL-POX AND VACCINATION.

Inquirer.—There is but one known protective against small-pox—vaccination. If a person has been efficiently vaccinated in childhood and efficiently revaccinated at or after puberty, he is as safe against the contagion of small-pox as he can possibly be rendered. Efficient vaccination and revaccination can be obtained without charge at the public vaccination stations. No known drug exercises the least degree of protective influence. A properly vaccinated nurse in a small-pox hospital who has contracted small-pox is, we believe, unknown. Our correspondent should write to the secretary of the Local Government Board and ask for a copy of the Board's Memorandum on Revaccination.

CASE OF SPINA BIFIDA AND TALIPES.

To the Editor of THE LANCET.

SIR,—On the 23rd October, 1880, I was called to attend Mrs. R——, Pimlico-road, in her fifth confinement (natural labour), but the child (male) malformed, with spina bifida and talipes. The tumour is the size of a small orange, reaching from the last dorsal to the fourth lumbar vertebra; it is slightly transparent, and discharges a little straw-coloured fluid. A gutta-percha cone is placed over the tumour to protect it. The child grows, and he is larger than most children for his age. In THE LANCET, 1871, you published a similar case of mine. The child died at four months, the tumour sloughing, and convulsions set in.

I am, Sir, yours, &c.,

Jan. 24th, 1881. FREDERICK T. COATES, M.R.C.S. Eng.

CURIOUS DISPUTE BETWEEN A MEDICAL MAN AND HIS ASSISTANT.

IN the Preston County Court a few days ago a somewhat remarkable claim was lately made by Mr. Charles Allen, an unqualified assistant, from Dr. Bowen, of Ribblesdale-place, Preston. (The case is fully reported in the *Preston Herald.*) Mr. Allen had been engaged in November, 1879, as assistant for twelve months. This period passed over harmoniously enough, and, after some conversation, Mr. Allen understood that his principal was satisfied, and renewed the engagement for a similar time. But in December some unpleasantness arose in consequence of the assistant indulging in a fire in his bedroom, which filled the house with smoke. Defendant thereafter told plaintiff to take a month's notice. The plaintiff, adhering to the view that he was engaged for a year, refused to go, and had to be removed by four bailiffs and two policemen. He then took action in the county court to recover the sum of £50 as damages for a breach of contract. It was not maintained that there was any written contract. The judge, in a lengthy summing up, dwelt on the undesirability of verbal contracts, observing that much litigation would be avoided if contracts were always made in writing. He gave judgment for the defendant, but declined to allow the costs of witnesses.

ENURESIS.

To the Editor of THE LANCET.

SIR,—I assume that your correspondent has looked for and treated any peripheral source of irritation—e.g., any morbid condition of the urine, collections of smegma under a long prepuce, phimosis, ascarides in the rectum, and even examined for stone should he have thought the presence of one possible. None of these conditions being present, I recommend him to try belladonna in increasing doses, and to push the remedy perseveringly for two or three weeks if necessary. In those cases associated with dreams I have found bromide of potassium sometimes useful. I should restrict the patient to water as a beverage, order him to sleep on a mattress with the pelvis raised so as to direct the urine towards the fundus of the bladder, give a purgative once or twice a week, and make him urinate at regular intervals.

One meets with hereditary cases and cases among highly neurotic families that derive little benefit from any treatment, but who overcome the weakness as age advances. I believe this incontinence of urine is often associated with masturbation.

I am, Sir, yours, &c.,

Tufnell-park, N., Feb. 6th, 1881. HAYDON WHITE.

To the Editor of THE LANCET.

SIR,—In reply to the query put by "Ex Fide Fortis" in your last impression, allow me to mention the successful treatment that I have adopted with several young children—boys and girls—who used to habitually wet their beds. It is very simple. Withhold all flesh meat as food, and give good fresh cow's milk freely—e.g., three pints in the twenty-four hours for a child from three to four years of age, and this besides the regular meals. Breakfast consists of stale whole-meal bread and milk; supper the same; dinner (at 1 P.M. or 2 P.M.), potatoes and gravy, with half a pint of milk, and half a pint of milk to be given midway between breakfast and dinner. In troublesome cases a hot bath should be given morning and night, and in all cases the bed should be well warmed before the child is placed in it. Flannel should be worn next to the skin day and night, and the child should be invited to micturate at stated times, and should be taught "to call" the nurse not less frequently than every two or three hours. In only one case out of ten during the past few months have I been compelled to prescribe any medicinal remedy.

I am, Sir, yours, &c.,

BERNARD O'CONNOR, M.D., M.R.C.P. (Lond.).

Brook-street, W., Feb. 9th, 1881.

To the Editor of THE LANCET.

SIR,—In reply to the request of your correspondent "Ex Fide Fortis," I beg to state, in the treatment of the above complaint, I have usually found the liq. ferri perchloridi, combined with tinct. nucis vomicæ, in doses of twenty minims each or less, according to age, invariably beneficial. I think he will do well to give this remedy a trial.

I am, Sir, yours faithfully,

St. Faith's, Norwich, Feb. 7th, 1881. J. HAWKES, M.D.

To the Editor of THE LANCET.

SIR,—In answer to "Ex Fide Fortis," I may state that during the past two years I have had several cases of this unfortunate complaint as well as an old fisherman (nearly eighty), who could not sleep for the urgency of frequent micturition, all of which were cured by the use of that old-fashioned remedy, tinct. mur. ferri (alias tr. sesquichlor. fer.) in small doses, well diluted with water. In the last-mentioned case it was combined with tinct. fol. hyoscyam.

I am, Sir, yours most respectfully,

J. C. REID, M.D., Medical Officer of Health.

Newbiggin-by-Sea, Feb. 9th, 1881.

⁂ Many other letters on this subject have been received, in which the writers recommend remedies similar to those mentioned above.—ED. L.

Sulphur in Wool and in Hair.

In reference to a paragraph in our issue of Feb. 5th on this subject, Mr. J. Lawrence-Hamilton, of Gloucester-terrace, Hyde-park, writes:—"According to the analyses of Frémy and Pelouze, hair contains about 5 per cent. of sulphur, and wool roughly about 2·3 per cent. of sulphur, which quantities of sulphur are returned again from the wool to the soil, after the wool has been worn out in the form of clothes, in the shape of the so-called shoddy-manure, whilst the hair derived from the head of human beings finds its way through the dust-bin and dust-cart to the manure-heap, and thence once more to the earth. Thus no appreciable sulphur waste can occur. In other ways, as by the use of artificial superphosphate manures, enormous quantities of sulphate of lime are supplied to the soil, and in far larger proportions than are removed by the growth of wool and hair. Further, the value of wool and hair as manures does not depend alone upon the contained sulphur, but indeed almost entirely to the contained nitrogen, which in wool and hair manures amounts usually to upwards of 17 per cent."

Medical Student can have no difficulty in obtaining all the information he requires on the subject named. We cannot give any special directions, nor can we conceive that, under the circumstances, they are needed.

G. A.—We regret that we have been unable to trace the communication.

SALICYLATE OF QUININE IN NEURALGIA.

To the Editor of The Lancet.

Sir,—In March and April last year I had the honour to report to you the good results I had obtained from the use of salicylate of quinine in rheumatic and gouty affections, particularly in subacute and chronic cases. These results have been maintained to even a greater extent than I could have anticipated. Many patients continue to have recourse to it when necessary, and recommend it to their friends far and wide.

I said then that I was not aware what the result might be in acute cases, as I had not had any opportunity of so testing it. Since that time, however, I have been favoured with opportunities such as I desired, and I have now to report that salicylate of quinine has not in my hands proved successful in truly acute cases.

But my special purpose in this communication is to make a note of the value of salicylate of quinine in neuralgia. Many, indeed, are the remedies which have been employed in the treatment of the array of these, so to say, non-pathological disorders, which are conveniently enough grouped and set forth under this term. Gelseminum in doses of twenty to thirty minims has a splendid effect, and there are others; but I beg to note here particularly the masterly action of salicylate of quinine in neuralgia in doses of six grains.

I am, Sir, your obedient servant,
Feb. 14th, 1881. Archibald Hewan.

Education of Blind and Deaf-Mute Children.

A Bill for the Better Education of Blind and Deaf-Mute Children, prepared and brought into the House of Commons by Mr. Woodall, Mr. Benjamin Willyams, and Mr. Montague Scott, has just been printed. It provides that, on the application of the parents, boards of guardians may send a blind or deaf-mute child to school, who may be retained there till the age of eighteen years. Provision is made for children being received into schools established in connexion with the religion to which their parents may happen to belong. To the Local Government Board is reserved the power, under certain circumstances, to order the removal of such afflicted child from school.

Sanitary.—The question put is a legal one, and should be addressed to a journal dealing with legal questions—e.g., the *Local Government Chronicle.*

Enquirer.—Too late for this week.

Medical Student.—The extension proposed was tried in the army for four years, and the drawbacks were found greatly to exceed any benefit from it. We cannot, therefore, recommend it.

POISONING BY HYDROCHLORIC ACID.

To the Editor of The Lancet.

Sir,—Perhaps you may think the following notes worthy of a place in your columns:—On September 20th, 1879, I was called to see a woman who had taken three ounces or more of hydrochloric acid, having disagreed with her husband. I was called in three or four hours after she had taken it. I at once gave her magnesia, chalk, and olive oil. She had vomited a short time before my arrival a dark-brownish fluid, and continued to do so for some hours. Milk was given with soda-water and opium, and turpentine applied over the abdomen; also calomel and opium pill was prescribed, to check the inflammation. Gastritis and enteritis followed three days after taking the acid. A great deal of pain for some time remained in the stomach, which was relieved with bismuth and opium, also copper and opium. The patient quite recovered after six weeks.

I am, Sir, yours, &c.,
Jan. 24th, 1881. Frederick T. Coates, M.R.C.S.E.

The General Medical Council.

The remarks of Dr. Fergus at the special meeting of the Council last week were, by an error of the reporter, wrongly attributed to Dr. Scott Orr.

DESQUAMATION AFTER SCARLET FEVER.

To the Editor of The Lancet.

Sir,—The questions asked under this heading by a correspondent in The Lancet of Feb. 12th are of very considerable practical importance. I do not write to offer an opinion upon the particular subject matter of these letters, but I ought not, I think, to withhold on such a fitting opportunity whatever information I may be able to communicate through your columns upon the several strictly medical points involved.

My experience of scarlatina is pretty wide, and, so far as this part of its symptomology is concerned, amounts to this:—1. That in slight attacks of the disorder desquamation of the cuticle is often delayed, sometimes remarkably so. In one instance within my own knowledge, that of a young lady fifteen years of age, the desquamation was not perceived, although daily sought for, until the fifth week from the beginning of her illness. Very fortunately, the patient had meanwhile been strictly isolated from the other members of the family.

2. That in the treatment of scarlatina it is unwise to make any distinction between slight and severe attacks of the disorder. Altogether apart from the question of infection, there is to the patient suffering from a mild attack positive risk to life from exposure within at least the first five weeks, and some of the worst cases of albuminuria and dropsy I have seen were of children suffering from attacks of the fever of such mildness as to hardly deserve the name.

3. That in the matter of sanitary precautions against the dissemination of infection, it is utterly wrong to permit any scarlatinal patient whatever to mingle with the healthy until the expiration of eight weeks from the beginning of the illness, and, in those cases where the desquamation of the cuticle is of late appearance, until this process is completed, and for a fortnight afterwards.

I cannot now enter into details, but if I may be permitted I would refer to my pamphlet on the subject (Facts about Fevers, second edition. Maclachlan and Co., Edinburgh; Simpkin and Marshall, London) for evidence in support of these conclusions. I am glad to express my approbation of the step your correspondent has taken in referring this matter to the columns of a medical journal. Much more harm than good is the almost inevitable result of an appeal to the readers of a general newspaper and the public, even the so-called educated and reading public—ever too ready to seize upon any teaching which errs on the side of laxity, and enables it to dispense for its selfish ends with such proper but tedious sanitary precautions.

Your well-merited censure upon the mischievous nonsense which was lately attempted to be promulgated in the columns of a leading contemporary upon this same subject of scarlatinal infection must have been gratifying to any experienced member of the profession.

Kendal, Feb. 12th, 1881. David Page, M.D.

To the Editor of The Lancet.

Sir,—I beg to send you the following facts of the case alluded to in the correspondence under the above heading, published in your last issue:—

On the 16th December, two days before the boys were leaving for the Christmas vacation, one of their number (who had been visiting elsewhere a few days previously) was found to be suffering from scarlatina. He was at once removed to the infirmary, and I gave instructions that all the others should be closely watched and examined previous to allowing them to return to their homes.

On the following night I was sent for to see the boy referred to in the letter of "Enquirer." I examined him, and found his pulse, temperature, and tongue normal, but fancied I detected (as the matron had previously done) a slight suspicious eruption appearing about the shoulders; the fauces, too, looked a little inflamed, though the lad hardly admitted that he felt any soreness of the throat.

Under all the circumstances, I deemed it prudent to have him isolated, and he was consequently removed to the infirmary. From that time the symptoms were never more marked; on the contrary, on the following day the boy was as well as ever he was. However, in order to avoid all risk, I had him kept to the infirmary for three weeks, and examined him myself frequently to the last for any desquamation of cuticle, of which at no time were there any signs whatever. During the last ten days he had, by my direction, many baths and anointings; and, after complete purification, he left here in entirely fresh clothing (that which he had previously worn being retained to be disinfected) to rejoin his friends.

I believe his father expressed dissatisfaction at his being sent from here so soon, thinking it unsafe but, seeing that the boy has enjoyed perfect health, and that no other persons have suffered from his presence among them, I fail to see what charge I am called upon to answer. Indeed, I feel confident that you, Sir, as representing the opinion of the profession, will consider that in the action taken by me I showed a due regard for the health of the boy and the safety of the public.

As for the desquamation (?) which is said to have been discovered six weeks after he came under my care, it is more likely due to eczema (from which I am given to understand the lad has previously suffered) than the result of scarlatina, which my experience goes to prove immediately follows the attack.

I am, Sir, yours faithfully,
Feb. 14th, 1881. The Medical Attendant of the College.

VACCINATION BY UNQUALIFIED PRACTITIONERS.

A CORRESPONDENT asks whether in case of an unqualified practitioner vaccinating and filling up certificates of successful vaccination, the Registrar-General would interfere. The Registrar-General has no authority for securing the efficient operation of the clauses of the Compulsory Vaccination Acts. Primarily the vaccination officer, who is not always or even often a registrar, would be at fault for accepting a certificate of successful vaccination from any but a registered medical practitioner; and any complaint against a vaccination officer concerning the performance of his duties should be addressed to the Local Government Board. Registrars have certain duties to perform in connexion with the Vaccination Acts, but unless they happen to be also vaccination officers they have nothing to do with the registration of successful vaccinations, and in that capacity they are under the control of the Local Government Board, which is the central authority in vaccination matters.

PAYMENT OF MEDICAL OFFICERS TO ODDFELLOWS' SOCIETIES.

To the Editor of THE LANCET.

SIR,—In reference to the above, I think your correspondent, Mr. Hart, well paid according to the fees received in my district. I have an Oddfellows, Foresters, and Shepherds society, each of which, when I obtained them, paid me the handsome sum of 2*s.* 6*d.* per head per annum, which was afterwards, on my application, raised to 3*s.*, but, owing to want of funds, the Oddfellows have reduced it to 2*s.* 6*d.*, at the same time the following expression being used in the lodge-room:—"There are other doctors in the district who will be glad to take it at that," and to which I add, "Yes, and canvas the members to obtain it." But Mr. Hart's words are true, "the payment is preposterously small, but as there are plenty of medical men ready and willing to accept this small sum, it will have to remain until there is some unity amongst us and a general demand for higher fees." Of course a small amount of private practice does accrue from attendance upon the members' families, but I find in a great many cases that they do not send for their club doctor.

I am, Sir, yours faithfully,

Feb. 14th, 1881. ANOTHER CLUB DOCTOR.

To the Editor of THE LANCET.

SIR,—The answers to your correspondent, Mr. F. D. Lys' letter, on the above subject, in THE LANCET of January 22nd, give such a very wrong impression that I feel justified in asking space for this letter.

Several years ago a meeting was held at Melton Mowbray, at which the medical men practising in that neighbourhood discussed the question of club pay, and unanimously decided to take no Oddfellows at less than 5*s.* per member per annum. It was also decided to stop the practice of examining candidates for admission into these clubs gratis, and 2*s.* 6*d.* is now charged for the examination. It was further decided that tradesmen, innkeepers, and others who were believed to be able to pay the usual fees for medical attendance should not be received on the surgeon's club-list; and it was further understood—and, as far as I know, honourably carried out—that any person who had been refused admission by one man, because able to pay the usual private patients' fees, should not be accepted on the club-list of another. I think the question of charging for attendance in cases caused by intemperance, &c., opens too wide a field for dispute; I prefer exercising the right of crossing off the club-list any such individual.

I agree with Mr. Hart that unity amongst us is very desirable, but the courage which prompts and decides an independent demand for higher fees, where those received are acknowledged to be "preposterously small," is much more desirable.

I am, Sir, yours respectfully,

Somerby Oakham, Feb. 7th, 1881. JOHN JACKSON.

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Deutsche Medizinal Zeitung, Westminster and Chelsea News, Aberdeen Journal, Day and Night, Children's Treasury, Weston Mercury, Preston Herald, Gazzetta degli Ospitali, Bermondsey and Rotherhithe Advertiser, Staffordshire Daily Sentinel, Hackney and Kingsland Gazette, Sanitary Engineer, La Reforma Medica, Exchange and Mart, &c., have been received.

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ABSTRACT OF A

Clinical Lecture

ON THE

TREATMENT OF SOME FORMS OF EPILEPSY.

Delivered at the Hospital for Epilepsy and Paralysis,

By J. S. RAMSKILL, M.D. Lond.,

SENIOR PHYSICIAN TO THE HOSPITAL, CONSULTING PHYSICIAN TO THE LONDON HOSPITAL.

Gentlemen,—The boy I show you (L——) says he is eight years of age, and that he has been ill eight months. He looks his age, and is fairly intellectual. He had been at school for five years before the accession of the fits. The shape of his head is good, and there is no particular vaulting of the roof of the mouth. I always examine the mouth both with a view of ascertaining the height of the roof and the state of the teeth, both as regards caries and overcrowding. About the age of puberty the latter condition is not a very rare cause of epilepsy. And it is always well to exclude every source of irritation arising from that most reflex nerve of the body, the trigeminus.

We have no neurotic family history, and no account of any previous illness to note. Examination of the heart and lungs reveals nothing, neither does the ophthalmoscope. The abdomen seems full, some gurgling sounds are heard on palpation, and it is more doughy than natural; but on account of a certain amount of superficial fat, the state of the colon and viscera can hardly be made out. Now, about a month before the commencement of the fits, the boy complained of a bad cramp in the left wrist and upper half of the hand. It remained only a few seconds, but recurred at different intervals; sometimes twice or three times a day, and next day only once. About the end of a month he was knocked down by a blow on the left side of the head. He did not lose consciousness, nor was he sick, neither had he subsequent headache.

Next morning he had a fit, and several during the next fourteen days; then he was free for a month. They then returned, but only by night; but during the following month they came both by night and day. We learn from the parents that the character of the fits is as follows:—He first has the cramp in the left hand and wrist, screams, and also, sometimes, bites his tongue; is universally convulsed, but most so on the left side. The fits last only a few seconds. He occasionally has one in the day, but usually eight or ten every night. It is observed that if he falls asleep during the day he has a fit. There are no sequelæ of note to the attacks.

Such is the aspect of the patient and the history of the case. The first point to decide is this: Is the patient epileptic? and, if so, is the disease idiopathic and primary, or is it secondary or sympathetic? It would be waste of time to argue the first question. The case is clearly epileptic; but it is quite a question as to whether it be idiopathic or not. Modern science would at once say it is centric, and the particular part of the brain most involved was the right ascending frontal convolution, an explosion from which spreads upwards, downwards, and backwards, involving an area which might be mapped out by the presence of convulsion or spasm in the muscles engaged. The aura does not consist of an irritation going to the brain, although a ligature above its seat may stop the fit. You all know aura may exist with coarse centric disease, and a ligature may still stop the accession of the fits. This, I say, is the received opinion; but I am not sure of its universal truth, especially with regard to unfelt aura, which we must suppose to exist. An unfelt aura seems a contradiction in terms; but it is not so, for, as far as I can make out, in the case of a patient who one day has a fit with an aura, and next day another of exactly the same extent and character without any, there must have been a similar, or the same, cause in both.

I think, perhaps, the explanation lies here, that the spread of the discharge was too quick, that the patient had not time to perceive the aura before the attack became general, or before consciousness was lost. But we find on examination the boy has often the aura without a fit. Then I look on his aura as a fit—a minor and localised one. A greater question to my mind is this, Are not most epilepsies eccentric rather than idiopathic and centric at first? Does the existence of an aura really settle everything? Neither physiology nor pathology helps us, but I think practice can. If you prevent both aura and fit, by slight treatment, which cannot reasonably be presumed to have any influence on the cerebro-spinal centres, it is a fair supposition that the cause is not centric, but originates within the sphere of action of your treatment. But I do agree to this opinion, that eccentric soon passes into centric idiopathic epilepsy, or perhaps, that you may, after one has generated the other, have both forms of disease in the same subject. Be this so or not I am inclined, and I dare say you are, to say with the celebrated Trousseau, "Good heavens, gentlemen, a little less science—a little more art." The question then is what line of treatment shall we pursue. This is the programme we adopted.

(*a*) To see if we could find any source of irritation in the abdomen, "for of all the regions of the body there are none which reflect more strongly on the brain than the intestines and visceral organs."

(*b*) To give what remedies we know are able to allay the reflex excitability and force of the cerebro-spinal centres.

With the first object in view, vermifuge aperients, santonine and castor-oil, is the usual combination for children, to be given sufficiently long to make sure of the result.

In our case the result was *nil*. Had a worm been expelled the fits might have vanished; but this is not the rule, unless your treatment has commenced very early in the case after the first attacks. The lumbricus may be dislodged, but the central excito-motor region has taken on morbid action, and the epilepsy remains. Still, in these cases, I always think there is most hope, and most room for treatment; for if the irritation of a lumbricus could by a certain route in the nervous system produce a morbid result on the centre, some remedy acting through the same route may lessen, deaden, and finally stop that morbid process in the same centre.

Let us continue our examination of the abdomen. I want to know the condition of the colon. We have found the abdomen full—that is, tumid, bigger than it should be, but without chloroform we cannot make out anything beyond gurgling.

By the light, then, of experience we make the assertion, that there is probable defect of the colon, as to secretion, spasm, contraction, and alternate dilatation of its calibre. In a post-mortem of an epileptic by Vanderkolk he says: "We found in the abdominal cavity the colon and sigmoid flexure very much dilated and lengthened, the latter ascending to the transverse colon. Above and beneath the sigmoid flexure were many constrictions, which higher up alternated with dilatations; the cæcum, too, was very dilated." This is a severe case; but one cannot help observing in the records of post-mortems the frequent occurrence of a strictured and dilated colon.

What cases of mental depression, of melancholia, have we not all seen associated with loaded, and probably sacculated, colon! In one series we seem to get an irritant; in the other an inhibitory action on the nerve centres. I recollect an old practitioner saying (before the advent of bromide) that a daily morning dose of beaume de vie was of more service in epilepsy than all the medicines in the Pharmacopœia.

To recur to our patient, we kept him in the hospital ten days without treatment, beyond the prelude of aperients, to see his exact condition as to the kind, number, and duration of the fits.

On Oct. 13th he had 5 fits; 14th, 7 fits; 15th, 15 fits; 16th, 13 fits, and one in the afternoon, when he had fallen asleep; 17th, 9 fits; 18th, 6 fits; 19th, 7 fits; 20th, 15 fits; 21st, 9 fits; 22nd, 15 fits. The fits turned out as described. On Oct. 23rd we ordered thirteen grains of bromide of potassium, three grains of iodide of potassium, and eight grains of carbonate of ammonia, three times daily, with this result:—Oct. 24th, 9 fits; 25th, 7 fits; 26th, 11 fits; 27th, 9 fits; 28th, 13 fits; 29th, 9 fits; 30th, 9 fits; 31st, 10 fits. The same rate continued until Nov. 4th, when we added more ammonia in the shape of ammoniated spirit. The rate began to diminish, as for the consecutive days we got 7, 6, 6, 7, 2, 8, 6, 5, 6, 5—plus one in the day—then 5, 6, 9, 5, and about the same rate until Nov. 27th. On that day a mixture of equal parts of chloral, camphor, and vaseline was ordered, a portion equal to a small teaspoonful was to be rubbed into the scalp every night. The mixture of bromide, iodide, and ammonia, to be continued, and a pill containing equal parts of aloes, valerianate of zinc, and extract of conium, given every night.

The result of this treatment was, that we had no recurrence of fits of any kind for more than five weeks. Then we had one fit each night for three nights, and I confess that I was glad to see them return. Vanderkolk quotes some cases showing the danger to life which may arise from the prolonged freedom from fits. And, as a general rule, it may be said that in chronic epilepsy the longer you manage by treatment to prolong the interval between the attacks the more severe the following fit will be. Death occurs from asphyxia or from congestion of lungs and coma. It is astonishing that apoplexy is not frequent, but to me it is simply unknown as a result of the most violent and prolonged attacks.

I have had experience only of three fatal results; all occurred after a so-called cure had been made; all in the night, and the patients were found dead in the morning. What I wish you to remember is that after a prolonged interval of freedom you must apply some counter-irritant, such as a seton, issue, or leeches, to prevent or to break a too violent explosion.

To return to our case, To what is the improvement due? What is the rationale of the action of the means employed? Perhaps we should do best to see these points illustrated in another case.

ON A NEW METHOD OF SUPPLEMENTARY ALIMENTATION.

By A. ERNEST SANSOM, M.D. LOND., F.R.C.P.

(Concluded from p. 289.)

THERE can, I think, be no doubt that the administration of artificially digested food per rectum in the manner previously described is a distinct therapeutic gain, and that when we advise nutritive enemata of the kind that we have hitherto employed, we ought to direct that the pancreatic ferment should be added thereto. But I have now to draw attention to a still more recent method of fulfilling the object which we have in view.

It occurred to my old and valued friend, Dr. Andrew H. Smith of New York, that the artificially dissolved juices of flesh which we have hitherto employed might very probably be inferior to the perfectly fluid and wholly absorbable flesh which nature has prepared for us. In what other substance could we be so certain of finding all the elements of the blood as in the blood itself? Dr. Smith pursued his inquiries, and found that when *blood* was administered per rectum both corpuscles and serum were absorbed. Three or four ounces of defibrinated blood having been injected into the rectum at night, no trace was found in the evacuations of the following morning. An interesting observation was made showing how absorption can take place from a surface much greater than that of the limited portion of the rectum in which the injection is first retained. A man under Dr. Smith's care in the St. Luke's Hospital of New York received every evening an injection of 120 grammes of blood. He was in the last stage of pulmonary phthisis, and died suddenly eight or nine hours after the last enema had been given. At the autopsy it was found that the large intestine was very evenly lined with a coating of thickened blood for a distance of nearly three feet. It would seem, therefore, that in the case of nutritive solutions administered by the rectum there is a retrograde peristalsis, whereby the material is spread over a considerable extent of the absorbing surface of the bowel.

Now, as to the *mode of employment of blood enemata.* Ox blood is usually employed, but sheep's blood may be used. It is necessary that it be defibrinated the moment it is drawn. Butchers understand this process, and will supply what is called "whipped" or "stirred" blood. It is, of course, requisite that the blood be fresh—that it be not kept more than a single day.[1] In urgent cases, where there is no stomach digestion, two or three ounces of blood may be injected into the rectum every two or three hours; the fluid may be warmed by placing the containing vessel in hot water, but it is often borne equally well when cold. For chronic cases, in which it supplements stomach alimentation, it is administered in quantities of from two to six ounces once or twice a day. In some cases its use tends to promote constipation; in a very small percentage the opposite condition of irritability.

Blood enemata thus administered present many practical advantages. The supply is easily obtained; the cost is very small—a really important point amongst the poor when a long-continued course of nutrition per rectum is ordered, one which hitherto has entailed a large outlay for the juice of meat and adjuncts—and the evidence of success is, as I shall presently show, considerable. On the other hand, in procuring the supply of fresh blood there may be some difficulties; especially is this the case when it is wanted in a great hurry, when, for example, the administration of blood per rectum is suggested in a case where direct transfusion might heretofore have been adopted. This difficulty is now overcome because the blood is prepared, concentrated, and preserved in tins, and thus is ready for immediate use. The preparation of this sanguis bovinus exsiccatus is conducted under the direct supervision of Dr. J. J. Craven, inventor of the great ship refrigerators for preserving meat during ocean voyages. The blood is taken from selected animals, and these are bled to death; this, it is said, being the only method of obtaining the blood duly arterialised. The blood is carefully dried at a temperature which never exceeds 110° F. Thus prepared desiccated blood is soluble in water at temperatures below 160° F., and contains all the elements of healthy blood, save water and fibrin. To prepare the injection the concentrated blood is dropped into the warm fluid which is to constitute the injection—a fluid drachm of the concentrated representing a fluid ounce of the ordinary blood.

Now, lastly, I have to consider the evidence of the success of this plan of treatment, and this will involve some indications as to the cases in which it may be employed.

1. Cases in which it has alone sufficed to support life. These, of course, afford the most crucial test of its value, but they are of necessity rare. Dr. Smith has narrated a case of gastric ulcer kept long upon milk diet; finally everything was rejected by the stomach, and for a fortnight the patient was nourished *entirely* by enemata of defibrinated blood. Yet she lapsed into a typhoid condition, and became almost moribund. It was then found that brandy was mixed with the blood at the time of injection; it was considered that the brandy coagulating the albumen militated against absorption. So the blood was administered alone, an occasional teaspoonful of brandy and milk being given by the mouth. Then ensued an astonishing improvement, and the patient made a perfect recovery. Another case is recorded by Dr. Hanks, in which after profuse uterine hæmorrhage all food was rejected by the stomach. Here four to six ounces of fluid blood were injected per rectum three times a day. The patient improved steadily during the use of the injection, till the stomach became tolerant. Dr. F. W. Brown[2] has recorded a case of diphtheritic paralysis in a child of two years in whom starvation was imminent. The desiccated ox blood administered per rectum appeared to cause immediate reaction, and its use was followed by complete recovery. These instances, I consider, are enough to establish a strong *primâ facie* case in regard to the nutritive value of blood enemata.

2. Cases in which it has supplemented nutrition through the stomach. The evidence by which this can be proved is—(*a*) amelioration of symptoms; (*b*) gain of weight.

Perhaps as the least complex condition in which these enemata have been adopted as a method of treatment we may consider dyspepsia. One of Dr. Smith's cases was that of a young man (aged twenty-two), with extreme irritability of stomach. Even the smallest quantity of solid food induced vomiting. "No medicine was ordered, but he was directed to take a teacupful of blood by the rectum twice a day, and to apply a belladonna plaster over the stomach. The epigastric pain and the vomiting ceased within two or three days, and solid food was taken without inconvenience. In seventeen days he gained in weight 11½ lb." In another case (reported by Dr. Geo. Bayles), a patient was nourished for nearly nine weeks with blood injections, only a little claret-and-water, toast-water, or tea with milk being taken by the mouth. Under this treatment there was gain in weight and the patient recovered. In the following case under my own care at the North-Eastern Hospital for Children, the evidence of the direct value of the blood enemata may appear more doubtful, but yet my own belief was that the method was one whereby a fatal result was averted, and difficulties tided over till stomach digestion was resumed. The case was one of peculiarly difficult diagnosis. A boy of eleven complained of excruciating pain after all food in so far that he voluntarily starved himself. Cerebral troubles and many forms of abdominal disease were simulated, but one could not arrive at a precise diagnosis. Under observation in the hospital, however, the following phenomena occurred :—Retention of urine, appearance of some blood in the urine, afterwards a little pus and crystals of oxalate of lime; with this tenderness and a little swelling doubtfully felt deep in the left iliac region. I think it most probable that the pain was produced by the irritation of the left ureter by oxalic calculi. However, the boy lapsed into a most critical state; he took no solid food and very little liquid; and then I ordered blood enemata (four ounces), at first once, afterwards twice a day. At this time he took a very little milk, and occasionally a dry biscuit, but nothing else. After continuing nearly four months in a critical state I got him to take, by the stomach, first milk, beef-tea, and cocoa, then cod-liver oil, then boluses made of bread and raw meat, and lastly boluses made of cooked meat (he could not touch meat in the usual way), and then, strange to say, he took a liking to uncooked Nestle's food. His weight during his illness fell from 3 st. 6 lb. to 2 st. 13 lb., but when he began to mend it gradually rose to 3 st. 12 lb., when he was discharged. During the period of blood enemata it was maintained for two months between 3 st. 3 lb. and 3 st. 4 lb., but the gain of weight was distinctly traceable to the recommencement of stomach digestion. In another case under my care at the London hospital, I consider that the evidence was less equivocal. This case was one of greatly dilated stomach, intense anæmia with purpura on the body, attended with severe pain and vomiting; there had been history of scorbutic affection. Half a pint of defibrinated ox blood was administered night and morning. After three days the patient felt much better, and made a very good recovery.

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[1] I have just learned by a letter from Dr. A. H. Smith that the addition of a grain or a grain and a half of chloral hydrate to each ounce of the blood serves to avert decomposition, and to prevent any offensive odour in the dejection.

[2] American Therapeutic Gazette, p. 271, Sept. 1880.

In anæmia the plan of treatment would seem to be especially indicated, and Dr. Smith has reported cases which seem to establish its value. Instances are also given in which it has greatly relieved inveterate neuralgia, one case gaining 5 lb., and another about 3 lb., in six weeks. In cases of pulmonary phthisis a decided improvement was recorded in one half the cases reported.

It will be understood that my object in bringing this subject forward is to establish a *primâ facie* case. Enough has, I think, been adduced to point the desirability of further observations. The opportunities of making such observations must occur in the course of the practice of us all.

Devonshire-street, Portland-place, W.

CASE OF STRANGULATED CONGENITAL UMBILICAL HERNIA.

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I VENTURE to draw attention to the following case of hernia, not only on account of the rareness of this form of rupture, but on account mainly of its important clinical bearings, the necessity for its early recognition, its remarkable tendency to cure even when seriously complicated by strangulation or rupture of its sac and coverings, and the success attending certain operative procedures for its relief.

An infant was brought to me at the London Hospital in August last with the statement that its bowels had never been opened, and that something was amiss with the umbilical cord. I saw the child on a certain Tuesday afternoon and it had been born in the early morning of the preceding day. The child, a male, was small and wizen, and the umbilical cord at its point of connexion with the abdomen presented an oval and uniform swelling about the size of a bantam's egg. This swelling was in the cord itself, and that structure at its union with the abdominal parietes was but little larger than normal. It appeared, indeed, as if the funis immediately beyond its attachment had undergone a sudden oval enlargement and was normal both on the distal and proximal side of that swelling. The coverings of this swelling and of the cord beyond appeared to be in every respect normal. Nothing had passed the child's bowels since its birth, and a little milk-and-water administered occasionally in a spoon had been in every instance rejected. The infant kept its legs drawn up, the belly was tense and a little distended, and the child appeared to have paroxysms of pain. The nurse, to meet these symptoms, had dosed the infant with castor oil and with honey and water, but the former remedy had not relieved the constipation, nor the latter the vomiting. Before the child came under my notice it had been seen by Mr. Appleford (acting for Mr. Gordon Brown, of Finsbury), who informed me that the tumour, when he first saw it, was slightly larger than at present, and that a small portion of its contents could be reduced into the abdomen, leaving the bulk of the tumour firm and solid, as it was when I saw it. The labour, moreover, had been normal. The swelling, when the case came under my notice, was everywhere uniformly firm, and had precisely the consistence and general characters, as regards both its coverings and its aspect, as the cord itself; it was dull on percussion; there was not the least impulse on crying, nor could the size of the mass be diminished by pressure. The anus was quite patent, and a No. 12 india-rubber catheter passed readily about four inches up the rectum. Nothing came away with the catheter, but its introduction produced much straining. I urged upon the friends the advisability of exploring the tumour; they, however, declined any operative interference at the time, but brought the child to me again on the afternoon of the following day, Wednesday. The infant was then much worse, the abdomen much distended, and evidently very tender; the legs were kept constantly drawn up; the tongue was dry and coated, the pulse extremely feeble, and the eyes and fontanelles sunken. Nothing had passed the anus, and the vomiting had been persistent. Acting upon the presumption that an operation could scarcely render the child's condition more serious, even if it effected no good, I proceeded to explore the tumour. The mass itself had altered but little in appearance since it was last examined, beyond the fact that its colour was somewhat changed, having become greenish in some places and more purplish in others. Its consistence, moreover, was less firm to the touch, and its outline a little less regular. The changes were evidently connected with the approaching disintegration of the cord, and were equally obvious in that part of the funis beyond the tumour. I made a vertical incision along the whole length of the tumour in the middle line, and almost immediately opened a distinct sac, from which escaped about a drachm of opaque blood-stained fluid. In this sac was found about two inches of the lower part of the ileum, the whole of the cæcum, and the vermiform appendix.

The herniated bowel was very firmly strangulated, the seat of constriction being at the neck of the sac, and formed obviously by the unyielding wall of the abdomen. The mouth of the sac was nearly circular, and was about the size of an adult's thumb. The protruded intestine was of a deep claret colour, still firm and resilient. The surface of the herniated portion of the ileum was dull and sticky, and the surface of the cæcum and appendix covered entirely with lymph, and from this surface, on being handled, blood oozed somewhat freely. The aperture into the abdomen was enlarged by an incision directly upwards in the middle line, the small gut was found to be somewhat adherent to the margin of the opening, and to a small portion of the sac wall behind the margin, but the cæcum was extensively adherent to the sac by the whole of that portion of its surface that looked towards the abdomen. In attempting, first of all, to reduce the ileum a large quantity of small intestine escaped from the distended abdomen through the wound. The reduction of this proved a matter of much difficulty—a difficulty evidently due, for the most part, to the great distension of the bowel by gas. I therefore thrust the point of a hypodermic syringe into the inflated gut, and, having removed the piston, allowed the flatus to escape. The reduction now became simple, and soon all the intestine had been replaced into the abdomen, the cæcum being reduced last, its adhesions rendering its replacement slow to effect. Altogether an opening had been made into the abdominal cavity about one inch and a quarter in length. The reduced gut passed back freely into the cavity, but I failed to observe whether the cæcum was or was not provided with a mesentery. The sac was lined with peritoneum, the serous covering on the ileum being distinct enough; but the condition of the cæcum was such as to render any conclusions as to the condition of a peritoneal covering difficult to be arrived at. The edges of the wound were brought together with two harelip pins that included the peritoneum, and by four or five silk sutures that connected the integuments only. The operation was performed without any antiseptic precautions, and the wound was covered simply with dry lint secured by a bandage. Chloroform was administered. The operation was performed exactly sixty hours after birth. The child for some hours after the hernia had been reduced remained in a semi-collapsed condition, but during the evening it began to improve, and within twelve hours after the operation a copious motion was passed. Next day it was fed with the bottle, which it took eagerly and without the least recurrence of the vomiting. The pins were removed in thirty-six hours and the edges of the wound drawn together with strapping. The child's recovery was uninterrupted, and in seven days it left the hospital with the wound healed. From time to time it was brought to my out-patient department and appeared well in every respect. Three weeks, however, after the operation the child became troubled with diarrhœa, due presumedly to improper diet, and died somewhat suddenly of convulsions. An examination of the navel on the day before its death showed the scar to be firm and well healed, and so contracted as to present an appearance but little different from the normal umbilicus. A post-mortem examination of any kind was declined by the parents.

Remarks.—Congenital herniæ at the umbilicus are certainly among the most uncommon forms of rupture, and although mentioned by some few authors, do not appear to have been regarded as of great clinical importance. The majority of the cases of hernia in this situation that have been recorded have occurred in monsters, and have been associated with other and more grave defects incompatible with existence, and have been described usually as mere curiosities of mal-development. One of the most interesting points in these cases deals with the exact situation of the hernial sac, and it would appear from some accounts that the sac is more commonly situated in the immediate vicinity of the cord than located actually in its substance. Dr. James Chadwick of Boston, for example, in a pamphlet on "Rare Forms of Umbilical Hernia in the Fœtus" (1876), describes six cases of congenital umbilical hernia in fœtuses for the most part anencephalous, and in other ways greatly deformed, but in only one of these is it distinctly made out that the sac was actually in the substance of the cord itself. In the brief account of the affection given by Dr. Gross in his "System of Surgery," fifth edition, vol. ii., p. 617, the cord is spoken of as usually placed below or a little to one side of the tumour, while the rupture is described as having a distinct sac "consisting of the transparent envelop of the umbilical cord," but with no cutaneous covering. This description very closely accords with that given by Sir Astley Cooper in his "Anatomy and Surgical Treatment of Abdominal Hernia," p. 265. This description may hold good for monsters so greatly deformed as those depicted by Dr. Chadwick, but I believe it to be certainly unusual as regards the comparatively small herniæ that occur in well-developed infants born alive, and that are referred to in Sir Astley Cooper's observations.[1] Indeed, among such recorded cases as I have been able to find, five at least presented the sac in the substance of the cord itself, as it was in the present instance. From these recorded cases, also, the following facts may be adduced: The herniated gut is usually the cæcum, with more or less ileum. It is not uncommon for the coverings of the hernia to be so thin as to be transparent, and to reveal the nature of the contained gut.[2] In all cases the hernia appears to have been noticed at birth; in two instances the gut was included in the ligature applied to the funis,[3] and both these cases terminated fatally. In one instance[4] the sac ruptured soon after birth, the intestines escaping from the abdomen; they were reduced with great difficulty, but the infant recovered without a bad symptom. I have met with only one instance recorded of strangulation occurring in these herniæ. The case was under the care of Mr. Stanley of St. Bartholomew's Hospital, and is reported in the *Medical Times*, vol. ii., 1852. Symptoms of strangulation existed from birth, and the tumour appears to have closely resembled the one now described. Mr. Stanley saw the child on the day after its birth, but declined to operate; it died on the day following. In Mr. Holmes's case the cord had bifurcated, the gut occupying one of the cornua, and he refers to another case of a similar character. In one instance the hernia, after resisting all attempts at taxis, spontaneously disappeared on the eighteenth day, just a week after the separation of the funis. In the present case, moreover, attention may be drawn to the rapid healing of the wound without a bad symptom of any kind, although the abdomen had been freely opened without antiseptic precautions, and also to the early period—viz., sixty hours after birth—at which the operation was performed.

Gordon-square, W.C.

TREATMENT OF PLEURISY AND EMPYEMA.

BY JOHN E. MORGAN, M.A., M.D. OXON.,

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DURING the last thirteen years a large number of cases of pleurisy and empyema have come under my care in the wards of the Manchester Infirmary. In the treatment of these cases I have adopted various curative procedures, with a view of meeting special complications and combating symptoms of unusual gravity. In some instances these measures appeared to act favourably, and to contribute largely to the recovery of my patients. In my remarks on this subject I do not intend to classify the whole series of cases I have been called upon to treat, nor to show what proportion of these cases terminated in a return to health. Such statistics are necessarily misleading; and the conclusions drawn from them of comparatively little value. Some cases in which the symptoms are very acute, and the temperature also excessively high, are almost certain to prove rapidly fatal; others, though protracted for years, will yet eventually make a good recovery.

In this paper I propose, in the first place, to direct attention to the spirometer in the treatment of all cases accompanied by pleuritic effusion. I shall refer also to the use of compressed air in assisting to expand the occluded vesicles of the lungs. I shall further call attention to the most satisfactory methods of dealing with some of the difficulties which too often beset us in the protracted after-treatment of many chronic cases of empyema—difficulties which interfere with recovery and sow the seeds of future disease.

Since I paid special attention to the various effusions of the pleural sac, I have felt strongly that if we desire to make ourselves accurately acquainted with the variations in the amount of the fluid present from time to time in the cavity of the chest, something more is needed than the usual methods of physical examination. Percussion, auscultation, and palpation will not give us the information we require. By their aid we cannot even form a rough estimate of the amount of fluid compressing the lung where there are old adhesions. Where also the costal and pulmonary pleura are held together by those adhesions, and the pleuritic effusion is encapsulated, a comparatively small amount of fluid is sufficient to cause absolute dulness on percussion, and a total absence of the vocal fremitus, even though the portion of lung actually compressed be altogether insignificant. If we would measure the extent to which the lung is encroached upon, we shall best succeed in our object by ascertaining how far its air containing capacity is impaired. This information we can only obtain by such an instrument as the spirometer, an instrument which can estimate for us the number of cubic inches of air the lungs contain. By means of Mr. Hutchinson's spirometer very accurate and valuable information may in this manner be obtained. I have used this instrument in several cases, and am prepared to bear my testimony to its value. Still, it is not an instrument that has ever come into general use. It it cumbrous and messy; requires to be adjusted before it can be used, and is by no means portable. These objections do not apply to a spirometer invented by Dr. Jagielski, and manufactured by Messrs. Mayer and Meltzer, of London. The attention of the British Medical Association was drawn to this instrument in the year 1874 at Norwich. Ever since these instruments were introduced to the notice of the profession I have constantly used them. Indeed, I have three of them in my possession at present. I have carefully tested them in a large number of cases both in health and in disease. In healthy persons my observations coincide generally with the conclusions arrived at by Mr. Hutchinson, and published by him in an interesting and exhaustive article in the twenty-ninth volume of the Medico-Chirurgical Transactions. In this article Mr. Hutchinson shows that what is termed the vital capacity of man is modified by four circumstances. Height, weight, age, and disease. The influence of height, however, is very much more marked than that of the remaining factors. Mr. Hutchinson states that for every additional inch of height from five to six feet, eight additional cubic inches of air at 60° are given out by a forced expiration. Hence it follows that if the vital capacity of a man five feet in height is 174 cubic inches, that of a man five feet six inches will be 222; while a man of six feet will be able to expire 264 cubic inches. A very large number of observations on healthy individuals engaged in various occupations led Mr. Hutchinson to the conclusion that the vital capacity of different individuals bears a very close relation to their height—so close indeed that the results obtained from experiments almost exactly tally with the numbers of arithmetical progression.

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[1] See on this point "Lectures on the Surgery of Childhood," by Athol Johnston, p. 41, 1860.

[2] Medical Times and Gazette, vol. ii., 1870, p. 84.

[3] Ibid, vol. ii., 1852, p. 111. Holmes's System of Surgery, vol. v., p. 820.

[4] THE LANCET, vol. i., 1873, p. 829.

This relation between height and vital capacity will be found of great value in cases of disease of the chest, especially in such a disorder as pleurisy accompanied with effusion, where by far the most important factor we have to consider is the height. Other considerations, such as those relating to weight and age, may for all practical purposes be omitted. The expression "vital capacity" signifies the number of cubic inches of air given out by the most forcible expiration following the deepest possible inspiration. It includes what has been termed the supplemental air no less than the tidal and complemental air. It does not apply to what is known as the residual air, which the lungs cannot get rid of by any effort of the expiratory muscles. This residual air, in a man of average height, may be estimated at about 100 cubic inches. The supplemental air which remains in the chest after an ordinary expiration may be set down at another hundred cubic inches; the tidal air which enters and passes out of the lungs during ordinary quiet breathing at about 30 inches; and the complemental air, or that portion which the lungs can accommodate after a deep-drawn inspiration, at an additional 100 cubic inches. Hence, when a man takes what is popularly termed a long breath, filling his lungs to the utmost possible extent, and then empties them with as much force as he is able into the blowpipe of the spirometer—when supplemental, tidal, and complemental air are together expired—he enables us to measure the air-containing resources of his lungs; in other words, to gauge his vital capacity. If, then, the spirometer in this manner indicates to us the space available within the lungs for the storage of air and for the purposes of respiration, it will readily be seen that when from any cause the boundaries of the thoracic cavity are encroached upon—when, for example, seven or eight pints of serum are effused into the pleural sac—the quantity of air which the lungs then contain must be proportionately reduced. There is no disease in which a diminution in the vital capacity is so rapidly induced as in pleurisy accompanied with effusion. In one case which I have recorded, the air income of the lungs (if I may be allowed to use the expression), fell from 250 to 80 inches in the course of forty-eight hours. Such changes we can measure with peculiar facility by means of the spirometer. This instrument teaches us whether it is necessary to perform paracentesis, and when the operation should be performed. I am in the habit of availing myself of the assistance it affords even in the acute stages of pleurisy, so soon as I discover that the amount of effusion is at all considerable, and I have never known any ill effects to result from its use.

In the very early stages of the disease, however, when the "stitch" in the side is still a troublesome symptom, we would naturally refrain from using this instrument. But so soon as even a moderate serous exudation has occurred the pain usually disappears, and then the information which it affords is very valuable. Objections have been raised to the spirometer on the ground that a certain amount of practice is required before the patient can familiarise himself with its use, and effectively empty his lungs. This objection is altogether groundless; it does not tally with my own experience, or with the far more extensive observations of Mr. Hutchinson. In making his experiments, Mr. Hutchinson directed those whose chests he desired to test to blow three times into the instrument. On each occasion the reading was noted. From these three readings a mean reading, indicating the vital capacity, was deduced. The slight difference usually observed between these several readings testifies to the general accuracy of the instrument and the readiness with which our patents learn to use it. By means of this instrument I have carefully tested in a considerable number of cases the value of some of the different remedies which have been recommended in the treatment of pleurisy with effusion. The general conclusion at which I have arrived is that whenever the amount of fluid is excessive and the disease of long standing none of them can be said materially to influence absorption. Thus in some cases I have persistently tried the most powerful diuretics, prescribing them in large and frequently repeated doses. But I never found that they exerted any decidedly curative effects. In other instances I have tested the efficacy of diaphoretics, subjecting my patients to severe courses of hot air baths, prescribing at the same time such active drugs as the jaborandi. But though excessive perspiration has in this manner been induced, and the weight of the body considerably reduced, I have never learnt from the spirometer that absorption in the pleural sac has been very largely influenced by the energetic action of the skin.

In two cases likewise I adopted a plan of treatment strongly recommended by Niemeyer. It consists in placing the patient on as dry a diet as possible, allowing him to partake of a very small quantity of liquid. Although, however, the inconvenience and discomfort to which I subjected the pleuritic sufferers was very considerable, I did not find any decided increase in the vital capacity when gauged by the spirometer. Drastic purgatives also (including such active drugs as elaterium, scammony, and jalap) have in my hands proved equally unavailing. It would appear that in these cases various internal remedies fail to promote absorption, because the pressure upon the orifices of the lymphatics prevents them from fulfilling their normal functions. This is shown by the fact that when a portion of the fluid contained within the pleura is withdrawn by the aspirator, the remainder is often speedily taken up through their agency. In other cases, again, we may assume that absorption is impossible, partly by reason of the composition of those inflammatory products which surround the effusion, partly because the effusion itself is but little prone to undergo absorption.

In using the spirometer it is my invariable practice to test the vital capacity of my pleuritic patients two or three times every week. Thus we may readily ascertain whether or not the fluid is being absorbed. In some cases we are surprised to find how greatly vital capacity is affected by what appears to be, on percussion, a comparatively moderate exudation. For example, where the area of dulness occupies less than half of one lung the spirometer frequently shows that the vital capacity is reduced, not to one-fourth its normal amount (as we would naturally expect), but to less than half the estimated standard. This is, no doubt, partly owing to the fact that the affected side encroaches to some extent on the sound side; and it is in part also due to the hyperæmic condition of the healthy lung. It must be further remembered that though the effusion occupies but half the pleural sac, the lung floats on the surface of that effusion, and by reason of the compression to which it is subjected admits comparatively little air.

The great value of the spirometer, however, consists in the information it gives regarding the ebb and flow of the fluid in the chest. If the vital capacity steadily increases, if each succeeding week the lungs admit an augmented volume of air, it is our duty to avoid all operative interference. We shall, I think, act prudently if we even abstain from inserting the needle of a subcutaneous injection syringe into the chest, for the sake of satisfying ourselves as to the nature of the effused fluid. Simple as this procedure undoubtedly is, it is not altogether devoid of risk; indeed, I have my suspicions that from this cause a serous exudation is occasionally converted into one that is purulent.

When, however, the spirometer, teaches us that the vital capacity of the chest, so far from increasing, is actually diminishing, or at all events remaining stationary, then we may rest satisfied that the time has arrived when paracentesis cannot any longer be prudently delayed. The first question we have then to decide is where should the opening be made. In the opinion of Dr. Bowditch, the thorax may be most appropriately punctured in one of the intercostal spaces between the seventh and tenth ribs, immediately beneath the lower angle of the scapula. He recommends that a spot be selected about an inch and a half higher than the lowest point at which the respiratory murmur can be heard in the healthy lung of the opposite side. It has appeared to me that the differential stethoscope is peculiarly valuable in enabling us to obtain this information, by mapping out for us the exact boundaries of the two lungs, and enabling us to measure the comparative intensity of the breath sounds on the opposite sides of the back. In a large number of my cases I followed Dr. Bowditch's advice and performed paracentesis in the dorsal portion of the thorax. Of late, however, I have given up this practice. The muscles of the back are frequently thick, and consequently it is at times no easy matter to make out the exact boundaries of the intercostal spaces. Here also we often find, on using the aspirator, that the contents of the pleural sac flow out far less readily than when the puncture is made in some other portion of the thoracic wall. This is probably owing to the trocar having entered a thick layer of fibrin, which naturally gravitates towards the dorsal aspect of the costal pleura when the patient occupies the supine position. It is not possible, however, to lay down absolutely rigid rules regarding the exact spot at which paracentesis should be performed. Each case must be specially studied and dealt with on its own merits. It may be laid down as a general rule that when the effusion is serous the puncture should be made directly in the axillary line just above the sixth rib. If, however, it be purulent, then the anterior portion of the chest should be the place selected for the operation. For, under these circumstances, we may find it expedient to keep the wound open for a considerable time. Here there is less danger of the aperture becoming occluded in consequence of the ribs colliding or actually overlapping one another, as so frequently occurs when the side contracts. Another matter of some importance (if we decide upon operating) is the instrument we should select for the purpose. In many cases I prefer such a syringe as that used by Dr. Bowditch, to the aspirator generally employed. A double perforated cork is attached to this syringe, through one of whose apertures the fluid is drawn into the syringe, while it is discharged externally through the other by a quarter turn of the regulating cork. Whatever plan of emptying the thorax be adopted, it is not advisable to remove any large quantity of fluid at one and the same time.

Among the writers who have discussed this subject, we read of six or seven pints of serum having been withdrawn at a single sitting. If we follow this practice, we shall find that in not a few instances a serous exudation will be succeeded by one which is purulent. In expressing this opinion I am well aware that I run counter to the views of so high an authority as Trousseau, who distinctly states that there is a great advantage in emptying the chest as completely as possible. This, he maintains, is the best means of putting the lung into favourable conditions for expanding freely, and consequently of expediting the cure. These views have not been generally accepted by those who have had the largest experience of this operation; for in not a few instances the lung is too firmly bound down to admit of expansion; while the vessels of the inflamed pleura are greatly distended, and the newly formed capillaries delicate and yielding. Hence we can understand that if the pressure exerted by the fluid on these vessels be suddenly withdrawn, both serum and lymph corpuscles will more readily exude. In this manner a serous effusion is converted into one that is purulent. The condition of the new vessels found in embryonic tissue is naturally favourable to exudation. If exudation be stimulated we get an over-production of cells constituting suppuration. It has further appeared to me that when the effusion is suddenly and completely withdrawn troublesome paroxysms of coughing are liable to occur, while the patient complains of a sense of constriction in the region of the epigastrium. Hence, in cases of sero-fibrinous effusion, unless the symptoms of oppression and dyspnœa be very marked, I seldom withdraw more than from twenty to thirty ounces of serum at one sitting. The removal of so comparatively small a quantity of fluid is often sufficient to stimulate absorption, which afterwards proceeds in a more satisfactory and energetic manner. After the tapping I direct the patient to inhale compressed air once or twice daily for ten or fifteen minutes from a pneumatic apparatus invented by Dr. Geigel of Wurzburg. The operation for paracentesis is repeated at stated intervals until the whole of the fluid is withdrawn. As it is withdrawn an attempt is made to expand the affected lung by pressure from within.

It is said, indeed, that in such cases the contracted airless lung fills itself from its pervious colleague during fits of coughing and other expiratory efforts, while the glottis is closed. This re-expansion of the lung may, I believe, be very much more satisfactorily accomplished by means of compressed air. *(To be concluded.)*

TINEA TONSURANS, ACCOMPANIED BY ALOPECIA AREATA.

BY J. HERBERT STOWERS, M.D.

DR. ALFRED SANGSTER'S communication to THE LANCET of July 3rd has again drawn attention to the interesting fact that occasionally true ringworm is to be met associated with alopecia. As is stated, this circumstance has not been overlooked by several authors, including Dr. Robert Liveing, who, in his work on the "Diagnosis of Skin Diseases," remarks that "tinea tonsurans occasionally produces perfectly smooth, bald, and shining patches of skin, bearing a very close resemblance to alopecia areata, and for which they may be easily mistaken." The discovery that the spores of a vegetable fungus were not infrequently found connected with alopecia, led Audouin and Gruby to advocate that area was due to their presence, and that the so-called tinea decalvans was a parasitic affection produced by the fungus, afterwards known as the "microsporon Audouini." The elaborate and comprehensive paper published by Dr. Dyce Duckworth in the St. Bartholomew's Hospital Reports for 1872, vol. viii., proves, I think, beyond doubt, the true nature of alopecia areata, so far as the microscope of the present enables us to judge.

On p. 162 Dr. Duckworth says: "The remarkable series of cases reported by the late Dr. Hillier in a large school at Hanwell has no doubt influenced the opinions of the profession upon the contagiousness of area. Dr. Bristowe is disposed to believe that these cases were probably examples of ringworm. The two diseases sometimes co-exist. Mr. Hutchinson states that area rarely shows any tendency to spread by contagion,[1] but he has recorded three cases occurring in one family, in which he found epiphitic elements.[2] I am," continues Dr. Duckworth, "unable to offer any explanation of these cases, which are carefully recorded by this most able observer, and I can only express my belief that they may have been *mixed* cases of area and tinea tonsurans." My present purpose is merely to record several cases, which have occurred under my own observation, of what Dr. Duckworth describes as being of "mixed" character, and to mention the chief points, careful attention to which will enable us to arrive, under apparently doubtful circumstances, at a correct diagnosis.

CASE 1.—The following I have copied from my notes in the case-register of the skin department of St. Bartholomew's Hospital, presided over by Mr. Morrant Baker.

James T——, aged eleven years, was first seen on Oct. 24th, 1879. It was stated that the hair was noticed to fall off about four weeks previously, over the right parietal bone. About the same time two small bare patches occurred over the occiput. Upon examination a circular bald patch was found, with a diameter of two inches and a half, situated over the right parietal eminence. The surface is smooth and shiny, and, with the exception of a few short "stumps" at the lower part, completely bereft of hair. The anterior and inferior margins are abrupt and well-defined, the contiguous hairs presenting perfectly natural appearance. Towards the posterior and upper edges the exposed surface becomes slightly scaly, and leads up to the border line, which is distinctly altered in character, exhibiting considerable branny desquamation, together with a number of irregularly fractured hairs of a dull yellowish colour, and interspersed among others of more healthy type. Some of these broken hairs I examined microscopically, and found them to be abundantly covered with spores of the tricophyton tonsurans. The few scattered stumps observable towards the lower part were "club-shaped" and "brush-like" at their extremities, but after careful preparation with ether and liquor potassæ presented no vestige of fungous element. The other two smaller patches in the occipital region exhibited solely the characters of non-parasitic alopecia.

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[1] Med. Times and Gazette, Feb. 1858.
[2] Path. Soc. Trans., vol. vi. p. 379.

CASE 2 I saw in June last in consultation with Mr. A. Glover Williams. It was that of Bertha A——, aged seven years. The child was first noticed to have ringworm six months before. As the disease had extended the hairs became dislodged until extensive baldness resulted. The affected scalp was almost entirely destitute of hair, and the surface presented a distinct scurfy roughness, the epithelial scales upon microscopical examination disclosing mycelia and spores of the tricophyton tonsurans.

CASE 3 came under my notice in private practice at the end of last summer. The patient, a boy aged eleven years, presented three well-marked circular patches of alopecia areata, smooth, shiny, and well defined, situated over the left temporal and parietal bones. The largest, about the size of a florin, was absolutely bald, the two smaller were more or less oval in form, and presented diameters of little under an inch, with two or three fractured and clubbed hairs peculiar to alopecia areata. I may mention that the above were thought by the mother to be ringworm, and supposed to have been contracted while on a visit in the country. Upon examining the back of the head my attention was drawn to a small, slightly reddened, and scaly patch at the junction of the hairy and cutaneous surfaces, immediately to the left of the middle line, which with the aid of a lens proved to be tinea tonsurans. Seeing a few fractured and twisted hairs, I subjected them to microscopical examination, when spores of true ringworm fungus were visible. This had been overlooked previous to my seeing the lad. Microscopical examination of the hairs upon and around the three other bald places, with reagents, proved the absence of parasite.

CASE 4.—Mr. Morrant Baker informs me that he has a case now under his care in private practice in which alopecia areata is combined with ringworm of the scalp. The patient is a little girl, eight years old, and the ringworm is extensively distributed over the crown of the head, while in the post-mastoid and suboccipital regions there is on each side a nearly symmetrical smooth, almost hairless, patch of alopecia, the short broken hairs from which were found under the microscope to present the appearance characteristic of alopecia areata. Some slight redness was noticed in these situations two or three months before the ringworm attracted attention, but the baldness was not observed until about the time of the discovery of the latter disease.

In Case 1, besides the two small patches of circumscribed alopecia, it will be observed that the third or large one presented two sets of characters. At the anterior and lower part the surface was pale, smooth, and shiny, with an abrupt and well-defined outline. Upon it a few short hair-stumps are seen lying loosely in their follicles from atrophy of the roots. Immediately above this each stump becomes distinctly darker in colour and enlarges "club-shaped," and terminates in a ragged "brush-like" extremity. This last condition is produced by the line of fracture occurring through the site of the dilated or bulbous portion observable in the early stage, and brought about by separation of the fibrillæ. Frequently refracting sebaceous granules are seen in clusters along the margins of the hair-shaft attached to the epidermic imbricated scales, and likely to be mistaken for mycelia and spores. Proper reagents will, however, immediately disclose the fallacy. Again, as we approach the upper and posterior portion of the described patch, slight branny desquamation commences, until at the margin, which is irregular and ill-defined, broken, twisted, dull sulphur-coloured hairs are seen peculiar to true ringworm, and thickly studded with spores, and mycelia of the vegetable parasite trichophyton. This case illustrates well the coincidence of the two affections, and goes far to explain the mode in which, when patches of tinea tonsurans and alopecia areata coalesce, the latter and more conspicuous one is mistaken to be of parasitic origin.

Cases 3 and 4 serve well to support this view. In each of them we have co-existing the two diseases in separate parts of the scalp, quite distinct from each other. Very probably had the patients not been examined at the time they were, by gradual extension the several patches would have run together as in Case 1, and a similar condition would have been brought about.

In Case 2, as I have said, "the child's head was almost entirely destitute of hair," and in consequence those who yet cling to the belief that alopecia is parasitic may look upon this as an example of the same. But my notes further say, "the surface presented a distinct scurfy roughness, the epithelial scales upon microscopical examination disclosing mycelia and spores of the trichophyton tonsurans," indisputable evidence of true ringworm. Hence the difference between the two: the roughness owing to furfuraceous desquamation, the presence of mycelia upon the epithelial scales, the existence here and there of stubby hairs, broken and disorganised by spores on the one hand, and, on the other, the absence of the smooth, shining, more or less well-defined ivory-like baldness characteristic of alopecia. Future investigation will doubtless prove more certainly the true cause of this latter affection. It is in the hope that other observers, whose experience extends over a longer period than my own, will record their views upon the connexion, if any, between these two interesting diseases, that I am led to desire the publication of the accompanying notes, and if among them so careful and scientific an investigator as Dr. Sangster will do so, for I observe in his short communication he does not express any definite opinion of his own, I, for one, shall be really obliged.

Finsbury-circus, E.C.

ON CONGESTIVE DYSMENORRHŒA.[1]

BY G. ERNEST HERMAN, M.B. LOND.,
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IT has long been customary for writers upon the diseases peculiar to women to describe three kinds of dysmenorrhœa—namely, neuralgic, *congestive*, and mechanical or obstructive. In the present communication I propose to consider first briefly the present usage of the term "congestive dysmenorrhœa," and then what it seems to me we should mean by it. It is necessary to comment upon its present meaning because although nearly all authors employ the term, yet there is no agreement as to what cases should be included under it, and consequently the term has no definite and generally accepted signification. There are two chief usages of the term—the one wide, embracing every case of menstrual pain in which congestion is presumed to be present, and to contribute to the pain, and therefore including a great number of different conditions; and the other narrow, applying the term only to cases in which congestion appears to be the sole morbid condition present, cases which are so infrequent, and perhaps so imperfectly described, that their existence has been doubted. The use of the term with the wider meaning I will illustrate by a quotation from the work of Dr. Galabin. I refer to it as being the most recent manual, and that which contains the clearest and shortest account of commonly accepted doctrines. He says,[2] "the old division of dysmenorrhœa, or painful menstruation, into the neuralgic, congestive, and obstructive forms, is still the most useful and comprehensive. Most cases of dysmenorrhœa, however, do not belong exclusively to one or other of these classes, but partake in some degree of the character of two or even of all three of them. The names therefore should only be understood as indicating the preponderating element in each case.......By some authors separate classes are made of inflammatory, ovarian, and membranous dysmenorrhœa. Inflammatory dysmenorrhœa should, however, rather be regarded as a variety or subdivision of congestive dysmenorrhœa, since in inflammation the pain is mainly due to the concomitant congestion, and it is frequently impossible to draw an absolute line between congestion and inflammation. Ovarian dysmenorrhœa, again, is a variety of congestive or inflammatory dysmenorrhœa, and membranous dysmenorrhœa is one form of obstructive dysmenorrhœa, commonly associated with signs of congestion. Three forms, however, of inflammatory dysmenorrhœa specially deserve attention—(1) that in which the pain in menstruation is a symptom of fresh and active inflammation; ...... (2) that in which the dysmenorrhœa is the sequel of peri-uterine inflammation; ...... (3) that in which it is the result of corporeal endometritis." This quotation shows how many and how different are the forms of disease commonly brought together under the title of congestive dysmenorrhœa. In every point of the paragraph there are other authorities in full accord with Dr. Galabin, so that his statement is not the expression of an isolated opinion. To prove this statement, I may refer to Thomas's work, who defines "congestive dysmenorrhœa" as that due to hyperæmia of the pelvic tissues, and says, "it may result from almost any pelvic inflammation, or from any influence which exaggerates and prolongs the congestion excited by ovulation. Chief among these may be mentioned—general plethora; exposure to cold and moisture; sudden mental disturbance; sluggishness of portal circulation; displacement of the uterus; fibrous tumours; areolar hyperplasia; endometritis; peri-uterine cellulitis; pelvic peritonitis;"[3] and to Churchill, who includes under the term cervical endometritis, retroflexion, and membranous dysmenorrhœa,[4] the latter form of painful menstruation being also classed as congestive by West[5] and Scanzoni.[6] Atthill makes it also comprehend pain in the ovary.[7] Heywood Smith adopts the view of Thomas.[8]

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[1] Read before the West Kent Medical and Chirurgical Society.
[2] Student's Guide to the Diseases of Women, p. 328.

If we use it thus, we make the term "congestive dysmenorrhœa" comprise a number of conditions which differ widely as to their causes, treatment, and prognosis. Consequently when applied to a case it carries with it no information, and we must go further before we can understand the disease, or do anything for its relief. Therefore used in this sense, the term seems useless. It is true that congestion is present, as it usually is at the menstrual period; but in many of the conditions enumerated it is not certain that the congestion is the cause of the pain, and that neuralgia and obstruction are absent. The objection which Schrœder makes to this use of the term seems to me a just one. He says, "We ought not by any means to include under the head of dysmenorrhœa those pains accompanying the period, and which are commonly designated as congestive dysmenorrhœa, for in these cases the regular symptoms of uterine diseases are only intensified by the menstrual congestion."[9] The other and narrow meaning of the term to which I have referred is thus defined by Simpson: "There is usually nothing to be found further than an exaggeration of the ordinary phenomena of menstruation. At every menstrual period there occurs a certain amount of congestion. ...... This congestion, which goes on not only in the uterus but in the ovaries as well, may, and sometimes does, rise beyond the normal standard, and then uneasy sensations may be produced, and all the symptoms of perfect dysmenorrhœa."[10] This is the meaning given to the term by the more recent French writers. Monat divides dysmenorrhœa into two classes—"idiopathic" and "symptomatic." By "idiopathic" he means that which is not associated with any appreciable lesion either of the uterus or of other parts; by "symptomatic," that which results from such lesions. "Idiopathic" dysmenorrhœa he divides into "nervous" and "congestive"; and "symptomatic" into inflammatory, mechanical, and membranous. Inflammatory dysmenorrhœa, he says, is "that which shows itself during the course of acute or chronic inflammation of the uterus or the peri-uterine tissue. ...... The symptoms of this dysmenorrhœa are those of congestive dysmenorrhœa, complicated and aggravated by the symptoms of uterine or peri-uterine inflammation. The diagnosis of inflammatory dysmenorrhœa depends entirely upon the discovery of inflammatory lesions of the uterus or its appendages."[11] Courtz[12] adopts the same classification. If we compare this with the quotations previously made from the works of Simpson and of Thomas, it will be plain that Monat's congestive form of idiopathic dysmenorrhœa is that which corresponds to the definition of Simpson; while congestive dysmenorrhœa, according to Thomas, includes not only this, but Monat's inflammatory form of symptomatic dysmenorrhœa. And other authors give the term a still more comprehensive meaning.

The foregoing will be sufficient to show that congestive dysmenorrhœa is not a term which has a definite and generally accepted meaning; but that, on the contrary, it has been used in several more or less wide significations. It results from this, that each one who ventures to write upon or speak of congestive dysmenorrhœa must inquire for himself what is the best way in which he can use the term in question. Unless it can be employed with some exact meaning it had better be abandoned.

The simplest way of deciding what a term ought to mean is by looking to its natural etymological signification. Congestive dysmenorrhœa suggests at once menstrual pain caused by congestion. The mere presence of congestion cannot be a distinctive mark of congestive dysmenorrhœa, for some amount of congestion is present at every monthly period. We cannot make the degree of this congestion the criterion, for we have no means of measuring its amount. We have therefore no way of defining one degree of menstrual congestion which is natural and another which is morbid, except by assuming that the congestion which is accompanied by symptoms severe enough to demand treatment is excessive in amount and the cause of such symptoms. But to do this is to beg the question. The comprehensive definition given to the term by Thomas and others takes it for granted that in all cases in which there is a greater degree of congestion of the pelvic organs than is usual, and at the same time a greater degree of pain at the menstrual period, that the congestion is the cause of the pain. To use the term in this way seems to me objectionable—first, because the causes which may lead to congestion of the pelvic organs and consequent pain are so numerous that even if we are sure that congestive pain is present, we have done nothing for the patient until we have gone further, and found out its cause; and in most cases it will be useless to treat the congestion directly, without removing that which is setting it up. Therefore no practical end is served by grouping all these different cases under a common epithet. And if there be no practical advantage in it such a nomenclature is only defensible if some leading fact as to the nature of the cases is expressed by it. If there be cases included in the group in which it is not certain that the pain is due to congestion, it cannot be held that the term "congestive dysmenorrhœa," used in this wide sense, imparts knowledge any more than it helps in treatment. It therefore seems to me preferable to call these cases by the name of the disease of which the dysmenorrhœa is a symptom rather than by a general phrase which serves no useful purpose.

The only way in which it seems to me that we can make the term "congestive dysmenorrhœa" useful clinically is either by restricting it altogether to those cases in which there is reason to think that congestion, or a slight degree of inflammation, is the sole or chief morbid condition present; or at least, by following the French school, and drawing a distinction between the cases in which the congestion is a part of some definite disease of the pelvic organs, and the menstrual pain an exaggeration of the symptoms of that disease (symptomatic); and those in which the dysmenorrhœa, presumed to be due to congestion, is the patient's only trouble (idiopathic). Perhaps it would be better to speak of the latter as primary, of the former as secondary, congestive dysmenorrhœa. In the remainder of this paper I propose to speak only of primary congestive dysmenorrhœa.

My reason for bringing this subject forward is that I believe such cases exist, although they are not common, and that they have characteristic clinical features, although they have not been adequately described. I have found allusions to these cases which showed me that I was not singular in my clinical experience or in my interpretation of it. Believing, therefore, that these cases form a class capable of being more exactly defined, I shall try to contribute towards doing this.

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[3] Diseases of Women, fifth edition, p. 611.

[4] Diseases of Women, fifth edition, p. 215.

[5] Lectures on the Diseases of Women, edited by Duncan, p. 73.

[6] Diseases of Females, translated by Gardner, p. 349.

[7] Clinical Lectures on the Diseases peculiar to Women, fourth edition, p. 49.

[8] Practical Gynæcology, p. 136.

[9] Diseases of the Female Sexual Organs, Ziemssen's Cyclopædia, vol. x., English translation, p. 331.

[10] Clinical Lectures on the Diseases of Women, edited by A. R. Simpson, M.D., p. 229.

[11] Traité Pratique des Maladies de l'Utérus, ed. par Linas, p. 912. Paris, 1869.

[12] Traité Pratique des Maladies de l'Utérus. 3me édition, 1879. p. 488.

The definition of congestive dysmenorrhœa given by Simpson, and which I have already quoted, applies to these cases, but it is of no practical use, being hypothetical only; he does not narrate or refer to any cases of the kind, or give any information as to how such cases are to be recognised, if they exist. Other authors, among whom I will name, but need not quote, Aran,[13] West,[14] Monat,[15] and Courtz,[16] though they describe a class of cases under the title of congestive dysmenorrhœa, yet do so in vague language, without pointing out any distinctive marks, so that their description does not help one to identify the cases. West, however, points out that there are two forms, one in which menstruation is profuse, another in which it is scanty. This I think a very important distinction, and I shall refer to it again. Barnes refers to the subject in a manner which well displays the present position of the question. Evidently accepting the same definition of the term as Simpson, he says: "Of course, in the case of simple congestion, we assume a normal uterus as to structure, form, and position. ...... But this coincidence I believe is rare. ...... What is the cause of this congestion? We can hardly conceive the idea of primary congestion. This condition is almost necessarily the consequence of some morbid process or injury. These are manifold."[17] The question that arises, therefore, is whether there is such a thing as dysmenorrhœa due to congestion of an otherwise healthy uterus. It is undoubtedly rare. Scanzoni[18] says he has never met with it except from "the irritation of the genital apparatus which depends on the sexual functions," and "certain affections of more distant organs which cause various troubles in the circulation," and may produce engorgement of the uterus. Byford says he has never seen a simple case of congestive dysmenorrhœa. Others, among whom I may instance Beigel[19] and Gasserow,[20] reject the term altogether. It may be presumed from their doing so that they recognise both the inutility of applying the term to a great number of widely different morbid conditions, and the rarity of the cases in which congestion is the only departure from health present, and that they have not found the descriptions commonly given of such cases correspond to any definite group of phenomena met with in practice.

The present usage, therefore, of the term is this. Some writers apply it to so many different conditions that it becomes valueless. Others apply it to a small class of cases rarely met with. A third group banish it from their nosology. Whoever then would apply the term congestive dysmenorrhœa to cases in which congestion is the sole morbid condition present, has to show reason for thinking that such cases exist, and to point out the marks which distinguish them.

(To be concluded.)

CASE OF FATAL SUPPRESSED HÆMORRHAGIC VARIOLA COMPLICATED WITH RENAL CALCULI.

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FLORENCE Y——, aged ten years, a pale, strumous-looking girl, was admitted into Fulham Hospital on the afternoon of Jan. 8th. She was sister to two other patients who had been admitted with variola on Dec. 29th and Jan. 7th respectively, and occupied the same room. Her illness began the day before with vomiting, backache, and some suppression of urine. — Family history: Father and mother "delicate," the former having succumbed to some chest complaint; brothers and sisters subject to scrofulous swellings and ulcerations.

On examination only a few faint non-typical red papules were seen, and these on the arms. She complained of intense nausea, and her temperature was 99·4°. She vomited several times during the afternoon and evening, and the egesta were once observed to contain a slight tinge of blood. Evening temperature 99°. When seen at midnight, the child was restless, lying on her abdomen, retching occasionally, and crying with severe pain over the loins. Had passed no urine since admission, though several attempts at micturition had been made. The bladder appeared to be full, and orders were given to catheterise if necessary. However, soon after this she passed a large motion mixed with urine, which could not be collected, but which, as far as could be judged, was high-coloured, and not bloody. At 6 A.M. on the 9th, her mouth and hands were suddenly observed to twitch violently, her surface became blue, blood of a red colour issued from the oral cavity, and she expired in a few minutes.

At the necropsy, thirty-two hours after death, on opening the abdomen, the anterior wall and lesser curvature of stomach were seen to be dark and mottled. On raising it the posterior wall was black with extravasation, and the tissues around the pancreas and the pancreatic and splenic vessels were infiltrated with a large subperitoneal hæmorrhagic clot, which also extended downwards on the left side of the spine for some inches. The interior of the stomach presented numerous hæmorrhagic stigmata. The peritoneal surface of the small intestine and the mesentery itself presented venous extravasations in their substance; mucous lining of former intensely congested. Spleen very soft, and exuding thick venous blood on pressure. Liver-substance soft and friable; vessels on exterior congested and arborescent; portal vein enormously distended. Basic congestion of lungs, without consolidation. Both kidneys were purple with congestion, but in addition the infundibula of the left presented a sacculated appearance, each pouch or recess containing one or more calculi. These consisted apparently of urates, were twenty-two in number, and varied in size from a mustard-seed to a good-sized thumb-nail, and in weight from half a grain to forty-four. No other calculi were found in the peritoneal cavity, ureter, or bladder. The latter organ contained some clear pale urine of acid reaction, and non-albuminous; muscular wall somewhat hypertrophied; no hæmorrhages. Ureters and reproductive organs apparently normal.

Remarks.—This case seems worthy of notice, not only for the abeyance of objective manifestation of the most virulent form of variola, the suddenness of death, and the curious complication that was found, but also clinically for the community of the symptoms to both conditions. There seems to be little doubt, from the history of infection and the visceral lesions, that this was a true, though suppressed, case of hæmorrhagic variola; but the question remains how much of the nausea, retching, and vomiting, and of the lumbar pain and suppression of urine was due to this, and how much to nephritic colic. The convulsions immediately preceding death seemed to be the only sign differential of the latter, suppression of urine being a not altogether rare phenomenon in the course of the former.

Fulham Hospital, W.

NERVE-STRETCHING IN ANÆSTHETIC LEPROSY.

BY GERALD BOMFORD, M.D. LOND.,
BENGAL MEDICAL SERVICE.

THE practice of stretching the nerves in leprous anæsthesia was first brought to the notice of the profession by Dr. Edward Lawrie, then of the Medical College, Calcutta, but now Professor of Surgery, Lahore.[1] The operation has since been performed in a considerable number of cases, but in only a few has it been possible to observe the result for any length of time afterwards, so that it is still undecided how far the improvement is persistent in the majority of cases. The following case is remarkable on account of the fact that the ulnar nerve broke completely across as soon as traction was attempted, and that this accident made no difference in the ultimate result.

The patient, a line-man, aged forty, employed as a common labourer on the roads, came to the Simla Charitable Dispensary on Aug. 5th, complaining of loss of power in his hands, which inconvenienced him when working. His left hand was markedly wasted, the muscles supplied by the ulnar nerve being so atrophied as to have almost disappeared, and the grasp of the hand was very weak. There was also complete anæsthesia of the ulnar side of the left wrist and hand. In the right hand there was well-marked anæsthesia of the ulnar area, but the wasting of the muscles was very much less than on the left side, though the grasp even of this hand was decidedly weak. The right ulnar nerve could be felt through the skin above the elbow as a uniformly thickened cord about three times the size of a normal ulnar nerve. The left nerve was enormously thickened, but not uniformly so. High up in the lower third of the arm it was as large as one's middle-finger, while at a point lower down, about half an inch above the condyle, it suddenly diminished to about the same size as the nerve of the right arm.

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[13] Maladies de l'Utérus, p. 302.
[14] Op. cit. [15] Op. cit. [16] Op. cit.
[17] Diseases of Women, p. 218.
[18] Diseases of Females, translated by Gardner, p. 349.
[19] Die Krankheiten des Weiblichen Geschlechtes, 1874, Bd. II., S. 330.
[20] Ueber Menstruation und Dysmenorrhœa, Volkmann's Sammlung.

[1] Vide Indian Medical Gazette, September and October, 1878.

The operation was performed on Aug. 6th. The nerve of the right arm was easily exposed, and, except in the matter of size, presented a normal appearance. It was thoroughly stretched and incised longitudinally, and the wound, stitched with a catgut suture, was dressed with antiseptic gauze. This and the operation on the left arm were both conducted under strict Listerian precautions. The nerve of the left arm hardly resembled a nerve at all. It was greatly thickened and nodulated, and so adherent to the surrounding tissues that it was very difficult to raise it from its bed, so as to pass the finger round underneath it. After this difficulty had been overcome, on the first attempt to stretch the nerve, it broke at the point mentioned above, where there was a sudden diminution in size. After this accident I separated the two ends of the nerve, as far as possible, from the tissues to which they adhered, and joined them by an ordinary thick catgut ligature, dressing the wound as before.

Result.—In the right hand sensation was apparently completely restored by the operation, and the muscular strength rapidly returned, so that before he left the hospital the grasp was as powerful as that of most men. The dressing was opened for the first time on August 13th, a week after the operation, and the wound found to be completely healed. In the left hand sensation began to return two days after the operation (August 8th), on which day it was well marked on the ulnar side of the fourth finger, and every day from this date a distinct increase of the sensitive area could be noted. As the patient complained of some pain in this arm the dressings were opened on August 12th. The wound was firmly healed except in the centre, where the suture had caused slight inflammation. This disappeared on its removal, and a few days afterwards the incision had cicatrised completely. By August 17th sensation was restored over the whole of the previously anæsthetic area with the exception of the extreme tip of the little finger. The grasp of the hand was now very fair, though there was still an evident wasting of the muscles. As he was anxious to begin work again, he was allowed to leave the hospital on this date. I have not seen him since, but he is now (Nov. 30th) working on the roads, and is reported by his friends to be quite restored to health.

Fort William, Calcutta.

The Levee.—At the Levée, held on Monday at St. James's Palace, by the Prince of Wales, on behalf of Her Majesty, the following members of the medical profession were presented to His Royal Highness:—Dr. John Watt Reid, Director-General of the Medical Department of the Navy, on appointment as Hon. Physician to Her Majesty, by the Secretary of State; Brigade-Surgeon Oliver Barnett, on promotion, by the Adjutant-General; Surgeon-Major George J. H. Evatt, on return from Afghanistan, by the Adjutant-General; Surgeon-Major R. T. Lyons, M.D., Bengal Army, by the Secretary of State for India; Surgeon W. M. Collins, M.D., Royal Horse Guards, by Field-Marshal Lord Strathnairn, G.C.B., &c.; Surgeon Raglan W. Barnes, by the Adjutant-General; Surgeon T. Moloney, 3rd Sikhs, by Major-General Sir F. Roberts, V.C., K.C.B.; Surgeon Frank Smith, 2nd Kent Artillery Volunteers, by Lieutenant-Colonel Edwin Hughes; Surgeon Michael Ronan, R.N., by the Director-General of the Medical Department of the Navy; Surgeon Andrew Duncan, M.D., on return from Afghanistan, by Major-General Sir Frederick Roberts, V.C., G.C.B.

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Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

GUY'S HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. Bryant.)

Vesical Calculus; Lateral Lithotomy; Abscess opening through Umbilicus; Recovery; Remarks. (From notes by Mr. Palmer.)—Jas. B——, aged five, was admitted into Lydia ward on Nov. 8th, 1879. Eighteen months before admission the child was in the Evelina Hospital with swollen prepuce, and some general eruptions on the head and limbs. At that time the mother noticed that the urine was thick, but as there was no difficulty in passing the water, nothing was suspected. Four weeks before admission the child was noticed to pass his urine in drops, and with great pain. On Nov. 7th, not having passed urine for twenty-four hours, it was taken to the hospital, when the water was drawn off. Two days later the house-surgeon passed a sound, and found a small stone.

On admission, patient was an unhealthy-looking child. The penis was somewhat red and swollen, and the prepuce was rather long; the child passed water frequently in the bed; the water seemed to pass "with a rush," and caused the child to shriek with pain.

On Nov. 11th the child was put under chloroform, and lateral lithotomy with Key's straight staff was performed, and a small (probably lithic acid) calculus was removed. One artery was twisted, and a sponge was introduced into the wound. For an hour or two after the operation hæmorrhage caused some trouble, and was controlled by pressure.

On the 19th patient passed urine by incision. The temperature was normal.

On Dec. 5th the wound did not appear to be closing, and the child had not passed a drop of urine by the urethra. A catheter was passed, but no obstruction was encountered in the urethra.

On the 10th urine passed by the urethra for the first time since the operation; the wound was closing; the urine was turbid, and had acid reaction, but cleared on boiling; no albumen present. Temperature normal.

On the 22nd an induration in the abdominal wall, extending up to the umbilicus, had appeared, and some fluid smelling like urine escaped from the upper part of the induration, near the umbilicus.

On the 28th some pus came from the same opening from which the urinous fluid escaped to-day.

On the 29th the wound in the perineum was quite healed; the child could retain his urine for four or five hours; the induration in the abdominal wall was less, and localised to the middle line, but could still be made out; the sinus from which the pus, &c., escaped had closed.

On the 31st he was discharged cured. He was able to pass urine without pain, and to retain it some hours. No signs of abscess were present.

Remarks.—The formation of a urinous abscess, and its discharge from the umbilicus after the operation of lithotomy, is a very unusual occurrence, and in the case related it is difficult to explain, as the operation was not complicated with any difficulties, nor was there any evidence of severe bladder disease beforehand to account for it. Still, there can be no doubt as to the fact, for urine escaped through the umbilicus, together with pus. Mr. Bryant was disposed to think that some ulceration of the bladder had existed before the operation, and that perforation with extravasation had taken place about the fundus of the organ, and, as a consequence, the formation of an abscess. Since he had seen the same series of events occur in cases of stricture.

Incontinence of Urine seven years after Passing Stone; Phosphatic Concretion in Bladder; Washing out Bladder; Relief. (From notes by Mr. H. H. Wright.)—Esther S——, aged thirty-five, was admitted into Lydia ward on June 2nd, 1880. She was a married woman, and mother of three children. Ten years before admission she had typhoid fever, and after this she was troubled with her water. It was scanty, and caused pain when passing. Seven years before admission she passed a large stone, and since, on and off, she had suffered with urinary trouble and incontinence. She had passed gravel at times.

On admission she complained of pain down the back and in the loin. Her general health was not bad. Urine was acid and blood-stained, and was constantly dribbling.

On June 4th she was put under chloroform and the bladder was examined, and a copious phosphatic deposit was found. Next day the bladder was washed out with warm water. A week later she was able to retain urine for a quarter of an hour. From this time she continued to improve, and on July 16th she left the hospital, well able to retain her urine for two hours, and to pass it without pain. On June 28th the temperature rose to 103°, but fell next day to 100°. On July 2nd it was normal, and did not afterwards rise above this level.

Piece of Catheter Broken in Bladder; Formation of Stone; Cystotomy; Old Perineal Section; Well. (From notes by Mr. Pitt.)—Thos. H——, aged forty, was admitted into Job ward on June 19th, 1879. He was married, and his wife had had one child. He had had gonorrhœa twice, last time sixteen years ago, and had always since had difficulty in passing water. In December, 1874, he was admitted under Mr. Bryant, and Syme's operation was performed for stricture and extravasation of urine. He remained in hospital until September, 1875, and was then discharged convalescent, but passing his urine through the perineum, the penile portion of the urethra being quite obliterated. Since then he had always passed a catheter regularly about every third week. Four months before readmission, when using a No. 4 catheter part broke off, and remained in the bladder. A No. 8 was passed frequently afterwards. About a month later he began to feel a burning sensation at the neck of the bladder; his water became dark, and deposited a thick light-coloured sediment.

On admission he seemed in moderate health. Pulse and temperature normal. When standing he passed water by the perineal opening. There was no blood or albumen in the urine. The meatus urinarius was quite closed, and had been so since he was in the hospital four years before. On June 24th he was put under chloroform, and lateral cystotomy was performed, the staff being introduced through the perineum. A piece of catheter, thickly coated with phosphates, was removed, measuring about three-quarters of an inch by one-third of an inch.

Everything went on well, and on July 8th the patient was discharged. The incision was nearly granulated up, and the patient was able to retain his water as usual. Temperature never rose above normal.

ROYAL INFIRMARY, GLASGOW.

CASE OF LEAD POISONING, ENDING IN CONVULSIONS AND DEATH.

(Under the care of Dr. CHARTERIS.)

FOR the following notes we are indebted to Mr. J. Macpherson Lawrie, resident physician.

William W——, aged sixteen, worker in a pottery, was admitted on the 22nd September last, complaining of paralysis of both wrists, of six weeks' duration. The family history was unimportant. The boy had been employed in a pottery in Glasgow for the last five years.

At a certain stage of the manufacture of earthenware, the various products are rubbed against each other in order to smooth away any roughnesses and irregularities. In this way a fine dust is disseminated, containing a small percentage of lead. At a later period they are dipped into a thick glazing solution containing 10 per cent. of white lead, and afterwards placed on a convenient perforated shelf to drain. The boy's duty was to lift the articles from the shelf on to another receptacle, for removal to the furnace. Most probably the poison had been introduced into the system through eating food with dirty hands.

The patient was in fairly good health till six weeks before admission, when his attention was attracted to a slight weakness in both wrists, which he thought due to overfatigue, and paid no attention to. This symptom gradually became more marked, and in the course of a week he was unable to raise his hands in the slightest degree. He remained at his work, and fell off in general health. About a month after the commencement of his ailment he suffered from cramps, occurring chiefly at night, in front of both thighs. These were followed by severe pain in his abdomen, accompanied by constipation. Under the influence of remedies the abdominal symptoms entirely disappeared in four days, and his bowels returned to their normal condition.

On examination the patient was found rather emaciated, with a heavy exhausted appearance, and in a very unsatisfactory state of health. When his arms were raised, the hands hung down in a helpless manner, like the forepaws of a kangaroo. The muscles of both arms were wasted and soft. The action of the supinator longus, when the forearm was extended against the patient's will, was found as usual intact. An interrupted electrical current applied over the extensor muscles was followed by no response. On the flexor aspect slight contractions of the fingers were produced. His gums exhibited the characteristic blue line. His teeth were coated with tartar, and somewhat discoloured. The abdomen was quite natural in appearance, soft, and elastic, and pressure caused no pain. His pupils were dilated. The sight was quite natural. The pulse was rather weak and about 70 per minute. His urine was found to have a specific gravity of 1012, neutral, of pale colour, without sediment, and without albumen; phosphates appeared on heating, but otherwise the physical examination yielded normal results.

The patient was put on six grains of iodide of potassium three times a day, and nourishing food, with maltine. Three days afterwards he complained of very severe cramps in the knees. They were relieved for a time with equal parts of belladonna, opium, and chloroform liniments, applied on lint, with a poultice over all. Subsequently the cramps returned, and proved extremely obstinate under treatment. The iodide of potassium was reduced to three-grain doses, and subsequently replaced by the bromide in two-grain doses every four hours without any relief to the symptoms. On the 30th, about 7 A.M. (eight days after admission) the nurse on night duty reported that the patient was getting into a "stupid condition." He was visited at once and found in a semi-comatose state, replying to questions in a vague manner when roused up. In the course of ten minutes he suddenly uttered a loud cry and was attacked with severe clonic convulsions, first on one side of his body (the right), then on the other, involving the head as well as the limbs, and latterly extending to the trunk. These symptoms were accompanied by complete unconsciousness, insensible and dilated pupils, foaming at the mouth, retracted abdomen, involuntary micturition, with a pale, clammy face and rapid and forcible action of the heart. In a few minutes the convulsions ceased, but he still remained comatose. Within the course of two or three hours he had nine or ten repetitions of the attack. During the remainder of the day he lay in a restless state with dilated pupils, but could not be got to answer any questions. His parents stated that they had never observed such symptoms before in the boy. Next morning his condition was the same. His bowels were cleared out with sulphate of magnesia assisted by an enema of soap and water. Chloral hydrate was administered in one and a quarter grain doses every hour, the bromide of potash being discontinued. In the evening his pulse became very rapid, breathing rather stertorous, and temperature 102°. On Oct. 2nd his urine was again examined and found to contain a good deal of albumen, but no lead was detected either with sulphuric acid or iodide of potassium. On Oct. 3rd he was evidently sinking. Towards night his breathing became very shallow and hurried—over sixty respirations per minute. His pulse was weak and thready and about 130. He sank very gradually, and death took place at 11.50 P.M.

Remarks.—In this case the epileptic symptoms commenced eight days after admission, and remained till he expired, nearly four days afterwards. During this period he had only one or two snatches of sleep for about half an hour at a time. As far as could be ascertained he was only conscious on one occasion, when he recognised and named his mother and brother. He took nourishment well all through, averaging about two pints of milk and beef-tea each in the twenty-four hours. The attacks of convulsions occurred at intervals of about two hours, diminished to one hour towards the end, and were all marked by the same characters as those first noticed.

A partial post-mortem examination was made, permission being only granted to examine the head, and to a limited extent the abdomen. The brain presented to the naked eye nothing abnormal. The organs of the abdomen were also apparently healthy. Portions of muscle from the left fore-arm were excised, and after being hardened in alcohol and solution of chromic acid, fine sections were made; these sections were stained with logwood, and subjected to microscopic examination. For the sake of comparison, the supinator longus was taken as normal, and with it was compared the extensor carpi radialis longior. In the latter, which was one of the muscles paralysed, there were observed, even in untinted specimens, parts in which the muscular fibres were markedly narrower than normal. This condition was not present everywhere, but, on the contrary, there were places where the cylinders were of normal diameter, this being confirmed by their measurements being the same as that of the fibres in the supinator longus. From a series of measurements the narrowed fibres were found to be on the average about half the diameter of the normal ones. The narrowed fibres existed in groups, although there were occasional single fibres of a narrow diameter. The transverse striæ in both sets of fibres were found to be equally distant, indicating that the narrowing was not due to a different state of contraction. It was also observed that in the narrowed fibres the transverse striæ were very much less marked than in the normal, being sometimes almost, or entirely, lost. These conditions were easily made out in unstained specimens, but the condition of the muscular nuclei was best determined in specimens treated with logwood. In the paralysed muscle it was at once seen that the nuclei were more abundant than in the normal, and this was, to a slight extent, the case even in fibres of nearly normal diameter. But when the narrow fibres were examined an enormous increase of the nuclei was observed, these being closely set, and in some cases almost concealing the fibres. It is impossible to dissociate these two conditions—increase of the nuclei and narrowing of the fibres, and they both indicate a marked nutritive change in the muscle. It is to be added that in some cylinders of the affected muscle there was a transparent, glassy condition, which has been variously designated as hyaline and colloid degeneration, and which is met with in the muscles in typhoid fever, &c. This was not present in the narrowed fibres, and is probably of little importance in connexion with the pathology of this disease.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Two Hundred Additional Cases, completing One Thousand Cases of Ovariotomy.—Development of a Layer of Elastic Fibres in Duct Cancer of the Breast.—Trephining in Epilepsy.

THE ordinary meeting of this Society was held on the 22nd inst., J. E. Erichsen, Esq., F.R.S., President, in the chair. The chief contribution was a paper by Mr. Spencer Wells, summarising the results of two hundred cases of ovariotomy, completing one thousand cases under his care. The President complimented Mr. Wells in glowing terms, and observed that the subject had been so recently and fully debated that there was little room for discussion.

The following is an abstract of the paper "On Two Hundred Additional Cases, completing One Thousand Cases of Ovariotomy, with Remarks on Recent Improvements in the Operation," by Mr. T. SPENCER WELLS. The author presents in a table (similar in form to those in which he has brought before the Society all his cases of ovariotomy up to the eight hundredth), the particulars of 200 additional cases. The mortality of the ninth series was seventeen, of the tenth, eleven. Among the 1000 patients 231 have died and 769 recovered; but the mortality has steadily diminished from thirty-four in the first hundred to eleven in the last. Since the eight hundred and eighty-eighth case all the operations have been in private practice, and all have been done antiseptically, the result being a mortality of 10·6. The author inquires how far this lessened mortality is due to antiseptic precautions or to other recent improvements in the mode of operating, describing in detail various modifications in each step of the operation. —The PRESIDENT said he would be expressing the feelings not only of the Society, but of the profession and public generally by conveying their very best thanks to the illustrious author of this great work. For no man had done such a work in surgery as to have recorded 1000 cases of any one great operation with so small a mortality. Nothing can redound more to the credit, not only of Mr. Wells, but of surgery that such great results had been achieved by him. "I have lived," continued Mr. Erichsen, "through the whole period covered by the operation, and have been present at meetings of this Society when the introduction of the operation was being discussed; and I cannot but call to mind the obloquy (in which I never myself shared, for I performed the operation myself until I left it in better hands) which attended the operation and the operator. It is something to have lived through an epoch of surgery which has seen an operation of this magnitude not only survive that obloquy, but become one of the most successful operations in surgery, when performed with sufficient care, attention to detail, and, of course, personal skill. Surgeons may go further, and say this, that surgery is more indebted to obstetricians (I do not use that word—which I abominate—gynæcologists) for great improvements effected in operative surgery, for it is to them we owe the great precautions which, independently of antiseptic or Listerian method, tended to lower the mortality of ordinary surgical cases. One cannot but feel that the thanks to the author of the successful completion of 1000 cases should extend far beyond the limits of this room and this Society; they are due to him from the profession and suffering humanity at large."—Mr. WILLETT asked the author if he had in any way modified the after-treatment of his cases, especially as regards the practice of free sweating; for he himself had found in nearly every case a rise of temperature to 102° or even 104° about twelve hours after the operation. This rise was quite ephemeral, the temperature falling below 100° within the next twelve hours; nor did it appear to act injuriously. He had associated this symptom with the practice of placing the patient in a heated room and covering her with hot blankets, with the intention to promote free action of the skin. Out of twenty cases Mr. Willett had had a mortality of three.—Mr. SPENCER WELLS, in reply, said that for several years past he had discarded the practice of extreme overheating. In former days this was carried to a great extent, even to filling the room with steam. He believed Mr. Willett's explanation of the rise of temperature in his cases to be correct; and it was certainly curious that whereas now, in a whole year, he (Mr. Wells) had not had one case with a temperature above 101°, he used frequently to have cases with the temperature reaching 104°, or even 106° and 108°. He thanked the President for his kindly remarks, and said that such an approbation from the Chair was quite sufficient reward for his work.

Dr. GEORGE THIN read a paper "On the Development of a Layer of Elastic Fibres in Duct Cancer of the Breast." The paper gives a summary of the results of an examination into the nature of a layer of elastic substance described by the author in a paper read before the Society last session as surrounding epithelial masses in duct cancer. The layer is analogous to the elastic layer described by Henle as surrounding the lactiferous ducts, is composed of interlacing minute elastic fibres, contains no white fibrous tissue, although a few capillary bloodvessels and leucocytes are found in it, and is separated from the cell-mass by a membrana propria. Its significance is to be found in its association with a new epithelium which takes its origin in duct epithelium, and in the illustration it affords of the retention by a cancerous epithelium of one of the distinctive attributes of the special epithelium from which the morbid growth sprung; and, further, in the unexplained connexion between the development of epithelium and of elastic fibres. A nucleated membrana propria is described as being present around some cell-masses. It is of secondary formation, the nuclei on its surface having the characteristic flat elongated form. An outer and inner line of these nuclei was sometimes detected.

A paper was communicated by Mr. JAMES F. WEST (Birmingham), "On a Second Case of Trephining for Epilepsy." The author called attention to the fact that the patient on whom he had performed the operation two years previously, and whose case was narrated at the Society's meeting of Nov. 25th, 1879, remained in perfect health, and had since been perfectly free from epileptic attacks. He then brought forward the case of a young woman, aged twenty-five, whom he trephined on March 25th, 1880. The operation had proved unsuccessful. Epilepsy began when she was five years old, but was not serious until she was nine, when she sustained a severe cut on the forehead, the cicatrix of which was seen a little to the right of the middle line. The operation was performed at the side of the injury with antiseptic precautions, and was followed by little, if any, constitutional disturbance. No fits occurred for ten days after the operation, but they then recurred, though less frequently than before the operation. She became after a few months dangerous, and in October, 1880, was placed in an asylum.—The PRESIDENT remarked that trephining had fallen into disrepute, because it was generally performed in cases of grave injury, to the effects of which the patients succumbed. The operation was much practised in former days, and where the brain and its membranes were intact the results were not so serious. The case was of interest, as showing that trephining could be had recourse to without much risk, in certain forms of epilepsy.—Mr. HOLMES said the two cases recorded by Mr. West involved two points of interest. Although the author was to be commended for the publication of this second case, yet it was one hardly comparable with the first, where the traumatic nature of the epilepsy was far more evident. For there could be no doubt that trephining was only applicable to those cases of epilepsy traceable to injury. He had seen a few cases of trephining in supposed traumatic epilepsy—one was that of a young man who when a lad had been trephined with temporary relief; the symptoms recurred, but there was not sufficient evidence for a second operation. In Mr. West's first case an apparent cure had resulted from the operation. The other point was as to the effect of the antiseptic dressing. Accepting the principle of perfect cleanliness and drainage, which was the essence of this method, whilst rejecting the theory and details of Listerism, Mr. Holmes had seen great benefit from its application to head injuries. Of this he had lately had a striking example. Two men were thrown out of a cart upon some area railings; one sustained a compound fracture of the thigh, from which he died. The other had a small punctured wound of the skull, only admitting the tip of the little finger, with escape of brain substance. He had also a fracture of the lower jaw; but he was quite free from any symptoms referable to the cerebral injury. Mr. Holmes washed away the loose pieces of brain substance with carbolic lotion, and dressed the wound with ordinary precautions as to cleanliness and drainage. For some time there was protrusion of the brain whenever the patient coughed, but he recovered completely without any symptoms. The case showed how a very severe injury to the skull and brain would get well when treated on the principles of the antiseptic method. He had not seen much mortality after trephining. Of two fatal cases, one was due to meningitis from injury to the dura mater after operation. The case was one of injury to the skull, which was thought to have left depression of the inner table, as in Cline's famous case. The bone was greatly thickened at the seat of injury and adherent to the dura mater. The second case was one under Mr. H. Lee, where the trephine was applied to remove the external table only; here death occurred from inflammation of the diploë. He concurred with Mr. West as to the importance of cleanliness in the treatment of trephine wounds, and believed that when the brain was lacerated, it was important to remove the lacerated portions by washing, as insisted on by Mr. Callender.—Dr. SILVER asked Mr. Holmes if he could give the exact seat of the injury in the case he had cited, as it would be of interest in connexion with the doctrine of localisation of cerebral function.—Mr. HOLMES said the injury was a little above the temporal ridge on the right side, in front of a vertical line from the ear.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Epithelioma of Œsophagus.—Atrophy of Testicle following Traumatic Orchitis.—The Prospects of Valvular Disease of the Heart.

AT the meeting of this Society on the 14th instant, F. J. Gant, Esq., President, in the chair,

Dr. GILBART SMITH exhibited a specimen of Stricture of the Œsophagus, due to Epithelioma, removed from the body of a labourer, aged fifty-eight, who was admitted into the London Hospital, Nov. 27th, under the care of Dr. Andrew Clark. The onset of the man's illness was sudden. He had, seven months previous to his death, experienced a choking sensation on swallowing a piece of meat on one occasion. Subsequently to this solid food always made him choke, and only by repeated efforts was he able to overcome the difficulty, which gradually increased. He continued working until six weeks before his admission. He was then very emaciated; complained of no pain; had a slight hacking cough, with mucous expectoration; had no hæmatemesis; heart-sounds very feeble; liver dulness diminished. Nothing marked about the chest. There was frequent vomiting after efforts to swallow. On Dec. 20th the following note was recorded:—"Can, yesterday and to-day, swallow without vomiting. He feels something 'go' in his throat sometimes, and then swallows better." Bougies were passed several times, and were arrested "half-way." The last attempt to pass one, made on Jan. 4th, was unsuccessful on account of the retching. On auscultation at the back during swallowing the fluid appeared to meet with obstructions at a point corresponding to the upper part of the sternum. Notwithstanding nutritive enemata and the internal exhibition of iodide of potassium and subnitrate of bismuth he rapidly wasted, and died on Feb. 4th, although "about" until the time of his death. The autopsy made by Mr. M'Carthy revealed a hard zonular tumour, surrounding the œsophagus, just above the bifurcation of the trachea. The upper part of the stricture had commenced to ulcerate on the right side. The base of this ulcer was on the point of opening into the trachea. The calibre of the œsophagus was reduced almost to *nil*, but the dilatation of the tube above the stricture was not so great as is often seen. The specimen showed the danger of passing bougies in the later stage of stricture of the œsophagus. In this case there was no history of syphilis or gout.—The PRESIDENT considered that the great distinction to be made in these cases was as to whether the stricture were due to organic disease or to simple spasm. In the latter on getting the patient to swallow hot fluid it was generally at once ejected; in the former it was retained. Scirrhous disease he had never seen above the sternum, but often encephaloid.—Dr. HALL alluded to two cases of marked dysphagia due to syphilis, in which the use of bougies and iodide of potassium had led to complete recovery.

Mr. ROYES BELL showed a case of Atrophy of the Right Testicle due to a severe orchitis following a blow. The patient was nineteen years of age, and came under care for a varicocele on the left side, when it was found that the right testicle and epididymis were reduced to two small fibrous bodies, the vas deferens being apparently normal. Four years and a half ago he had struck the testicle; acute orchitis set in, and he was treated by local applications at a metropolitan hospital for four weeks; the gland then began to waste. On the left side there is a varicocele, and the left testicle is slightly softened. It was not thought prudent to attempt the radical cure of the varicocele, as the opposite testicle was lacking. Mr. Royes Bell referred to the discussion in THE LANCET a few years back, arising out of Mr. H. Smith's advocacy of puncture of the testis in acute orchitis—a procedure much decried on the theoretical ground that it would lead to atrophy of the organ. The present case illustrated a rare sequence of traumatic orchitis, which had been treated in the ordinary way.—Mr. HENRY SMITH considered the case bore out his views with regard to the question. Although he had punctured the testicle in several hundred cases without ever seeing any resulting atrophy, yet in two cases in which he had followed the ordinary plan of treatment recommended in text-books, complete atrophy had taken place. He therefore strongly advocated puncture.—Mr. PEARCE GOULD asked if Mr. Bell punctured in cases of epididymitis as well as in cases of true orchitis, which are exceedingly rare; and whether, if so, it was attended with relief. — Mr. **BELL** said it was his practice to puncture in both, but that relief was better marked in cases of orchitis.

Dr. **MILNER FOTHERGILL** read a paper on the "Prospects of cases of Valvular Disease of the Heart." He pointed out that the well-marked cases, as described in text-books, were generally recognised and appraised correctly. But there were other cases marked by the presence of a murmur when the prospect was very much better. Much misery to patients, and considerable discredit to the profession, were the result of transferring to such cases the prognosis of the most serious forms. Practitioners scarcely ever erred about the grave cases, but they were not always so accurate about the less serious cases. Stokes long ago pointed out that there were cases where the mischief did not progress, or imperceptibly; and Latham differentiated three forms of mitral mischief after endocarditis of varying severity. It was important to recognise the fact that in many cases the injury done is quiescent, like a scar, and the patient is only conscious of something wrong on effort. All light work was not incompatible with length of days. He then related the history of four cases, all well known to him, of mitral disease. 1. A girl, who had a loud mitral murmur at the age of eight. She is now twenty-four, in fair health, as a village schoolmistress. 2. A man whose murmur was first heard in 1867, sometimes ailing, but at work as a blacksmith, only troubled when shoeing very heavy horses. 3. His sister, with disease of two years' standing, last year flooded in labour. She became anæmic, and then some dropsy followed, which quite disappeared under treatment. 4. A man with some mitral disease of twenty-seven years' standing, who had dropsy for the first time last autumn after a short illness. He is now free from any dropsy and feeling well again. Another case of severe mitral disease, lasting thirty-eight years, was cut short by bronchitis last spring. Even aortic regurgitation does not always progress rapidly, and he knew of a number of cases where no perceptible progress had been made in four or five years. Consequently we are not to take a hopeless view of all cases of valvular disease of the heart.—Dr. **DE HAVILLAND HALL** spoke of the life assurance aspect of heart disease, and gave instances in point. Death from bronchitis in valvular disease was directly due to the heart affection, and he agreed with Dr. Fothergill as to the advisability of great caution in prognosis.—Dr. **GILBART SMITH** said the difficulty of arriving at an accurate prognosis was in many cases very great. In one case of præcordial pain a soft bruit came out on exertion and the apex was displaced outwards. In such a case a reservation of opinion for further observation would be construed by the patient as a verdict of "heart disease." In another case, one of aortic regurgitation, apparently not advanced, sudden death occurred from the patient taking a journey contrary to advice. Such cases caused considerable hesitation in forming a prognosis. In life assurance, mitral murmurs, when unaccompanied by dilatation, accentuated pulmonary second sound, or venous engorgement, might readily form a good investment, for the slight risk would be more than compensated by the increased premium.—Dr. **ALTHAUS** thought the views in the paper confirmed by the fact that most of the deaths from heart disease in the Registrar-General's return were set down from sixty to seventy years.—Dr. **BROADBENT** agreed with the views of the author, and considered that heart disease was not necessarily fatal. It was his practice in such cases as those referred to to give a straightforward opinion as to the existence of heart disease, explaining at the same time that sudden death was not to be feared, and that with care a long life might be looked forward to.—Dr. **FOTHERGILL**, in reply, said many of these cases were fit cases for life assurance. He had been in the habit of testing the effect of exertion in evolving murmurs by getting the patient to lift a heavy weight.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting of this Society, held at University College on Feb. 2nd, the President, Sir Joseph Fayrer, in the chair, Surgeon-General C. A. **GORDON** read a paper "On Certain Considerations regarding Cholera and Fever, more especially with reference to India and China." He took as his text weekly reports of health conditions in India, as published in the papers of the day, and from those reports argued that the phenomena of fever, cholera, and small-pox thus presented could not be explained either by the theory of specific poison or by that of contagion. He supported this view by numerous statements, some of which were the result of personal observation, but the greater number were expressions by writers and authorities to whom he referred. In summarising the results at which he thus arrived the following appeared to him the most important—namely, there is reason to believe that although no actual relationship exists between cholera and small-pox, yet the same, or a similar, law applies to the manner of their prevalence as epidemics. Between cholera and malarial fevers a relationship is indicated as existing, alike in respect to causation and phenomena. Both these diseases in India present a general relation to season. Both in India and in England a relationship appears to exist between the type of prevailing fever and locality. Bowel affections generally, in India and elsewhere, present a relation to season and locality, this relation being as defined as that of vegetation to the same circumstances. In endemic fevers intestinal lesions, and those of abdominal glandular tissues, occur as complications in particular cases. Cholera in India occurs under a variety of circumstances, and in different manners, but neither furnish a specific name applied to particular cases as indicating one particular manner of causation. Fevers vary in phenomena and intensity, according to conditions, geographical, climatic, and individual. Among our soldiers in India fevers in the mass and in individual cases are less sthenic in type than they formerly were. Reasons for this circumstance are assigned. Specific poisons are of two categories, as described. Innocuous liquids can, by artificial means, become converted into poisons; hence analogy indicates the likelihood of corresponding changes being effected by means of vital action. But diseased liquids do not necessarily communicate their particular disease when inoculated or swallowed. Certain diseases named by him, which are propagated by infection or contagion, are induced by particular combinations of conditions. Fever in some of its types and forms is of this class; so is cholera. Between these diseases themselves, and with regard to several others occurring epidemically, an affinity is indicated. The expression *malaria* is but another term for climatic influences. The existence of organisms peculiar to malaria has yet to be confirmed. No specific poison is necessary to account for the phenomena of Indian fevers. The theory of specific poison does not explain those in "typhoid" or "enteric" fever. It is opposed as insufficient by a number of authorities. General insanitary conditions predispose to disease; but do they to any one specific disease more than another? It is not established that such is the case. Polluted air induces certain diseases, but not necessarily a specific form of fever. In China, air intensely polluted is compatible with health and activity. The theory of local pollution, if sufficient to account for the occurrence of some epidemics, is altogether insufficient in respect to others. Although contaminated water may induce cholera, the occurrence of that disease is not always thus accounted for. Water induces cholera after that disease has become epidemic; not before. The relation of water supply to cholera in India is not established by recent observations. Very striking instances are adduced where the use of extremely foul water has not resulted in fever, enteric or other. While instances are recorded, particularly in places where cholera is endemic or epidemic, of cases of that disease following the use of contaminated milk; instances are related of infants suckled by women ill of cholera, yet the former not becoming affected by it. Cases said to have been of typhoid fever, due to the use of diseased meat, were subsequently stated to have been cases of trichinosis and sausage poisoning. Although specific typhoid, like several other forms of fever, may be conveyed by milk, this circumstance by itself fails to explain the diffusion of that disease as an epidemic. As a rule, cholera has no relation to age. In India and the tropics generally, the young and the lately arrived suffer more from endemic diseases than the older in age and residence. Infant mortality of Europeans in India is excessive. Individual conditions and habits predispose to particular forms of disease and complications. Climate influences the geographical distribution of disease, and determines its type and incidence. Although cholera has undoubtedly been propagated by means of masses of persons and individuals in numerous instances, there are others equally numerous in which it has not been so. Fevers of particular kinds in India may be propagated by means of infection; but, of the cases investigated by Dr. Gordon, not one was thus accounted for.

In the discussion which followed, Dr. Murray, Dr. Norman Chevers, Dr. Russell, Dr. Thorne, Dr. Thin, and Dr. Collie took part.

HARVEIAN SOCIETY OF LONDON.

A Case of Temporary Hemiplegia after Localised Convulsion.—On Types of Imbecility.

A MEETING of this Society was held on Thursday, February 5th, Henry Power, Esq., F.R.C.S., President, in the chair.

Dr. HUGHLINGS JACKSON read a paper on a case of "Temporary Left Hemiplegia after an Epileptiform Seizure, beginning in the Left Foot," from which the following is an extract:—"I will put the events of the case briefly in stages—1. A man, thirty-five years of age, came into my drawing-room at ten o'clock January 16th, 1881, apparently quite well: he felt well. He had walked from near Temple-bar to my house. 2. In about two minutes he had an epileptiform seizure, the spasm beginning in his left foot; in less than a quarter of an hour the fit was over; there was no defect of consciousness in the seizure. 3. Directly after the fit the left leg was so much paralysed that he could not stand; later on (but after a slighter fit almost limited to that limb), his left arm was weak. I did not test the arm carefully until after the second attack, as I had not finished examining his leg. At any rate, by the time of ending of the second fit (about 10.30) there was hemiplegia, the epileptic hemiplegia of Todd, or, as I think it is better to say, post-epileptiform hemiplegia; the face and tongue were not affected; there was no loss of sensation. 4. He left my house at twelve; by his own account his leg was all right again at ten minutes to two o'clock; possibly it had recovered before; but then only did he try to walk, and was astonished to find that he could. It had recovered to my observation when I visited him at a quarter past four. His arm had, then, also recovered its full movements; he could use it to button, &c.; the exact time of recovery of the arm I did not ascertain. At luncheon (two o'clock) his fork dropped out of his left hand; once he put his left hand on his chop instead of on his fork. Let us say he recovered in a few hours; not wishing to be indefinite, but wishing the reader to take the time as he likes, either from the patient's statement that he recovered in about four hours, or from my observation, that there was recovery in about six: on either account the recovery was prompt. The fact of quick recovery from so much paralysis is very striking, but the case is clinically pointless without noting that the paralysis recovered from was after a convulsion, and there is little point then, unless the particular sort of convulsion be noted. It was an epileptiform convulsion, the spasm beginning locally and unilaterally, and spreading comparatively deliberately; it was a seizure of a class described by Bravais in 1824. It is one of the class depending on disease of the mid-region of the brain. It is one of the seizures whose anatomy and physiology are so much elucidated by the researches of Hitzig and Ferrier into the so-called motor region. The fit my patient had was one of the rarest; it began in the foot. I said that the patient came into my room apparently well. He was not well. He had had three such seizures before the one I witnessed—proof-positive of persisting local disease. In the third one, as in the one I witnessed, there was no loss of consciousness. I got no account of any decided paralysis after the first three seizures; but then he said he was weak, and if this weakness were local he was paralysed. Five minutes after the last of the three he could walk. He had not bitten his tongue in any one of them. The mode of onset is a matter of extreme importance, and, therefore, it may be noted that he referred the sensation at the onset of his seizure, to the outer side of the ball of the big toe. During the paralysis the knee phenomenon on the paralysed side was in great excess, and clonus was easily obtained on that side. These abnormal conditions were not found on the patient's recovery." Dr. Hughlings Jackson then stated the several hypotheses as to the process by which post-epileptiform paralysis results. He adopts the hypothesis of Todd and Alexander Robertson, that there is temporary exhaustion of nerve fibres consequent on the excessive discharge in the paroxysm.—Dr. FERRIER and Dr. BUZZARD spoke.—Dr. HUGHLINGS JACKSON, in reply, said that he attributed the paralysis but little to "running down" of tension of the cells which discharged, but rather to exhaustion of fibres affected by the discharge. There was no evidence of exhaustion, in the sense of general bodily exhaustion; before the fit the man walked well. Dr. Jackson admitted that in cases of persistent cerebral lesions there might occur occasional symptoms from mere general bodily exhaustion, and in illustration mentioned a case of organic brain disease where the patient always spoke badly when he had gone a long time without food. He alluded also to the well known case of Sir Henry Holland, who, when fatigued, lost his German but not his English, regaining his German after rest, food, and wine. But in the case related there was no general exhaustion, and there was a convulsion. The case after the fit differed from a case of ordinary hemiplegia in that, during the prior paroxysm, effects had been produced from the cortex to the muscles convulsed. Dr. Hughlings Jackson believed that some fibres in the lateral column were exhausted, and he believed that the exaggerated knee-jerk and the foot clonus were owing to loss of cerebral influence—to "loss of control."

Dr. FLETCHER BEACH then read a paper "On Types of Imbecility." The author commenced by referring to the different systems of classification of cases of imbecility which have been adopted and brought forward, one of which by experience he had found useful in describing the disease. Cases under this system are classified under the headings of congenital and acquired imbecility, including under the former those occurring at the time, under the latter those supervening after birth. The following classification was the one suggested by the author:—*Congenital Imbecility.*—1, Simple congenital; 2, Microcephalic; 3, Hydrocephalic; 4, Scalphocephalic; 5, Pearly tic; 6, Cretinism (sporadic, endemic). *Acquired Imbecility.*—1, Eclampsic; 2, Epileptic; 3, Hydrocephalic; 4, Paralytic; 5, Inflammatory (*a.* Hypertrophic); 6, Traumatic; 7, Cretinism (endemic). It was shown that under the heading "Simple Congenital Imbecility" are included cases of a very low, and others of a fairly high, type. The cause of microcephalic imbecility was discussed, and the difference between the hydrocephalic and rickety head was pointed out. The cause of scaphocephalic imbecility was said to be obscure. Pearly tic imbeciles were shown to make good progress mentally, but little physically. The characteristics of sporadic and endemic cretinism were usually the absence of a thyroid gland, and generally the presence of fatty tumours in the posterior triangles of the neck. More improvement was stated to take place in cases of acquired than in congenital imbecility, and the reason for this was explained. Eclampsic imbecility was shown to be due to convulsions coming on soon after birth, continuing some years and then ceasing, but so injuring the structure of the brain during their continuance that the patient becomes imbecile. Under the heading "Epileptic Imbecility" are included some cases where with cessation of fits the greatest improvement takes place, and others who go on from bad to worse and finally end in utter dementia. Inflammatory imbecility was said to be due to measles, typhoid fever, and other acute diseases, as a result or complication of which inflammation of the brain and membranes was produced not sufficiently grave to be fatal, but serious enough to cause mental impairment. The reason for placing hypertrophic imbecility in this class was explained, and the difference between hypertrophy of the brain and chronic hydrocephalus was pointed out. Traumatic imbecility was stated to be due to some injury of the brain, hereditary predisposition acting as a predisposing cause in these, as in other, cases where a slight exciting cause seemed scarcely sufficient to produce so grave a result. Cases illustrating the different classes were related, and the paper was accompanied by photographs of patients under the author's care.

Dr. Hughlings Jackson, Dr. Buzzard, Dr. Ferrier, Dr. Mahomed, and the President thanked Dr. Fletcher Beach for his able and interesting paper, and briefly criticised various portions of it. Dr. Beach replied.

OBSTETRICAL SOCIETY OF LONDON.

Deep Depression in the left Frontal Bone.—Modification of Hodge's Pessary.—Extra-uterine Fœtation.—Villous Degeneration of the Endometrium.

AT the annual meeting on Wednesday, Feb. 2nd, 1881, Dr. W. S. Playfair, President, in the chair,

Dr. GODSON exhibited two children, each of which showed a deep Depression in the left Frontal Bone, the result of pressure from the sacral promontory during delivery. One, four days old, was delivered by forceps, the pelvis of the mother being much deformed, and at the time of birth the indentation was so great that the bone appeared to have been fractured. The blade of the forceps encircled the left malar bone, quite clear of the depression, and had not slipped. The second child, seven weeks old, was also delivered by forceps in a rickety pelvis, the sacrum presenting a sharp angle. It appeared to him natural that the head in the first position, endeavouring to rotate into the antero-posterior diameter, should receive the pressure on the left frontal bone, when the sacrum was unduly prominent.—Dr. WILTSHIRE had seen several such cases of depression produced by the promontory of the sacrum, not by the forceps, in connexion with rickety pelvis. Generally the depression did not persist, and it could sometimes be removed by atmospheric exhaustion. He had seen convulsions produced by deep depressions.—Dr. J. WILLIAMS did not see how a depression so situated on the frontal bone could be produced by the promontory of the sacrum.—Dr. FANCOURT BARNES had lately seen a child born with just such a furrow as was seen in one of the children shown by Dr. Godson. The sacrum was projecting, but forceps had not been used.—Dr. CARTER mentioned a case in which the pelvis was contracted in the conjugate diameter; labour was protracted, but the forceps were not put on till the head was in the pelvic cavity. The left parietal bone of the child had a depression large enough to contain the bowl of a dessertspoon. It had no symptoms of pressure on the brain, and in about three weeks' time the bone had almost recovered its normal contour.—The PRESIDENT was inclined to think that the appearance of the depression in the younger child seemed to indicate that it might have been produced by the blade of the forceps, the skin being somewhat abraded.—Dr. GODSON, in reply, said that after the birth of the child he reapplied the forceps over the mark left by it. He was perfectly certain that the instrument was no factor in the causation of the depression.

Dr. GERVIS exhibited a Modification of Hodge's Pessary, in which the sacral end instead of being, as usual, rounded, presented a considerable central depression. The advantages claimed for this were that the tendency of the fundus to roll to one side of the pessary was obviated, and a much steadier pressure on the fundus was maintained. The makers were Messrs. Walters, Palace-road.—The PRESIDENT remarked that one of Thomas's retroflexion pessaries had a similar concavity at the sacral end.—Dr. BARNES said that the pessaries sold as his were not of the form in which he used them. They were made of flexible metal, and he moulded them himself. According to the conditions of each patient he thought the square shape of the lower end of Dr. Gervis's pessary objectionable.

Dr. BURTON showed a specimen of Extra-uterine Fœtation. The patient was thirty-one years old, mother of five children, the youngest of which, seven months old, she was still suckling. The menses had been on from the 17th to the 22nd of January. On the 24th, at 5 P.M., while lounging in an easy chair, she had coitus with her husband. Towards the end of the coitus she slipped forward over the edge of the chair, and immediately felt a sharp pain at the lower part of the abdomen, became faint, vomited twice, and had several actions of the bowels. When she was seen, at 10.30 P.M., she had severe pain at a defined spot two inches from the mesial line. The pulse was scarcely perceptible, extremities cold, and she was evidently sinking rapidly from internal hæmorrhage. She died nine hours after the injury. At the post-mortem examination a large clot of blood was found filling the pelvic cavity and extending some distance upwards towards the umbilicus. The right Fallopian tube about an inch from the uterus was expanded into a cyst about the size of a Barcelona nut, on the upper surface of which was a small opening. The cyst contained a fœtus of six weeks' gestation. The left ovary contained a corpus luteum a quarter of an inch in diameter. The uterus was lined with a smooth decidua. Mr. Burton, by a negative process of reasoning, was led to the diagnosis of ruptured Fallopian tube, but considered it too late when he saw the patient to attempt operative interference.—Dr. WILTSHIRE said that this case was another and an emphatic illustration of the importance of carrying out, where feasible, a practice he had already repeatedly recommended in such cases—viz., the ligature and removal of the burst Fallopian tube.

Dr. MACCALLUM narrated a case of Villous Degeneration of the Endometrium. The patient, aged fifty-one, was admitted into the Montreal General Hospital on Oct. 4th, 1879, for metrorrhagia. Her mother died from melanotic cancer of the hip. After the menopause, which occurred at the age of forty-five, she suffered from leucorrhœa for several years. Metrorrhagia came on three years ago, and had recently become profuse. The uterus was less movable than usual, the sound passed three inches, and caused moderate bleeding. There was a greyish discharge from the vagina, which became offensive in November, and continued so until her death. She suffered severe pain, not constant, but periodic. She went out on Jan. 8th, but was readmitted on May 13th, being now emaciated and cachectic in appearance. The uterus had increased in size. The cervix was dilated with a laminaria tent, and more full dilatation was effected by four tents on June 9th. The whole surface of the endometrium was found to be covered with soft projecting granulations. These were scraped away with a curette, and fuming nitric acid applied. On July 16th dilatation was repeated. After removal of a second tent, symptoms of collapse came on, and she died on July 17th. The uterus was found dilated into a cavity large enough to contain a hen's egg. On the anterior wall was an ulcerated patch as large as a crown. The rest of the uterine wall was thickened, and covered internally with villosities. A teased-out specimen of a villosity showed two elements: (1) Cells, epithelial in character, the majority of the columnar type; (2) a fibrous stroma, made up of irregular spindle-shaped cells. Considerable doubt existed as to whether the disease should be grouped with malignant affections.—Dr. GALABIN thought that, from the character of a teased-out specimen, there could hardly be a doubt that the case was one of the so-called "cylinder epithelioma." It was clear from the history that it was clinically malignant, and distinct from simple forms of villous degeneration. He had met with several cases in which cylinder epithelioma affected the whole internal surface of the body of the uterus uniformly, so that it might appear at first doubtful whether the case was one of malignant disease at all. Such cases might possibly admit of eradication by extirpation of the uterus.

The PRESIDENT then delivered the annual address, which was published in our last issue.

Dr. PRIESTLEY, in eulogistic terms, proposed a vote of thanks to the President. It was seconded by Dr. GERVIS, and carried with acclamation.

MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of this Society, held at Adam-street, Adelphi, on February 18th, Dr. Bristowe in the chair, Mr. SHIRLEY MURPHY read a paper "On the Duties of Medical Officers of Health in relation to the present epidemic of Small-pox," of which the following is an abstract:—After referring to the fact that medical officers of health are practically deprived of any but indirect influence over the one measure which, above all others, is able to prevent an extension of small-pox, Mr. Murphy stated, that if they could ensure the proper vaccination of every person in their district, small-pox would be altogether unknown to them; but when thought is directed to the number of persons who by birth are constantly added to the unvaccinated population of London, and that these, as a rule, remain unvaccinated for a period of three months, or more, it is at once seen that from this one cause alone there are some thirty thousand persons in the metropolis in the highest degree susceptible to small-pox. When to these are added the remnant who altogether escape vaccination, and the enormous number of those who are badly vaccinated, it is in a crowded city like London, with the constant opportunities afforded for the dissemination of disease by the free intercommunication of people, that small-pox so constantly prevails. This would continue until time gives the Compulsory Vaccination Acts an opportunity of exerting a large influence over the community, and until London more clearly appreciates the fact that vaccination, to be thoroughly effectual, must be properly performed. It was a matter for regret that the enormous protective power of vaccination was not more fully recognised and acted on by medical men. Seeing that vaccination is the one means above all others of preventing small-pox, it is somewhat extraordinary that the officers whose duties relate to the proper performance of this operation should be under the control of the Guardians, instead of the Sanitary Authorities of the metropolis. By the regulations of the Local Government Board the vaccination officer is to give his first attention to localities in which small-pox exists, and to ascertain what children are unprotected by vaccination. No better arrangement could exist if this officer were to make his inquiries from person to person in the infected house, and if his duties had relation not only to those unvaccinated, but also to those who are unprotected against small-pox. Unfortunately, experience shows that this is not likely to be done with that efficiency which is required to prevent this disease from recurring in the household. There is no supervision of the performance of his duties in this respect; he is responsible to his Vaccination Committee alone, and the small fee which encourages him to secure the vaccination of unvaccinated persons is not granted for the same duties in regard to those who need revaccination. Again, although the public vaccinator may attend at houses in which small-pox exists with a view to vaccinating the inmates, he receives payment only for those who have never been vaccinated, and for the revaccination of those who are over twelve years of age, leaving a proportion of children who may not be sufficiently protected against small-pox. The district poor-law medical officer may also vaccinate in these houses, but he is as much limited as the public vaccinator, and is at the disadvantage of not having the same means of keeping up a supply of lymph. To prevent the recurrence of small-pox in houses in which a case has already existed, there should either be no thought of payment by the case; or, if this plan must be maintained, the public vaccinator should be entitled to charge for the revaccination of every person in the house who is not protected against small-pox, whatever his age may be. Good as are the arrangements of the Public Vaccination Department for securing the vaccination of infants as they are born, they cannot be altogether depended upon for preventing the extension of small-pox. The aim of the Vaccination and of the Sanitary Departments is different. It is the duty of the former to vaccinate persons of certain ages—of the latter to prevent small-pox; and for this purpose health officers ought to have at their command the means of immediately vaccinating those who are unprotected. No arrangement which does not permit this operation being performed without loss of time can be regarded as satisfactory, seeing the very great importance which attaches to the vaccination of those exposed to infection within the first few hours after their exposure. One of the evil results of the dissociation of public vaccination from the sanitary authority is that the officers of the latter have thought rather of hospital accommodation and disinfection as the chief weapons for fighting small-pox. The removal of the sick to hospital is not an unmixed good. It is undoubtedly optional to every person to escape from small-pox if he choose, and the time cannot be far distant when the vaccinated will raise objections to paying large sums for the maintenance of hospitals to prevent unvaccinated persons from contracting a disease against which they can so easily protect themselves. Moreover, the effect of providing hospital accommodation is to encourage people not to resort to vaccination, but to trust to other means for safety. However, the question with medical officers of health is immediately less how to teach future generations than to save those amongst whom they live; and knowing that a large proportion of the population at the present time is susceptible to small-pox it is their duty to isolate the sick, while at the same time they use their best endeavours to educate the public in the knowledge that the expense to which they are put is but the price of ignorance. Without entering into the question how far a small-pox hospital is a source of danger to a district in which it is placed, it may be stated that it ought to be able to exist without being such a danger. As the Metropolitan Asylums Board cannot receive small-pox cases to the same extent as they have in previous epidemics are health officers to advise their sanitary authorities to provide the necessary accommodation? If the disease were either typhus or scarlet fever there would be no hesitation upon this point; with regard to small-pox, of course, the facts are very different. But, recollecting that so many persons are still susceptible to small-pox, it is the duty of the health officer to recommend the provision of hospital accommodation until the community at large has decided how far unvaccinated persons are to be treated with special consideration. At the present moment health officers can do much by obtaining the daily visit of the public vaccinator at the vaccination station at a time when all can attend; and if the guardians are unwilling to increase the number of vaccination officers to the extent required, do far better by obtaining from their sanitary authority leave to engage the services of a number of medical students for the purpose of a room-to-room inspection of the infected area. Upon the medical officer of health devolves the whole responsibility of organising the various steps which should be taken to combat this disease. He should visit the houses of the sick, and aid in inspecting the vaccination of the household, while the inspection of the vaccination of school children will also be one of his duties. He should also make it his business to investigate the circumstances under which each person has contracted his disease. Lastly, Mr. Murphy reiterated the statement that medical officers of health should have more directly under their control the power of obtaining the immediate vaccination of persons resident in the house with small-pox patients, and that in future the health officer should trust rather to this course than to the methods upon which he is wont to rely in dealing with other infectious diseases.

In the discussion which followed the President, Dr. Buchanan, Dr. Tripe, Dr. Dudfield, Dr. Corner, and Dr. Gwynn took part.

Reviews and Notices of Books.

Relapse of Typhoid Fever, especially with reference to the Temperature. By J. PEARSON IRVINE, M.D., F.R.C.P. London: J. & A. Churchill. 1880.

IT is with a deep feeling of sadness that we have perused the pages of this book, for they reflect strikingly that steady purpose and unflagging energy combined with a rare talent for critical analysis, which would have made for its author a deserved reputation had his life been spared. No one who takes up the work and carefully follows its argument can fail to admire the extreme care and painstaking which must have been bestowed upon it. It deals with but a small corner of medicine, it is true, yet the author has submitted the nook to most penetrating scrutiny, and cleared it of much that made it dark and obscure. The profession will be the richer for this book, and will the more regret that the bright intellect which produced it will no longer aid them in the search after truth.

The task attempted by Dr. Irvine might at first sight seem to be almost a hopeless one. It was to analyse the pyrexia of the relapses of typhoid fever so minutely as to endeavour to extract some definite laws regarding their onset and duration. Could it be possible that so uncertain and variable a condition as a relapse really followed as definite a course as the primary attack? To this question Dr. Irvine, backed by a number of careful observations, felt himself enabled to give an affirmative answer. He has been able to show that many cases of the disease, when they first come under notice of the medical man, are really relapses following upon a mild and unheeded primary attack; that other cases in which the duration of the fever far exceeds the usual limits without an intermission are cases in which a relapse has, so to speak, occurred intercurrently, while the primary fever was still in force. Again, he shows that relapses are more frequent than is commonly supposed, and that they are often confounded with accidental complications; and the importance of this cannot be gainsaid. In ordinary cases he has found that there is an interval averaging five days between the primary attack and the relapse, an interval during which the temperature is normal or subnormal. This apyrexial interval may, as we have just said, be wanting; it may last only twenty-four hours, or it may be prolonged to ten days; but if a longer interval than this should occur, it is likely that a mild relapse has taken place unobserved, and has been succeeded by a more severe one. The occurrence of one relapse appears indeed to predispose to a second. The average duration of a first relapse is from twenty to twenty-one days, apart from complications, and when two or more relapses occur the later are shorter than the preceding ones, just as the primary attack with a duration of twenty-eight days exceeds the primary relapse. The subject, however, is one of much difficulty, owing to the varying elements introduced by complications and "intercurrent relapses," and the confusion of true relapse with sequelæ. Perhaps the point which stands out most clearly in the research is the determination of the temperature curve of the relapse. The numerous charts, which go so far to enable the reader to follow the author's statements, bring this out in a striking manner. The onset of the relapse is sudden, the temperature reaching its height by the fifth day, and maintaining a high level till the eighth or ninth day, when it falls decidedly, rising, however, afterwards, to decline gradually to the twentieth or twenty-first day, when the relapse comes to an end, having passed through three distinct and well-marked stages. To most of us this must come like a revelation, and it will be well if the statement made on such good grounds should lead to a careful scrutiny of the temperature curves of typhoid fever. Firmly impressed with the truth of this, the author has frequently been able to determine, from a study of the thermometric curve, the existence of a relapse where it was unexpected; and in cases of "ambulating" typhoid, where the relapse is the condition calling for treatment, the knowledge of the course and duration of the pyrexia is of inestimable value.

The foregoing is only a small part of the conclusions arrived at by the author. Some of his statements require to be carefully studied before their full import can be grasped; but his main conclusions are so rational that we have no doubt they will be fully verified by others. Of late the temperature in typhoid fever has been less studied than it should have been. The exceptions to "Wunderlich's law" seemed to be too numerous to justify the conclusions drawn from it by that acute observer. Now, however, we have some explanation of such exceptions, and we have almost formulated for us a "law of relapse." The modern treatment of typhoid does not lend itself very favourably to such studies; for undoubtedly, if it do not prevent relapse, the practice of cold bathing interferes with the natural thermometric curve. But, of course, this fact does not detract from the great merit of this book, one of the most careful and original contributions to the clinical study of disease that has appeared for a long time.

Pseudo-Hypertrophic Muscular Paralysis. By W. R. GOWERS, M.D., F.R.C.P., Assistant-Professor of Clinical Medicine in University College, &c. London: J. and A. Churchill. 1879.

THIS valuable monograph is a reprint, with additions, of an interesting lecture which appeared in our columns in July, 1879, and contains analyses of 44 original cases, which, with others referred to by various authors, make a total of 220. A description of many of the cases is followed by a succinct account of the etiology, symptoms, prognosis, pathology, and treatment of this peculiar disease, so that in this small work of sixty pages we have by far the most complete account of this interesting malady which has appeared in any language, and all clinical physicians must be greatly indebted to Dr. Gowers for such an excellent synopsis of the main features of an affection which, although comparatively rare, is so very striking that it immediately attracts attention. Among the chief points on which Dr. Gowers lays stress are that it is almost always a disease of early life, that it affects boys much more frequently than girls, and that it is usually inherited through the mother. The prognosis is very grave, inasmuch as most of the sufferers die from broncho-pneumonia, and as treatment—cod-liver oil and mechanical exercise being the most important—has but little effect on the progressive nature of the malady. The symptoms are clearly described and explained, and the simultaneous increase of many muscles, especially those of the calf, with decrease in others, such as the sterno-costal portions of the pectorals and the serrati, is shown by numerous drawings. The curvature of the spine in advanced examples is also strikingly illustrated. With regard to the pathology of the disease, the author, after discussing the theories which ascribe it to a primary affection of the spinal cord, the sympathetic, or the "trophic nerves," is of opinion that it is a primary disease of the striated muscular tissue due to a congenital nutritive and formative weakness, and is in this opinion supported by Friedrich. This view is well argued, but we cannot say that we are quite convinced that this is a complete explanation of the strange development of fat and fibrous tissue in the affected muscles. Detailed accounts of future cases will, we think, show that there is something behind the mere muscular changes. A complete bibliographical reference to the cases on record completes a most valuable work.

STEEVENS'S HOSPITAL, DUBLIN.

IN 1878 a coroner's inquest was held at this hospital on a man named Anderson, a member of the constabulary, who had been an inmate, in consequence of serious charges made against the management of the institution. As a result of the evidence given at the inquest, a correspondence took place between Colonel Hillier, the Inspector-General of Constabulary, and the governors, relative to the treatment of constabulary patients in the hospital, and which has now been issued as a Parliamentary paper, on the motion of Mr. Callan, M.P. for the county Louth, that the correspondence in question should be published. Colonel Hillier, in a letter dated September, 1878, drew attention to the system at that time in force which permitted constabulary patients, who were charged 1*s.* 4*d.* daily for their maintenance in hospital, to purchase from an *employé* of the hospital articles of food in addition to the dietary ordered by the medical officers. Further, that the patients in the constabulary ward were left during the night without any nurse being in attendance. He recommended that for the future no post-mortem examinations should be undertaken, except where permission had been obtained from the nearest relative of the deceased. The governors in their reply (October, 1878) acknowledge that the ward attendant had been in the habit of selling food as alleged; that there were nurses hired to go through the wards at night and attend on such patients as required their assistance; and they promised to comply with the recommendation of the inspector-general as regarded post-mortem examinations. As two years elapsed from the date of the inquest to the time the member for Louth obtained the order for the publication of the correspondence above referred to, it is probable that he intends again to draw attention to the management of Steevens's Hospital.

THE Board of Medical Studies of Cambridge University recommend that Mr. W. Hillhouse, B.A., of Trinity, be approved as a University teacher of botany, and Mr. James A. Lister, B.A., of St. John's, be approved as a University teacher of comparative anatomy.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 26, 1881.

IF the Government decide to refer the questions constituting medical reform to a Royal Commission we may reasonably expect them to be dealt with much more thoroughly than they could be if disposed of now. It has always been our contention that time and discussion were not thrown away upon this subject. Accordingly, in 1871, when a Bill dealing mainly with the consolidation of the nineteen examining bodies, ten at least of which were superfluous, was pressed upon the House as a practical settlement of all the evils of our present system, we felt it our duty to maintain that it was better to postpone the whole question than to settle it so. Everything has moved since then but the mind of the corporations, and of the Medical Council, and it has moved too—only backwards. It is now universally admitted (outside of these charmed circles) that the whole examining system is a survival of the unfit and indefensible, not to say the unjust and the absurd.

If Lord SPENCER has come to the conclusion that a Royal Commission is needed to dispose of this subject, we may fairly conclude that he means to deal with it in a way less piecemeal and patchy than has been the case in former attempts at legislation. When the Bill of 1858 passed it gave Imperial importance to institutions that previously had a very limited jurisdiction. The holder of a half diploma of the humblest corporation in any division of the kingdom, before 1858, was empowered only to practise under the more immediate eye of his "Body." Since 1858 each "Body" has given a claim to registration and a licence to practise in all parts of Her Majesty's dominions. All territorial restrictions were broken down, and properly so, by the Act of 1858, and men holding the licences have crossed borders and channels, and gone to the colonies and dependencies, with a claim to be recognised and registered everywhere. Unfortunately with the widened virtue of the licences of the corporations, there has been no corresponding enlargement of their sense of responsibility. Like all corporations, they have aimed at making money and retaining privilege, and the chief conception of reform in their view has been to reconcile the fact of the cessation of their individual importance with the perpetuity and aggrandisement of their individual interests. When it became apparent that there were far too many medical corporations, and that it was a public evil and scandal that examining bodies should have a pecuniary interest in parting with their half diplomas, the remedy which presented itself to us, and to all simple-minded reformers, was to allow the superfluous corporations to die a natural death by withdrawing from them all diploma-granting duties, and further representation at the board of the Medical Council. Very different was the conception of the bodies themselves. They saw they were *de trop;* that individual existence could only be continued by competition, by easy conditions of examination, and they acted accordingly. When the scandal was exposed, as in 1871 and in 1878, they were compelled to give up individual action, and they did it in 1871 with reluctance, and in 1878 with resistance. But—and here is the discreditable feature of *nearly* all the Medical Bills for the cure of numerous and competing boards—under what conditions did they consent or were they compelled to give up individual examinations? Under the conditions that they should all be maintained superfluously in perpetuity. The principle of the Medical Bills of the last two Governments for dealing with the nineteen corporations was to keep on nineteen corporations, and to mulct successive future generations to keep going institutions which ought to be allowed to rest and be thankful. Such a proposal as this can surely not live before a Royal Commission. It could emanate only from a Medical Council that saw it was composed of corporations like unto glass-houses, and only to be saved by holding all together. We shall expect a Royal Commission to see that we want three medical examining boards, to give us three medical examining boards, and not to give us nineteen in another form and with all the present cost and the existing complication of interests.

Similarly with the question of the Medical Council. A Royal Commission could scarcely be content on this subject with the evidence of the Medical Council itself, composed predominantly of gentlemen admirable and eminent in their individual capacity, yet sent to the Council to represent corporations and interests. As we have already said, we think the case against the Council already made out. It is, indeed, made out by simply stating its composition, which includes strongly the bodies which everybody sees, though possibly adapted to the sixteenth, seventeenth, and eighteenth centuries, to be an anachronism now, and which reflect very feebly the working and, after all, the principal part of the medical profession. For it must never be forgotten that the end of Acts of Parliament in medical matters is to provide, not Court physicians and shrewd councillors for Royal Medical Corporations, but educated men for the hard and responsible duties of general practice.

Such, then, in our view, is the shape which the question of a Royal Commission should take, and which we may confidently believe it will take in the view of the Government. A Commisson is not needed for the small reforms which have been embodied in past Government Bills, for getting rid of one superfluous corporation in each division of the kingdom, nor for a proper representation of the general practitioners of the country on the Medical Council. But for a complete view of the question how to put the examining authorities and the controlling authority in medical education into a satisfactory state, just to medical students and to medical practitioners, and beneficial to the public and the State, it is not too large a proposal, and, if wisely and fairly composed, may end in a most salutary reform.

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WITHOUT the least wish in the world to quarrel with our friends the druggists, we cannot acquit them of inflicting grievous wrong on the medical profession and the public by what is known as "counter-practice." We make no apology for placing our own grievance foremost, not because it is the greatest, but because it is the key to the whole mystery of mischief which is unquestionably wrought by the practice we condemn. Not content with being a preparer and dispenser of medicines, the druggist must needs prescribe. The explanation of, or excuse for, this enlargement of his functions resolves itself into a contention that in the course of his business the dispenser necessarily picks up a considerable acquaintance with the properties of the drugs he compounds, and that it is, therefore, only natural and commercially inevitable that he should recommend the medicinal substances which form his stock-in-trade according to their value as remedies. We are fully prepared to concede this position, but it affords no ground or cover for "counter-practice." If druggists simply supplied "an aperient" or "a saline" when asked for these medicaments, we could have no reasonable cause of complaint. This, however, is not what takes place. A mother brings her child, or an adult applies personally, not for any particular class of remedy, but describing certain symptoms, and asking for something suitable to the relief of those symptoms! This is a widely and essentially different matter from the supposititious "case" which the druggists set up in their own defence. It is not to the dispenser's knowledge of drugs and their properties the public appeal, but to an assumed power on his part to recognise the nature and significance of certain symptoms, and to select and apply an appropriate remedy. We cannot hesitate to characterise the druggist who responds to this sort of appeal as a *quack* not one whit less offensive to the public interests than the unqualified practitioner who holds himself out as a "Doctor."

Counter-practice of the most objectionable kind is scarcely less common in the shops of fashionable chemists and druggists than in those lower-class establishments which do the largest share of the prescribing for the "lesser" ailments of the community. Anyone, lay person or working practitioner, who will take pains to observe what is going on in the shops he visits may satisfy himself that this is the fact. Mixtures, pills, plasters, lotions, and medicines of all sorts, for internal and external use, are freely prescribed by druggists for the affections of children, for the coughs, "indigestions," "bilious attacks," "sore-throats," and what not, of adults, and if the patient is not injured the legitimate fees of the practitioner are intercepted. We do not say the druggists take the fees, but they prevent medical men from getting them. This may not seem a very important matter, but in the aggregate it is; and look at counter-practice as we may, it is a system of irregular privateering, to which the members of a skilled calling like that of pharmacy should decline to stoop.

One form of counter-practice to which we have an especial objection is really too bad to characterise. We refer to the practice of repeating physicians' prescriptions, or even altering them so as to make them answer for ailments other than those for which they were prescribed. The system of "copying" and entering prescriptions has little purpose except for this subsequent use. While there is any chance of a patient requiring to have a particular prescription again dispensed, he may be confidently trusted to preserve it. When that time has passed the sooner the paper is destroyed the better. If on any future occasion the physician should desire to employ the same combination he is pretty sure to find a memorandum of it in his own book. If he does not find it there nothing is more unlikely than that he will send to the druggist for a copy! In short, the dispenser of a prescription copies it simply to obtain a hold on the patient as a customer, and with a view to reference and repetition at some future time. Such objects are totally opposed to the professional interests of the legitimate practitioner, and it is passing strange that respectable druggists do not see the wrong their system perpetually inflicts. A prescription is not a thing for all time, or for any other time than that for which it is given. To perpetuate it is to incur a risk of injuring the patient, and in any case to wrong the practitioner.

Druggists have no knowledge of anatomy, physiology, medicine, surgery, the signs of health, or the symptoms of diseases. It is therefore preposterous that they should be themselves willing or trusted by the public to prescribe. We do not hesitate to affirm that a notable proportion of the worst cases the physician is required to treat are those in which precious time has been wasted, and positive harm done, by the preliminary endeavours of the "family chemist and druggist" to enable the sick person, or parents, or friends, to do without the "doctor." This, as we have said, is not an evil confined to the poorer neighbourhoods, but common to all. In the better-class localities, it is of course done less openly than in the poorer districts, but it is done everywhere. Setting aside *professional* interests, the consequences are sufficiently serious to the public to render an energetic protest indispensable. Cases of grave enteric disturbance are treated as diarrhœa with "carminative" or "cholera" mixture; cases of laryngitis are dosed with jujubes and gargles, supplemented by poultices and liniments. Commencing fever is plied with "something to throw the patient into a perspiration," and "act gently on the bowels." The pains of acute rheumatism are to be "cured" by embrocations; while rose- and elder-flower-water and sulphate of zinc, nitrate of silver, or even acetate of lead, in solution, are recommended as "eye drops" at the outset of destructive diseases of that most delicate organ. In short, every form of ill that flesh is heir to, if only it assails the patient slowly, is pretty sure to be "treated" by the druggist before competent advice is sought. The public suffer, and the medical profession suffer too, not simply in pocket but in repute, for it is incomparably more difficult to grapple with a disease after it has been subjected to a few days or even hours of ignorant dosing, than to deal with it at once, when the diagnosis is easy, and the indications for a scientific course of treatment are plain.

No measure of medical reform will be satisfactory which does not provide for the suppression of "counter-practice" by druggists. The seller of "patent medicine" is a distributor of sealed packages, which the public may misuse; but the prescribing chemist is a pretender who trades on the inability of the uninitiated to distinguish between a knowledge of drugs and a knowledge of disease. We appeal to the Pharmaceutical Society to deal with this question before it comes under the consideration of the Legislature. It would be a graceful and judicious act on the part of the examining and licensing corporation, which has done much to raise the standard of education among druggists, to take this matter seriously in hand. We repeat that we have no wish to quarrel with the fraternity of dispensers. They form a class of skilled tradesmen with whom the relations of the medical profession must always be close, and as practitioners are able to trust the druggists and give up dispensing for their patients, must needs be closer. At the same time, it cannot be permitted that a Medical Bill should pass through Parliament without some attempt being made to guard professional interests in this matter, and to protect the public. We should be glad if the first move could be made by the Pharmaceutical Society, and with this intent we state the facts candidly, and point plainly to the evils we desire to see remedied. A request so reasonable and urgent must certainly be held to call for compliance.

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FROM both a clinical and pathological point of view there is special interest attaching to the small tumours developed in the skin and called Molluscum Contagiosum. Its contagious nature, often denied, has again been apparently incontestably proved by certain well-attested facts; but the demonstration of any element in the peculiar structure of the growths to which its contagious properties could be ascribed has been wanting, and observers have therefore been divided into those who preferred to trust to clinical evidence on the one hand, and those who set most value by the minute anatomy of the growths on the other. Until comparatively recently molluscum contagiosum has been looked upon as a disease starting in and peculiar to sebaceous glands, and certain naked-eye characters lent weight to such a view. But, among others, VIRCHOW in Germany and SANGSTER in England have shown that this is not the case, but that the tumours are developed from epidermic cells principally of the root sheath, and not from glands at all. A short time ago, at the Pathological Society of London, Drs. CROCKER and THIN showed several microscopical preparations exhibiting various steps of the growth. As traced by them—and they agree in all essential facts with the earlier description of SANGSTER,—the little tumours most often start in a special development of the epidermic cells of the inner root sheath of the hair follicles, the hair falls out, and the connected sebaceous glands waste. In the altered and proliferated epidermic cells the molluscous bodies are formed from a gradual coalescence of certain dark granules which appear in the protoplasm of the cells along with clear spaces or vacuoles. These molluscous bodies form a firm plug in the centre, which may perchance fall out, leaving a central duct-like cavity. The tumours commonly seen are developed by the formation and coalescence of several separate nodules, and bud-like sproutings of the growth can be traced. Around the epidermic elements there is evidence of irritation in a small cell infiltration of the connective tissue. In all this there is a good deal to suggest the influence of some foreign substance infecting the skin at different spots, and inoculating neighbouring parts of the epidermis from the original growths, especially as it has been shown that the growths, and particularly those coalescing with the primary ones to form the naked-eye tumours, often start in the upper layers of the rete Malpighii, and that they are not limited to the epidermic cells of one special part. But although the suggestion of an infecting something is obvious enough, neither Dr. CROCKER nor Dr. THIN spoke to having seen it. An Italian observer, Dr. A. ANGELUCCI, states that by staining his preparations in methyl-violet and gentian-blue he has been able to demonstrate a micro-organism which he believes to be the specific cause of the disease, and infective in its nature. Immediately around the molluscous bodies in the centre of the growths he finds small heaps of darkly refractive granules in the protoplasm of the epidermic cells. In support of the view that these granules are really micrococci or spores, he alleges that they stain deeply with methyl-violet, gentian-blue, or hæmatoxylin; that they resist the action of caustic potash, ammonia, and acetic acid; and that they can be seen actively moving in fresh specimens prepared by teasing. If these observations, which are recorded in the *Centralb. f. d. Medicin. Wiss.*, are corroborated, there can be little hesitation in attributing to these micrococci a causative influence. Dr. ANGELUCCI explains the histological appearances by assuming that the organisms induce first a proliferation of epidermic cells, and then subsequently a special degeneration or mummification of these cells, and, as this mummification may overtake the proliferation of the cells, spontaneous cure may take place. The micrococci are found only in the layers of epidermic cells surrounding the molluscous bodies, and not in the outer layers; these possibly may act as a barrier against the spread of the organisms into the connective tissue, or which they may avoid from its not being a suitable nidus for their development. They thus occur just where Dr. THIN describes the occurrence of the fine granules and vacuoles preliminary to the formation of molluscous bodies, and there can be no reasonable doubt that Dr. THIN'S granules and Dr. ANGELUCCI'S micrococci are one and the same. If these statements prove to be correct, they will support the view of those who hold that well-observed clinical facts are more trustworthy than anatomical investigations; they will bring our knowledge of the pathology of molluscum contagiosum into harmony with our clinical experience of it; and, each deriving support from the other, there is the great probability that many of the disputed points about this strange affection will be permanently cleared up.

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A DEPUTATION of inhabitants of Fulham, Chelsea, and Kensington, accompanied by Mr. FIRTH, M.P., was received by the Metropolitan Asylums Board at their meeting on the 19th inst., and had the opportunity of setting forth certain grievances as to the Fulham Small-pox Hospital. The reception the statements of the deputation met with from the Board was characteristic of the attitude that body has taken up from the beginning in regard to the asserted harmfulness of these hospitals to residents in the immediate vicinity—that is to say, an attitude of determined know-nothingism, and a demonstrative exhibition of injured innocence, that, because they had done their work well in one direction, they were not credited with having done it well in all directions. The Chairman actually deprecated the statements of the deputation as premature regarding the influence of the hospital in promoting small-pox in its neighbourhood. An inquiry, he observed, was now being made into this allegation by the Local Government Board, and the least to be expected was that the residents in Fulham, Chelsea, and Kensington should suspend their judgment until the inquiry was completed and its results reported. Dr. BREWER had evidently lost sight for the moment of the good old adage, "What is sauce for the goose is sauce also for the gander." For, clearly, if it were desirable that judgment should be suspended on the fact of the small-pox hospital tending to increase in some way or other the prevalence of small-pox in its neighbourhood, it was much more desirable that the Metropolitan Asylums Board—nay, morally incumbent upon them—not to add to the accommodation for patients in the hospital until the official inquiry had been brought to an end. Nevertheless, the Board persists in its intention to increase the number of beds for small-pox cases at Fulham, although the Local Government Board deems the report of extension of the disease from or in connexion with the hospital so serious as to call for special investigation. And notwithstanding the gravity of this report, the Local Government Board has actually assented to the increase of beds proposed by the Metropolitan Asylums Board! But a member of that Board, following the chairman, declined to concede to the deputation even a probability in their statements. He took issue at once with them, characterised the movement represented by them as got up for the purpose of hampering the Asylums Board in performing its difficult public duty, and did not hesitate to aver that neither at Fulham nor at Homerton was there the slightest foundation in fact (nor had there been at Hampstead, Stockwell, or Deptford) for the assertion that the small-pox hospital had been a source of small-pox among the houses in its vicinity. The audacity of this statement would have been sublime if it had not simply been an example of the parochialism of the Board—of the oracularity of the parish beadle; for it must be observed that the Board generally were disposed to concur with this speaker, and the denial merely meant that it "is none of our business to know what happens in the next parish, so we shut our eyes to what occurs beyond the hospital walls." The contradiction of the deputation by this speaker may be measured in some degree by the events which have recently taken place at Homerton, and which cannot have been unknown to the Asylums Board.

Not long ago we had occasion to take exception to certain general statements made by Dr. TRIPE as to the occurrence of small-pox in the vicinity of the Homerton Small-pox Hospital. The data on which these statements were based were withheld at the time, but they have now been submitted to the Hackney Vestry, and will presently be published in detail. So far as we have had the opportunity of considering them, they appear fully to support Dr. TRIPE'S statement as to a greater prevalence of small-pox in the vicinity of the hospital. Dr. BRIDGES, however, has been holding inquiry as to this matter for the Local Government Board, and we shall content ourselves with this general statement of our conclusion as to the fact of greater prevalence until we are able to compare Dr. TRIPE'S data with those collected by Dr. BRIDGES. But Dr. TRIPE has not contented himself with attempting to prove this greater prevalence, but endeavours to show how it happens that the prevalence in the vicinity of the hospital has come about. His views have been accepted by the Hackney Sanitary Committee, and, as made known in the *Hackney Gazette*, certainly constitute one of the most formidable denouncements of a public body, or, rather, of two public bodies — the Metropolitan Asylums Board and the Local Government Board—for ignorant and careless performance of a serious public duty that we remember. The statements of Dr. TRIPE and the Hackney Sanitary Committee go to show that the approaches to the small-pox hospital are such, the arrangements for the reception of patients at the gates, the mode of intercourse of the hospital tradesmen with the hospital, and the position of certain parts of the hospital to neighbouring houses, *that extension of small-pox contagion from the hospital itself, or from patients in transit thereto, to people living in the vicinity of the hospital, is a necessity.*

This is pretty much the case of the inhabitants of Fulham and the other districts neighbouring to the hospital there. Similar negligences, it is well known, have been averred of the Hampstead, Deptford, and Stockwell hospitals. In fact, it is now, we fear, becoming apparent that while the Metropolitan Asylums Board hospitals have been advantageous as means of isolation of small-pox to the metropolis at large, they have been distinctly and, we may add, needlessly mischievous to the localities in which they have been placed, and this, probably, owing to an unjustifiable negligence in management, the responsibility for which must be divided between the Asylums Board and the Local Government Board.

The sort of talk which took place among members of the Asylums Board on the 19th inst., when the Fulham deputation was received, explains much as to the failure of that body in one of its most important duties as regards its small-pox hospitals; the failure of the Local Government Board is equally due to its persistent dealing with the public health administration of the metropolis in respect to hospitals as if it were a matter of poor-law administration only. It might be anticipated that accuracy of statement could at least be looked for from both Boards, or at least not misleading statements. But it would now appear we are not to have even this small offset against their blundering. A member of the Asylums Board, speaking for his body, we must assume, informs the public that the Board is "simply" making increased provision for the accommodation of nurses at Fulham; and the President of the Local Government Board adopts pretty much the same tone in respect to the same subject, in his reply declining to receive a deputation from Fulham. The ordinary reader would interpret both statements as signifying that the number of beds for the reception of small-pox patients in that hospital was not to be increased; whereas the new accommodation to be provided for nurses is to be made in order to set free portions of the building—containing some sixty beds, we believe—now occupied by the nurses for small-pox cases!

THE Bishop of Manchester, whose utterances are listened to with respect by the vast majority of his countrymen, pleaded the cause of hospitals last Sunday in a sermon at St. Ann's Church, Manchester, Dr. Fraser said:—"Like all human institutions, hospitals had their advantages and disadvantages; but he ventured to think they had as few disadvantages as any human institution could have. He knew something of the working of the hospitals in that locality, and it seemed to him they were administered with economy and prudence, and yet with a liberal generosity which enabled them to meet all the necessities of the large and closely packed population of Manchester and Salford. Given these things, he knew of no institutions which appealed more directly to the finest feelings which God had implanted in the breast of man. In that triple galaxy of graces—faith, hope, and charity—faith was the root and fair charity the flower."

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF CAMBRIDGE AND THE GENERAL MEDICAL COUNCIL.

A SHARP rebuke from a very unlikely quarter has come to the General Medical Council. Our readers will remember that the General Medical Council last year "recommended" important changes in the preliminary examination of students, though only the year before, and indeed in almost every other year before of its history, it had touched this subject. The Board of Medical Studies of the University of Cambridge, having the latest "Recommendations" of the General Medical Council under consideration, and having Professor Paget, an ex-president of the General Medical Council, in the chair, has somewhat sharply retorted on the Medical Council. The report agreed on by the Medical Board complains that if these "Recommendations" are to have force—which by the way they have not—none of the examinations in Cambridge, nor any one of the several examinations conducted elsewhere by the University (such as the Local Examinations, the Higher Local Examinations, and the Oxford and Cambridge Schools Board Examinations), will fulfil the conditions of the Council. The report complains very naturally that while the Council is always arguing in favour of leaving preliminary examinations to the Universities and other "National Educational Bodies," it is passing "Recommendations" that invalidate the examinations of the Universities. This is very severe criticism from a University Board presided over by an ex-president of the Medical Council—a Council at which Oxford is doubly, and Cambridge well, represented. Professor Paget must have a little pity on the Council. It is paralysed and discredited, in present circumstances, as a Council of Medical Education, and only falls back on the subject of Preliminary Education as an easy and pleasant way of occupying July days. It knows, too, that the Universities will take care of themselves, and not rashly adopt "Recommendations" that cost so much money and so much of the Council's time.

TUBERCULAR DISEASE IN JOINTS.

THE repetitions of history are often witnessed in scientific investigations and beliefs, and the contention that Mr. Croft sought to maintain at the last meeting of the Pathological Society is by no means a new one, although he exhibited what he considers to be new and important evidence in its support. Many years ago it was supposed that the part that tubercle played in chronic articular diseases was very important, as may be seen by referring to an early edition of Dr. Wilks' Pathology. More recently other and contradictory views have been in the ascendant, and Mr. Croft asks that surgeons and pathologists should revert to the opinions held a generation back. In this course he is supported by several German authorities and by Billroth, who until quite recently denied that chronic diseases of joints are essentially tubercular in origin or nature. These alternations in the opinion of authorities within a few years only, and the marked discrepancy now existing between the views of the most prominent English and German surgeons, suggest that the question must be largely a matter of words and not of facts. The disease itself cannot have changed, nor can it be so very different in the several European countries as to lead us to suppose that such discrepancies of opinion are to be explained by differences in the cases examined. The question has to be studied from both a clinical and pathological point of view. As regards the former, it is noteworthy that Mr. Croft brought forward no new facts to support his contention, nor did he advance any arguments with which surgeons were not familiar when they abandoned the view he now seeks to re-establish. And it is also a striking fact that while he spoke of these "tubercular" cases as being characterised by a very tedious course, Mr. Macnamara, who alone of all the subsequent speakers supported him, said that in his experience they were to be recognised by continued high temperature—an opposite condition. It must be admitted, then, that clinically these cases are not to be clearly recognised. And when we find that the cases reported to the Society were all that have been examined in this investigation, we are still further led to the conclusion that if Mr. Croft proves his point, he will not have established a special class of tubercular disease of joints, but have shown that chronic arthritic disease is generally, or perhaps always, tubercular. From a pathological point of view the question presents considerable interest, and there are several views which may be taken as explaining the facts. If the arbitrary definition of tubercle given by Mr. Croft—and we presume sanctioned by Dr. Greenfield—be accepted as clearly distinguishing a special and specific structure to which we are to give the name of tubercle, the specimens exhibited decide at least the one point that such growths are found in chronically diseased joints. The first great histological question is whether this particular arrangement of tissues be specific or only one form of lowly and slowly organised inflammatory material. This question can be answered by facts in relation to other organs and tissues, and while there is such a wide divergence of opinion as to the true meaning of the histological changes in pulmonary phthisis, where this problem has been so often and so long worked at, it will be vain to expect a ready acceptance of Mr. Croft's views on the corresponding processes in joints. It is difficult to realise a true primary growth of tubercles in the structures of one joint alone, but obviously there is little value in mere *à priori* arguments. The subject is one of great practical importance, and while we cannot now speak in more detail on it, we must draw attention to the fact, that if certain chronically diseased joints are in their essence tubercular, and if that tubercle be incapable of organisation, it is evident that removal of such joints at the earliest date that a diagnosis can be made is the proper course of treatment. In such cases delay holds out no hope, but exposes the patient to systemic tubercular infection. Does the records of clinical surgery sanction this?

INSURANCE IN FRIENDLY SOCIETIES.

THE last Report of the Registrar of Friendly Societies, which has recently been published, relates to the year 1879, and contains but meagre reference to that important feature of Friendly Societies, their insurance operations. One of the obligations conferred on societies by the Act of 1875 is that which insists upon the production of a registrar's certificate previous to payment of money on the death of a member. It would at first sight appear that this provision of the Act would have been welcomed by the Societies as affording them protection from fraud. This, however, appears not to have been the case, as the Societies do not all view in a favourable light the restriction which is thus placed upon the over-insurance of infants. Very little reference is made in the report for 1879 to the subject of infant insurance, and this is of an unsatisfactory nature. It is reported that the Chief Registrar has learned through a registrar of births and deaths in Lancashire, that the provisions of the Act bearing upon the insurance of children are "still systematically evaded by certain societies, which profess to pay, as gratuitous, sums in excess of the legal limits." It is stated that the Chief Registrar awaits more precise details before taking further steps in the matter. Prosecution for infringement of the clauses governing infant mortality should be encouraged as far as possible, and penalties should be strictly enforced, as the evasion of the clause in question is a direct incentive to infanticide. It is much to be regretted that the Registrar of Friendly Societies does not furnish in his report statistics of infant insurance, and of the mortality among those insured.

THE NAVY ESTIMATES.

THE Navy Estimates are presented to Parliament in a form which makes it very difficult, if not impossible, to ascertain the cost of the medical establishments and services. No summary is given in them of the number of medical officers, and of their pay and allowances, but this information must be collated from the details given under the explanatory statement of the different votes. Again, as regards Medicines and Medical Stores, &c., although there is a vote under that heading, so many things are included under "&c.", as to render the title misleading. Instead, therefore, of commenting upon the amounts to be voted under the two general headings of "Medical Establishments at Home and Abroad," and "Medicines and Medical Stores," we shall bring to the notice of our readers some of the more important items gathered from a careful examination of the estimates. As regards the *personnel* of the Department, the numbers provided for are 1 Director-General, 3 Inspectors-General, 9 Deputy Inspectors-General, 75 Fleet Surgeons, 107 Staff Surgeons, and 167 Surgeons, making a total of 362 officers. No mention is made of any new grade, corresponding with that of brigade-surgeon in the army. Nor is there any indication of the number of candidates who will be required to fill up vacancies in the service. A sum of £1485 is taken for "Instruction at Army Medical School, Netley," instead of £2185 as last year, and it is stated in a note that "a reduced amount only has been provided for this service, as arrangements are in progress under which the instruction of naval medical officers will in future be conducted at Haslar Hospital." This justifies the meaning we attached to Mr. Trevelyan's statement in the House of Commons, that "successful candidates will receive full pay as surgeons from the moment of entering the service." (THE LANCET of Feb. 12th.) If the arrangements referred to in the note resemble those which were in force before the naval candidates were sent to Netley, we can only express our deep regret that the Admiralty should have decided to take so retrograde a step, and one which cannot fail to act injuriously upon the service. They may thus effect a saving of money, but it will be at the expense of what is of far more value—health and efficiency.

The sum estimated for the pay and allowances of the 362 officers amounts in round numbers to £133,500, being above that taken in the preceding year. The excess does not arise from any increase in the number of officers, but, we presume, from the addition to the pay and allowances intended to be granted by the promised Warrant, and for which a sum of £6560 appears under the head of "improved pay to medical officers." As we have already stated, the manner in which the vote for medicines and medical stores, &c., is taken prevents our estimating the amount really required under these two heads.

We are glad to see that sanitary improvements are at last receiving some attention from the Admiralty. Thus, for the naval yard at Portsmouth £600 appear under this head, and for the victualling establishment at Gosport £500. At Haslar it is proposed to spend £1500 on sanitary improvements in hospital buildings, and £3000 on new sewers. The events of the past year can only make us regret the long delay which has occurred in undertaking works of such importance. At Plymouth £400 are to be appropriated to improvements in drainage and water-supply at the hospital, and at the Marine Barracks, Forton, £1400 are put down sanitary improvements. We regret to observe that no similar grants are asked for any of our naval establishments abroad, although we have strong reason to believe that some at least of them greatly require it. We can only hope that the beginning thus made may be continued from year to year until all recognised causes of preventable disease in these establishments have been removed.

COLLEGE OF PHYSICIANS OF IRELAND.

IN a recent number (p. 186) we referred to the fever certificates required from candidates for the licence in medicine of this College, a regulation which came into operation on the 1st January last, and to which was attributed in a great measure the great falling off in the number of candidates last January as compared with the two preceding months. As this regulation caused considerable inconvenience, the College, by a resolution dated the 11th February, have provided that the by-law as to fever cases shall not be compulsory in the case of students who had commenced their necessary hospital attendances prior to October, 1879. Candidates who commenced their hospital studies between September, 1876, and October, 1879, will, however, be required to furnish evidence either of having, during nine months of their hospital attendances, studied in a hospital containing fever wards, or of having conformed with the by-law referring to fever wards.

SUPRA-PUBIC CYSTOTOMY.

THERE will always be considerable interest attaching to this operation, for in some obvious ways it is marked out as the best means of opening the bladder for the removal of foreign bodies. But the two dangers of wounding the peritoneum and of urinary infiltration have caused its abandonment in general practice, although for the removal of very large stones it is still sometimes employed. Petersen, in the *Arch. für Klin. Chir.*, has recently drawn attention to plans by which he hopes both of these dangers may be minimised, and the operation brought into more general use. He supports Braune's observation, that if, after the bladder is distended, the rectum is also distended, the bladder is so pushed up and forwards that the peritoneum on the apex of that viscus looks upwards rather than forwards; and in two cases thus operated upon the serous membrane was not even seen, while in two others it was easily pushed up and kept out of the way of injury. To prevent urinary infiltration he has practised suturing the incision in the bladder with catgut to get union by primary adhesion. If this is attempted the operation must be conducted with special precautions; the incision in the bladder must be free, and no dilatation of the wound practised either in introducing the forceps or removing the calculus; for all dilatation means greater or less bruising of the edges of the wound, which will entirely prevent union by first intention. We are not surprised therefore to read that in his last case Petersen was not successful in procuring this favourable healing of the wound. Stitching up wounds in the bladder with catgut is not a novel procedure, and Mr. Heath raised the subject for discussion at the Clinical Society a few years ago in connexion with a case of rupture of the peritoneal surface of the bladder, in which he had followed out this practice. The case is not strictly analogous to that we are noticing, but near enough for rough comparison. Petersen formulates the conditions suitable for the "high operation": (1) large hard stones; (2) encapsuled stone or stones lodged in saccules behind the prostate; (3) hypertrophied prostate; (4) hæmorrhoids; (5) very fat people; (6) tumours of the bladder; and (7) impermeable stricture where it is desired to pass a fine catheter from the bladder along the ureter.

THE ARMY MEDICAL DEPARTMENT.

WE are glad to learn that Mr. Childers has decided to retain Sir W. Muir as head of the Army Medical Department for another year. It would have been a very serious loss to the public service had he been removed before the system, which it fell to his lot to introduce, and which has proved to be so successful on service, was firmly established abroad as well as at home. We understand it is now being brought into working order in India under the able superintendence of Surgeon-General Crawford. While this change is in progress and many questions connected with the future of the medical service in India are under the consideration of the authorities, it is of the utmost importance that the Secretary of State for War should have, as his responsible adviser, an officer so thoroughly conversant with the details of the service, and of such decided administrative ability, as Sir W. Muir, to whom to refer in all questions of doubt or difficulty.

THE VESSELS OF THE RETINA.

PROFESSOR HIS, in the third part of his *Archiv* for 1880, gives an interesting description of his observations upon the distribution of the vessels in the retina of man and some animals. He makes this communication *à propos* of a paper by Dr. Hesse, who has demonstrated the existence in the retina of the rat of an internal arterial and an external venous layer of capillaries. Professor His depicts the arteria centralis in man as running in the nervous fibrous layer, and giving off from either side lateral capillary branches, which he names the arteriæ afferentes. These leave the main trunk almost at right angles. After a short course they divide and subdivide dichotomously, and form a tolerably distinct network of arterial capillaries, the individual vessels passing in and out through the spaces of the inner granular layer, where they form the deeper-lying or more external venous plexus. These, again, transmit the blood they contain into the venæ efferentes. The arteria centralis retinæ possesses a muscular tunic whilst it is still embedded in the optic nerve; but this coat becomes thinner as the artery approximates the lamina cribrosa, and loses itself after the artery has traversed that lamina. In the retina itself the arterial branches are surrounded by a tunica adventitia, which gradually becomes thinner. There are no horizontally running capillaries in the molecular layer. All the vessels here have a radiating direction. Another point which he believes he has made out, though he is not quite certain, is that the portion of the optic nerve which is situated distally to the lamina cribrosa is provided with a very close network of large capillaries.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society for the election of officers and other members of the Council for the ensuing year, to receive the auditors' report and the report of the Council, will be held on Tuesday next, March 1st, at 8 P.M. The following nominations to vacant offices have been made by the Council:—President: Dr. A. W. Barclay. Vice-Presidents: Dr. S. O. Habershon, Mr. T. Holmes, and Mr. Spencer Wells. Treasurer: Dr. C. B. Radcliffe. Secretary: Mr. Berkeley Hill. Librarian: Dr. E. H. Sieveking. Other members of Council: Drs. Jas. Andrew, W. Cholmeley, Sydney Ringer, Reginald Southey, and Mr. J. Langton. Dr. Barclay, who has been nominated to the Presidency, in succession to Mr. Erichsen, was elected a Fellow of the Society in 1847.

THE ACCIDENT TO THE PREMIER.

MR. GLADSTONE, as our readers will have learned from the daily press, slipped on the snow and fell when entering the garden in the rear of his official residence in Downing-street on Wednesday evening. The right honourable gentleman received a severe blow on the back of his head. We are happy to learn, on inquiry of the medical gentlemen in attendance, Dr. Andrew Clark and Sir James Paget, that the Prime Minister has not sustained any serious injury. The latest news, as we go to press, is that Mr. Gladstone has slept, and is progressing satisfactorily.

THE DESTRUCTION OF TRICHINÆ.

IT is commonly believed that ordinary cooking will destroy trichinæ and render infested meat innocuous. Without doubt, as has been stated in the daily press, "the encapsuled parasites cannot survive a certain elevation of temperature, and death renders them harmless.' Is it, however, correct to say that a "complete means of protection is furnished by the heat incidental to cookery"? Considerable doubt is thrown on this statement by M. Vacher of Paris, whose authority is of considerable weight. He affirms that the protection given by cooking is quite illusory, and that in the thorough cooking of an ordinary joint of meat the temperature in the centre is not sufficient to ensure the destruction of the parasite. He took a leg of pork of moderate size and boiled it thoroughly. A thermometer placed within it at a depth of two inches and a half, registered after half an hour's boiling 86° F., after boiling for an hour 118°, after an hour and a half 149°, and after two hours and a half, when the joint was thoroughly cooked, 165°. This temperature M. Vacher maintains is insufficient, and we must remember that at the centre, which is still further from the surface than the bulb of the thermometer was placed, the temperature would not be so high. "Trichinæ would escape almost entirely the action of boiling water" in cooking. M. Vacher's note was communicated to the Chamber of Deputies, and no doubt has influenced the decision of the French Government to prohibit entirely the importation of American pork.

AT a meeting of the Westminster Liberal Union on the 19th inst., held for the purpose of considering the question of hospital reform, a memorial to the Home Secretary was agreed to, praying the right honourable gentleman to appoint a Royal Commission to inquire into—"1. The existing hospital accommodation of London. 2. Its revenues from all sources, and its expenditure. 3. What improvements experience may suggest as practicable in association with the present Poor-law administration, or a new central authority. 4. The welding of the whole hospital accommodation of London into one great administrative system, adequate to the possible wants of a population as large again as that in our midst, so that the inefficiencies of to-day and the necessary development may be adequately controlled and maintained in the future."

THE Senate of the Royal University of Ireland last week had under consideration the scheme of organisation, arrangement of examinations, provision for professorships, exhibitions, and proposal to erect suitable buildings, &c., presented by the Committee appointed for the purpose. The report was placed before the Senate on the 18th, and on the 19th inst. revision and ratification took place. The scheme will be submitted to Earl Cowper for his approval, and the Government may shortly be expected to declare their views and intimate the amount of funds they intend to devote to the new university.

The Local Government Board has declined to receive a deputation representing inhabitants of Fulham, &c., respecting the small-pox hospital there, on the ground that as the hospital exists, and is managed under an Act of Parliament, of which both the Local Government Board and the Metropolitan Asylums Board are but the agents in carrying into operation, no good would arise from an interview with the deputation. In other words, we presume this means that the Legislature is the author of the evils complained of. But who first moved the Legislature to act? and upon whose representations did the Legislature act? The active agency in these matters was the Poor-law Board, which the Local Government Board succeeds and represents. The question is not to be allowed to rest. We understand a public meeting will be held this day (Saturday) at the Town-hall, Kensington.

We learn that within the past few months instructions have been issued by which the expenditure in connexion with post-mortem examinations in Glasgow will be considerably reduced, and that the number of such examinations will also be much less than formerly. Till recently post-mortem examinations in cases of persons dying suddenly were very numerous, but orders have been given that they are to take place only in special cases where there may be circumstances of such a peculiar nature as to call for an after-death examination. This change does not emanate from the authorities at Glasgow, but is due to instructions from the Government department to economise. This can scarcely be regarded as a wise economy.

We have repeatedly pointed out the necessity for a perfect system of ventilation in connexion with Turkish baths. The Hammam in Jermyn-street has long stood almost, if not quite, above reproach in this matter. It is, however, with great satisfaction we find that the directors have secured additional land in the rear of their present premises, and that they contemplate enlarging the capacity of the bathrooms as a whole by something like six thousand cubic feet. It is, we believe, intended to construct new hot rooms with radiating stoves and improved ventilation. The scale of charges for medical men is reduced, so that members of the profession generally will now be able to test the efficiency of the Hammam for themselves.

The Education Committee of the Council of the Royal College of Surgeons in Ireland have completed their report upon the proposed Scheme of Education and Examination for candidates for the licence in Surgery. It has been received by the Council and will be discussed in Committee. At present we do not wish to go minutely into the various suggestions made, but we may remark that the report is one which is most revolutionary in its character; and which may be expected to be met with strenuous opposition.

We regret to record the death of the Honourable George Charles Grantley Fitzhardinge Berkeley, which occurred at Lanfleet, Poole, on the 23rd inst. Mr. Grantley Berkeley was well known for, among other amiable traits of character, his love of the lower animals, and particularly dogs. In relation to the subject of rabies and hydrophobia, he has for many years been recognised as a prominent contributor to the public and special journals.

Surgeon-Major Alfred Sanderson, M.D., Madras Medical Service, has been appointed by H. M.'s Secretary of State for India, member of the Indian Medical Board, India Office, in place of Surgeon-Major Palmer, who has retired.

We have received a communication to the effect that Dr. Chadwick, late of Leeds, has been paid the compliment of being nominated to the Council of the Royal College of Physicians of London. We regret, however, to learn that the state of his health will not permit of his accepting the honour. This is the first time, we believe, in the history of the College that such a compliment has been paid to an eminent provincial physician.

We regret to have to record the death of another distinguished member of our profession in the Scottish capital. Dr. Peter David Handyside, F.R.S.E., Examiner and Teacher of Anatomy at the College of Surgeons, Edinburgh, expired on the 21st inst., at his residence in Lansdowne-crescent.

The proposed testimonial to Mr. G. D. Pollock is, it is announced, to take the form of a Scholarship in connexion with the Medical School of St. George's Hospital. The treasurer is Mr. Timothy Holmes, to whom subscriptions may be forwarded.

Messrs. W. H. Beynon & Co. have produced an admirable portrait of Sir John Lubbock. The likeness is excellent, and as a good specimen of the lithographic art the picture will be much appreciated.

John Housley, M.D. St. And., M.R.C.S. Eng., has been elected Coroner for East Retford and District without opposition.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORT OF MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

Shadwell (*Yorkshire*).—We have frequently had to deal with the subject of new buildings and with the anomalous action of the Legislature in regard to them sanitarily—to wit, that, while careful after a fashion to provide for the abatement of nuisances from structural defects in buildings after they have been committed, it has been pre-eminently careless in providing that new buildings shall not be erected so as to repeat the conditions under which nuisance arises. Not long ago we expressed the opinion that while the Legislature betrayed anxiety for the removal of existing nuisances, it was questionable whether, from the want of regulation of new buildings, the conditions under which the greater number of nuisances occurred were not supplied as fast as the older ones were removed. The Legislature was, in fact, engaged in the ingenious game of endeavouring to diminish one set of evils by cutting off at one end while adding at the other. Matters are perhaps a little better now in urban districts which have adopted building by-laws, but not so much better that our sanitary policy in this matter can be looked upon with gratification. This report on Shadwell, from the pen of Mr. John Spears, is a capital illustration of the anomalous nature of legislation on the subject to which we refer. Shadwell is a beautifully situated village in the neighbourhood of Leeds, and partly through the neglect of the sanitary authority, partly from want of by-laws regulating building operations, it has been given up as a prey to speculative builders. The consequence is that in and about the village there have sprung up a number of new houses, some, we presume, styled "villas," which appear to set at nought almost every principle by which it is sought to make a building wholesome to live in. The builders seem to have had in view the ruin of life insurance societies by these ingenious arrangements for destroying the health of the occupiers. But then the buildings are erected, and there they must remain, without the possibility of remedying, thoroughly, the sanitary evils attaching to them, an incessant trouble to the sanitary authority, and a standing scandal to legislative procedures, which are careful to remedy a completed evil, but are indifferent to the prevention of that evil occurring. Mr. Spear's report is of much interest.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Salford.—This report is for the year 1879, and not for 1880. Indeed the report is dated October, 1880. As previous reports of Dr. Tatham, it is so elaborate that we cannot affect surprise that it should appear at so late a date, and that we should receive the report for one year when the report for the next year is, so to speak, due. But the value of reports thus carefully prepared more than compensates for the delay in receiving them. The present report confirms the judgment Dr. Tatham had expressed on two previous occasions of a steady improvement in the sanitary condition, and a marked decline in the death-rate since 1864. The average annual death-rate in the decenniad 1864–73 was equal to 28·0 per 1000 persons living. In the five years 1874–78 it was 27·0 per 1000, and in the year 1879 it did not exceed 24·9. There is evidently still much to be done in Salford before its sanitary administration can be spoken of as so advanced as becomes an important Corporation, and it is with some surprise that we learn that the borough is still so very backward in its arrangements respecting excrement removal and disposal. One of the most interesting parts of the report refers to the use made of the borough hospital for infectious diseases. In the arrangement of this report, Dr. Tatham has adopted the Local Government Board's suggestion as to form of reporting, with considerable advantage to the reader. A very well devised diagram illustrates the diarrhœa mortality and meteorology of the borough in 1879; but we are promised a fuller consideration of the subject of infantile diarrhœa in Dr. Tatham's next report.

Torquay.—Mr. Karkeek is dissatisfied with the facts he has to report in regard to Torquay in 1880, but it is that healthy sort of dissatisfaction which is not content unless it turns what is unsatisfactory into a source of benefit. He laments that a perfected scheme for a sanatorium (otherwise infectious disease hospital) was at the last moment upset by the perversity of certain landowners, but he has to report that a gentleman of large public spirit, Mr. W. Kitson, has come forward and relieved the sanitary authority from an awkward difficulty by presenting to them, for the use of the town, a plot of ground admirably adapted for the site of a "sanatorium." All honour to the generous giver! Mr. Karkeek is far from satisfied with the flushing arrangements of the sewers, but he is in good hopes to see this soon amended. The works necessary for the continuous supply of water to the town are advancing. The construction of new houses is carefully supervised, thanks to the cordial co-operation of the manor authorities with the sanitary authority. Systematic inspections are carried out with benefit; but alas! the death-rate was not so low as the medical officer of health says it should have been, and this, the loss of the sanatorium for the meantime, and the defective flushing sewers, have made Mr. Karkeek unhappy. But no doubt the increase of the death-rate, and, at any rate, the more noticeable deaths, are made a cause of converting evil into good. Six deaths were registered from typhoid fever; all occurred in houses in which the sickness was associated with sanitary defects. These deaths were made the occasion of inducing over two hundred householders to have their houses examined, with a view of making them fever proof, and of these houses one hundred and fifty had their sanitary appliances altered according to the most approved plans.

GRATUITOUS REVACCINATION OF CHILDREN.

At a recent meeting of the Chelsea Vestry Dr. Barclay, the medical officer of health, reported that the public vaccinator had revaccinated some youths under fifteen years of age, for which he was entitled to no remuneration. The present epidemic prevalence of small-pox in some parts of London renders it especially advisable that some provision should be made to secure the revaccination of all children between the ages of twelve and fifteen years who bear no vaccination marks, or whose marks are of such a character as afford evidence of imperfect vaccination and scant protection from small-pox. As the Local Government does not sanction any payment for revaccination of children under fifteen years of age, Dr. Barclay supported an application for the sanction of the Vestry to the payment for such cases performed by the public vaccinator during the next two months. The proposition was referred to the Sanitary Committee for report. The increasing number and proportion of fatal cases of small-pox occurring among children at these ages suggest the most urgent reasons for the adoption of Dr. Barclay's suggestion in Chelsea, and for similar action on the part of other metropolitan sanitary authorities. [Revaccination may be given at the public expense if the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully vaccinated.]

CEMETERIES.

The Local Government Board have quickly followed up the publication of Dr. Franklin H. Parson's memorandum on the Sanitary Requirements of Cemeteries, with a series of model by-laws for the guidance of sanitary authorities who establish cemeteries under the Public Health (Interments) Act, 1879, in their management. The by-laws are only twelve in number, but appear to provide for the essential requisites, from a sanitary point of view, of the interment of bodies. A circular letter accompanying the by-laws points out that the power of making by-laws is only one of several means which the local authority may employ for the proper control of their cemetery.

A question of nuisance from certain "butterine" works came recently before the stipendiary magistrate at Birkenhead. "Tallow-melting" and "butterine" manufacture appeared to have been treated pretty much as equivalent terms in this case, a dash of "essence of putridity" (to use the words of one of the medical witnesses) being added to the customary stench of tallow-melting. A fine of £5 with 8*s.* costs was inflicted on the defendants.

The Chelsea Vestry have had under consideration the case of a woman going backwards and forwards from one part of the parish to another to visit her mother, reputed to be suffering from consumption, but who, it afterwards proved, was lying ill with small-pox. The Metropolitan Board of Works has been appealed to by the Vestry to assist in obtaining an amendment of the law to meet such a case, when opportunity occurs.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality is now considerably below its average for the season. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5690 births and 3267 deaths were registered last week. The births exceeded by 504, and the deaths by only 4, the average weekly numbers during 1880. The deaths showed a further decline of 80 from the recent weekly numbers; and the annual death-rate, which had been equal to 31·0, 28·0, and 22·9 per 1000 in the three preceding weeks, further fell to 22·4 last week. The lowest death-rates in the twenty towns last week were 17·5 in Newcastle-upon-Tyne, 18·0 in Birmingham, 18·7 in Bradford, and 18·7 in Portsmouth. The rates in the other towns ranged upwards to 25·8 in Leeds, 25·9 in Liverpool, 28·3 in Manchester, and 28·5 in Sunderland. During the past seven weeks of the current quarter the death-rate in the twenty towns averaged only 25·4 per 1000, against 27·2 and 28·1 in the corresponding periods of 1879 and 1880.

The deaths referred to the principal zymotic diseases in the twenty towns, which had steadily declined from 390 to 316 in the four preceding weeks, were 315 last week; these included 75 from whooping-cough, 68 from scarlet fever, 56 from small-pox, and 38 from fever, principally enteric. The annual death-rate from these seven principal zymotic diseases averaged only 2·2 per 1000 in the twenty towns, and ranged from 0·7 both in Plymouth and Wolverhampton, to 2·7 and 2·8 in Leeds and Liverpool. Scarlet fever showed the largest proportional fatality in Bristol, and whooping-cough in Leeds. Ten of the 14 deaths from diphtheria in the twenty towns occurred in London. The death-rate from fever (principally enteric) was highest in Sunderland, Liverpool, and Sheffield. Small-pox caused 56 more deaths in London and its suburban districts, one in Manchester, but not one in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the sixteen preceding weeks from 77 to 683, further rose to 704 on Saturday last, a higher number than in any week since May, 1878. The number of new cases of small-pox admitted to these hospitals, which had been 234 and 176 in the two previous weeks, was 183 last week. The Highgate Small-pox Hospital contained 53 patients on Saturday last, against 30, 37, and 46 at the end of the three preceding weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 702, 606, and 408 in the three previous weeks, further fell to 364 last week, and were no less than 135 below the corrected average number in the corresponding week of the last ten years; 211 were ascribed to bronchitis, and 94 to pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·1 per 1000 in London; the rate from the same diseases was equal to 10·0 in Liverpool.

In the twenty towns last week the causes of 87, or 2·7 per cent., of the deaths were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·1 per cent. in London, while it averaged 4·1 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Newcastle-upon-Tyne, while their proportion was largest in Hull and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 23·9 per 1000 last week, against 34·7, 28·9, and 24·3 in the three preceding weeks; this rate was, however, 1·5 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 13·6 and 19·7 in Perth and Greenock, to 26·0 and 29·7 in Leith and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 125, 94, and 89 in the three previous weeks, further declined to 87 last week, and were equal to an annual rate of 3·4 per 1000, which was 1·2 above the average rate from the same diseases in the twenty English towns. The zymotic death-rate in the eight Scotch towns ranged last week from 0·6 and 1·9 in Greenock and Perth, to 5·3 and 6·1 in Paisley and Leith. The fatal cases of scarlet fever in the eight towns showed a further decline last week to 13, of which 7 occurred in Edinburgh, 4 in Glasgow, and 2 in Leith. The 22 deaths from whooping-cough also showed a further decline from recent weekly numbers; they included 14 in Glasgow, 4 in Edinburgh, and 2 in Paisley. The 17 fatal cases of diphtheria, on the other hand, showed a further slight increase; 7 occurred in Glasgow, 3 in Edinburgh, 3 in Dundee, and 2 in Paisley. The deaths referred to "fever," which had been 10 and 8 in the two previous weeks, rose again to 10 last week, and included 5 in Glasgow and 2 in Edinburgh; the annual death-rate from fever in the eight towns averaged 0·40 per 1000 last week, against 0·26 in the twenty English towns. Four of the 6 deaths from measles and 11 of the 19 from diarrhœa were returned in Glasgow; the fatal cases of diarrhœa continue to show an excess for the season. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns, which had been 348, 261, and 200 in the three preceding weeks, further declined to 193 last week, and were equal to an annual rate of 7·6 per 1000; the death-rate from the same diseases in London did not exceed 4·4 per 1000. The largest excess in the fatality of lung diseases in the Scotch towns occurred last week in Glasgow, Aberdeen, and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a further decline last week, although it still shows a marked excess upon that prevailing in the large English and Scotch towns. The annual death-rate from all causes in the city, which had steadily declined from 47·4 to 41·8 in the three preceding weeks, further fell last week to 38·5. During the past seven weeks of the current quarter, however, the death-rate in the city has averaged no less than 41·0 per 1000, against 24·9 in London, and 23·2 in Edinburgh. The 246 deaths in Dublin last week included 31, or nearly 13 per cent., which were referred to the principal zymotic diseases, against 21 and 22 in the two previous weeks. These 31 zymotic deaths included 17 from fever (typhus, enteric or typhoid, and simple continued), 7 from whooping-cough, 3 from scarlet fever, 2 from diarrhœa, one each from measles and diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 4·9 per 1000 in Dublin last week, while it did not exceed 2·5 in London, and 3·8 in Edinburgh. The deaths referred to fever, which had been 17 and 7 in the two previous weeks, rose again to 17 last week, and was equal to an annual death-rate from fever which was more than ten times as high as the average rate from the same cause last week in the twenty large English towns. The fatal cases of whooping-cough in Dublin last week exceeded the numbers in recent weeks, while those of measles and scarlet fever showed a decline. The deaths of infants and of elderly persons showed a considerable decline from recent weekly numbers.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

TOTTENHAM SANITARY ASSOCIATION.

Last week, with reference to a decision of the Local Board of Tottenham, that the annual report of their medical officer of health should be "amended and revised"—in other words, "cooked"—before being published, we asked what had become of this Association. We are glad to find from its report for 1880, which has just come to hand, that it exists, and is still pursuing its useful function of keeping the inhabitants of the place informed, independently of the sanitary authority, of the health condition and interests of the place. So long as this Association does the work it has set itself to do, we feel pretty sure that any attempts of the sanitary authority to escape from the performance of its proper duties will be frustrated. The report shows that the population of Tottenham is still very largely increasing, and that it now far exceeds the Registrar-General's estimate. According to the latter the death-rate of the district in 1880 was 19·12 per 1000; but according to the Association it did not exceed 16·55. Without losing sight of the influence exercised on infant mortality by improper feeding and ignorance in management, the Association is of opinion that in Tottenham unwholesome conditions arising out of defective sanitary arrangements play a prominent part in determining fatal infantile diarrhœa, and not without good cause they point to a marked reduction of the mortality in Tottenham of late years concurrently with great improvements effected in the ventilation of the sewers and the purity of the water-supply. Several interesting particulars are given indicative of a gradual deterioration of the water-supply of the district, a deterioration which, having regard to the previous history of the water-supply, should enlist the very serious attention of the sanitary authority.

SANITARY ECONOMICS.

What sort of men can those have been who formed the deputation despatched by the St. Pancras Vestry to the north on the recent "dusting and slopping" tour? They discovered that Manchester had adopted the questionable policy of competing with the ratepayers, by carrying on the trades of machinists, carpenters, builders, wheelwrights, tinmen, brushmakers, and others, in order to cheapen the cost of getting rid of objectionable refuse. The deputation deprecates competition with the ratepayers themselves by a local authority, "unless such competition is a necessary result of operations for the sake of public health." Applied to St. Pancras, the argument would be that the Vestry had no right to spend the rates in competition with, and injuriously to, that exceedingly praiseworthy body of men, the "dust contractors," even for the sake of public health. The deputation visited Manchester and inspected the works so perfunctorily that they did not even get an inkling of the great public-health experiment of which they form a part, and failed even to ascertain that there was more to learn from the mode of dealing with Manchester ash-tubs for London purposes than from the filthy, wet contents of middens in Leeds.

The Town Council of Aberdeen has the disposal of the following appointments: medical officer of the Council as local authority, police surgeon, medical attendant at the epidemic hospital, medical attendant at the gasworks, examiner of the quality of the gas, and inspector under the Dairies, Cowsheds, and Milkshops Order of July, 1879. The total sum paid by the Council for the performance of these duties by the various parties holding office amounts to £213 per annum. It is now the intention of the Council to combine these appointments, and to vest them in one and the same person. For this post they propose to obtain the services of a properly qualified medical practitioner, who shall receive a salary of £300, and a house rent-free at the epidemic hospital. He will be expected to devote his whole time and attention to the duties of the office.

Some time ago the Glasgow Local Authority issued certain regulations with reference to the manner in which dairies should be conducted. Amongst those was a rule that there should be no direct communication between the dairy proper and any apartments used as sleeping or living rooms. Sheriff Balfour, however, has now decided that in issuing this order the Local Authority overstepped the powers conferred on them by the Privy Council, and that the power to make such a regulation resides with the Council itself.

The Society of Arts will hold a third Congress on Domestic Economy in 1881. Seven bronze medals, also certificates of merit, are offered for competition to teachers of public elementary schools and training colleges. The subjects include clothing and washing; the warming, cleaning, and ventilation of the dwelling; the management of the sick-room and cottage; of income, expenditure, and savings; and food, its composition and nutritive value, its functions, and its preparation and culinary treatment.

A dairy-keeper has been fined £2 and 12*s*. 6*d*. costs at Aston, for obstructing a sanitary inspector whilst obtaining a sample of milk. The dairy-keeper (a woman), after having served the milk, and ascertained for what purpose it was going to be applied, seized the jug containing the sample from the inspector and threw the contents on the ground.

THE SERVICES.

RIFLE VOLUNTEERS.—5th Surrey Corps: Acting Surgeon George Farr White to be Surgeon. 2nd Derbyshire Corps: Alfred Chawner, gent., to be Acting Surgeon. 1st Roxburgh and Selkirk Corps: Acting Surgeon Alexander Dewar, M.D., to be Surgeon.

YEOMANRY CAVALRY. — Duke of Lancaster's Own: William Wingate Saul, Esq., M.D., to be Surgeon, vice J. D. Moore, deceased.

ADMIRALTY.—Mr. Henry S. Halahan has been appointed Surgeon and Agent at Telin and Malinore.

INSTRUCTIONS FOR VACCINE INOCULATION BY EDWARD JENNER.

Read before the Epidemiological Society, Feb. 2nd, 1881, from an unpublished manuscript in the possession of FREDERICK SYMONDS, Esq., *of Oxford.*

BY DR. SQUIRE.

THE valuable autographs of Dr. Edward Jenner were submitted to the inspection of the members present.

One point of great interest and value in the early part of these "Instructions" is Jenner's description of the course of vaccinia at this early period of its human history. This should be compared with Dr. Gregory's description of inoculated small-pox, with which it closely agrees, to show the natural affinities of the two; it affords also an important standard of comparison with vaccinia as now produced, by which we may take care that the true type is perfectly maintained.

Instructions
FOR
VACCINE INOCULATION.

Let the vaccine fluid be taken, for the purpose of inoculation, from a pustule that is making its progress regularly, and which possesses the true vaccine character, on any day from the fifth to the eighth, or even a day or two later, provided the efflorescence be not then formed around it. When the efflorescence is formed, it is always most prudent to desist from taking any more of the virus from that pustule.

To obtain the virus, let the edges of the pustule be gently punctured with a lancet in several points. It will gradually ooze out, and should be inserted upon the arm about midway between the shoulder and elbow, either by means of a very slight scratch, not exceeding the eighth part of an inch, or a very small oblique puncture.

A little red spot will appear on the punctured part on the third day, if the operation succeed, which on the fourth or fifth becomes perceptibly vesicated. It goes on increasing till the tenth day, when it is generally surrounded by a rose-coloured efflorescence, which remains nearly stationary for a day or two. The efflorescence then fades away, and the pustule is gradually converted into a hard, glossy scab, of a dark mahogany colour. These progressive stages of the pustule are commonly completed in sixteen or seventeen days.

A single pustule is sufficient to secure the constitution from the small-pox; but as we are not always certain the puncture may take effect, it will be prudent to inoculate in both arms, or to make two punctures in the same arm, about an inch and a half asunder, except in very early infancy, when there is a great susceptibility of local irritation.

If the efflorescence surrounding the pustule should be extensive, and occasion much local heat upon the arm, it may be cooled by the repeated application of pieces of folded linen dipped in cold water, or still more expeditiously by a strong solution of the aqua lythargyri acetati in water; an ounce, for example, of the former in five or six of the latter.

If the scab should at any time be prematurely rubbed off, the part may be occasionally touched with the undiluted aqua lythargyri acetati.

Vaccine virus, taken from a pustule, and inserted immediately in its fluid state, is preferable to that which has been previously dried; but as it is not always practicable to obtain it in this state, we are compelled to seek for some mode of preserving it. Various means have been suggested, but from the test of long experience it may be asserted, that preserving it between two plates of glass is the most eligible. Let a piece of common window-glass be cut into squares of about an inch each, so that they shall lie smooth when placed upon each other. Let the collected vaccine fluid be confined to a small spot (about the size of a split pea) upon the centre of one of these glasses, which should be suffered to dry in the common heat of the atmosphere without exposure to the heat of fire or the sun. When dry, it should be immediately secured by placing over it the other piece of glass. Nothing more is necessary for its preservation than wrapping it in clean writing paper.

The virus, thus preserved, when wanted for the purpose of inoculation, may easily be restored to its fluid state by dissolving it in a small portion of cold water, taken up on the point of a lancet. It may then be used in the same manner as when just taken from a pustule.

The vaccine fluid is liable, from causes apparently trifling, to undergo a decomposition. In this state it sometimes produces what has been denominated the spurious pustule—that is, a pustule or an appearance on the arm not possessing the characteristic marks of the genuine pustule. Anomalies, assuming different forms, may be excited, according to the quantities of the virus applied, or the state of the person inoculated; but by far the most frequent variety, or deviation from the perfect pustule, is that which arrives at maturity, and finishes its progress much within the time limited by the true. Its commencement is marked by a troublesome itching, and it throws out a premature efflorescence, sometimes extensive, but seldom circumscribed, or of so vivid a tint as that which surrounds the pustule completely organised, and (which is more characteristic of its degeneracy than the other symptoms) it appears more like a common festering produced by a thorn, or any other small extraneous body sticking in the skin, than a pustule excited by the vaccine virus. It is generally of a straw colour; and when punctured, instead of that colourless, transparent fluid of the perfect pustule, its contents are found to be opaque. That deviation from the common character of the pustule, arising from vaccine virus which has been previously exposed to a degree of heat capable of decomposing it, is very different. In this instance it begins with a creeping scab of a pale brown or amber colour; making a long and slow progress, and sometimes going through its course without any perceptible efflorescence. Its edges are commonly elevated, and afford, on being punctured, a limpid fluid.

A little practice in vaccine inoculation, attentively conducted, impresses on the mind the perfect character of the vaccine pustule; therefore, when a deviation arises, of whatever kind it may be, common prudence points out the necessity of re-inoculation, first with vaccine virus of the most active kind; and secondly, should this be ineffectual, with variolous virus. But if the constitution shows an insusceptibility of one, it commonly does of the other.

When any constitutional symptoms occur in inoculated cow-pox they are commonly first perceptible (especially in children) on the fourth or fifth day. They appear again, and sometimes in adults, not unlike a mild attack from inoculated small-pox, on the eighth, ninth, or tenth day; the former arise from the general effects of the virus on the habit, the latter from the irritation of the pustule.

If the effluvia of the small-pox have been received into the habit previously to the inoculation of the vaccine virus, the vaccine inoculation will not always be found to stop its progress, although the pustule may make its advances without interruption.

The lancet used for inoculation should always be perfectly clean. After each puncture it is proper to dip it into water, and wipe it dry.

The preservation of vaccine virus upon a lancet beyond the period of a few days should never be attempted, as it is so apt to produce rust, which will decompose it.

EDWARD JENNER.

THE NEW WING AT UNIVERSITY COLLEGE.

PRESS of matter prevented us from noticing last week the banquet which was given on the 16th inst. at University College to inaugurate the new north wing which has recently been completed. The company was an unusually brilliant assemblage of many of the most cultivated minds in the country. It is seldom that one can see assembled round the same table the Presidents of the Royal Society, the Royal Academy, the College of Physicians, the College of Surgeons, the Institute of British Architects, the General Medical Council, and the Institute of Civil Engineers, together with such well-known men as Huxley, Tyndall, Lister, John Marshall, Burdon-Sanderson, Michael Foster, Williamson, and Roscoe; Browning, Max Müller, Henry Morley; the Master of the Rolls, Mr. Justice Grove, Mr. Justice Fry, and the Solicitor-General; Mr. Poynter, Mr. Alma Tadema, Mr. Legros, Mr. Boehm, Mr. Alfred Waterhouse, and nearly a hundred others, all, more or less, eminent in science, art, law, or literature. Those who remember the ridicule which was cast upon the "university we've got in town," when it was established in 1828, must now recognise that the highest aspirations of its founders have been fulfilled, and one fact mentioned at the dinner by the Master of the Rolls—that besides himself three other judges on the bench (Justices Fry, Lindley, and Watkin Williams), as well as the Solicitor-General, were pupils of the College—is a sufficient evidence that the education given by the College to its alumni has enabled them to compete successfully with those who have been educated on the banks of the Isis or the Cam. The new wing, erected at a cost of £35,000 (of which £14,000 remains unpaid), has enabled the College to very greatly increase its resources for the teaching of fine arts, zoology and comparative anatomy, physiology, and chemistry. One side of the wing looks to the north, and on this side as much glass has been used in the construction as is permitted by the Building Act. This splendid range of north lights has been utilised for the microscopic and artistic purposes for which a north light is absolutely indispensable.

Of the additions to the Slade School of Fine Arts we need say nothing, excepting that, in the words of Sir Frederick Leighton, "no such machinery for teaching fine arts is to be found elsewhere in England outside the walls of the Royal Academy." The department of Zoology and Comparative Anatomy, under the control of Professor Lankester, has had added to it—1. A large museum (49 ft. by 41 ft.), well stocked with zoological specimens. 2. A south museum (43 ft. by 44 ft.), which is notable for containing a fresh-water and a salt-water aquarium. "The marine aquarium consists of an upper and a lower tank, half the water being daily raised from the lower to the upper tank by means of a vulcanite pump, whence it is allowed to flow back again into the lower tank, so as to ensure its oxygenation. The fresh-water aquarium is provided with a constant stream, and is specially intended for the hatching of fish and the study of the diseases of our river fishes." 3. A large practical class-room, provided with microscopes, lamps, water-supply sinks, &c., in which fifty students can dissect at once. 4. A professor's laboratory. 5. An attendant's gallery, for containing various necessaries for the course of instruction, as well as a large tank on the roof for storing fresh-water mussels, crayfish, frogs, &c. 6. Two large laboratories especially arranged for original research, as well as an assistant's laboratory.

The whole of the upper floor of the new wing is occupied by the department of Physiology. This consists (1) of a lecture theatre, capable of seating 170 students, and which can be darkened at will, when necessary, for the performing of experiments; (2) a large student's working-room, capable of accommodating 100 students. Each worker is supplied with gas and water, and a locker for keeping microscopes and other necessaries. This room is lighted by a large window looking north.

Six other rooms, called the Jodrell rooms, in memory of Mr. Jodrell, who endowed the Professorships of Physiology and Zoology, are intended for advanced students and for the purposes of original research. One room is especially fitted for chemical research, a second for the analysis of gases, a third for experiments on muscle and nerve, and a fourth for investigations relating to respiration, circulation, and animal heat.

The Chemical Department, in addition to a theatre capable of accommodating 400 students, and the Birkbeck Laboratory (now devoted to the department of applied science and technology), comprises a new laboratory of noble dimensions with a lofty open roof, affording room for fifty students. Here is an ingenious apparatus for passing sulphuretted hydrogen through solutions without allowing the escape of gas into the room, as well as a range of water baths heated by steam. There is also a water air-pump and a Sprengel pump, and a reservoir of distilled water.

There is a furnace room also, and arrangements for evaporating without fouling the air. There are nine other rooms devoted to the teaching of chemistry—viz., a professor's research laboratory, room for gas analysis, balance room, assay room, spectroscope room, &c. &c. The Department of Chemical Technology, by the increased space now allotted for pure chemistry, has been much enlarged, and the courses of study specially designed for metallurgists, alkali manufacturers, &c., glass manufacturers, bleachers, brewers, agriculturists, &c., will henceforth be carried out with increased effectiveness by Professor Graham.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE detailed prospectus of this Exhibition, together with the regulations for exhibitors, has now been published, and the prospectus printed in the three official languages of the Congress is being issued by the secretaries of sections to British and foreign medical practitioners. The Exhibition Committee, which is now completed, consists of Mr. Erichsen (chairman), Mr. Berkeley Hill (treasurer), the President of the Pharmaceutical Society (Mr. Greenish), Mr. Cantlie, F.R.C.S., Professor Corfield, Mr. Eassie, C.E., Mr. Rogers Field, M.I.C.E., Mr. George Godwin, F.R.S., Mr. Meredith, M.B., Mr. Edmund Owen, F.R.C.S., Dr. Poore, Mr. E. C. Robins, F.S.A., Mr. Roger Smith, F.R.I.B.A., Dr. Steele and Mr. Judge (secretary). The Exhibition, which is to be held in the Exhibition Building at Kensington-gore, will comprise everything that is of service for the prevention, detection, cure, and alleviation of disease, and will be divided into three sections.

A. MEDICAL SECTION.—1. Surgical instruments and apparatus. 2. Appliances of the ward and sick-room. 3. Drugs, disinfectants, medical dietetic articles, and mineral waters. 4. Electrical instruments and appliances. 5. Microscopes and optical apparatus. 6. Apparatus of other kinds used in the investigation of disease. 7. Appliances used for the treatment of sick and wounded during war; street ambulances, &c. 8. Appliances used in teaching medicine. 9. Books, diagrams, models, &c.

B. SANITARY SECTION.—1. Domestic and hospital architecture. 2. Planning, construction, and decorative materials.

3. Ventilation, lighting, and warming. 4. Waterclosets, sinks, baths, &c. 5. Sewerage and drainage. 6. Water supply and filtration. 7. Health resorts and sanitaria. 8. Books, diagrams, models, &c.

C. MISCELLANEOUS SECTION.—Applications of hygienic principles to food and dietaries, clothing, &c.; school furniture and other articles more or less connected with the general purpose of the Exhibition.

Intending exhibitors will have the opportunity of taking either floor-space or wall-space, according to their requirements, and arrangements will be made for portfolios (containing architectural plans of hospitals, sanitaria and domestic houses, &c.) to be hung against the wall. The Committee also express their readiness to take charge of single articles sent by one exhibitor, so that inventors of new instruments, &c., will have an opportunity of displaying their work. The Committee are endeavouring to secure a large number of exhibitors, and a limit has been placed upon the amount of space which any one exhibitor may occupy. Arrangements will also be made (should it be found necessary) for the exhibition of machinery in motion, and it is possible that the medical public may have an opportunity of seeing some of the processes employed by opticians, surgical cutlers, and wholesale pharmacists. No secret preparations will under any circumstances be exhibited. Articles for exhibition will be received from July 1st to July 9th, so that an entire week will be devoted to the final arrangement of the exhibits before the opening day. Exhibitors are to have the privilege of selling articles to visitors during the last week of the Exhibition, and many visitors to the Congress will, doubtless, appreciate the opportunity thus afforded them of taking away with them any articles which they may fancy. Certificates of merit will be awarded, and the appointment of the judges for this purpose will be proceeded with forthwith. Applications for space must be made on the official form and be addressed to the Secretary of the Exhibition Committee, Parkes Museum of Hygiene, University College, London, W.C. Applications from Great Britain and Ireland and the continent of Europe must be made not later than March 31st, 1881. Applications from India, the Colonies, and America will be received up to Saturday, April 16th, 1881. Directly the space has been allotted the compilation of the catalogue will be preceded with, and the Committee hope that by getting the catalogue in hand at an early date to be able to make it a really serviceable handbook to the Exhibition.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, the 17th inst., Mr. A. O'Connor gave notice that he would move for the following returns:—Army (Medical Service)—Address for returns of the number of examinations held in London since 1870, inclusive, for appointments in the Army Medical Service. Of the number of vacancies to be filled at the date of each examination. Of the number of candidates who presented themselves at each examination. Of the number of unsuccessful candidates at each examination. And, of the nature and dates of the registered medical qualifications of each candidate at each examination (the candidates to be designated not by their names, but by numbers or letters. Navy (Medical Service)—Returns of the number of examinations held in London since 1870, inclusive, for appointments in the Navy Medical Service. Of the number of vacancies to be filled at the date of each examination. Of the number of candidates who presented themselves at each examination. Of the number of unsuccessful candidates at each examination. And, of the nature and dates of the registered medical qualifications of each candidate at each examination (the candidates to be designated not by their names, but by numbers or letters).

On Monday returns relating to examinations for the Army and Navy Medical Services were ordered, on the motion of Mr. Arthur O'Connor.

On Tuesday the order for the second reading of the Medical Appointments Qualifications Bill was further deferred for a week. Mr. Loder has given notice that he will move the rejection of the Bill.

Trichinosis.

Admiral Sir John Hay asked the Secretary to the Admiralty if the Admiralty are taking precautions in regard to the ration of pork for the Navy in consequence of the serious outbreak of trichinosis in America, which has caused the French Government, as reported, to forbid the importation of American pork. Mr. Trevelyan explained that about a third of the pork supplied to the Navy was Irish, and two-thirds were Danish. To substitute American pork would be a distinct breach of contract, which it would be comparatively easy to detect. The Admiralty exercised great care in dealing only with reputable and responsible firms. Mr. Dixon-Hartland asked the Vice-President of the Council if he had seen that the importation of pork from the United States has been prohibited in France, Russia, Italy, Austria, Spain, Portugal, and Greece, in consequence of the prevalence of trichinosis and the hopelessness of inducing the poorer classes to disinfect the pork and so prevent disease, and whether he was prepared to forbid its introduction into Great Britain and Ireland. Mr. Mundella had no official information that the foreign Governments named had prohibited the importation of pork from the United States, but was making inquiries. The annual importation of bacon, pork, and hams into this country exceeded five millions and a quarter cwt., or more than 20 lb. per head for the whole population, and the estimated value exceeded nine millions and a half sterling. It nearly all came from the United States, Canada, Germany, and Belgium, and the figures he had given were exclusive of live swine. Obviously, to cut off such an enormous supply of animal food would inflict great hardship upon the poorer classes, and could not be done except under the most urgent necessity, and after the gravest consideration. They could not cut off the American supply without cutting off that from other countries, where trichinosis also existed, and if the American supply were cut off here, and admitted elsewhere, we should get it secondhand. Having made inquiries through the Local Government Board, he found no report of any outbreak of trichinosis in the country. Two years ago there was a report of such an outbreak on board a training-ship, but upon investigation the medical authorities were satisfied that it was not trichinosis. In 1879 the Duke of Richmond, in reply to a question, called attention to the fact that safety was only to be found in thoroughly cooking the pork. It was only reasonable to suppose that the practice of using smoked sausages and ham, and half-cooked food, contributed very largely to the dissemination of the disease on the Continent, but that was not the practice in this country, where the risk of affection was effectually disposed of by efficient cooking at a high temperature.

On Wednesday Sir Eardley Wilmot brought in his Bill for the total abolition of vivisection, and put it down for second reading on Wednesday, 23rd March. The names on the back of the Bill are those of Sir Eardley Wilmot, Mr. Samuel Morley, and Mr. Firth. The Select Committee of the House of Commons appointed to consider the operation of the Contagious Diseases Act met in room 12, and the Hon. W. N. Massey was reappointed chairman. The committee will meet on Wednesday next to take evidence.

On Thursday, in reply to Lord Rendlesham, Mr. Dodson stated that as at present advised, he believed attendants at lunatic asylums did not come under the regulations of the "Employers' Liability Act;" but the question was one of legal construction, which might have to be officially decided hereafter.

Mortality of Ashton-under-Lyne.

In answer to Mr. Hugh Mason, Mr. Hibbert said the attention of the Local Government Board had been drawn to the statement in the Registrar-General's quarterly return respecting the very high mortality recently at Ashton-under-Lyne. In November last the Board wrote to the Town Council, referring to the fatal prevalence of diarrhœa, and asking what the medical officers of health had been able to discover about the cause of it; but no reply had yet been received to that letter. The Local Government Board propose to direct an inquiry by one of their medical inspectors into the cause of the high death-rate of the borough.

HUNTINGDON COUNTY HOSPITAL.—According to the report of the Board of Management of this hospital, read at the annual meeting of the governors last week, the gross receipts of the institution during the year were £1588 19*s.* 4*d.*, while the expenditure amounted to £1506 12*s.* 4*d.* In-patients to the number of 213, and 714 out-patients, received the benefits of the charity during the same period, in addition to 201 casualties.

PARIS.

(*From our own Correspondent.*)

FROM what has recently been written in the lay press, it would appear that a large proportion of American pork contains trichinæ, and as forty million barrels of this meat are said to be imported annually from America, it has become necessary to take steps to protect the public from the danger which menaces them. An official instruction was circulated a few weeks since calling the attention of food inspectors to the question, and a large quantity of meat was in consequence seized, and found to be diseased. At the Academy of Medicine a sitting was also devoted to the subject, and various schemes for protecting the public were proposed by different speakers. The matter has now, however, been settled by a decision, made by the Minister of Commerce, on the recommendation of the Council of Hygiene, which forbids any further introduction of American salt pork into the country.

Another decree, emanating from the same source, concerns the use of salicylic acid in the preservation of food. Manufacturers of tinned provisions, brewers, and winemakers have for some time employed salicylic acid and the salicylates for this purpose. It has been found especially useful for keeping beer, and competent judges have thought that there was no objection to the use of such small quantities as are necessary for this purpose. But the Council of Hygiene has deliberated, and on the strength of its wisdom a ministerial *fiat* renders the use of salicylates a punishable offence.

The *France Médicale* publishes the account of a case of chronic bronchitis, which was cured by a treatment not often used in England. The paper is too long to transcribe here *in extenso*, but the main points are worthy of notice. The patient, a young woman aged twenty, had suffered from chronic bronchitis for three years, when she became an inmate of the Hôpital de la Pitié. On Oct. 6th, 1880, her condition was as follows :—The face was red and puffy ; general condition good ; no œdema of the legs. There was great dyspnœa, which rendered any active occupation impossible ; the cough was constant and paroxysmal, and there were suffocative attacks at night ; abundant mucous and mucopurulent expectoration ; increase of thoracic resonance, which was almost tympanitic at the bases ; vesicular murmur weakened ; sibilant and snoring râles, with moist rhonchus all over both chests ; heart-sounds normal ; no increase of temperature at night ; pulse regular, strong, and of moderate tension. No albuminuria. Tongue clean ; appetite good ; digestion normal. Frequent and profuse perspiration, especially after the attacks of suffocation. Until November 27th everything which had been administered had failed to relieve, the condition of the patient remaining much the same. It was then decided to try the effect of counter-irritation by ignipuncture. A first application was made at once with a thermo-cautery, a large number of very superficial punctiform cauterisations being disseminated over the dorsal region. The following day there was a marked improvement in every respect ; the patient had slept better, cough and dyspnœa were less, and there was not so much moist râles. On the 30th of November and on the 3rd of December the application was renewed, the cough then ceasing entirely, and the dyspnœa being so slight that the patient was able to walk up and down stairs without fatigue. On auscultation no râle of any kind ; and whilst the vesicular murmur was to be heard well all over the lungs the emphysematous resonance had much diminished. On the 7th, 15th, and 21st of December further cauterisations were made, to ensure a thorough cure. On the 29th the patient took her discharge in perfect health, physical examination showing nothing beyond a slight want of elasticity over the right apex and a slight roughness of breathing in the corresponding supra-spinous fossa. The result obtained in the preceding case by the use of the actual cautery was, no doubt, unusually complete, but the method of treatment is constantly employed with success in Paris, being perhaps somewhat neglected at the present day in England. Besides chronic bronchitis, other affections of the lungs may be benefited by ignipuncture, incipient consolidation, and unabsorbed pleuritic effusion being worthy of a special mention. The thermo-cautery also plays a prominent part in the French treatment of many spinal complaints; it is the sedative *par excellence* in locomotor ataxia, and to a lesser extent in both varieties of trembling paralysis (paralysis agitans—*sclérose en plaques*).

The *Progrès Médical* records another case of nerve-stretching, this time for congenital epilepsy. The patient, who is under the care of M. Voisin, has been improved. Professor Ball has also performed the operation for painful hemiplegia. The result has been entirely negative.

Obituary.

WM. RUTHERFORD SANDERS, M.D. EDIN.

THE death of Professor Sanders, by apoplexy, at his residence in Charlotte-square, on the 18th inst., will be regarded by all who know the medical circumstances of Edinburgh and the University as one of the most serious events which has happened since the death of the younger Dr. Begbie. The death of Dr. Andrew Wood was more startling and unexpected, but that was at threescore years and ten. This is at the comparatively early age of fifty-seven. He was just beginning to realise the most splendid career of success which is open to an Edinburgh consulting physician, after a long and slow period of waiting and training. Before studying medicine in Edinburgh Dr. Sanders studied in Montpelier, where he took the degree of Bachelor of Letters. Dr. Sanders graduated in medicine in the Edinburgh University in the year 1849, taking for the subject of his thesis "The Anatomy of the Spleen." This thesis was a work of such merit as to gain one of the gold medals of the year. His principal published works were his thesis, which appeared in Goodsir's Annals of Anatomy and Physiology, 1859; the article on Paralysis in Reynolds's "System of Medicine;" contributions on Waxy Degeneration in the "Edinburgh Medical Journal," 1853 and 1854; an admirable paper on "The Seat of Lesion in Facial Paralysis," in THE LANCET of 1865, &c. &c. His writings show a deep acquaintance with the best physiological and pathological works of the time, an anticipation of the drift of such work, and an acquaintance with modern languages which enabled him to go to original sources. For many years before his election to the chair of pathology in the University he was one of the physicians of the Royal Infirmary of Edinburgh, and an extra-mural Lecturer on Physiology and Clinical Medicine. In the year 1869 he was elected, the third professor, to the chair of General Pathology, created in 1831, and filled, in succession, previously to Dr. Sanders's appointment, by Dr. John Thomson and Dr. William Henderson.

We have been favoured with a notice of Professor Sanders from one who, by intimate sympathy and long friendship and co-operation, was well able to estimate his character and worth, and we cannot do better than append it in full, only further premising that Dr. Sanders was related by marriage to Professor T. Gairdner, and that he leaves a widow and several children to feel his loss.

"Those who knew the hard preparatory work Dr. Sanders went through, as well as the character of his mind, can best understand the loss which his death occasions. Those who were associated with him when he filled the post of lecturer on physiology know how faithfully he discharged the duties of that arduous and, in the extra-mural school, not very encouraging position. The familiarity which he had with the use of the microscope, at a period when such familiarity was not common, he had acquired under the distinguished Henle, then in the Heidelberg school, and that early made him an authority in physiological and pathological histology. This physiological work, preceding his work at the hospital as a clinical teacher, helped largely to give him that power of seeing through the mists of a case which characterised him ; for his tendency, instead of magnifying the case and himself, was rather to beat down the mystery, as if saying, after a searching diagnosis, 'That is it, and that is all ; or, at least, all that can be said about it.'

"While this genuineness as a physician was due partly to the thoroughness of his physiological and pathological attainments, it was due no less to the straightforwardness of his character, which led him to despise those arts which are, perhaps, too often employed to impress patients and the public. He was known among us as an unassuming, genuine man, on whom we could rely for a sound diagnosis and candid opinion, and, even before he rose into prominence with the public as a consultant, he was one to whom his professional brethren, when suspecting that all was not right with themselves, would prefer to go for an opinion.

"As a teacher Dr. Sanders was conscientious and thorough, despising the quackeries of the lecture-room no less than of the sick-room, and besides being clear, had a warm earnest manner, the true eloquence of the medical lecture-room, all contributing to render him one of the most successful of teachers. As clinical teacher he took a great deal of trouble at the bedside, spending, we believe, even to the last, a couple of hours daily at the infirmary when he might have been making money elsewhere. His was the usual history of the deserving consulting physician: early resolve to rise by living laborious days, long years of hard work in comparative obscurity, followed by success, which, once begun, came on rapidly. He had for some time, to the satisfaction of all his friends (and it has been said he had no enemies), attained the foremost rank as consulting physician in Edinburgh, we may say in Scotland, second only to that of his attached friend and former colleague in the Edinburgh School, Dr. Gairdner, of Glasgow, with whom he maintained intimate relations.

"The death of Dr. Sanders will be felt as a severe loss. By the University as that not merely of one of its ablest teachers, but as an influence and an example in all right directions. Edinburgh and the profession in and around Edinburgh will miss him greatly as a consultant, whose place, as a whole, it will not be easy to fill. One of the sayings of Mr. Syme, in our student days, was that a man may be known by how he stands with his professional brethren; and, tried by that test, Dr. Sanders stood very high, for he enjoyed the entire confidence of his brethren, and, more than that, their personal esteem. His many former pupils now scattered over the world, will feel his death as to them a light gone out, and the inner circle of his friends, who have been his fellow-workers, are left to feel acutely the early fall of a comrade who had a deep hold on their affection as well as on their respect."

THOMAS WEMYSS BOGG, M.B. LOND., M.R.C.P.

OUR obituary column contains the name of Thomas Wemyss Bogg, M.B., who died on February 13th, at the early age of forty-four, at Altrincham, whither he had removed from St. Leonards-on-Sea in consequence of failing health.

Dr. Bogg was educated for the medical profession by his father, the late John Bogg Esq., surgeon, Louth, and having, after some years of diligent and careful study, matriculated at London University, he proceeded to University College, where his intelligence and assiduity speedily attracted the attention of the medical staff. In the class examinations he obtained the gold medal in botany, silver medals in senior anatomy, chemistry, and medicine, the prize in descriptive botany, and certificates of honour in practical chemistry, materia medica, junior anatomy, physiology, and surgery. At the First M.B. Examination he obtained honours in anatomy, botany, and chemistry, and gained the gold medal for botany at the Apothecaries' Hall. Having passed the College of Surgeons and the Hall, Dr. Bogg commenced the practice of his profession as assistant to his father in his native town. Dr. Bogg naturally stood very high in the estimation of the Professors at University College. On the occasion of his competing for a public appointment, Sir Wm. Jenner and Professors Ellis, Erichsen, Harley, Lindley, Quain, Sharpey, Walshe, and others bore concurrent testimony to Dr. Bogg's diligence and punctuality, professional knowledge, practical ability and excellence of general character as a student, qualities which future years of usefulness in his profession and blameless life confirmed.

Shortly after having graduated at London University as M.B., Dr. Bogg's health, which had for years been a cause of anxiety, led him to relinquish general practice and leave Louth. He did not leave Louth without many important expressions of respect from public authorities, showing that the same qualities which had stood him in such good stead at University College served him well in the graver stages of his life. After an interval of a year and a half spent in study, and in attendance at the Manchester Royal Infirmary and the Children's Hospital, Brompton, Dr. Bogg was admitted a member of the Royal College of Physicians, London. In May, 1878, he commenced practice as a physician at St. Leonards-on-Sea. Only four months later symptoms of diabetes appeared, and to this disease he finally succumbed on the 13th inst.

Dr. Bogg was a man of varied attainments, possessing high poetical talent. He loved his profession for its use to others, and found in it scope not only for the admirable practical skill which he had acquired, but also for that gentleness of spirit and sympathy which endeared him alike to those under his care, and to a very wide circle of friends. Like his friend, the late Mr. Henry Bateman, Dr. Bogg was a member of the New Church.

Various contributions to the pages of THE LANCET from the pen of Dr. Bogg have appeared, notably one on the important subject of "Disease and Prison Diet," in 1879. Dr. Bogg's interest in this subject probably originated in his experience as surgeon to the Louth gaol. In his letter to us he made some forcible remarks on the possible connexion between the reduction in diet of prisoners and the frequency of pneumonia. He made the important suggestion that a return of the infirmary cases of acute disease occurring in prisoners on low diet during any given year should be asked for by a member of Parliament. Dr. Bogg was, we believe, unmarried, and leaves a widowed and esteemed mother to feel the loss of rare filial services. He was brother of the late Dr. E. Beverley Bogg.

ROBERT CRYAN, F.K.Q.C.P., M.R.I.A.

THE death of this physician took place last week at his residence, Rutland-square, Dublin, after two days' illness, from pneumonia. He was connected with the Catholic University Medical School as lecturer on anatomy and physiology, and his illness was so sudden that early in the week he died he addressed his class in the lecture theatre, apparently in his ordinary health. He was Visiting Physician to St. Vincent's Hospital, and obtained the Fellowship of the King and Queen's College of Physicians in Ireland in 1873. Deceased was a kind and amiable gentleman, and was much esteemed and respected by a large circle of friends. The funeral took place last Saturday, the 19th inst., and was largely attended. A procession of students belonging to the medical school and hospital to which Dr. Cryan belonged, numbering over 100, followed the hearse, and on arriving at Glasnevin carried the coffin from the mortuary chapel to the place of interment.

At a meeting of the Faculty of Medicine, Catholic University Medical School, Dublin, held last week, the following resolution was unanimously adopted:—"That this Faculty deeply deplores the sad and untimely demise of their loved and respected colleague, Professor Cryan, F.K.Q.C.P., M.R.I.A., and that the Dean be instructed to convey this expression of their profound regret to the family of their late colleague." On the same day the students of St. Vincent's Hospital, to which the deceased was physician, passed a resolution deploring the loss of a gifted, painstaking, and learned instructor, and offering their heartfelt sympathy to his family in their sad bereavement.

Medical News.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Feb. 17th:—

Dobrashian, Gabriel Sukias, Constantinople.

COLLEGE OF PHYSICIANS IN IRELAND.—During the February examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—James Stewart Brooke, James Joseph Davis, Edalji Dorabji Patel, Edmund Joseph Thunder.

MIDWIFERY.—James John Riordan, Edmund Joseph Thunder.

The undermentioned Licentiates have been duly admitted Members:—

William Berkeley Drew, Surg. R.N.; William Robert Kerans, Surg.-Maj. A.M.D.; Charles H. Leet; Geo. Alexander Moorhead; Joseph Michael Redmond.

THE new University College at Nottingham is approaching completion, and will be opened by Prince Leopold in June or July.

ST. MARK'S OPHTHALMIC HOSPITAL, DUBLIN.—A bazaar will be held at the end of this month to obtain funds to pay off the debt incurred by the late building and alterations.

The following gentlemen have received Government grants for successful vaccination in their respective districts: Mr. T. Torkington Blease of Altrincham, fourth time; Mr. Alfred Matcham, St. George's, Southwark, third time.

St. Luke's Hospital for Lunatics.—The annual meeting of the governors was held on Feb. 16th in the Board-room of this hospital in Old-street, under the presidency of General Sir Henry Percival de Bathe. The report for the year stated that the hospital continued in a prosperous state. During the year seventy-one patients were admitted, fifty-four were discharged, and nine died. The total number of patients admitted since the opening of the hospital on the 30th of July, 1751, was 22,968.

Trichinosis.—Mr. J. M. Redmond, L.K.Q.C.P.I., &c., writes to *The Times* from 126, Sandford-road, Dublin, under date 22nd of February:—"As I see from Mr. Chamberlain's answer that the Board of Trade are unable to afford any protection to the public in this matter, I think it my duty to state that two subjects came under my notice in the dissecting-room of the School of Medicine, Cecilia-street, Dublin, during the last fortnight, which on microscopical examination proved to be infested with trichinæ."

Presentations.—On the occasion of Dr. Banning leaving Gateshead, where he had been in practice for some years, for Dunblane, his professional brethren presented him with a handsome silver salver bearing the following inscription: "Presented to Robert J. Banning, M.D., by the members of the Gateshead Medical Society, as a token of their appreciation of his services as honorary secretary for fourteen years." The following resolution was also unanimously passed by the Gateshead School Board: "That this Board sincerely regrets to receive Dr. Banning's resignation, and acknowledges the assiduity, ability, and invariable courtesy which distinguished his work on the Board.——On the 5th inst., the oldest of the subordinate officers of the infirmary, St. George's-in-the-East, presented Dr. Belcher with a handsome silver inkstand, on his resignation of the post of superintendent of the institution, and in token of their esteem and appreciation of his kindness and worth. ——Dr. B. J. Massiah has been presented with a handsome timepiece by the officials and patients of the Barnes Convalescent Hospital, Cheadle, near Manchester, on the occasion of his resigning the position of Resident Medical Officer in that institution to become Visiting Physician to the Sick Children's Hospital, Pendlebury.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* The Lancet *before 9 o'clock on Thursday Morning, at the latest*

Bartlett, C. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Morchard Bishop District of the Crediton Union.

Cohen, A., B.A., M.B., B.Ch., has been appointed Senior House-Surgeon to the Metropolitan Free Hospital, vice W. S. Byrne, resigned.

Cossham, W. R., M.D., C.M., M.R.C.S.E., has been appointed a Consulting Surgeon to the Cirencester Cottage Hospital.

Edmunds, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Workhouse and the Panteague District of the Pontypool Union, vice Cousins, deceased.

Hall, C. S., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Carlisle Rural Sanitary District.

Hepburn, W. A., L.F.P.S.G. & L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 2 District of the Durham Union, vice J. W. Blandford, M.R.C.S.E., resigned.

Hicks, E. B., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health to the Easingwold Rural Sanitary Authority.

Hoskins, W., M.B., C.M., has been appointed Medical Officer for the Second District of the Poole Union.

James, C. E., M.B., L.R.C.S.I., has been appointed Second Surgeon to the Kilkenny County Infirmary.

Milsome, J. R., M.D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Fever Hospital, Chertsey.

Murphy, J. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to Dublin City Commercial Club.

Owen, I., M.A., M.B., M.R.C.P., has been appointed Lecturer on Materia Medica to St. George's Hospital.

Ritchie, J., M.B., M.C., F.R.C.S.Ed., has been appointed Surgeon to George Heriot's Hospital, Edinburgh, vice Wood, deceased.

Roper, W. R., M.A., L.R.C.P.Ed., L.F.P.S.G., has been reappointed Medical Officer of Health for the Newmarket Urban Sanitary District.

Sealy, W. B., L.R.C.S.I., L.S.A.D., has been appointed Medical Officer for the Broughton District of the Newark Union.

Wilson, C. W., M.B., M.R.C.S.E., has been appointed a Consulting Surgeon to the Cirencester Cottage Hospital.

Births, Marriages, and Deaths.

BIRTHS.

Blackett.—On the 15th inst., at Wangford, Suffolk, the wife of Edward R. Blackett, M.D., of a daughter.

Irvine.—On the 18th inst., at Alladale, Woolston, Southampton, the wife of Dr. Gerard J. Irvine, Royal Navy, H.M.S. *Hector*, of a son.

Lidderdale.—On the 20th inst., at East Hayes, Cheltenham, the wife of Robert Lidderdale, M.D., Sanitary Commissioner for Bengal, of a daughter.

Roberts.—On the 19th inst., at Upper Rathmines, Dublin, the wife of Browne Roberts, M.D., of a son.

Whitlock.—On the 23rd inst., at The Limes, Linton, Cambs., the wife of J. E. N. Whitlock, Surgeon, of a daughter.

MARRIAGES.

Birch—Boschetti.—On 16th inst., at the Parish Church, Eccles, Philip Birch, M.R.C.S.E., of Cromwell House, Stockport-road, Manchester, to Ida Agnes, youngest daughter of the late John Newbery Boschetti, Esq., of Eccles.

Mackenzie—Gordon.—On the 22nd inst., at St. Mark's, Notting-hill, Surgeon-Major John Mackenzie, M.D., Army Medical Department, to Ashton Bostock, only daughter of Surgeon-General C. A. Gordon, M.D., C.B., Honorary Physician to Her Majesty the Queen.

Potts—Rhodes.—On the 17th inst., at the Parish Church, Beckenham, Lawrence Potts, M.R.C.S.E., L.S.A.L., of Leatherhead, second surviving son of the late Robert Ullock Potts, of Beckenham, to Edith Mary, elder daughter of John G. Rhodes, of Beckenham.

Spence—Bennett.—On the 23rd inst., at St. Matthew's Church, Redhill, by the Rev. H. Brass, Incumbent, James Beveridge Spence, M.D., Medical Superintendent, Burntwood Asylum, near Lichfield, to Elizabeth Roebuck, eldest daughter of Richard Bennett, Esq., of Redhill, Surrey.

Tomlinson—Druitt.—On the 17th inst., at St. Nicholas', Chislehurst, William Winslow Tomlinson, Surgeon-Major, Army Medical Department, to Anne Maud Mary, only surviving daughter of the late Robert Druitt, Esq., of Stoke Newington.

Wodsworth—Townshend.—On the 14th inst., at Queenstown, Ireland, Charles Gregory Wodsworth, Staff-Surgeon, Royal Navy, to Emma, daughter of the Rev. T. W. Townshend, formerly Vicar of Inistiogue.

DEATHS.

Bennett.—On the 16th inst., at George-street, Devonport, James Bennett, M.R.C.S.E., L.S.A.L., aged 64.

Bevan.—On the 18th inst., at Rye-lane, Peckham, George William Bevan, Surgeon, formerly of St. Ives, Cornwall, in his 79th year.

Bogg.—On the 13th inst., at his residence, Burlington-villas, Altrincham, Thomas Wemyss Bogg, M.B., M.R.C.P., aged 44.

Cryan.—On the 17th inst., at Rutland-square West, Dublin, Robert Cryan, F.K.Q.C.P.I., Professor of Anatomy and Physiology in the Catholic University.

Handyside.—On the 21st inst., at Lansdowne-crescent, Edinburgh, Peter David Handyside, M.D., F.R.S.E., Lecturer on Anatomy, Royal College of Surgeons, Edinburgh.

Henderson.—On the 12th inst., at Keith, J. L. Henderson, L.R.C.P.Ed.

Hurman.—On the 17th inst., at Eastover, Bridgwater, H. B. Hurman, M.R.C.S.E., L.S.A.L.

Sanders.—On the 18th inst., at Charlotte-street, Edinburgh, William Rutherford Sanders, M.D., Professor of General Pathology in the University of Edinburgh.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

Baillière, J. B., et Fils, Paris.
Nouveau Dictionnaire de Médecine et Chirurgie Pratiques. Tome XXIX. Pol—Pro.

Bogue, David, London.
Syphilis and Marriage. By A. Fournier. Translated by A. Lingard, M.R.C.S. With Prefatory Remarks by Jonathan Hutchinson, F.R.C.S. pp. 264.

Brotherhead, W., Philadelphia.
Handbook for Coroners. By John G. Lee, M.D. pp. 288.

Churchill, J. & A., London.
Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.C.S. Fasciculus XIV.
Fits; Diagnosis and Immediate Treatment of Cases of Insensibility and Convulsions. By J. H. Waters, K.C. St. G.C., M.D., &c. pp. 138.

Heywood & Son, Manchester.
The Life of John Critchley Prince. By R. A. Douglas Lithgow, LL.D., M.R.C.P.Ed., &c. pp. 280.
The Poetical Works of John Critchley Prince. Edited by R. A. Douglas Lithgow, LL.D., M.R.C.P.Ed. Two vols. pp. 359-369.

Hodder & Stoughton, London.
Thrift Lessons: Familiar Letters. By J. T. Walters, M.A. pp. 240.

Houghton & Co., New York.
The Cure of Rupture, Reducible and Irreducible, by New Methods. By C. Heaton, M.D. Arranged and Edited by J. H. Davenport, M.D. Harv. pp. 196. With Illustrations.

LEWIS, H. K., London.
Catalogue of Lewis's Medical and Scientific Library, with a Classified Index of Subjects and Names of Authors. pp. 246.
Surgical Cases, mainly from the Wards of the Stamford, Rutland, and General Infirmary. By W. Newman, M.D. Lond., F.R.C.S.E. pp. 142.
Experimental Researches on the Temperature of the Head. By J. S. Lombard, M.D. pp. 45-16.

LONGMANS, GREEN, & Co., London.
A History of Greek Philosophy, from the Earliest Period to the Time of Socrates. Translated from the German of Dr. E. Zeller by S. F. Alleyne. Two vols. pp. 642-541.
A Treatise on the Diseases of the Ox; being a Manual of Bovine Pathology. By J. H. Steel, M.R.C.V.S., F.Z.S. pp. 498. With Illustrations.

MACLEHOSE, J., Glasgow.
Evolution, Expression, and Sensation. By John Cleland, M.D., F.R.S. pp. 158.

MACMILLAN & Co., London.
A Treatise on Diseases of the Joints. By R. Barwell, F.R.C.S. Second Edition. pp. 690. With Illustrations.

MACNIVEN & WALLACE, Edinburgh.
Health Lectures for the People, delivered in Edinburgh in the winter of 1880-81. pp. 228.

PAUL, C. KEGAN, & Co.
General Physiology of Muscles and Nerves. By Dr. I. Rosenthal. pp. 324. With 75 Woodcuts.
The Laws of Therapeutics, or the Science and Art of Medicine. By Joseph Kidd, M.D. Second Edition. pp. 245.

SMITH, ELDER, & Co., London.
St. Bartholomew's Hospital Reports. Edited by W. S. Church, M.D., and Alfred Willett, F.R.C.S. With Statistical Tables. Vol. XVI. pp. 362-123.
A Guide to Therapeutics. By Robert Farquharson, M.P., M.D. Ed., F.R.C.P. Lond. Second Edition. pp. 376.

WOOD, W., & Co., New York.
A Practical Treatise on the Medical and Surgical Uses of Electricity. By G. M. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D. Third Edition, revised by A. D. Rockwell, M.D. pp. 757. With nearly 200 Engravings.
A Treatise on Diphtheria. By A. Jacobi, M.D. pp. 252.
A Manual of Diseases of the Throat and Nose. By F. H. Bosworth, A.M., M.D. pp. 427. With Illustrations.
The Venereal Diseases, including Stricture of the Male Urethra. By E. L. Keyes, A.M., M.D. pp. 382. With Engravings.
Minor Surgical Gynecology. By P. E. Mundé, M.D. pp. 381 With 300 Illustrations.
A Practical Treatise on Nervous Exhaustion (Neurasthenia). By G. M. Beard, A.M., M.D. Second and Revised Edition. pp. 198.
A Practical Treatise on Nasal Catarrh. By B. Robinson, A.M., M.D. Paris. pp. 182. Illustrated.
A Practical Treatise on Surgical Diagnosis. By A. L. Ranney, A.M., M.D. Second Edition, enlarged and revised. pp. 471.
A Treatise on Common Forms of Functional Nervous Diseases. By L. Putzel, M.D. pp. 256. With Engravings.
Diagnosis and Treatment of Ear Diseases. By A. H. Buck, M.D. pp. 411 Illustrated.
Spermatorrhœa, its Causes, Symptoms, Results, and Treatment. By Roberts Bartholow, A.M., M.D. Fourth Edition. Revised. pp. 128.
Wood's Ophthalmic Test-types and Colour-blindness Tests.

De la Phthisie Pulmonaire et de sa Curabilité; par Dr. J. L. S. Joly. (Baillière et Fils.)—Recurrent Headaches in Children; by Dr. F. Warner.—The Monthly Homœopathic Review, February.—Girl's Own Paper, Friendly Greetings.—Fraser's Magazine, February.—Walsh's Retrospect.—Men of Mark. (Sampson Low & Co.)—Contemporary Review, February. (Strahan & Co.)—The Pathologist. (Brooklyn.)—The National Board of Health and National Quarantine; by Dr. J. S. Billings, Philadelphia.—Catalogue of the Syrian Protestant College, Beirut.—Recueil des Travaux Chimiques du Dr. Domingos Freire. (Rio de Janeiro.)—The Asylums of Europe; by Dr. G. M. Beard.—Myopia in its various Phases; by Dr. J. J. Chisolm.—Third Annual Report of the Presbyterian Eye and Ear Hospital, Baltimore.—Restoratives; by Dr. J. R. Uhler.—Successful Case of Ligature of the Right Subclavian and the Right Common Carotid at a Single Operation, on account of Aortic Aneurism; by Dr. J. A. Wyeth, New York.—Annals of Anatomy and Surgery. (Brooklyn.)—The Popular Science Monthly, February.—Abdominal Pulsation simulating Aneurism of the Abdominal Aorta; by Dr. J. Williams. (Melbourne.)—Archives de Neurologie, publiée sous la direction de J. M. Charcot.—The Irish Crisis of 1879-80. (Browne and Nolan, Dublin.)—Action of Carbolic Acid on Ciliated Cells and White Blood-cells; by Dr. T. M. Prudden.—The Development of the Osseous Callus; by Dr. H. O. Marcy.—National Temperance Mirror.—On the Treatment of Nævi by Electrolysis; by Dr. W. Newman. (Lewis.)—Archives of Medicine; edited by Dr. E. C. Seguin. (Putnam's Sons.)—An Account of the New North Wing and recent Additions to University College, London.—The Immediate Cure of Inguinal Hernia by a new Instrument; by W. D. Spanton, M.R.C.S.E.—Treatment of Hip-Disease; by E. H. Bradford, M.D.—Virchow's Archiv.—On the Diseases of the Ear in Locomotive Engineers and Firemen; by Prof. Moos; translated by Dr. Spalding.—Calendar of the Mason Science College for the Session 1880-81.—Guide to Health and Longevity; by G. W. Bacon, F.R.G.S.—Cæsarean Section, with Removal of Uterus and Ovaries by the Porro-Müller Method; by E. Richardson, M.D.—Healthy Homes; by Stanley Haynes, M.D., M.R.C.S. (Baillière, Tindall, & Cox.)—Raffo Dott. Costantino: Litotrissia rapida in una Sola Seduta.

Medical Diary for the ensuing Week.

Monday, Feb. 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Thomas Bryant will show the Patient from whom in November last he removed the Head, Neck, and Half the Shaft of the Femur for Acute Necrosis, and in whom new bone and joint have been reformed.—Dr. Heron will show a Case with Ataxic Symptoms and Marked Knee Phenomenon.—Dr. Woakes, "On the Treatment of Goitre by Fluoric Acid."

Tuesday, March 1.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Annual Meeting. The President's Address.

Wednesday, March 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be exhibited by Dr. Godson and others.—The President, Dr. Matthews Duncan, will deliver his Inaugural Address.—Dr. Robt. Barnes, "On so-called Missed Labour, with a Case in illustration."
EPIDEMIOLOGICAL SOCIETY.—8 P.M. Surgeon-General John Murray, "On the influence of Fairs, Floods, Famines, and Seasons on the Development and Diffusion of Cholera in India."
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Sir William Thomson, "Flashing Signals for Lighthouses."

Thursday, March 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Rev. W. Houghton, "On Cuneiform Characters."
HARVEIAN SOCIETY.—8½ P.M. Mr. Osman Vincent, "On Cases of Lumbar Abscess treated by Sulphurous Acid."—Mr. T. Robinson, "On Nocturnal Incontinence of Urine."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Unilateral Hypertrophy of Head and Face; Tumour of Spinal Cord; Sacral Tumour containing Fœtal Structure; Congenital Sacral Tumour (card); Syphilitic Disease of Skull; Malformation of Heart; Cancer of Prostate; Epithelioma of Bladder; Vesical Calculus from a Dog (card); Cranium and Brain of Hydrocephalic Adult (card); Case of Leucoderma (living specimen).

Friday, March 4.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."
ROYAL INSTITUTION.—8 P.M. Sir W. Thomson, "On Elasticity."

Saturday, March 5.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Ancient Egypt."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 24th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 18	30·02	S.	43	42	..	47	35	..	Foggy
" 19	30·19	E.	40	39	..	41	37	..	Overcast
" 20	30·20	N.E.	40	39	..	40	36	·19	Overcast
" 21	30·23	E.	36	35	..	36	31	·47	Snowing
" 22	30·18	W.	34	33	..	37	29	·04	Overcast
" 23	30·18	N.E.	35	33	..	38	31	·01	Cloudy
" 24	30·34	N.E.	36	34	..	41	32	·65	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A NEW HOSPITAL IN CHINA.

THE *North China Daily News* reports the details of an interesting ceremony at Tientsin on December 2nd. It appears that in 1879 the use of a portion of the memorial temple to Tsêng Kuo-fan in Tientsin was granted to Drs. J. K. Mackenzie, Irwin, and Howard, of the American Episcopal Methodist Mission, on account of valuable medical services which had been rendered by them to a relative of the Viceroy and to General Chow. This building served as a "dispensary," to which the natives flocked in large numbers to obtain relief from their ailments. Various inconveniences, chiefly distance from the settlement, were, however, experienced in connexion with these premises, and it was proposed to erect a hospital for in-patients on a portion of the London Mission compound. This project has now been carried out, principally by means of funds supplied by the Viceroy and other wealthy Chinese, and the opening of the hospital, in presence of the chief officials, native and foreign, formed the ceremony referred to above. The building is in the style of a Chinese temple, whilst the interior arrangements have apparently been planned as far as possible in accordance with Western ideas of comfort and efficiency. We cannot but wish success to an enterprise which must prove a means of extending the benefits of European medicine amongst the Celestials.

Dr. John Aikman.—We could not express an opinion without hearing both sides of the question.

A General Practitioner.—There is much truth in the remarks offered, but they relate to points scarcely arising out of the question under discussion.

Dr. Pittock.—The paragraph is unworthy of notice.

Surdus.—We are unable to give the information desired.

Mr. John Davies.—The first and third articles specified are surgical; the second, doubtful.

SMALL-POX AND VACCINATION.

To the Editor of THE LANCET.

SIR,—I notice in your correspondents' column an answer to "Inquirer" on the subject of small-pox. I have thirty or forty copies of my paper on Small-pox and Vaccination at the service of any medical man who would like a copy, and would send one free to any applicant.

I am, Sir, yours faithfully,

WM. TIFFIN ILIFF.

Kennington-park-road, Feb. 22nd, 1881.

ON THE EFFECTS OF IMPURE MILK UPON CHILDREN.

To the Editor of THE LANCET.

SIR,—Since the discovery by Dr. Ballard that milk contaminated with sewage water caused typhoid fever, the attention of the whole profession has been directed to the subject, and there is little doubt that many other affections are produced from the same cause. If these few observations direct the attention of my medical *confrères* to this important subject, my investigations will be amply repaid.

In 1869 there were no less than eleven cases of follicular stomatitis in one sub-district of this town; five were under my own care, and four under the charge of the late Mr. Burns. We examined each other's cases, and on investigation I found that four of the cases under my own charge and two of those under the late Mr. Burns were all supplied by one farmer, whose cattle were suffering from the foot-and-mouth disease, and the remaining five were supplied by a milkseller, one of whose cows was suffering from the "gargles," as it is popularly termed, which, I may explain, is simply an inflammation of the lactiferous tubes of the teat, through which it is difficult to milk at the first onset, and the teats mostly bleed when the dairyman first begins to milk a cow so affected; very often a tube is used to open the ducts, but whatever procedure is adopted, oftener than otherwise the cow loses that "quarter." This is a species of "Aden-emphraxis" (εμφραξις, stoppage). It can be easily understood by anyone who has not seen such a case how the milk is rendered impure by an admixture of blood, &c. I have not been able to secure such a sample of milk since my attention has been directed to it, or should have very much liked to have had an analysis made. Several of my friends (veterinary surgeons) have promised to apprise me when they had a case under their care, but they all state that these cases are generally kept very secret, and that all cowkeepers and farmers imagine that they can treat them themselves successfully. I will defer any further remarks until after considering the next class of cases.

Diphtheria.—Last year two cases of this disease came under my notice, and my attention was drawn to the milk, as both cases were supplied from the same "shop," and on inquiry I visited the farmhouse from which it came, and a more disgracefully dirty place never before fell to my lot to visit. The pigstyes were adjoining the dairy; the milk utensils were brought home closed up and not washed out until the night's milk was brought into the town. One large can I opened smelt very offensive. Last September two deaths occurred in this town from the same cause, and on inquiry I found that the milk supplied came from a farm some two miles away. On visiting it I found that all the milk utensils were washed in water from a pump impregnated with sewage. The following is an analysis of the water, kindly made for me by the borough analyst, clearly showing how the milk was contaminated:—

Analysis.—Total solid residue, 20 grains per gallon; total chlorine, 1·1 grain per gallon; nitrogen as nitrates and nitrites, 4·5 grains per gallon; free ammonia, ·054 parts per million; albuminoid ammonia, ·24 parts per million. The above sample of water is decidedly unfit for drinking purposes, as there is evidence of serious contamination. By the above data it would appear that the source of contamination has been removed, but the evil effects are still present in the sample.

First, as to the usefulness of this letter. Anyone might say "one swallow does not make a summer"; quite true, but it directs the attention of the whole profession to the subject, and where a case of stomatitis occurs first obtain a supply of milk from another source. This is the first step in the treatment, and it is really remarkable how soon an intractable case becomes amenable to curative measures, as often the simple cases run on to the more malignant forms of noma, and if anyone is able to carry my investigations still further they will have done some good.

On inspecting premises, after many years' experience, I have scarcely ever been able to find a sufficiently insanitary condition on the spot to have been the cause of the outbreak in the case of diphtheria; but during the last two years I have always been able to find that the inmates of the house where a case has occurred are invariably supplied with a bad quality of milk. Now, the important lesson to be learnt is that all local authorities should obtain their supply of milk for analysis not from the shopkeepers, but from the little farmers who bring milk into the town, and when it is found impure the information should be given to the rural nuisance inspector, so as to enable him to visit the farmhouse whence it comes, and ascertain the purity of the water upply.

I have lately taken to painting the tonsils and all the parts affected with the diphtheritic exudation with a solution of carbolic acid, tincture of iodine, and tannate of glycerine, and it is marvellous how, after three or four applications, the exudation is scarcely ever renewed. The constitutional symptoms can scarcely ever be treated in the same way. Some cases improve under iron, some require bark or quin. disulph., but the *sine quâ non* is the swabbing of the tonsils with the aforementioned paint. Under this treatment I have never lost a case.

I am, Sir, yours, &c.,

J. S. WALKER, M.D. St. And., F.R.C.S.E.

Staffordshire, Jan. 1881.

DESQUAMATION AND INFECTION IN SCARLET FEVER.

To the Editor of THE LANCET.

SIR,—The medical attendant of the college where my son is a student having noticed my correspondence under the above heading, published in your issue of the 12th inst., I must ask your kind indulgence to give publicity to this letter. My acquaintance with the medical attendant in question is of the very slightest, as I only spoke to him on one occasion for about five minutes in reference to this illness, when I found him courteous and sympathising, and my son testifies to having received every possible personal attention from him, and I mention this to show that no unfriendly feeling influenced me in what I wrote. I wished either to be corroborated or contradicted by medical authorities in the opinion I entertained, that this gentleman had made a mistake in allowing his patient to leave the infirmary and pronouncing him free from all risk of conveying infection three weeks after an attack of scarlet fever, no matter how slight, and more especially where no desquamation of the cuticle had taken place before he left this gentleman's care.

Dr. David Page, to whom I feel much indebted for giving me, through your columns, his opinion and the benefit of his experience, fixes eight weeks as the soonest to permit, with safety, any scarlatina patient to mingle with the healthy. Other medical authorities have fixed the same time; some have suggested six weeks, and this has been the shortest date named to me, but when I mentioned three weeks not one of the many medical gentlemen I have spoken to have said otherwise than that no possible inducement could make them receive a patient recovering from scarlet fever inside their own doors after such an unduly short isolation. Being a layman myself, I only now learn for the first time that in slight attacks of scarlet fever desquamation of the cuticle is generally delayed, but surely I must assume that the medical attendant of the college was not ignorant of this well recognised characteristic, which should of itself, I humbly submit, have made him act with more caution. This gentleman takes credit to himself "that no persons have suffered from my son's presence among them," and that "he showed a due regard for the health of the boy and the safety of the public." I must remind him that it scarcely admits of a doubt, but that this satisfactory result is entirely attributable to my having, at the instigation of numerous friendly medical acquaintances, acted in total disregard of his advice. I did not bring my son home at the time he said I might do so without the slightest risk, having other children who have never had this fever, nor did I send him elsewhere where he could have spread infection, but I isolated him in an infirmary conducted specially for receiving similar cases. What the result would have been if he had been at large in a school of two or three hundred boys when desquamation of the cuticle was taking place is too awful to contemplate, and I think the medical attendant and all those interested in the college, including the parents of the pupils, ought to feel very much indebted to me for the fortunate prudence I exercised. The most important portion of the letter of the "Medical Attendant at the College" is the concluding paragraph, which does not concern myself. I leave to the gentleman of high standing in his profession to whom it refers to defend himself from the imputations conveyed in it. First of all, there is a distinct doubt thrown out as to any desquamation whatever having been really discovered, and then it was suggested that it was eczema. All I can say is that I myself entertain far too high an opinion of the professional abilities of the gentleman alluded to, whose services I availed myself of, to think him for one moment capable of committing such grave and unpardonable errors; but let him speak for himself.

I remain, Sir, your obedient servant,

Feb. 22nd, 1881. ENQUIRER.

To the Editor of THE LANCET.

SIR,—Will you allow me to state that the desquamation to which attention was called by the nurse of the patient, and for which my advice was sought, was confined to the palms of the hands and the soles of the feet, in the latter case the cuticle coming off in somewhat large pieces. I saw nothing to justify the suspicion of eczema, and have no doubt whatever in my own mind that the scarlatinal poison was the cause.

I am, Sir, yours faithfully,

Feb. 21st, 1881. THE MEDICAL MAN WHO SAW THE DESQUAMATION.

To the Editor of THE LANCET.

SIR,—Will you allow me, through your columns, to tentatively express an opinion which has for a long time been forcing itself upon my mind, that the accepted ideas of our profession as to the connexion between desquamation and infection in scarlet fever are probably most unsound.

Although occasionally occurring in other eruptive fevers, desquamation is undoubtedly one of the most remarkable and characteristic phenomena in scarlet fever, and, so far as it is generally coincident with the infectious stage of the disease, is a most valuable indicator. Beyond this I certainly do not think that the cast-off epithelial débris has any special significance over other excrementitious matters either as retaining or distributing infection. I should hesitate to say that the infective element of scarlet fever might not be present in any of the excretions, but it is my experience that, as the alvine excretions are specially important as regards the infection of typhoid fever, so the excretions from the throat as distributed by the saliva and the breath are specially important as regards the infection of scarlet fever.

It is in accordance with my experience in scarlet fever that, whilst on the one hand infection may be communicated before desquamation has commenced, or in cases where this symptom has not been noticed at all, on the other hand desquamation subsequent to and dependent upon an attack of scarlet fever may exist long after all danger of personal infection from the patient has ceased. This is a matter of very great practical importance, if for no other reason than that in proceedings before courts of justice for wilful exposure of persons suffering from scarlet fever evidence of desquamation at the time of exposure has, as a rule, been held to be sufficient proof of the infectious condition of the person at the time.

I am, Sir, yours, &c.,

Shrewsbury, Feb. 16th, 1881. W. N. THURSFIELD, M.D., &c.

To the Editor of THE LANCET.

SIR,—Some time since I received a circular from the Royal College of Physicians requesting details from personal observation of cases of scarlet fever. Cannot the College, from the accumulated experience it must have received, throw some definite light upon the case under discussion in your valuable pages?

It seems to me that the desquamation from such a very mild attack as the case in question would be almost unnoted. If we are to expect desquamation from such a case to occur at the end of six weeks, we are forced to the conclusion that the lighter the fever the more prolonged is the risk of infection.

Dr. Wilson, in his "Hygiene," says: "The question of quarantine must be decided by the special case." Must we add, "the lighter the case the longer isolation." I have not had an opportunity of reading Dr. Page's pamphlet, but in the typical case he quotes desquamation occurred five (not six) weeks after the commencement of the illness. If we are to isolate our mildest attacks of scarlet fever three months (a conclusion which might be easily deduced from Dr. Page's remarks), who can prevent the spread of scarlet fever, especially amongst the poorer and more numerous class of patients? unless, indeed, some philanthropic individuals should supply the families and others coming in contact with the infected person with glycerine to anoint their bodies and bottles of ice-cold water, to be held a little before the mouth, as recommended by Mr. Wynter Blyth. (*Vide* THE LANCET, Jan. 8th, 1881.)

I am, Sir, your obedient servant,

Lambeth, S.E., Feb. 21st, 1881. F. J. ELLIOT.

To the Editor of THE LANCET.

SIR,—The opinion enunciated in a letter in THE LANCET of to-day by Dr. Page of Kendal, and, I believe, shared in by most practitioners at present, as to the length of time it is necessary to isolate scarlatinal patients, seems to me likely to lead to so much unnecessary trouble and injury, that I think I ought to contribute my mite towards amending it by asking you to insert among the correspondence in your journal this statement. That, according to my experience, three weeks is sufficiently long to isolate a patient with scarlet fever, whether desquamation be going on at the end of that time or not, if the following plan have been adopted—viz., to smear the entire surface twice a day with olive oil containing a fortieth part of carbolic acid, and to give a hot bath and a scrubbing with soap three times during the last week, immediately after the last one the patient leaving his room and getting into clean linen and a clean bed. My experience of this plan has extended to many instances, and I have not known it fail, though in some cases tested severely. Nay more, I have good reason for thinking that the inunction, thoroughly and carefully carried out, will prevent the spread of the contagion during the course of the fever, for in two instances it did not spread, although there was the closest and most continuous communication between the patient and numerous children who had never had the complaint.

I am, Sir, yours obediently,

Mare-street, Hackney, Feb. 19th, 1881. E. G. GILBERT.

MEDICAL REFORM.

To the Editor of THE LANCET.

SIR,—I have read with some interest your article in THE LANCET of Jan. 22nd in favour of a Conjoint Examining Board. Your proposal to abolish three of the existing Boards is so far good, and one to which few objections can be urged. As a licentiate of one of those corporations I may, however, be permitted briefly to point out some of the claims which that body has to be at least heard in its own defence.

The Faculty of Physicians and Surgeons has no need to apologise for its origin or hitherto for its existence; incorporated before the Royal Colleges of Edinburgh, it has done much to encourage medical research, and still more to maintain a cordial and becoming feeling between members of the profession in Scotland. With regard to the examination for the diploma, as a matter of fact it is more comprehensive and eminently more practical in character than that of either of the Royal Colleges of Surgeons, including clinical medicine, a subject not insisted on by those bodies. As to the laxity in passing candidates, I am convinced it is more imaginary than real, as English and Irish students who come up frequently find out to their cost. We hear now and again of some men having passed after being rejected at several other Boards, but such instances prove very little, as the candidate may have improved since his previous appearance.

So far, then, your proposal is all very well, but a great deal more is wanted than the mere abolition of a certain number of the present Examining Boards; such a measure of reform as will obviate the scandal and disgrace of hundreds of men being annually admitted into the profession, and eligible for registration as general practitioners, who have never undergone an examination in two such all-important branches as midwifery and clinical medicine. In conclusion, I would humbly recommend some of your ardent reformers to remedy the evils that exist at their doors before going so far afield to seek abuses. Reform, like charity, should begin at home.

I am, Sir, yours obediently,

Feb. 1881. X.

LIGATURES.

A Surgeon.—A succinct account of the history of the use of ligatures for the arrest of hæmorrhage appeared in The Lancet for Dec. 15th and 22nd, 1877, entitled "The Battle of Ligatures."

Dr. M. V. Pierce is thanked, and will receive a private note.

P. J. has forgotten to enclose his card.

Mr. C. S. Redmond.—The assumption of false titles is clearly illegal, but there is no legal test of qualification in midwifery; anybody may practise it, and the bold and the ignorant are too apt to escape with impunity.

THE MORRIS RELIEF FUND.

To the Editor of The Lancet.

Sir,—Will you kindly insert in your forthcoming number the following complete list of contributors to the above fund since the date of my appeal of Feb. 3rd, and oblige, yours very truly,

Ewell, Surrey, Feb. 22nd, 1881. Geo. R. Barnes, M.D.

	£	s.	d.
A Surgeon	£5	0	0
Per G. R. Barnes	4	10	6
Dr. Tuckwell, Oxford	3	3	0
T. Harley, Esq., Haverstock-hill	1	0	0
Dr. Bull, Hereford	£1	1	0
A. Steadman, Esq., Great Bookham	1	0	0
W. Y. Marten, Esq., Walkden	0	6	0

FEES FOR ATTENDANCE ON ODDFELLOWS.

To the Editor of The Lancet.

Sir,—I have to thank those who have kindly replied to my query on the above subject. I find from numerous private communications that five, six, and seven shillings per annum, with 2*s.* 6*d.* for examination, are by no means uncommon fees, and in country districts where the patients are scattered, these sums are certainly not excessive.

I am, Sir, yours faithfully,

Ben Regis, Feb. 23rd, 1881. F. D. Lys.

Enquirens.—1. Occasionally, when their services are required.—2. No. 5, York-buildings, Duke-street, Adelphi, W.C.

Mr. Simeon Snell.—In an early number.

Mr. Moxhay (Reading).—The paper has been received, and is marked for insertion.

Dr. Speirs (Haltwhistle).—The paper will appear in an early number.

The publication of *Mr. Spencer Watson's* letter is unavoidably deferred till next week.

KOUMISS.

To the Editor of The Lancet.

Sir,—During the discussion following Dr. Sutherland's paper on Koumiss at the Clinical Society on the 11th inst., inquiry was made by whom the koumiss used in his case had been supplied. May we ask you to state in your next issue that it was so supplied by your obedient servants, E. Chapman and Co.

Duke-street, Portland-place, W.

"CHLORAL LABOUR."

To the Editor of The Lancet.

Sir,—"A Subscriber, M.D.," asks a question in your publication of Feb. 12th as to the use of chloral in labour. I have found chloral of the greatest use, both in reducing the acuteness of pains (though not diminishing the propulsive power), and especially in cases of rigid os uteri. I have known several cases where after hours of labour, the os remaining rigid, two doses of ten grains each, given within half an hour of each other, have been followed by immediate relaxing of the os, and regular powerful pains. I have followed the suggestions given by Dr. Playfair in his book on Midwifery.

Clapton, Feb. 1881. Gerard Smith, M.R.C.S.

Surgeon, &c.—English diplomas entitle their holders, so far as the licensing authority is concerned, to practise in the United Kingdom and all its colonies and dependencies. But in some colonies, as in Canada, there is a colonial medical law requiring registration in the colony, to which a small fee is attached.

Mr. A. Goldney Chitty.—If our correspondent can send us published reports of the facts, we shall be glad to have them.

Communications, Letters, &c., have been received from—Dr. George Johnson, London; Mr. Mason, Pontypool; Mr. Gilbert, London; Mr. J. Smith, Haxby; Mr. W. MacCormac, London; Mr. E. Kennedy, Gorton; Mr. Cæsar, Shirley; Mr. Croft, London; Messrs. Beynon and Co., Cheltenham; Dr. Herman, London; Mr. R. Torrance, Newcastle-on-Tyne; Messrs. Bacon and Co.; Messrs. J. B. Baillière et Fils, Paris; Mr. W. Coulson, London; Mr. R. J. Godlee, London; Mr. W. T. Iliff, London; Dr. M'Nalty, London; Mr. Partridge, Anerley; Messrs. Des Vœux and Colton, London; Mr. F. J. Elliot, London; Mr. Morton, London; Dr. G. R. Barnes; Dr. Sandford; Mr. Byerley, Portsea; Dr. Pierce, Seilerstätte; Dr. Squire, London; Dr. Dun, Glasgow; Mr. Marriott, London; Mr. Weeks, London; Mr. Rodwell, Norwich; Messrs. Flachfeld; Surgeon-Major Curran; Messrs. Chapman and Co.; Mr. W. T. Grant, Birmingham; Mr. Syson, Huntingdon; Dr. Weaver, Longton; Dr. Speirs; Dr. Page, Kendal; Mr. S. Murphy, London; Mr. Aikman, Guernsey; Mr. Moxhay, Reading; Dr. Taylor, Scarborough; Dr. Thursfield, Shrewsbury; Dr. Uhthoff, Brighton; Mr. Craigie, London; Mr. W. P. Thornton, London; Messrs. Bradley and Bourdas; Messrs. Mottershead and Co.; Mr. Garrard, London; Dr. Ward, Oxford; M. and D. Pringle, Newnham; Mr. Masters, Hednerford; Mr. Horne; Mr. Bradshaw; Mr. Painter; Dr. Corner, London; Mr. Jones, London; Messrs. Letts and Co., London; Mr. Robertson; Broad Arrow; Delta; M.D.; J. R.; Surdus; Ignoramus; Enquirens; W. F.; A General Practitioner; &c., &c.

Letters, *each with enclosure*, are also acknowledged from—Dr. Gray, London; Mr. Hackett, Leeds; Mr. Lawrence, Hemel Hempstead; Mr. Maycock, Leamington; Mr. Loeflund, Stuttgart; Mr. Mellor, Rickmansworth; Mr. Clacker, New York; Dr. Itchman, Liverpool; Mr. Hawath, Accrington; Mr. Owen, Fishgard; Mr. Woodburn, Broughton-in-Furness; Mr. Essex, Pontypool; Mr. Richardson, Scarborough; Mr. Willey, Birmingham; Messrs. Farwig and Co., London; Messrs. Armfield and Sons, London; Mr. Bury, Upwell; Messrs. Porteus and Co., Glasgow; Mr. Hunt, Hull; Mr. Brown; Mr. Cornish, Manchester; Mrs. Douglas, Edinburgh; Mr. Derry, Nottingham; Mr. Brown, York; Mr. Davis, Hereford; Mr. Heely, Kennington; Messrs. Harvey and Reynolds, Leeds; Mr. Eastwood, Blackburn; Miss Buckley; Mr. Robertson; Mr. Mason, St. Albans; Dr. Ellis, Meadow-lane; Mr. Cook, Cirencester; Mr. Walford; Mr. Bernhall, Liverpool; Mr. Heywood; Mr. Whitlock, Linton; Mr. Howe; Manager, Camden-town; M.D., St. John's-wood; X. B.; M.D., Bristol; Chirurgus; L.M.; 4 K. B.; Epsilon; F. S. M.; M.D.; Delta, Hackney; Medicus, Middlesboro'; Medicus, Buxton; Pantelaria; M. W. H.; Alpha; Medicus, Birchington-on-Sea; Fides, Finsbury; J. J. F., Dartmouth; Medicus, Dreffield; M.R.C.S.E., Handsworth; J. J. J.; Medicus; L.R.C.P.; A. H. L., Bury St. Edmunds; Medicus, Kentish-town; Kater Felto; R. L.; G. H., Rotherhithe; Amhurst-road; Medicus, Walthamstow; P. Q.; M.B., Harrow-road; &c., &c.

Sheffield Daily Telegraph, Eastern Daily Press, Daily Bristol Times, East London Observer, La Higiene para Todos, La Union de las Ciencias Médicas, Devonport Independent, Uniao Medica, North China Daily News, Bradford Observer, Croydon Advertiser, Hereford Times, Liverpool Daily Post, Lincolnshire Free Press, Birkenhead News, &c., have been received.

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Presidential Address

ON

MEDICAL EDUCATION IN RELATION TO OBSTETRICS.

Delivered before the Obstetrical Society of London, March 2nd, 1881,

BY J. MATTHEWS DUNCAN, M.D., F.R.C.P. ED.,
PRESIDENT OF THE SOCIETY.

GENTLEMEN,—I have great pleasure in thanking you for the very high honour you have conferred upon me by placing me in this chair, a position which has acquired biennial increments of eminence from the well-deserved renown of the great physicians who have successively occupied it, and not least from that of the last President, Dr. Playfair, the author of valuable laborious monographs, and of a popular textbook, an esteemed teacher, and a famous practitioner. We are grateful to him for the time and labour he has given us, and I can only hope to emulate him in these respects as well as in his urbanity and gentleness.

The best honours in medicine are conferred by professional brethren, our peers, who alone are competent judges, who alone, indeed, know us. But I dare not rate my present position without deeply feeling that proportionate to the honour are the responsibilities and the duties. To take my allotted share in the mere business of this great and prosperous Society is not a heavy undertaking, but the other and less prominent duties of my position are really onerous —to preside, to direct, to encourage, to repress; to do all this in the proper spirit and in a manner that cannot be misinterpreted. I shall try, in reliance on your generosity and kindness and support, to keep unbroken the good reputation, as a Society, which we have hitherto maintained.

This Association has been and continues to be prosperous. Its membership is very numerous, its exchequer well replenished, its meetings well attended; above all, its proceedings are interesting and its annual volume of Transactions replete with valuable matter.

In the proceedings of our ordinary meetings we include addresses, discussions, demonstrations, papers. These last are various in character, narration of experience, curious or rare or instructive cases, new remedies, new instruments, and the results of observation and research. In the Council and in committees, besides the arrangement of business, much useful work is done of a political or semi-political kind; and I shall follow a precedent, which seems a good one, in devoting the few remarks I propose to make to some important and interesting political matters.

This Society has already interfered powerfully, and with advantage to the public interests, in various medico-political affairs, and there are some measures, especially that relating to the education and registration of midwives, which it has already done much to promote. In the present state of the conduct of legislation we can have little hope of success in Parliament, unless we secure the approval and active operation of a Minister of State, and in this we should probably have no difficulty if we could make for the Minister a quiet political bay in the busy and often turbulent session. We do not wish for our affairs the Parliamentary prominence of party questions, and we have no means of quickly convincing our legislators of their very great importance. We have therefore reluctantly to submit to the patient waiting for a more convenient ministerial season, a time of which we at present see no immediate prospect.

Before proceeding, however, I must devote a few sentences to explain the kind of importance to be attached to the political proceedings of this Society. Their place in the first words I address to you might be supposed to indicate that the Society claims for them a position paramount, and this would be a very great mistake. The Society knows well that political interference is a mere accident of public utility arising from the position it has otherwise attained. The great work of this Society is not political. It is not initiated nor fostered by Ministers of State, and it would be fatal to our best interests to wait upon such uncongenial influence. Obstetrics and gynæcology have been advanced to their present eminence and power and usefulness exclusively by the labours of comparatively humble medical men. As it has hitherto been, so in the future it must be. If we look to the gradual progress of our department of medicine, we observe little else than a series of scientific papers bearing the names of our obstetric heroes. A great practitioner distinguished for learning, sagacity, and power may for a time maintain posthumous fame; but for the most part practitioners and practices, books and instruments, have been lost in oblivion. Imperishable remain the small scientific papers that have taught us, and will teach all future medical students, the anatomy of the pelvis, the anatomy of the gravid uterus, the anatomy and physiology of the unimpregnated female, the mechanism of natural delivery, obstetric auscultation, obstetric anæsthesia, the mechanism of unnatural delivery, and others too numerous to mention here. The wisest judges of our Society will pay but scant attention to our political proceedings, and so also will our best members. The basis of our prosperity and greatness is the unobtrusive memoir embodying thought and work, and recording distinct results; and we must admit that such papers are often dreary affairs, as they are languidly read to benches not overfilled. The man who sends us such, generally a young man, must not be discouraged; his paper will command wide recognition, and, although worldly esteem and prosperity are but secondary objects in his view, his good work will be, as long as he lives, an increasing force tending to his promotion in these respects. It is enough to say of him, "He was the author of that." This Society will pay due attention to its political work as it arises, but it must devote its best energies to its scientific work. With the amount and quality of this it may be pleased, even delighted, but it can never be satisfied. Scientific appetite and greed grow with the food supplied. Every new contribution widens the prospect, and increases the demand for yet more.

Much interest has been, and is now, widely expressed and widely felt in the improvement of the medical curriculum, and our department of the profession is indebted to our late president and to Dr. Macnaughton Jones for their enthusiastic advocacy of its claims. With especial force is it insisted that the course of midwifery lectures required by the Corporations is inadequate, and while on this point there is, so far as I know, no difference of opinion, I am sure that, in the whole matter, we have the sympathy of all men of progress. In considering it, the distinction should carefully be maintained between the theoretical and the practical, between what is desirable and what is feasible and attainable; and this is not always done. For instance, it is common to say that from every student there is, or there should be, required evidence of a thorough knowledge of this or of that, and, among others, of midwifery and the diseases of women and of newly born children. Now, it is only a very moderate amount of knowledge that is now or ever will be required, and it is in vain to aim at more. It is not necessary to have experience at examining boards to get assurance of this, for, after more than thirty years of unceasing study and practice, my own knowledge of the subjects is anything but thorough.

It is a moderate amount of elementary knowledge that is required of a candidate for licence, and he is expected, nay, in duty bound, to cultivate it so as to produce the maturity of a good general practitioner. Within a limit of forty lectures it is impossible for the teacher to give a good introduction to the elements of his subject; and yet it is not to be forgotten that the best teacher is he who condenses most successfully—who, knowing what is essential, what is of high importance, fixes on a well-arranged and, if possible, a consecutive series of facts and principles, and carefully indoctrinates his pupils in them. In any other sense a complete course is not desirable. Our lecturers should be neither schoolmasters nor grinders.

The history of teaching surely indicates that in this matter we shall in due time get what we want. If we are true to ourselves and increase the science, room will be found for the teaching of it. Our glorious ancestors, Smellie and William Hunter, taught midwifery and women's diseases from love of, and respect for, the subject, as those teachers do now who give far more than the curriculum requires, and so it will always be. Smellie's and William Hunter's courses were not required by the licensing or analogous boards of their day, and they probably never reached the length of twenty lectures. We have got far beyond this, having compulsory courses, which in some schools must reach one hundred lectures—compulsory actual practice of students, clinical teaching and lectures, and instruction in instrumental delivery.

In settling what should be our demands in respect to compulsory attendance on lectures, we must consider our position in relation to medicine proper and surgery proper. The solidarity of medicine, surgery, and midwifery is a popular and a true argument, and justifies our claim to equal honour and consideration for the three branches. But while this claim is now at length, thanks to the unaided achievements of obstetric science, undisputed, it does not follow as a consequence that equal time should be allotted to the teaching of the three departments. Medicine and surgery are each larger than our department. They were taught systematically before midwifery; and, as a result of this historical fact, their teaching embraces large and important subjects, such as the doctrines of inflammation and fever and injury, which, though obstetrical as much as they are medical or surgical, yet are not uselessly repeated in courses of midwifery, being left in those older departments of teaching to which ours is an addition.

But the points to be regarded in this somewhat complex subject are not exhausted. Time is short, and we must reflect on the age to which we would have a medical student's education prolonged. The curriculum requires a period of about four years, and is already so filled that more can scarcely be crammed into it. Without an extension of the curriculum to five years, it appears to me vain to hope for a thorough and fair rearrangement of the various times allotted to the various courses; and such an extension is a matter for very full consideration, with a view to the interests, not of students only, but of the State also. It is not a mere mechanical question — so much time available, so much attendance on lectures possible; for it has been widely asserted, and with some show of reason, that our present extended curriculum is a failure, not only not yielding results in proportion to the extension, but producing only increase of cram and dangerous pretence of knowledge. With this view I do not coincide, but it puts in a clear way the evils attendant on attempting too much. When we increase the curriculum, we must consider not only the time available, the age to which the study should be prolonged, but also the digestive power of the average student's mind. The production of pedantry is to be shunned.

As members of this Society we have observed with deep concern those discussions in the Medical Council which relate to the place, in the education of our medical practitioners, accorded to physics and chemistry, and we cannot hesitate to express our sympathy with those who wish for these branches of science a paramount position among the not purely professional. For Greek or Latin, we have no special reason to contend, because the obstetrician or gynæcologist has never occasion to make use of them, unless for some purely literary, not scientific or practical purpose. Although it may well be asked, What interest have the legal guardians of the education of our practitioners in Greek or Latin? it may, on the other hand, be confidently asserted that their place and power in the higher education of all men need no defenders—no supporters. These languages are not necessary for a medical practitioner, and this cannot be said of physics and chemistry. As obstetricians or gynæcologists we can neither comprehend what has been achieved in the past, nor can we have any hope of future progress without the aid of the latter. Latin and Greek may be said truly to have much the same place in higher general education as anatomy has in medical education; for through them pass the roots of our language, our philosophy, our arts, and our sciences. But while high culture cannot exist without Latin and Greek, excellent practitionership, such as the Medical Council has to care for, may flourish without them. Latin and Greek will always be studied by the highest class of medical men, and will always command an equivalent return of power and influence, and even of the gross reward of money. Physics and chemistry must be studied by all good medical men, and knowledge of them is a guarantee of good practitionership.

Were this a proper occasion, I might enter at length on the history and the present bearings of this important matter, but I shall confine myself to a very few historical remarks which may encourage the supporters of what we regard as indisputably the best direction of medical legislation. Even anatomy was once in the insecure and neglected position in which physics and chemistry now are.

Although physics and chemistry are not depreciated or lightly esteemed, their supporters have still to struggle to secure for them their proper place, and medical history points surely to their still further rising importance in medical education. The problem was well understood and the conflict stoutly maintained a century ago, and the too successful ringleader then was the great Stahl, who, while he despised and opposed anatomy, fought ardently against the introduction into medicine of mechanical and dynamical theories, and, upon the whole, Stahl gained the day—that is, he in this matter carried with him the majority of great medical men. Truth, however, is invincible, and in spite of Stahl and his followers, opposition to mechanical, chemical, and dynamical theories has gradually become less and less, till now the whole of the psychical school is extinct or survives in defence of the comparatively very narrow influence of what are now called vitalist doctrines. Of these profound doctrines and of their great supporters we speak only with unqualified respect. Their existence and extensive power as now exercised are in no manner a protest against the great and due influence of physics and chemistry.

So great has been the progress of physical, chemical, and dynamical theories in obstetrics and in the other branches of medicine, in our own days, that it is necessary still further to explain historically the reluctance, even now, to admit their rising power and utility. Most of us here, at least most of those who have even a few grey hairs, and most of the members of our Medical Council, were reared under the potent empire not of Stahl, but of theories more or less exclusively metaphysical like his. Not a few of us imbibed our first lessons in medical science at the feet of the venerated Alison, the greatest medical philosopher of his day; and as we love the memory of the man, we are slow to disparage any part of his teaching. Yet his teaching—that is, what was instilled into us so recently—is already so obsolete in kind, though not antiquated by mere lapse of time, that you will scarcely believe that these are his words:—"When we compare," says he, "the general notions as to medical science which are prevalent at the present day with those which are recapitulated by Dr. Cullen in the Introduction to the last edition of his First Lines as holding their place up to his time in the schools of medicine, the most important observation that occurs to the mind is the present general, although not always avowed, recognition of this principle,—that the phenomena of disease, like all other phenomena of living bodies, belong to a class of facts, and constitute a subject of investigation altogether distinct from those which are presented by any forms or changes of inanimate matter. Dr. Cullen states that 'the mechanical philosophy had been applied (soon after the discovery of the circulation) towards explaining the phenomena of the animal economy, and continued till very lately to be the fashionable mode of reasoning on the subject;' and he very properly admits that it must 'still in some respects continue to be applied,' but he adds that 'it would be easy to show that it neither could, nor ever can be, applied to any great extent in explaining the animal economy.' Now an important step," Alison continues, "has been already made in the progress of medical science, when this proposition has received the general assent of the profession, and when the study of Mechanical Philosophy is recommended to the student of medicine, not as one of the foundations of medical science (with the exception of a few simple applications of its principles in some parts of physiology), but simply as an example of successful investigation. A nearly similar observation may be extended to the subject of Chemistry, for although it be true that all vital actions are attended by, and in part dependent on, a series of continual chemical changes, and although a certain knowledge of chemical principles is therefore required of the physiologist, yet the chemical changes of animated nature are so distinct from those which we produce at pleasure in dead matter, as the stimulation by nerves and the contraction of muscles are distinct from any of the principles and powers of mechanics."

If physics and chemistry were in this slighted state forty years ago, and have now risen to jostle Greek and Latin in their time-honoured places, what may we not expect from the progress of science within another forty years? There is no reasonable doubt of their growing into pre-eminence, and it is to be hoped that they will not treat rudely the study of these languages, which are the favourites of all that are scholastically disposed. For physics and chemistry we ask no favour, only justice, at the hands of our Medical Council.

The registration of disease is, as you are aware, making great progress in isolated parts of the country, and its universal adoption may be expected in no long time. Before this time comes, imperial legislation may compel it; and it is almost certain that further legislation with a view to prophylaxis will be a valuable fruit of the increased knowledge provided by the system. There are many ways in which such prophylactic legislation may interest us; and it is in the highest degree imperative to prepare for it, and to watch it, so as to have the laws wisely framed for the public good. Puerperal fever will, no doubt, be the chief class of diseases in our department for prophylactic legislation; and it may be expected that we shall be able to give decided testimony as to the value of our plans. Antiseptic cares are already in some parts of Germany required by law or recommended to midwives by those who have a legal right to command them; and it is to be remembered that in that country almost the whole of midwifery is in the hands of midwives.

It is evident that in this country we have been passing through a period of alarm allied to panic, arising from newly acquired knowledge of the greatness of the evil and ignorance of its nature and mode of propagation. This prolonged panic has naturally led to extravagant views and to grave injustice, especially to midwives and to hospitals. Obstetric science is gradually disclosing the nature and prevalence of the diseases classed under the name of puerperal fever, and this work has been done chiefly under the guidance of those antiseptic theories which have produced such grand results in medicine and surgery as well as in midwifery. It is to antiseptic theories also that we owe our most trusted resources in practice—resources whose value is demonstrated beyond all doubt, and which will soon, I believe, be so generally adopted as to command the consideration of those interested in prophylactic legislation.

But I wish, at this early time, to put in a plea for another prophylaxis, the legislative protection from syphilis, especially of women about to be married and of doctors. It is not rare to meet with instances of carelessness on the part of bridegrooms so gross as to merit the imputation of criminality; innocent women being, as a result, infected with syphilis, and thereby killed or maimed for life, and their offspring in a like terrible plight. No doubt such tragedies are sometimes enacted in spite of due care on the part of the husband; but many are the result of culpable thoughtlessness or culpable neglect. Again, in my own medical circle I have lost, through accidental surgical infection with syphilis, several medical brethren whose lives were very valuable. One of them, an accoucheur, did not survive attendance on a syphilitic lying-in woman above a year and a half. Now, it appears to me that such proceedings as the marriage of a man who knows he has recent and active syphilitic disease, should be taken cognisance of by the law, and regarded as a crime not much less grave than manslaughter; and the same is true of such proceedings as that of a lying-in woman who, knowing she has syphilitic sores on her pudendum, fails to warn her accoucheur of the circumstance. Disease and death coming in this deliberately careless way, surely involve not less horrible and heinous criminality than any other offence.

The education of women for the important profession of midwifery has long been carried on, in many quarters in these countries, with more or less completeness, and with very good results. It has been, and is, the custom to give to pupils a course of lectures, and to require practical instruction and some experience, before conferring a diploma or certificate of competency to manage ordinary natural labour and puerperal state. Nearly ten years ago this Society prescribed a modest curriculum for pupil-midwives, and established an examination to test their attainments, with a view to granting a diploma to such as gave satisfaction to the Society's examining board. This good scheme has had an encouraging amount of success, the numbers passing in each year, from 1872 to 1880 inclusive, being 6, 11, 4, 2, 3, 4, 5, 12, 22. But this does not satisfy us. We want a recognised legal position, chiefly registration, for graduates, and we desire a great increase of members taught and seeking our diploma.

In some foreign countries, to which we look as examples for consideration rather than imitation, the education, registration, and regulation of midwives have long been carried on with apparent satisfaction to all parties. You all know the text-books for midwives issued under Government auspices in Germany. I have brought with me the book of the rules of midwifery service in the kingdom of Wurtemberg, issued by authority of the Ministry of the Interior. I also show you the remarkably cheap, handy, and useful obstetric bag which is recommended to midwives in that kingdom. Foreign obstetric conditions are, as I have already said, very different from those of the United Kingdom; and, of course, the Government arrangements are not exactly what we should desire for our country, with its limited employment of midwives, and what we consider the freer spirit of our laws.

Our examination system has recently been extended by the Society empowering its honorary local secretaries to conduct the written examination. This diminishes the expenses of candidates by reducing greatly the number of days spent in London, a single day for *vivâ voce* examination being now sufficient. That this widening of the area of easy working of our midwifery system is a good proceeding I have no doubt; indeed, the improvement and extension of the practice of ordinary midwifery by women is a most desirable object. Many people still living remember the time when the whole of this practice was in female hands. It was taken from them, not by the other sex because they were male, but in consequence of their superior education and scientific attainments. Science overthrew all the prejudice against man-midwifery, and this was not a small matter; for authority as well as prejudice were at one time so strong on the side of women as to bring Dr. Wertt to be burned at the stake for attending a woman in labour. If women are to be reinstated in the practice of midwifery, whether in unnatural or in natural labour, it is education and science alone that can do it, and women may be sure that these are irresistible. Meantime we are interested only in the extension of women's usefulness in ordinary cases, natural or nearly natural, and our object is to secure for the public a class of such women, reliable because duly qualified. The gain to the greatest number will be considerable, for the service of midwives is, of course, got at a less rate than that of fully educated practitioners, whether male or female. Besides, such fully educated practitioners are gainers, for their time and health are so valuable, and rapidly increasing in value, as to make it a very hard struggle to do full justice to their cases. Everyone knows how necessary patience and long waiting are for the performance of midwifery duty, and no one is proof against the bias given by impulses of time and health. The more extensive employment of midwives will greatly improve the care of the poorest and largest class. Such women are comparatively easily remunerated; they go to their cases unembarrassed by other important and pressing engagements, and they expect, without regard to the nature of the case, to have a stay greatly longer than is anticipated by the fully qualified practitioner. Against advantages there are, no doubt, disadvantages; and here, as in innumerable other difficulties, we make the best attainable compromise.

We have naturally been disappointed at the political delay of our scheme for the education and registration of midwives; but we are not discouraged, because we have no active opposition, and the urgency of the matter is daily increasing. Indeed, if we consider the gradual growth and progress of all such schemes in this country, and the still only partially developed state of our own midwives' arrangements, we may even assume that the delay does not involve loss of time, but will add, when the proper opportunity comes, irresistible force to our appeal to the Government.

We shall, no doubt, carry with us the sympathy—we hope also the active support—of the Medical Council. This medical Parliament, embodying as it does the political knowledge and experience of the profession, will surely do its duty by us, for it has hitherto shown itself wisely zealous for the interests of the public, not hesitating, after due consideration, to go beyond its chartered duties when such interests pointed the course.

The presence in the Council of an obstetric member has never been indispensable, yet always desirable; and the deficiency of such a member has been keenly felt, and, of course, most by us whose interests are especially dear to ourselves. When the education and registration of midwives come within the range of practical politics, we trust an obstetric member or obstetric members will be in the Council to give aid. On the death of Dr. Hudson your Council seized the opportunity to memorialise the Government with a view to the filling of the vacant place by an obstetrician, and I am happy to tell you we have gained our end, for I have a letter from the Lord President of the Council assuring me that the wishes of the Society will be carried out.

You are all well aware of the preparations that are being diligently carried on for the meeting of the International Medical Congress in this metropolis in August, and no doubt take especial interest in that part of it called the Section of Obstetric Medicine and Surgery. The general and executive committees of the Congress have nominated for this Section a president, vice-presidents, council, and secretaries, embracing a large number of distinguished physicians whose names will certainly command the confidence and respect of our brethren both at home and abroad. When the Section meets, honorary presidents will be elected from among the eminent obstetricians who, we already know, will come to the Congress.

The importance and usefulness of such meetings as this call for no remarks, for their very existence is in itself almost a sufficient demonstration of them. We are living in an epoch of great development of scientific parliaments; and no one dares to predict, though he may rejoice to anticipate, to what good result this will lead. Scientific Societies have flourished in great towns ever since the revival of learning. National scientific meetings have been regularly established only within our own times, or are being established now. But this kind of progress may be said to proceed in a sort of geometrical ratio. Political conferences are of comparatively old date, and have only a remote analogy with the scientific congresses; but the great Industrial Exhibition of 1851 no doubt offers a striking resemblance to our Medical Congress, and it inaugurated an era of international activity laden with many peaceful blessings.

Our own Society was started only twenty years ago; it had no perceptible period of infancy or adolescence, but from the first bore the appearance and produced the fruits of a mature association. Its founders had, in their sound judgment, justly estimated what was wanted, for, accordingly, our Society has supplied the want, and has prospered. It was not enough to have occasional allotted portions of the meetings of the Royal Medico-Chirurgical Society and a few papers in its annual volume of Transactions. Obstetrics and gynæcology had commenced rapidly to grow, not only in bulk but also in philosophic elaboration. The metropolis required monthly meetings devoted entirely to the subject of our practice and study, and this activity is represented not by a few papers of observation in Medico-Chirurgical Transactions, but by an annual obstetrical volume, rich not in mere observation and dogmatism, but also in speculation, experiment, and research. Under the auspices of the British Medical Association we have a great annual national medical congress which, not many years ago, began to have a special obstetric section. But already all this is not enough. Professional brotherhood, the jostling of co-operating intellects, the comparison of results in practice, are increasingly exigent. Meetings in all great towns and national meetings do not supply the demand, and now for the first time a cosmopolitan Obstetric Congress will be held in the greatest city of the world. It is not enough to anticipate or wish for great results of this August meeting. We must contribute to its success according to our opportunity and ability; and everyone of us can contribute something, if only contagious enthusiasm or mere sympathetic bodily presence.

Accoucheurs and gynæcologists are generally styled, or style themselves, physicians; but they are as much surgeons as physicians, and indeed a great authority has recently asserted, *ex cathedrâ*, that they are more surgical than medical. I do not think so, and, curiously enough, the great authority, although President of the Irish College of Surgeons, is himself an illustrious example of the preponderance of the medical element. Truth to tell, our department is like medicine in general, divided into two friendly co-operating camps, the medical and the surgical, and each man is driven into either, or remains mongrel, according to his special genius. Most begin by affecting the simpler, and in many respects easier, line of surgery, but most end with the conviction that they have not the rare surgical genius. At present the strong currents in obstetrics and gynæcology are rushing in the surgical direction, and too strongly so in the opinion of many intelligent observers. But it is foolish to deprecate this progress, and vain to attempt to change it. The unknown laws of the growth of our department of science and practice are not to be bent according to our shortsightedness to suit our views. The present surgical wave is undoubtedly doing good, and we cannot avoid its sweep, although we might wish it were less strong or had its medical equivalent. Accordingly, in the international obstetric programme it will be found that, for this year at least, surgery is paramount, yet not drowning, far less excluding, medicine. There is, indeed, still plenty of sectional time and space for medicine to occupy and reassert its preponderance over surgery. The authorities of the Congress invite you, as well as foreigners, to come forward with such results of observation, experiment, and research as you may have to offer for the consideration of the cosmopolitan assemblage of brethren who will have come for this purpose from all parts of the world. Every student is aware of the considerable differences that exist among the nations in their mode of describing and discussing the same obstetric and gynæcological matters. This is well illustrated by textbooks. A German or French manual, even if undoubtedly far superior to an English one, cannot be made by clever translation to take its place. The foreign work does not fit into our literary system, and it proves valuable chiefly by being mentally assimilated by British readers, and thus made part and parcel of our historical British literary development. If the differences among British obstetricians are enough to give a varied interest and instructiveness to our meetings here, how much more of striking and useful variation may we look for in an International Congress? We may expect to get not only original and new instruction, but to be edified by having old things shown us in a new light.

To conclude, gentlemen. While in medical politics this Society is working for the good of others, each member has to consider how he can make the Society itself greater, and himself more useful through it, and his spirit should be that of the happy warrior,

> "Who, if he rise to station of command,
> Rises by open means; and there will stand
> On honourable terms or else retire;
> Who comprehends his trust, and to the same
> Keeps faithful with a singleness of aim;
> And therefore does not stoop, nor lie in wait
> For wealth or honour, or for worldly state;
> Whom they must follow; on whose head must fall,
> Like showers of manna, if they come at all."

HAMMAM R'IRHA, ALGERIA: A WINTER HEALTH-RESORT.

By G. D. POLLOCK, F.R.C.S. ENG.,
SURGEON IN ORDINARY TO H.R.H. THE PRINCE OF WALES, CONSULTING SURGEON TO ST. GEORGE'S HOSPITAL.

IT may interest many of the readers of THE LANCET to learn something of a warm health-resort in winter, within five days' easy journey of London, which at present is but little known in England, and which affords many advantages to invalids who require or desire something milder and more genial than the climate of an English winter and spring. While passing some few weeks lately in Algiers, I took advantage of fine weather to pay a visit to Hammam R'Irha, celebrated for its hot springs, and their beneficial effects in rheumatism. "The thermal springs of Hammam R'Irha," writes Colonel Playfair,[1] H.B.M. Consul at Algiers, "occupy the site of the ancient Roman city of Aquæ Calidæ, the ruins of which cover the hill-side for a considerable distance." The hotel and bathing establishment at Hammam R'Irha stand some 2000 feet above the sea level, near the summit of a broad face of mountain, looking south. The hot spring rises behind, and several feet above the hotel, on sloping ground running back some distance on the north side of the building. The outflow is constant and abundant. The water is conducted directly to the hotel, through which it flows continuously night and day. The point at which the water issues from its source is some five minutes' walk from the hotel, and may be readily reached by an ascent among the ruins of the old Roman town. The spring is covered in, but is left open in front to permit the escape of steam, and for the convenience of taking water from the fountain-head. The visitor may here satisfy his curiosity as to its temperature by dipping in his fingers. A few seconds will convince him that the experiment is sufficient. The temperature is stated to be about 115° Fahr., but as my thermometer was broken I could not verify the exact point. The heat, however, is sufficient to render the water too hot for a bath without a certain reduction of temperature. The supply is sufficient to afford a continuous stream for two swimming-baths, for the use of men and women resident at the hotel, also for private baths, and three large baths for the use of the Arabs. Night or day a hot bath is available at a few minutes' notice, and the rush of water may be continuously heard—not an unpleasant sound in the still night—as it pours from the pipes which discharge their contents into the large swimming-bath chambers. In 1841 the French military authorities established a hospital here for the use of soldiers; and in 1878 a very comfortable hotel, with bathing establishment, was opened for the use of civilians. Mons. Arles-Dufour, the proprietor of this establishment, is under an engagement with the Algerian Government to convert the present hotel into a hospital for civilians, to contain sixty beds, thirty for each sex. This arrangement will be carried out as soon as a new hotel, now in process of building on the higher ground, is ready for the reception of visitors. This hospital is to be devoted to the treatment alone of such cases as are likely to be benefited by the use of the hot baths.

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[1] Handbook for Travellers in Algeria and Tunis, second edition, p. 171. London: John Murray.

The waters of Hammam R'Irha are, however, of two kinds. 1. The hot spring already mentioned, containing small quantities of sulphates and carbonates of lime and magnesia, &c. 2. A cold and slightly gaseous water used for drinking, containing small proportions of iron, soda, magnesia, &c. Mr. Squire has kindly offered to furnish me with an analysis of both waters, and when completed the results shall be forwarded to THE LANCET.

The Arabs have great faith in the beneficial effects of the hot spring, and have recourse to the baths in various disorders. With them, however, it appears also to be somewhat of a religious ceremony to pay a visit once a year to Hammam R'Irha, and "to wash and be clean." They have the belief that here is the tomb of some "Marabout," a holy man of ancient times, and that the said Marabout still supplies daily 2000 camels to convey the wood necessary to feed the subterranean fires which heat this water, for the physical, as well as spiritual, benefit of the faithful. There are distinct and separate baths for visitors at the hotel; for the Jews an establishment apart from the hotel; and for the Arabs in a building in front and below the hotel. Visitors need fear no annoyance or inconvenience from the latter, though they flock there in numbers. The situation of the present hotel is all one could desire as regards sanitary conditions; the new hotel will stand still higher. Below is the valley of Oued-Djer; through this valley runs a tortuous river. In rainy weather it is a great torrent; at the time of my visit it was but a slight stream. Beyond the valley, on the opposite side of the river, is a range of mountain well clothed with wood. Mountains also on either side—with the remarkable Zakkar—affording to the artist a fine subject for his brush. It is altogether a beautiful outlook, and in spring-time the ground is a carpet of flowers. The ascent to the hotel from the road in the valley is a zigzag right and left; for by no other mode of approach would this height be accessible in a carriage drawn by horses. The hotel affords every comfort to the traveller, or the invalid, that can be desired; and here the sick man finds a climate, and advantages in light and air, which no place in England can ever give in winter, or, indeed, I might add, can be found in any part of Europe. The situation among the mountains, the dryness of the atmosphere and soil, the bright blue sky and glorious warm sun (tropical showers and occasional wet days excepted), the abundance of hot water for bathing—all these combined afford to a certain class of invalids, or delicate persons, a most charming combination: enjoyment waiting on convalescence, to be followed by that consummation, so devoutly to be wished, and sought, and secured —Health!

I would particularly recommend Hammam R'Irha for a winter residence to those who suffer from those chronic forms of rheumatism which defy the attacks of medicine and puzzle the cunning of the experienced prescriber. There is a secret in the atmosphere, or soil, or elevation, or in the action of the baths, or all combined, which, in such a situation, brings health and strength in a comparatively short time, where otherwise months might elapse before an equal amount of benefit would be attained elsewhere. I also think it would be equally beneficial in cases of chronic bronchitis, and especially to those who suffer from damp and cold. Here the invalid is sure of sunshine and warmth, and quite exempt from the frost and cold winds, which are too frequently met with on the south coast of France. Hammam R'Irha offers a change and a charm which many may like to avail themselves of; and as a change, or even temporary residence, in winter, I know of no place offering similar advantages within the same distance and as accessible from London. Visitors should provide themselves with such dress as they would wear in England—light as well as warm clothing. As the sun goes down a great coat is more than a pleasant companion; it is a necessity to the invalid. In the winter evenings a fire is often agreeable, as also in rainy weather, but there are few days in which some amount of out-door exercise cannot be obtained. Light clothing is the rule by day, warm clothing the exception.

Egypt offers many advantages in climate and interesting associations to the invalid traveller in winter; but I doubt whether, as a winter residence and sanatorium, it offers such as are obtainable at Hammam R'Irha. Travelling in Egypt is very costly, and the invalid has to travel a much greater distance to gain the object in view. Hammam R'Irha may be reached through France in five days with comparatively easy travelling. The passenger who leaves London on Thursday morning may see Algiers harbour-lights by Sunday night, and on Monday morning take the train for Bou-Medfa station, where a carriage can be procured, which will deposit him at the hotel at Hammam R'Irha in time for dinner. But a few days may be agreeably passed in Algiers, and advantage of this delay can be taken to secure accommodation at the hotel, as well as the carriage at the station, for those who prefer to travel by rail. Hammam R'Irha is about sixty miles from Algiers. Those who can afford the time, and wish to see something more of the country than a railway train permits, may drive the distance, as I did, in two days.

The idle rambler would probably find himself satisfied with a few days' residence at Hammam R'Irha, but for the invalid, who would shun cold and damp for sun and warmth in winter, this may be made a most enjoyable residence for many weeks. Books can be procured from Algiers; letters and newspapers are daily delivered at 11 A.M.; the post leaves at five, and a telegraph office is attached to the hotel. The walks and rides, though not offering much variety, are sufficient in extent and picturesqueness to satisfy all who find their reward in renovation of health. For those unable to walk much there are verandahs to sit in, and gardens to stroll about, which enable the weaker ones to enjoy the open air without fatigue. A forest of some 1800 acres near the hotel affords a pleasant walk, and no fear of molestation from Arabs or live lions need be entertained. The former are well conducted, and not obtrusive; the latter are now "an unknown quantity" in this part of Africa. The water from the cold spring is pleasant to drink, and an agreeable addition to the vin ordinaire of the table-d'hôte. It is supplied in all the bedrooms, and at meals, without extra charge. With some persons it acts slightly as an aperient, and, as it contains a small percentage of iron, is said to be useful in cases of chlorosis, &c.

Hammam R'Irha affords much that is of interest to the antiquarian. The excavations for the foundations of the new hotel have exposed the walls and basements of many an old Roman house. Stone coffins, corn-mill, and numerous coins have also been found, and are to be placed in a museum to be attached to the future hotel.

The charges at the present hotel are very moderate, nine francs a day for board and lodging. The table-d'hôte is excellent, the bedrooms clean and comfortable, and a spacious glazed-in verandah looking south, with a cheerful drawing-room, make up the internal accommodation.

The railway from Algiers to Oran affords the visitor at Hamman R'Irha a ready mode of seeing much of the country, should inclination direct and health and pocket permit. If he requires further information on this point he cannot do better than consult an interesting book lately published, "The New Playground, or Wanderings in Algeria."[2] As to cost, the journey *viâ* Paris and Marseilles from London to Hammam R'Irha may be put down at £20 for each person travelling first class. Something more must be added if the traveller rests on his journey. Those who do not object to the sea may go direct to Algiers from London by steamer. The British India boats occupy about ten days in the passage, and on this route a visit to Lisbon is not to be lost sight of, and "is thrown in gratis."

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[2] By Alex. A. Knox. London: C. Kegan Paul and Co.

Individually I owe much to the climate of Africa. A severe sufferer from rheumatism in August last I was induced, with kind friends, to pass two months on the south coast of the Mediterranean, and as a result returned in full health and strength to encounter the effects of an almost arctic winter "without let or hindrance." I feel I cannot do a greater service than point to the great advantages of such a climate in winter, in convalescence, or in such conditions as have above been referred to. I would say to all who can afford the time and the cost, "go and do likewise."

Grosvenor-street, W.

TREATMENT OF PLEURISY AND EMPYEMA.

BY JOHN E. MORGAN, M.A., M.D. OXON.,
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY, AND PROFESSOR OF MEDICINE IN THE VICTORIA UNIVERSITY.

(Concluded from p. 326.)

SUCH, then, is the mode of treatment I have found most efficacious in pleurisy with serous effusion. By means of the spirometer we decide whether or not absorption is going on; if not, paracentesis is performed, and a small quantity of fluid only removed, the patient at the same time being directed to inflate his lungs with compressed air. But we will assume that the disease is empyema, and the pleural sac filled with pus. What, then, must be our treatment? In the first place, how shall we decide whether or not the exudation really is purulent? This question it is impossible to answer with any degree of certainty, unless we make an exploratory puncture. If the temperature be high; if likewise the heat of the skin over the affected side is persistently a degree or more higher than that of the healthy side; if also the skin over the region of the effusion be œdematous,—we shall then have strong grounds for concluding that the exudation is purulent. Still, none of these signs is pathognomonic. An exploratory puncture may readily be made by means of a subcutaneous injection syringe. In this manner we may prove to ocular demonstration whether pus be present or not. If it be present, we shall be merely wasting our time in attempting to get rid of it either by means of the aspirator or syringe. We may withdraw it as often as we please, but it will certainly reaccumulate. So long as it does so, the pulmonary and costal pleuræ are liable to suffer from the corrosive properties of the purulent exudation; while the adhesions, which will inevitably bind down the lung, become week by week more firm and unyielding. Thus, delay in acting energetically is not alone harmless, it is absolutely mischievous. No time should be lost. But how are we to proceed?

In the first place an incision should be made in the fifth or sixth intercostal space, midway between the two ribs, about an inch and a half in length. Into this incision a cannula should be inserted, with a view of keeping the wound open, the cannula being covered with tow steeped in carbolic acid. The aperture ought to be made as near the mammary line as possible. The patient should be directed to lie on his side for about forty-eight hours, in such a position as shall favour the escape of pus from the thorax. At the end of that time the cannula must be withdrawn, and a silver catheter inserted into the wound. A four-ounce exhausting syringe should be attached to the catheter, and with it the remaining portion of the purulent exudation should be thoroughly removed. Unless a syringe or aspirator be used, comparatively little fluid will escape. It will not, in fact, flow out unless the pressure within the pleural sac exceeds the atmospheric pressure without.

For this reason we often find that when the chest is opened, fluid only wells out during expiration. During inspiration not only does the pus cease to flow, but air is liable to be sucked through the orifice. After removing the purulent contents of the thorax, the most effective way of dealing with the suppurating surface of the pleura consists in conveying spray from a Lister spray-producer directly into the chest along a catheter. In this manner the spray diffuses itself through the interior of the thoracic cavity, and seems to act less injuriously on the delicate granulations of the pleura than when fluid in considerable quantities is introduced either by the irrigator or the syringe. Before, however, the spray is directed into the sac, all pus must be entirely removed, and as each syringeful of pus is withdrawn, a solution of carbolic acid must be injected in its place, till all trace of purulent contamination has entirely disappeared. In protracted cases it is very necessary to change the disinfecting lotions as often as we find the one we are using ceases to act beneficially. If carbolic acid be employed for any length of time in large quantities, the urine is liable to assume a dark olive-green colour, which should warn us to discontinue its use. In place of it we may try iodine, in the proportion of half a drachm of the tincture to the ounce of water, or if there be much depression, quinine may be substituted. If the discharge be offensive, a solution of the permanganate of potash answers remarkably well. After the operation, the cannula is usually allowed to remain in the wound for two or three days; it is then removed, and the aperture kept open by means of a small plug of lint steeped in a solution of carbolic acid. The presence of the cannula often occasions considerable pain and discomfort. If there is any tendency in the wound to close to such an extent as not to admit a catheter, it is dilated by means of a sponge pessary.

During the whole treatment the temperature must be closely watched. It should be taken twice daily, and in some cases three or four times. If the lungs generally are healthy, and there is no tuberculous disease, a rise of two or three degrees in the thermometer will almost certainly indicate that pus is collecting in some portion of the pleural sac, and is poisoning the system. If the pus be fetid, four or five degrees Fahrenheit will probably be indicated. Here the plan of treatment by means of silver catheters will be found peculiarly valuable, and we shall likewise discover the advantage of having mastered the physical geography of the pleural sac; for if we are to bring down the temperature we must break down adhesions and liberate the imprisoned receptacles of pus. Traube, who has written very ably on this subject, maintains that whenever it is necessary to have recourse to the radical operation, Nélaton's catheters should be used, because they are softer than any others. In my opinion, it is their softness which renders them unsuitable for the work we now require of them. We cannot by their means release the encapsulated reservoirs of pus. In the literature of this subject we find frequent reference to failures arising from this cause. Thus, Frantzel (in speaking of five cases in which the radical operation was performed by Moutard-Martin, which terminated fatally) observed "in these five cases, the pleural cavity was subdivided into several sacs by false membranes, and these could not be sufficiently cleared out by the rinsings; in consequence of this the pleural sac ichorised." The experience I have had has convinced me that sufficient care is not taken to get rid of the pus thoroughly and completely. I have frequently seen patients treated after the orthodox fashion (a perforated tube being passed through the thorax along which the pus was expected to find a free outlet), apparently make a good recovery. The discharge gradually ceased, the wound closed, and the patient left the hospital nominally well. The cure, however, was not permanent; caseous degenerative changes occurred in the retained pus, tubercular disease was set up, and death supervened after a protracted illness. To prevent such accidents free egress must be found for the pus. In several cases in which the temperature rose rapidly and unexpectedly during treatment, the feverish symptoms were attributed to the presence of pus, which it was impossible to liberate from within. Here a second or even a third opening was made in the thoracic wall, through which the peccant fluid was readily withdrawn. The situation for this outlet being determined by the thermometer. For where there are underlying purulent deposits there the temperature of the superimposed skin will be higher than over the remaining portions of the surface of the chest.

In treating empyema we must never forget that certain products of inflammation are destructive, and incapable of being organised. So long as they remain in the system they will inevitably prove a source of irritation. It should be our constant endeavour to assist in removing these destructive products of inflammation. The bands of fibrin we should also, as far as practicable, break down as they are forming. They contribute largely to that unsightly retraction of the chest which is so frequent an attendant on protracted cases of empyema. It has been proved to demonstration that the fibrin takes no very active share in the organising process. It cripples the expansion of the lung and binds it down to the ribs. Rindfleisch, in describing the inflammation of serous membranes in cases of pleurisy, observes:—"We must divide the layer of exudation which lies loosely on the serous surface into two strata—an upper one, which consists of fibrin, and a deeper stratum of young connective tissue formed by a proliferation of the connective tissue of the serous membrane. Upon the surface of the serous membrane connective tissue corpuscles appear embedded in a clear matrix, containing mucin, together with which they make up the layer of embryonic tissue. From these cells and matrix the true 'plastic exudation' is really formed, and not, as used erroneously to be supposed, by the fibrin."

I propose, in the next place, to refer to two typical cases, which appear to me to illustrate the preceding remarks. In these cases the difficulties I have discussed were strikingly exemplified, still the results of treatment proved eminently satisfactory. The first is that of a youth named Charles M——, aged nineteen, who was admitted into the Manchester Infirmary under my care on the 19th of February, 1877. At that time he was suffering from multilocular empyema. On two previous occasions he had been an inmate of the infirmary, and three times considerable quantities of purulent fluid had been removed from the right side of the thorax. Soon after his admission he was again tapped, two pints and eight ounces of pus being withdrawn. The chest, however, rapidly refilled, and the condition of the patient became very critical. Though 5 ft. 4 in. in height, his vital capacity was only 70 cubic inches, instead of being about 200 inches, the normal standard for persons of his height. The evening temperature averaged 103°. The pulse ranged from 110 to 120, and the respiration from 40 to 50 in the minute. The urine likewise contained considerable quantities of albumen, and there were signs of amyloid disease about the kidneys and liver. The digestive organs also were in an irritable state. Frequent attacks of sickness and uncontrollable diarrhœa rendered him day by day more prostrate and reduced. I determined, therefore, to have recourse to the radical operation without further delay. In the early part of April an incision was made between the fourth and fifth ribs on the right side in the mammary line. Into this aperture a cannula was inserted, and the pus permitted, as far as possible, to empty itself from the thoracic cavity. The quantity that escaped, however, was comparatively small; and on exploring the interior of the pleural sac with a long bent probe, I discovered that its cavity was intersected by tough fibrous ribbons, which subdivided it into pouches, within which considerable quantities of pus were encapsulated. As the adhesions were of long standing and very tough, it was found impossible to liberate the imprisoned contents of these receptacles with the catheter or probe. It appeared to me, therefore, that the only way of meeting the difficulty was to carry a trocar and cannula completely through the chest. This was done under chloroform by my friend and colleague, Professor Lund. A long trocar and cannula, specially constructed for the operation, were inserted into the chest, through the incision previously made. Whenever resistance was offered to the advance of the cannula, it was overcome by the protrusion of the trocar. In this manner numerous pent-up reservoirs of fetid pus were laid freely open, the instrument at times being diverted from its direct course and forced through the obstructing mass of adhesions which impeded its progress. As the different receptacles were entered large quantities of pus welled out of the anterior aperture of the chest; and when finally the extremity of the instrument was felt at the posterior part of the thorax, the trocar was forced through the ninth intercostal space, about two inches from the corresponding vertebra. The cannula was then withdrawn through the anterior opening, and the trocar, with a piece of perforated gutta-percha tubing threaded through its upper extremity, was carried completely through the chest. The two ends of the tube were then tied together, and the pleural sac daily washed out with a carbolic acid lotion. In this case it was found necessary to make a double opening, with a view of finding free egress for the pus. Unless, however, the case be very chronic and the adhesions exceptionally firm, I prefer breaking down the bands of fibrin and liberating the pus by a single opening.

This was a most tedious and protracted case, and clearly demonstrated the importance of keeping the pleural sac thoroughly clean, and not allowing pus to accumulate or stagnate in any portion of the chest. Over and over again, whenever the temperature rose, the interior of the pleural sac was carefully explored until the particular spot was discovered in which the pus was collected. As soon as this was liberated by the catheter and the source of irritation drawn off, the temperature immediately fell. The case was instructive in other ways also, for whenever the temperature rose only two degrees the patient lost weight, and was unable to take cod-liver oil, from which, when the feverish symptoms were absent, he invariably derived much benefit; albumen also reappeared in the urine, while the diarrhœa and sickness returned. For twelve months the chest was washed out every day. During this time the amount of fluid which the pleural sac was capable of containing was at stated times carefully measured. Immediately after the operation it held four pints and two ounces; but in the course of seven months it did not admit more than eight ounces. In the early part of the treatment the chest was washed out with carbolic acid and water. After a time, however, when the progress of the case seemed slow, tincture of iodine, in the proportion of half a drachm to the ounce of water, was substituted. On other occasions, again, chloride of sodium, quinine, and permanganate of potash were used. The temperature of the lotion employed ranged from 92° to 98°. While the dressing was proceeding a Lister spray-producer was directed upon the thorax, and after the rinsing out of the cavity was completed the spray was directed along a catheter into the pleural sac. During the treatment, likewise, the patient daily inhaled compressed air from Seigel's pneumatic apparatus. From the description I have given of this case it will be admitted that it was one of very great gravity. The remedial measures were perseveringly continued for eighteen months. The patient made an excellent recovery. This was one of three cases of empyema introduced by me to the notice of the Medical Society of Manchester in 1879. The patient then looked muscular and healthy. The difference between the two sides was comparatively insignificant. There was very little retraction. The chest was well developed and freely admitted air into regions which at one time had been rudely perforated by the trocar and cannula. The temperature was normal, the pulse regular and even, and the vital capacity had increased from 70 to 145 cubic inches. When I last saw this patient, some months ago, he informed me that he had completely regained health and strength, and felt sufficiently robust to undertake employment as a striker in an iron foundry, and was able to get through this laborious calling without experiencing any inconvenience or discomfort.

In another case, in which the patient was younger and the disease of shorter duration, the cure also was proportionately less protracted. An errand-boy, named James R——, aged thirteen, was admitted under my care into the Manchester Infirmary on Nov. 6th, 1878. The boy came direct from the fever hospital at Monsall, where he had been invalided with a slight attack of typhoid fever. When he was received at the infirmary the right side was found loaded with pus, and as he seemed well-nigh moribund a free incision was made in the anterior portion of the right side, between the fifth and sixth ribs, by Mr. Frederick Southam. A cannula was inserted into the wound, and the pus permitted to drain away for three days. The thoracic cavity was then explored in the manner I have described, and the chest washed out with a carbolic acid lotion every day, Lister's spray-producer being directed upon the aperture at the same time. In the notes of the case I observe that on several occasions the temperature, which had been nearly normal, suddenly rose to 102° and 103°. When such a rise occurred the cavity was probed with the catheter until a receptacle of pus was discovered and tapped, when the fever immediately ceased. The pulse at the same time became normal, and the appetite returned. In this case the incision into the chest was made on Nov. 6th, and on the 14th of the following February the wound had healed, and the cure was complete. During the whole time the patient daily inhaled compressed air. As the lung expanded he rapidly put on flesh; thus in the early part of November he weighed only 4 st. 6 lb., whereas on the 1st of the following March his weight was 5 st. 12 lb. The vital capacity also, as measured by the spirometer, increased in a corresponding ratio. On Nov. 16th, ten days after the operation, it did not exceed 50 cubic inches; on Jan. 8th he was able to expire 70 cubic inches; on Feb. 22nd, 79; on March 5th, 88; and three months later, 100 cubic inches. From inquiries I have lately made regarding this boy I find that he is now muscular and robust, and able to take part in such violent games as football and cricket.

In the two examples I have given it will be noted that the patients were young, one being nineteen, the other thirteen years of age, and it will readily be admitted that in the treatment of such a disease as empyema youth is a very potent and valuable ally. It may be said, indeed, that in early life the results of our curative measures will here be peculiarly satisfactory. No pains or care should then be spared, for even though the lung be reduced to an extreme degree of carnification, and though its tissue be hard and airless, and it has ceased to crepitate, still, if once the pressure be fairly taken off, and the lung be placed under favourable conditions for re-expansion, it will respond to our efforts, and once more become pervious to the air. We shall find also that even the non-vascular membranes which have invaded the pleura may, after a time, become vascular, and themselves assist in promoting absorption.

Still, though among the young we shall naturally achieve the greatest amount of success, yet even among older persons many seemingly desperate cases will reward us if we are prepared to bestow upon them the unceasing attention they require. This care must not be grudged. In protracted and anxious cases we shall need all the help we can obtain. That physician will be most successful who can count (as I acknowledge with gratitude was my case) on the loyal support of able assistants, energetic and intelligent clinical clerks, and skilled attentive nurses.

Manchester.

ON RESPIRATORY IRRIGATION: A NEW METHOD OF AFTER-TREATMENT IN EMPYEMA.

BY C. McIVHOR GOYDER, L.R.C.P., M.R.C.S. ENG.,
SENIOR HOUSE-SURGEON, NEWCASTLE-ON-TYNE INFIRMARY.

WHEN an empyema of the lung has been treated by incision with or without the resection of a portion of rib, and the case is treated antiseptically, healing by granulation and adhesion of the two layers of the pleura takes place oftentimes in a satisfactory way, and the case progresses to recovery in a manner leaving nothing to be desired. It as often, and perhaps more frequently, happens that when about two-thirds of the cavity have been obliterated the remaining third is slow to heal, the pleural surface continues daily to discharge a quantity of pus, the patient's health is undermined, and he becomes the subject of thoracic fistula, or the victim of tubercle or of waxy disease. It is hence an important matter to secure the total closure of the pleural interspace, and with such an object in view I venture to suggest the following treatment, which, through the kindness of Dr. Drummond, one of the physicians to this hospital, I have had the opportunity of trying. Some details of the case, so far as it has gone, will be subjoined.

The cavity of an empyema is an abscess cavity, and as such should be drained of its contents. Its walls also should be approximated in order to obtain if possible that secondary union by granulation which the surgeon attempts to obtain in limbs by pressure and careful bandaging. The contents of an empyema should be kept aseptic and the absorption of septic material prevented. Lastly, an empyema should be irrigated in order to wash away stagnant secretions. I am hopeful that these essentials of treatment will be gained by the process to be described.

Whilst dressing the patient referred to I was one day disappointed to find how much pus had accumulated in the pleural cavity on removal of the antiseptic dressings, and I determined to attempt to drain the cavity by placing the patient on the affected side with the wound lowest, at the same time inserting one end of a gutta-percha tube (eighteen inches long and a quarter of an inch in diameter) just within the cavity, and allowing the remainder of the tube to hang vertically downwards through a hole in the mattress, placing the opposite end in a jar of carbolic lotion. I should add that I attached the tube to the side by means of tapes carried round the body. My object was, of course, to prevent the entrance of air into the pleural cavity, and at the same time to drain the contents of the sac by gravitation.

After watching the arrangement for some time, I was surprised to find the level of the fluid in the jar sinking during inspiration, and again rising during expiration; and upon closely watching the continuity of the tube, I found it straighten itself somewhat at every inspiration. The fluid was, in fact, rising and falling during inspiration and expiration respectively. I next placed a piece of glass tubing in the continuity of the tube, near the chest-wall, and replaced the carbolic with Condy's fluid in the jar. I was at once gratified by seeing the pink Condy rushing up and down the pipe at every respiration. Now replacing the jar by a graduated measure, I found that something less than half an ounce of fluid was drawn up at every normal inspiration, and four ounces at every deep inspiration; the same quantities were ejected with corresponding expirations.

We have, then, a method of irrigation of the chest whereby the interior of an empyema is bathed at every respiration—a method which is constant, automatic, and to a certain extent under the control of the patient. The patient's position will ensure drainage by gravitation. The compression of the chest wall by means of a Martin's bandage (a method I have found useful in holding the tube in position), the patient's own weight as he lies on his affected side, and the hydrostatic pressure of a circular water-cushion around the tube, besides adding comfort to the patient, will all tend to produce that approximation of the two pleural surfaces and falling in of the chest wall which is so desirable. Lastly, the constant bathing of the interior of the sac with an antiseptic non-irritating fluid at the temperature of 100° F. ensures asepticity, and at once removes those products of inflammation at the site of their formation. The essentials of treatment before indicated are thus fulfilled.

Without entering into any details of the case in which I have used the above method of irrigation, suffice it to say that this plan was commenced on Dec. 7th, 1880, and has since been continued, with the exception of an occasional night, and is indeed still being used. During the five weeks that have elapsed the patient's temperature has ranged from 99° F. to 100° F., having only twice reached 101° F. He has gained four pounds in weight; he sleeps well, although the irrigation is continually going on. His appetite is good, tongue clean, and skin moist; he has no night sweats, and does not suffer any inconvenience from the process. Meantime the cavity is apparently getting less and the lung expanding. The jar of Condy's fluid is changed hourly. The tube is removed once in the twenty-four hours, and is then well cleansed in carbolic lotion. Upon removal of the tube no fluid of any kind escapes, although the air goes freely in and out of the chest.

The tube is made of stout black rubber such as is used for drainage-tubing, but it is not perforated laterally at all. Upon introducing it gently into the sinus a point is reached where resistance ceases, and where air is heard to rush through it. It is then fastened in by tapes which encircle the body; and when in position the upper opening of the tube should be *flush* with the inner surface of the parietal pleura. A Martin's bandage is then wound round the chest, and is adjusted above and below the tube. The patient is next placed on his affected side, with the tube through a hole in the bed, and between the patient's body and the mattress a ring water-cushion is placed. This renders the patient comfortable, and makes even pressure on his chest-wall. Hot Condy's fluid in the jar completes the arrangement; and the patient having made a full expiration, the free end of the tube is placed in the jar before the patient inspires. When he does so the pink fluid rushes up the tube, and thus air is prevented from gaining access to the chest.

Before concluding this paper, a few points occur to me which I trust may be of interest. The washings from the pleura were for some days set aside and deposited, and in those which were the first results of the process, shreds of lymph were very plentiful, also pus-cells, but at no time have blood-cells been seen. Regarding the mechanism of the process, the chest-walls, by their expansion, seem to create a partial vacuum, and this doubtless is greatly aided by the descent of the diaphragm. Hence the fluid enters during inspiration, and is emitted during expiration. That wall of the empyema formed by the expanding lung is apparently fixed, for were its expansion the cause of the entrance of fluids during respiration, these would be ejected during inspiration and drawn in during expiration; this is, however, not the case. It appears to me that the diaphragm is the great discomposing agent in these cases, and that were it possible to confine the movements of this muscle, one of the greatest difficulties in the attainment of mechanical rest would be removed.

In the very tranquil breathing of sleep, fluids arise only to the top of the pipe, and I think that however small the tendency, yet the weight of a column of water fourteen or sixteen inches high *does* tend to approximate the roof and floor of an empyematous sac, and that this is an agency for good.

I have noted above that the portion of tube in the chest was not perforated laterally, and I am sure that when these holes in tubes exist, the granulations quickly spring up and enter the perforations, seriously invading the calibre of the pipe. In fact, the granulations lining the sinus grasp the tube so firmly as to effectually prevent the entrance of air into the chest cavity *outside the tube*, and this in a case where a portion of rib has been resected.

As to the fluids with which to irrigate, I found carbolic acid solution (1 to 100) absorbed so quickly as to give rise to black urine in two days. Condy's is a very much pleasanter solution to work with, and the degree of interchange between it and the fluids of the sac is shown by the rapidity with which the solution becomes decolourised. From boracic acid solution I anticipate good results, and there are many other antiseptics of a similarly unirritating nature.

It may be objected that I have written more fully on this subject than the experience of one case can warrant, particularly as in that case irrigation is still *sub judice;* but I shall have accomplished my object if I have in any way pointed out a treatment which may be useful in a class of difficult cases. I should not like to conclude without stating how much I am indebted to Dr. Drummond for his kindness in the above case, nor without expressing a hope that the result may prove satisfactory to his patient.

Newcastle-on-Tyne.

ON FRAENTZEL'S ANTISEPTIC TREATMENT OF EMPYEMA.

BY G. B. FERGUSON, M.D. OXON.,
SURGEON TO THE CHELTENHAM HOSPITAL.

MR. MOXHAY having in THE LANCET of Jan. 15th narrated a case of empyema treated with noteworthy success after Fraentzel's method, as detailed in Ziemssen's Cyclopædia, I would wish to further place on record, to the credit of this method, two cases treated in the Cheltenham Hospital about eighteen months ago.

The first case was that of Annie M——, aged twenty-seven, who was admitted in July, 1879. About a year previously she had had pleurisy, followed by empyema, and had been treated in a great provincial hospital by aspiration, and afterwards by a drainage-tube. Nevertheless the fetid discharge continued, with temporary abatement only, and when first seen by myself she was exhausted and emaciated, was suffering from cough and hectic fever, was reported to be phthisical, and was not expected, at the utmost, to outlast a few weeks. Following Fraentzel's directions, a free incision, three inches long, was forthwith made anteriorly between the sixth and seventh ribs, and forty-five ounces of fetid pus were evacuated. A silver cannula was then inserted between the ribs, large enough to admit at once two No. 8 Jacques's india-rubber catheters. Through one was injected a stream of warm 1 per cent. carbolic lotion, which, with the residual pus, found its way out through the other, and this washing was continued till all was clean and sweet. The case being necessarily in some degree septic, the spray and formal dressings of Lister were omitted in favour of a simple gauze bag of carbolised tow, which was kept closely applied to the side. This washing process with carbolic lotion was continued twice daily for a fortnight; after which an iodine solution (tincture of iodine, two drachms and a half to one pint) was substituted for it and employed once daily. Speedily the discharge, which had already sunk to a drachm or so in a day, became quite insignificant, and the washing fluid from the first returned almost clear. After another month, there being still some trifling oozing, a 5 per cent. solution of common salt was used for washing purposes, and the silver cannula was replaced by a small india-rubber drainage-tube. After three months in all she left, having discarded the drainage-tube and with a nearly healed sinus. Three months after leaving I saw her again with the sinus firmly healed, her cough gone, increased nearly two stone in weight; in brief, perfectly well.

The second case, that of Clara A——, aged seven, admitted soon afterwards under the care of my colleague, Mr. Bennett, was equally satisfactory. Here the history was successively of scarlatina, dropsy, pleurisy, and empyema. The empyema, however, was not allowed to discharge itself, but Fraentzel's method with full Listerian precautions was adopted, and a pint of pus was removed. The twice and afterwards once daily washings were duly continued, and after a month I read in the hospital note book that the discharge had almost ceased. Five months afterwards the same book contains a mention of the firmly healed condition of the resulting sinus and of the perfect restoration of the patient.

I trust I may be right in my surmise that few, if any, institutions in this country have been more prompt than the Cheltenham Hospital to adopt this notable advance in the treatment of empyema.

Cheltenham.

TREATMENT OF EMPYEMA BY IRRIGATION AND ASPIRATION.

BY JOHN LOWE, L.R.C.S.I.

I WOULD like, with your kind permission, to make a few observations on Mr. Moxhay's article on the above subject in THE LANCET of Jan. 15th.

Mr. Moxhay claims priority in this country for treating empyema by aspiration and irrigation with Listerian precautions. I have seen this method practised several times, and I have practised it myself with success in a case of empyema proper. In those cases which I have seen, as well as in the case under my own care, Listerism was observed with most scrupulous precautions, not as in the case which Mr. Moxhay reports, where, I should say, Lister's method was either not fully comprehended, or, to say the least, was most imperfectly carried out. To open a deeply seated abscess in the thorax, and then to irrigate with simple distilled water, some time after with iodine, and subsequently with carbolic acid solution (two grains to the ounce), is manifestly contrary to Mr. Lister's practice. Mr. Lister would have used an antiseptic solution in the first instance, and this is the method I have seen practised so successfully by others, and until we are more enlightened than we are at present, I shall adhere to the practice which common sense dictates. It is a misrepresentation of our most philosophical surgeon's practice to hold that perfect Listerian precautions were observed in the case referred to; nor do I believe that when two grains of carbolic acid to an ounce of water were used there was even an element of probability that such a solution would have any effect upon disease germs.

We occasionally meet cases that recover as quickly without antiseptic precautions as they could with them, and may not Mr. Moxhay's case have been one of these? At any rate, it would, I think, have been better if Mr. Moxhay had described the case with which he had to deal. For instance, the state of the patient's health, whether the collection of purulent matter was circumscribed, how long it existed, and other points of interest which a scientific intelligence would suggest. A circumscribed empyemic abscess existing for a considerable time is hardly likely to cease discharging quickly; nor is it good practice to drain off the whole of the fluid at once in all cases.

Victoria-road, Battersea-park, S.W.

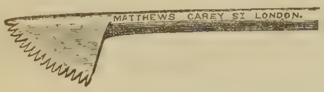
EDWARD GOODEVE MEMORIAL.—The execution of the bust of the late Dr. Goodeve, for the Medical College, Calcutta, has been entrusted to Mr. Geflowski, of Bruton-street. Mr. Geflowski's name is well known in India as a sculptor. The busts of Sir P. L. Cavagnari, Sir Cecil Beadon, Dr. Oldham, Mr. Arthur Grote, and many others, came from his studio.—*Home News.*

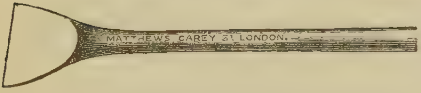
DESCRIPTION OF A SERRATED AND CUTTING CAUTERY IN THE OPERATION FOR HÆMORRHOIDS AND PROLAPSUS.

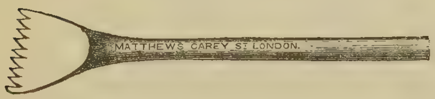
By HENRY SMITH, F.R.C.S.,
PROFESSOR OF SURGERY IN KING'S COLLEGE, SURGEON TO KING'S COLLEGE HOSPITAL.

I have until somewhat recently whilst performing the operation with the clamp and cautery for hæmorrhoids and prolapsus of the rectum employed the method as detailed in my article in "Holmes's System of Surgery," which consists in seizing and clamping the part to be removed, then excising the free portion by scissors, and subsequently cauterising the cut surface with the hot iron.

During the last year I have reverted to a method somewhat similar to that adopted originally by the late Mr. Cusack of Dublin, and instead of using the scissors for the purpose of removing the growths, I have employed cauteries so constructed that when heated they either cut through the tissues or saw them through at the same time that thorough cauterisation is effected. Mr. Matthews, at my desire, has furnished me with instruments having either a cutting edge or a serrated edge, as here delineated. The blades are set at right angles to the shaft or nearly parallel with it, according to the fancy of the operator. I employ both the cutting and the serrated cautery, according to the nature of the case. If the tumour or tumours to be removed are very large and vascular I use the latter, as the tissues are divided more slowly, and the cauterisation is more thorough; when the tumours are smaller and less vascular I use the cutting cautery.







I have now employed this method in a large number of cases both in hospital and private, and I strongly recommend it to those who practise this operation; time is saved, there is no need for the use of scissors, and, so far as my observation serves, there is a more thorough cauterisation effected—the cardinal point in this now safe and simple method of removing radically these serious and troublesome maladies.

I may mention also that these cauteries may be used with advantage in the removal of other growths besides hæmorrhoidal tumours; thus, for instance, I witnessed my colleague, Mr. Wood, use the heated cautery with the cutting edge in completing the separation of the broad pedicle of an ovarian cyst, which had been previously ligatured, but where a more thorough arrest of bleeding was required.

Wimpole street, W.

Testimonial.—A testimonial was presented on Feb. 23rd to Mr. Edward Charles Cripps, M.R.C.S., L.R.C.P. Lond., of Cirencester, by the officials and patients of the Highgate Infirmary, on his resigning the post of Assistant Resident Medical Officer, which he held for a period of two years. It consisted of a handsome clock and salver; the clock bearing the following inscription: "This clock, with a salver, was presented to Mr. Edward Charles Cripps, by the officers, nurses, servants, and patients of the Highgate Infirmary, as a token of their esteem on the occasion of his resigning the post of Assistant Medical Officer at that institution. Feb. 23rd, 1881."

THE CASE OF PROBABLE POISONING BY COLCHICUM.

By CHRISTIAN BUDD, M.B. Cantab.

In August last a gentleman, about fifty years of age, in good health, but subject to attacks of gout, went to Scotland for the shooting. Whilst there he had a slight attack of gout in his knee, which prevented him from walking, and at the end of ten days, in consequence of feeling unwell, he returned to Devonshire, where he arrived on a Saturday. On the following day (Sunday) he complained of nausea, with griping pains in the belly and diarrhœa. On the Monday he was seized with vomiting, and the diarrhœa continuing, a neighbouring medical man was called in. I imagine the usual remedies for arresting the diarrhœa and vomiting were had recourse to, without, however, in any material way mitigating the symptoms. The vomiting and diarrhœa continued throughout the week, and nothing remained on the stomach. On Tuesday, in the following week, another medical man was called in, and from that date I have an accurate record of the symptoms. At that time the patient lay in a state of semi-stupor, but, when roused, answered all questions clearly. There was not then, nor at any time, headache or delirium. The diarrhœa had ceased from the preceding night, but the vomiting was persistent, with frequent hiccough, and the belly was slightly tympanitic. The pulse was 80 to 82, and regular; the respiration natural; the temperature 96·5°. Upon examination the urine was found to contain some lithates, with a trace of albumen. To these symptoms were now added constant twitchings of the muscles, greatly aggravated by any movement. This state of things continued until Saturday night, when the vomiting ceased, but the patient's condition had become so alarming that, early on Sunday morning, I was called in consultation. On my arrival I found the patient in a state of semi-stupor, with his eyes shut, but when spoken to he answered questions clearly. His tongue and mouth were dry and brown, and he had frequent hiccough. The vomit of the preceding night contained dark-coloured flakes, as if stained with altered blood. The belly was tympanitic, and the bladder had ceased to act, so that he himself desired the catheter to be passed. This was done, and about a pint of apparently natural urine drawn off. The operation was repeated at regular intervals, as from that time he could pass no water without the aid of the instrument. The pulse remained at 80 to 82, and was regular, the respiration natural, and the temperature 96°. The twitchings of the muscles had increased, so that he had little control over their movements. As the bowels had not been moved for six days, a turpentine enema was administered, and was followed by two or three evacuations. On the following morning (Monday), in addition to the symptoms described above, he had paralysis of both arms; that of the left was complete, but he had still some little power in the right, and an effort to grasp one's hand brought on convulsive movements in it. On the Tuesday he was much in the same state; but on the Wednesday the pulse had become intermittent, the temperature had fallen to 95·5°, the twitchings were incessant, he had several involuntary motions, and at 10.45 P.M. he died comatose.

To what cause is this remarkable group of symptoms to be attributed? First, nausea, griping pains in the belly, diarrhœa, vomiting, and hiccough; then stupor, convulsive twitchings of the muscles, and, finally, paralysis and death. To my mind they resemble those of no ordinary malady, but are such as would be produced by an acrid narcotic poison; and it occurred to me whether, being gouty, the patient might not, accidentally or otherwise, have taken an overdose of colchicum. Upon inquiry I elicited from himself that he had been in the habit of taking "pills;" and that whilst in Scotland, to get rid of the gout in his knee, which interfered with his shooting, he had taken six pills daily until he he had finished two whole boxes of them. I have been unable to ascertain what sized box he took into Scotland with him; but it seems certain that, at the least, he took in four days and a half twenty-eight pills. I examined a fellow box of these pills and found them as hard as a stone, so that it is probable the pills remained for some length of time undissolved, and accumulated in the stomach and bowels until the dose may have become a poisonous one. I have since received from a medical man of eminence a report of a case of accidental poisoning by colchicum in which the symptoms were identical with those of my patient, and ended, in about the same length of time, in paralysis and death.

P.S.—Since the above was written I have received from my friend, Mr. A. Wynter Blyth, the Devon county analyst, an analysis of these pills, from which it appears that twenty-eight of them contain more colchicum than has in recorded cases caused death.

North Tawton, Devon.

NOTES OF A CASE IN WHICH THE PRINCIPAL SYMPTOM WAS A CONSTANT AND COPIOUS DISCHARGE OF WATERY FLUID FROM THE NOSE.

BY W. R. SPEIRS, M.B. & C.M.

HAVING observed in the Clinical Society's Transactions for 1879 a case reported by Sir James Paget, in which the principal symptom—a continuous dropping of watery fluid from the nostril—is there described by him as one of great rarity, the following note of a similar case which occurred in my practice may not be without interest.

In November, 1875, T. R——, aged fifty-five, a tailor, of medium height, spare and delicate-looking, consulted me as to a constant dropping of a clear watery fluid from his nose, which was at times so copious that any garment he was making became completely saturated in a very short time. This, he said, had been going on for nearly a month, and he was at length obliged to give up his work and seek advice. It commenced at first with sneezing, which he was inclined to attribute to the inhalation of dust arising from some coarse flannel upon which he was employed in making jackets for pitmen. Change of work, however, made no difference in the discharge, which went on as before. He could give no account of any injury received previously, and there was neither pain nor swelling at any time during the continuance of the flow. It came drop by drop, but at times almost so quickly as to form a stream; and on one occasion, when I wanted some of the fluid for examination, an egg-cup containing nearly an ounce was filled in a quarter of an hour. I have no note of the sp. gr. of the fluid, but it was perfectly clear and colourless, free from smell, and, according to the patient, had no taste. It contained no albumen, and a handkerchief thoroughly saturated with the discharge, on being held to the fire and dried, felt as soft and free from any stiffening as one that had not been used. No excoriation of the lip was produced, no matter how long the discharge was allowed to run over it. At night the patient was compelled to have his head raised till he was almost in a sitting posture, as when lying down the fluid ran back into his throat and caused a choking sensation. He noticed that the flow abated in some degree, but never quite ceased, when he took exercise in the open air, more especially if the atmosphere was clear and frosty, but immediately on coming in doors and entering a warm room it assumed its previous proportions. The sense of smell is now perfect, and was at no time during the flow in any way interfered with. In this case, as in Sir James Paget's, there was no appearance of disease in the mucous membrane of the nostril, and nothing whatever to indicate the source of the fluid. For nearly nine months the flow continued almost uniformly, certainly without any very decided variation in quantity, in spite of all the treatment adopted. This consisted of glycerine of tannin, tannic acid in powder, and various other astringents locally, whilst the general treatment aimed at acting on the lower bowel by purgatives in the way of counter-irritation. Liquid extract of ergot and liquor strychniæ were also persevered with for some time; but the case was finally cured (or, at any rate, the dropping ceased gradually day by day, until within a week it had quite disappeared) by keeping the nostrils always filled with goose-grease. Whether in this case the fluid came from the antrum, as post-mortem examination proved it to do in the case recorded by Sir James Paget, of course I cannot say, but presuming that the cases were identical, is it possible that the goose-grease which the patient himself applied experimentally filled up the fissure of communication between the antrum and middle meatus of the nose, and thereby so altered the existing condition of the structure lining that cavity as to effect a cessation of the excessive secretion? This appears to me to be a reasonable explanation of the result, and quite as satisfactory therapeutically as the treatment adopted by Sir Benjamin Brodie, whose case is referred to in Sir James Paget's report, which consisted of injection of solution of sulphate of zinc (three grains to an ounce) into the nostril, while the salt was at the same time administered internally. In the case referred to there were two separate attacks, and, considering that the second lasted twenty-three months presumably under the above treatment, it cannot be considered very satisfactory. Looking at the case anatomically, injection of solution of sulphate of zinc, or any other fluid, into the nostril, could not exert much, if any, influence over the lining membrane of the antrum.

The following therapeutic note in connexion with my patient may be worthy of record:—For twenty-seven years he suffered martyrdom from piles. He underwent an operation at the hands of a London hospital surgeon without benefit, but has been at length completely relieved from all pain and discomfort attending that condition by steadily persevering with glycerine in drachm doses twice daily, which I prescribed for him about three months ago, after seeing it recommended for that purpose by Dr. Young, of Florence, in the *Practitioner* for January, 1878.

Haltwhistle.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

HYSTERO-EPILEPSY; PHASES LIKE THOSE DESCRIBED BY CHARCOT; OBSTRUCTIVE DYSMENORRHŒA; TREATMENT BY DILATATION OF CERVIX UTERI.

(Under the care of Dr. SANSOM.)

FOR the following notes we are indebted to Mr. G. T. Stonham, house-physician.

The patient, a fairly intelligent girl, a Roman Catholic, aged twenty-one, was admitted on Aug. 20th, 1880. She lived from the age of thirteen to seventeen in Canada. Her mother's father died of consumption, but there was no neurotic family history. As a child she had good health, but whilst in Canada, and even after, she had suffered much from headaches, and from frequent attacks of vomiting. She first menstruated at the age of eleven; had always been very irregular; her menses were scanty, lasting never more than three days, and always accompanied by severe pain, both constant and paroxysmal, referred vaguely to the back and to the front of the abdomen, and coming on at the commencement of the flow, and lasting till it ceased.

She was first taken with fits in April, 1880, in which she lay for about five minutes in a rigid condition, and with her eyes shut. She at the same time had great impairment of memory. These fits came on about once a day on an average till the middle of July, when they became much more frequent, and of a more violent character.

She had five fits on the first day of admission, lasting from a quarter of an hour to an hour, and several similar fits on many days following. A fit could at any time be excited by pressure on the ovaries, and during its manifestation pressure on the ovaries would either arrest it or alter its character. Pressure on other parts of the body did not produce a fit. They were most frequent about the time of a menstrual period, and she also seemed to be more liable to them after being visited by the priest. Between the fits she seemed cheerful and intelligent, but suffered a good deal at times from headache, which, she said, felt as "though nails were being hammered into her head."

The fit consisted of a series of stages:—1. They began by her head being thrown up, and inclined slightly to the right, while her eyes were turned up and to the right, and her mouth widely open. Her limbs were placed in a position approaching that of crucifixion, her legs extended and lying together, while her arms were held out straight nearly at right angles to the trunk, her fingers being over-extended, bent back towards the dorsum of the hand. 2. After lying quite still in this position for a short time she began to make lateral and to-and-fro movements with the tongue, and to froth at the mouth (she never bit her tongue). Her head began to move slightly from side to side, then more violently, till at last her whole body was implicated in a violent side-to-side movement. 3. These movements were soon exchanged for violent and extreme extension and flexion of the trunk: at one moment she bent forwards so that her head almost touched her feet; the next, threw her head violently back on to the bed. 4. She then again assumed the crucifixion position, and on some occasions arched her back in a rigid opisthotonos. 5. Finally, she drew several long breaths, her limbs relaxed, and she turned on to her left side, placed her hand over her heart, and began to cry; she then sat up, smiled, and said she felt tired and weak. During the fit the corneæ were insensitive, and pricking her with a pin caused her no pain in any part of the body.

Treatment was directed to the relief of the dysmenorrhœa, which Dr. Herman considered to be due to a narrow cervix. On Sept. 27th bougies Nos. 4 and 5 were passed; their passage excited a fit. On Oct. 5th bougies Nos. 6, 7, and 8 were passed; a fit again occurred. On Oct. 18th bougies Nos. 8, 9, and 10 were passed; a fit occurred afterwards. She at the same time took one grain of valerianate of zinc three times a day. Her fits soon began to diminish in frequency, till by the middle of October she did not have more than two a week. Her menstruation also became easier, and the pain was much lessened. Pressure on the ovaries produced much less effect. She menstruated on Nov. 30th and Dec. 1st without pain for the first time in her life. She had no fits after that, and when she left the hospital on Dec. 7th she had not had a fit for more than a month.

WEST LONDON HOSPITAL.

INJURY TO THE HEAD; PARALYSIS OF THE SAME SIDE; DEATH; SARCOMA IN CEREBRUM; REMARKS.

(Under the care of Mr. Cooper.)

For the following notes we are indebted to Mr. Sidney H. Lindeman, house-surgeon.

Thomas J——, aged forty-seven, was admitted on October 1st, 1880, suffering from the effects of a kick from a horse, on the left side of the face. He was sallow and thin, but not emaciated. He was quite unconscious, breathing deeply, but freely. Pupils equal. The left side of the face was smashed in. There were two lacerated wounds of the left cheek about one inch and a half in length, one above the other, running almost horizontally across the face. Through the upper one the malar bone could be felt fractured, the lower wound exposing the superior maxillary bone. Both eyes were ecchymosed, the left most extensively. After being in bed a short time, the right side of the body was convulsed, the left remaining quite motionless.

Oct. 2nd.—Still unconscious. There had been no movement of the left side, but the convulsions of the right side were so violent that, in order to keep the clothes on, the ankle and wrist had to be secured to the bed. Had groaned loudly, and with great difficulty was made to swallow some fluids. Left side of the face paralysed. Wounds looking healthy. 3rd.—Since admission his bowels had acted, and his bladder had emptied involuntarily. Consciousness returning. Right side movements not so strong. On the 4th he spoke indistinctly. Breathing loud and difficult. Sore forming over the sacrum. Had not moved the left side. Next day he answered questions. Complained of thirst. Tongue dry and furred. Mouth parched. Could swallow fluids only, and that with difficulty. He remained in the same state with left hemiplegia, left facial paralysis, the involuntary movements of the right side having almost ceased, till on the 10th, when for the first time he was delirious, crying out that he had pain in the back over the sacral sore. He only occasionally shut the left eye, generally sleeping with it open. Micturition and defecation involuntary. Tongue and mouth dry. Teeth covered with sordes. Could not swallow solids. Felt cold. On the 25th he complained of pain in the left arm. He could only just move the left thumb and first finger. There was a large collection of pus over the left heel, which was freely evacuated. Left ankle and knee swollen. On the 29th he had some slight control over the bladder, but none over the bowels.

On Nov. 1st, one month since admission, he had a vacant stare, the left eyeball being apparently more prominent than the right. Had complete hemiplegia, slept with eyelids only partially closed, but could close them both at will; had now some difficulty in moving the right arm and leg, especially the latter; movements of the left eye more sluggish than the right; can see normally with right, but with the left only objects held directly in front of it. Did not hear with the left ear so well as with the right, both being impaired. Answered questions intelligently, but mistook strangers for relations, and *vice versâ*. On the 5th the right side of the body was found to present the following condition. The leg was constantly being drawn up; the fingers were flexed on the palm of the hand, the hand on the wrist, and the forearm was drawn at a right angle with the arm. These positions were with difficulty overcome and immediately returned to the same state, when the limb was left alone. The patient had no power to straighten them, and could barely move his right arm at all; but the grasp of his right hand was fairly strong. On the 8th had a severe attack of hæmorrhage from the sacral sore. On the 12th the whole body was much emaciated. Had managed to take a small quantity of bread-and-butter; conversed rationally, and requested to be allowed to go home and die. He was gradually losing all motion in the right arm and leg. He had only slight power over the bladder, none over the bowel.

The patient became extremely weak, and died on the 14th. The temperature throughout varied from 99° to 102·8° F., the highest being registered at the time he was delirious.

Necropsy.—On removing the skull-cap it was found to have attached to it the membranes over the posterior lobe of the right hemisphere, everywhere else it was healthy. The cause of this attachment was readily shown. In the posterior lobe of the right hemisphere there was found an extremely hard tumour, about the size and shape of a hen's egg. To this the membranes were firmly adherent, forming, with the surface of the tumour, a hard leathery mass. The brain substance in its neighbourhood was softened, and beneath the pia mater, within and around the upper end of the fissure of Rolando, which was a little way in front of it, there was a thin clot. There were adhesions, and lymph effused about the upper extremity of the left parietal convolutions. A microscopic examination of the tumour showed it to be a spindle-celled sarcoma. It was elicited from his friends that for the last four years he had been subject to attacks of pain in the head, and had been constantly under medical treatment. He had never been sufficiently ill to prevent his following his usual employment, nor did he show any symptoms of paralysis. His sight and hearing were perfect. When a child he had a severe fall, and struck his head over the right orbit. He went to work on the day of the fatal accident in apparently good health.

Remarks.—The peculiarity of this case lies in the difficulty of detecting the precise seat of the lesion which caused the symptoms. The blow having been on the left side of the head, it was natural to expect paralysis of the right side, if we omit fracture by *contre-coup*. This may be explained thus. In all probability the cranial tumour in the right hemisphere had been growing some time, producing the pains in the head from which he had constantly suffered. Now, a brain containing anything which destroys its natural resilience would be more likely to receive much graver injuries from such an accident than one which is perfectly healthy. The sudden shock, therefore, from the violent blow on the face caused an extreme degree of concussion of the brain substance, already softened, in the neighbourhood of the tumour, together with a good deal of hæmorrhage into the arachnoid and the brain itself, as was shown by the necropsy. This explains the left hemiplegia. The hæmorrhage was greatest in and around the upper end of the fissure of Rolando, which Dr. Ferrier in his "Localisation of Cerebral Disease" designates as the region in which injuries produce paralysis of the opposite side. And as he has also shown that serious injury to the occipital lobes can be inflicted without giving rise to any subjective symptoms, so we should not be surprised to find that this tumour had not manifested its existence by anything more definite than headache.

Injuries to the cerebral meninges produce symptoms of irritation of the same side, and in this case the injuries they sustained in the region of the tumour would account for the irregular movements of the right side, observed for some days after his admission. The subsequent paralysis and contractions of this side were probably due to the inflammation having extended to the left side of the longitudinal fissure. The fixation of the left eyeball, and the facial paralysis (which was not well marked), can easily be explained by the supposition that there was some local nerve lesion.

MANCHESTER ROYAL INFIRMARY.

CASE OF HEPATIC ABSCESS.

(Under the care of Dr. WILLIAM ROBERTS and Mr. HEATH.)

FOR the following notes we are indebted to Mr. C. H. Bloxsome, house-surgeon.

Mark H——, aged forty-four, a labourer, was admitted under Dr. William Roberts on Sept. 24th, 1880. The family history was good. When ten years of age the patient had small-pox, but, with that exception, he had always been healthy. Seven years before admission he went to America, where he worked as a labourer in the backwoods; was much exposed to cold and wet, and had a severe attack of diarrhœa, which lasted a fortnight. There was, however, no history of dysentery, although he had occasionally been subject to short attacks of purging, which ceased after a few hours. He had for several years been in the habit of drinking large quantities of whisky. There was no history of syphilis.

About five months before admission patient became aware of a dull aching pain in his right side, followed by a swelling over the region of the liver. He laid up for three weeks, when, being worse, he returned to England, and shortly afterwards became an in-patient at the infirmary.

On admission he had a dusky, sallow complexion, with a careworn expression. He was fairly well nourished, though rather anæmic. In the epigastrium was an immovable tumour, rather tense, though fluctuation could be distinctly made out. There was dulness in the nipple line, extending from the lower border of the fifth rib of the right side to two inches below the costal margin.

On Oct. 26th a puncture was made into the tumour about an inch below the eighth right costal cartilage, and three ounces of very sanious pus were withdrawn by the aspirator.

On Nov. 2nd thirteen ounces of a similar fluid were evacuated in the same manner, giving great relief; and on the 7th the aspirator was again used, six ounces of fluid being withdrawn.

On Nov. 9th he was admitted into the surgical wards under Mr. Heath. Under the carbolic spray an incision an inch in length was made a little to the left of the right nipple line, and below the costal border, and a large-sized drainage-tube was inserted. About eight ounces of thick sanious pus were evacuated, and antiseptic dressing was applied, being fixed by a many-tailed bandage. There was such a large quantity of discharge that the wound was dressed twice daily until the third day, after which it was dressed once daily until the 15th, when a small quantity of eucalyptus and vaseline ointment (1 to 8) spread upon boracic lint was applied, the spray being still used. The quantity of discharge steadily decreasing, the drainage-tube was shortened by degrees until Dec. 8th, when it was discontinued altogether.

On Dec. 15th the spray was given up, the dressing being still applied every alternate day; and on the 21st the wound had completely healed. The patient was discharged Dec. 24th.

The temperature, which had previously been most irregular, varying from 103° F. to 96° F., became rapidly normal after the abscess was opened, and remained so throughout, never rising above 99° F.

THE total sum realised by the Hospital Saturday and Sunday collections in Manchester this year is £5053 13*s.* 4*d.* A few contributions not yet returned will, it is hoped, raise the sum to at least the average of former years.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Annual Meeting.—President's Address.

THE annual general meeting of this Society was held at the Society's rooms, 53, Berners-street, on the 1st. inst., the President, J. E. Erichsen, Esq., F.R.S., in the chair. The ballot for officers and Council for the ensuing year was taken, Dr. Legg and Mr. Gant acting as scrutineers. The following Fellows were elected to fill the offices:—President: Dr. Andrew Whyte Barclay. Vice-Presidents: Drs. A. B. Garrod and Habershon, and Messrs. Spencer Wells and Holmes. Treasurers: Dr. C. B. Radcliffe and Mr. Cooper Forster. Secretaries: Dr. R. E. Thompson and Mr. Berkeley Hill. Librarians: Dr. Sieveking and Mr. Hulke. Other members of the Council: Drs. Andrew, Cholmeley, Hilton Fagge, Sydney Ringer, and Reginald Southey, and Messrs. Gant, Langton, Francis Mason, John Morgan, and Alfred Willett.

The balance-sheet, which had been duly audited and previously circulated, was taken as read. In consequence of some unusual outlay, the finances were not as satisfactory as usual, there being a deficit in the income as opposed to the expediture of £70 10*s.* 6*d.* The number of new Fellows during the past year was twenty-four, less than the year before, but considerably above the average.

Mr. Holmes, the hon. secretary, read the report of the Council, the adoption of which was moved by Dr. Cholmeley, seconded by Mr. Cowell, and carried *nem. con.*

The PRESIDENT then delivered an address. He said that the meetings of the Society, the excellence of its published Transactions and of its unequalled library, were evidences of its satisfactory position; and as proof of the high estimation in which it was held was the fact that office in it was regarded as the highest distinction the profession could confer. At the same time, he thought its sphere of action might be increased, and that it would be of great advantage if an institution which kept aloof from education and medico-ethical and political questions could be more widely utilised for the investigation of questions of practical moment and importance to the community. He suggested that the inquiry of such subjects might be more frequently undertaken by Committees of the Society. He spoke also of the relation of the Society to the kindred societies, and advocated the scheme which in 1869 was nearly carried into effect of amalgamating or affiliating those societies into one central body, a Royal Academy of Medicine. The financial condition of the Society was not altogether satisfactory; its income was not sufficiently elastic to bear the strain of any unusual expenditure. It would not be possible to reduce the ordinary expenditure without impairing the efficiency of the Library, and he suggested that an annual subscription from non-resident Fellows might reasonably be demanded, the present fee being somewhat inadequate and not in proportion to the privileges derived Of course, any such change would only have a prospective effect. Mr. Erichsen then proceeded to give a brief sketch of the lives and work of Fellows deceased during the past year. The list comprised the names of Dr. D. Whitaker Cohen, Mr. Thomas Bell, F.R.S., the first legally qualified surgeon who devoted himself specially to dentistry, and whose zoological writings as well as his edition of Gilbert White's "Selborne" were well known; Dr. John Deakin Heaton, of Leeds; Dr. W. Sharpey, F.R.S., whose career and character were admirably portrayed: his wide knowledge "blended with wisdom," his unrivalled powers of exposition, his liberal instinct, and his devotion to medical education and science were dwelt on by the speaker, who knew him well; Dr. O'Connor, Mr. Ed. Amphlett, Dr. J. Pearson Irvine, Dr. Ed. I. Sparks, Dr. Ed. Goodeve, Dr. Geo. Moore, and Sir B. C. Brodie, M.A., Bart., late Professor of Chemistry at Oxford, and an honorary Fellow of the Society. In conclusion, Mr. Erichsen said that he had now to retire from the chair and resign the office which the Society had honoured him two years ago. That honour was one of great distinction to be conferred on a member of our profession. Few honours are given to our profession from without, and we may be allowed to prize those bestowed by the profession itself. Such honours are some recompense in after life to those who in early life have followed the steep and rugged roads of a professional career, and have not pursued the smiling by-paths which, although they may lead men to fortune, do not lead to fame. To a surgeon there was no honour greater than to be on the roll with the sixteen illustrious surgeons who had preceded him in that chair. For that great honour and distinction he most cordially thanked the Fellows, for he felt most grateful for it.

On the motion of Mr. SPENCER WELLS, seconded by Mr. PICK, a cordial vote of thanks was awarded to Mr. Erichsen for his duties as President and for his address, coupled with the request to allow it to be printed in the Proceedings of the Society.

Mr. MACNAMARA proposed, and Dr. WHIPHAM seconded, a vote of thanks to the retiring Vice-President.—Dr. SILVER proposed, and Mr. B. HILL seconded, a vote of thanks to the retiring Secretary and other officers, which was acknowledged by Mr. Holmes, and the meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

Treatment of Hydrocele.—Removal of Tongue for Cancer.—Treatment of Psoriasis by Turpentine and by Chrysophanic Acid.

AT the meeting of this Society on Feb. 21st, F. J. Gant, Esq., President, in the chair,—

Mr. S. OSBORN read notes of two cases of Hydrocele cured by single Tapping, with the subsequent use of the Galvano-suspension Bandage. The first was a case of hydrocele of the tunica vaginalis, which had been present for seven or eight years; and the second was a case of double encysted hydrocele, present for six years. Both patients were affected with rupture on the same side as the hydrocele, showing a preternatural weakness of the parts in the vicinity. The ages were seventy and sixty-three respectively. After tapping and manipulation the galvanic suspensory bandage was applied. The galvanism was believed not only to cause contraction of the muscular fibres of the scrotum, but to impart a healthy action to the serous sac, aiding absorption. Mr. Osborn recommended a trial of this bandage in other diseases of the testicle, such as varicocele and neuralgia testis. — The PRESIDENT referred to the value of manipulation, which often sufficed to provoke the inflammation necessary for the cure of hydrocele. — Mr. MASON, although he had heard of hydrocele being cured by a single tapping, had only met with one such case in his own practice. — Mr. ROYES BELL had not been satisfied with the plan of a single tapping followed by strapping, which had been much recommended. — Mr. PEARCE GOULD asked if the method advocated by Mr. Osborn produced any injury to the skin.—Dr. GIBBON had seen many failures follow tapping combined with strapping; the best results were obtained by acupuncture. — Dr. DOWSE said if the galvanism kept the scrotum contracted its value might readily be conceived. — The PRESIDENT, in reply to Mr. Gould, said that the age of the patient did not enter into the question of his fitness for radical cure so much as the state of his constitution and the size of the hydrocele.—Mr. OSBORN, in reply, said that contraction of the scrotum was produced and maintained by the galvanic suspensory bandage. Although using it in many cases, it had produced no injury.

The PRESIDENT related a case of Epithelioma of the Tongue; removal by Buccal Operation. A man aged fifty-eight was admitted into the Royal Free Hospital on Dec. 31st, 1880. The growth was of eighteen months' duration, attributed to the irritation of a jagged molar tooth. He was also a great smoker. Last April the growth commenced to rapidly ulcerate, and his strength was much reduced by hæmorrhage. The tongue became enlarged, and a deeply excavated ulcer involved the right and base of the organ. The cancerous infiltration extended in the body of the tongue to the left side. There was considerable pain and tenderness. The submaxillary and upper right cervical glands were large, hard, and tender. Iodide of potassium was given in increasing doses without relief. On January 15th the following operation was performed. An incision was made from the angle of the mouth to the angle of the lower jaw, avoiding the parotid duct and exposing the base of the tongue. The facial artery was twisted, the tongue drawn forwards, and removed by the chain écraseur around the root of the organ, guided by the curve of two aneurism needles, introduced from beneath the tongue upwards in front of the epiglottis. The removal occupied twenty minutes. No hæmorrhage occurred. The buccal incision was closed with harelip pins. The patient made a good recovery from the operation. The submaxillary glands diminished in size, but the concatenate glands remained enlarged. The growth had presented the microscopical character of epithelioma. Both the patient and the tongue were exhibited.

Mr. ROYES BELL brought forward a case of Removal of the Tongue by Nunneley's Operation. The tongue shown was that of a man, aged sixty-nine, who was admitted into King's College Hospital, under the author's care, on Oct. 3rd, 1878, operated upon on Oct. 11th, and discharged on Nov. 13th. There was a large epithelial growth about the centre of the right side of the tongue, which was attended with the usual distressing symptoms. The whole of the disease, and almost the whole of the tongue, was removed by the submental operation. The strong wire loop of an écraseur was passed through the floor of the mouth under the chin, in front of the hyoid bone; the loop was then passed over the back of the tongue, which was drawn forcibly forward by means of a stout string passed through its tissue; the mouth was kept open by means of Mr. W. Rose's gag and the tongue cut off by the écraseur, the removal taking thirty minutes; it was followed by free bleeding, and stopped by tying the arteries in the usual way. This operation goes by the name of the late Mr. Nunneley of Leeds, and is well suited to the case. There are instances where the floor of the mouth being involved, the severer form, styled "Syme's," becomes necessary. —Mr. MASON referred to the importance of thoroughly freeing the tongue in any operation for its removal, and pointed out the unfavourable prognosis in these cases, few of whom lived more than twelve months after.—Dr. CHOLMELEY asked the President whether the patient referred to by him, from whom he had removed the tongue seven years ago, and who was now living, had exhibited any signs of glandular infection previous to operation, for he considered this an important question relative to prognosis.—Mr. OSBORN inquired if it was necessary to remove the whole of the tongue. —Mr. MORRANT BAKER considered the case a most successful one. He advocated a plan of operation adopted by him at St. Bartholomew's Hospital—viz., dividing the organ in the median line from its tip to the epiglottis, which, owing to the anatomy of the part, could be effected with little loss of blood. The advantages of this method consisted in the ease with which the severed parts could be grasped by the écraseur or the cautery applied; and by the mode of freeing the tongue the elimination of the disease was more readily secured. He laid stress on not trusting to the needle behind alone.—Mr. PEARCE GOULD asked Mr. Baker what kind of écraseur he used, and referred to the large proportions of deaths from lobular pneumonia due to the septic effect of sloughing, which frequently follows the operation. — Mr. BAKER said he used whipcord or wire.—The PRESIDENT pointed out the advantages of the écraseur, which injured the vessels more than a single wire would, and thus arrested hæmorrhage. Even did the operation not prolong life, it certainly ameliorated the distressing condition of the patient. In the case referred to by Dr. Cholmeley the cervical glands were not enlarged at the time of the operation, although the submaxillary were somewhat increased.—Mr. ROYES BELL replied.

Dr. RADCLIFFE CROCKER showed a case of General Psoriasis, illustrating the comparative result of Treatment by Turpentine and Chrysophanic Acid. The patient, a man aged forty-six, had never been entirely free from the disease for fourteen years; a soft cancer ten years before was not followed by constitutional disease, and the psoriasis presented the usual typical character of the now specific eruption. The disease was worse in winter; the last attack began in November last. With the exception of the lower part of the face and scalp, the middle of the back between the crest of the ilium and the line of the angles of the scapulæ, and the backs of the thighs, the eruption was so closely distributed that there was scarcely any interval of healthy skin; over the knees and elbows the patches were larger. The treatment adopted was: first swathing him in bandages soaked in oil for four days, to remove the scales;

the left half of the body was then rubbed with half a drachm of chrysophanic acid to one ounce of lard, whilst the right half was rubbed with two drachms of oil of turpentine to one ounce of olive oil. The strength of each preparation was increased every few days, until pure turpentine was applied on the right side, and chrysophanic acid, one drachm to the ounce, was used to the left; and in twelve days from the time this strength was reached the whole eruption on both sides had disappeared with the exception of a few spots on the shoulder. As far as rapidity of action was concerned there did not seem any advantage of one application over the other; there was a little tingling with the turpentine, whilst the chrysophanic acid produced staining of the clothes and skin. Dr. Crocker brought this case forward as an evidence of the success attending a penetrating stimulant to the skin, and believed that any stimulant of that kind was efficacious in removing the eruption of psoriasis; the only internal treatment was an alkaline expectorant, as the man had slight bronchitis, and towards the end some perchloride of iron. No arsenic was given. The case was under treatment thirty-three days.—Dr. DOWSE referred to the advantage of the treatment of psoriasis with india-rubber sheeting, and questioned the safety of turpentine applications.—Dr. GILBART SMITH had had a patient under his care suffering from marked psoriasis, whose previous attack had been treated by numerous methods, india-rubber sheeting among the number. A speedy removal of the eruption followed the daily application of an ointment composed of chrysophanic acid, half drachm to the ounce. A certain amount of conjunctivitis was present while under treatment, but gave no uneasiness.—Dr. GIBBON recommended the use of tar.—Dr. CROCKER replied he had never known strangury occur from the use of turpentine in this way over a large surface.

CLINICAL SOCIETY OF LONDON.

Partial Disease of the Nuclei of Motor Roots of the Fifth Nerves.—Quiescent Scirrhus of Breast.—Erythema and Herpes Iris.

THE ordinary meeting of this Society was held on Feb. 25th, Dr. Althaus, vice-president, in the chair.

Dr. HILTON FAGGE read notes of a case of Paralysis due to partial disease of the Nuclei of the Motor Roots of the Fifth Nerve. W. B——, aged forty-one, was admitted into Guy's Hospital on Oct. 18th, 1880, on account of an inability to close the jaws. He said that three months ago he began to experience difficulty in holding anything tightly between the teeth, and that afterwards he could not bite his food well. The loss of power gradually increased, until three weeks ago he became quite unable to bring his teeth together. He also had difficulty in swallowing, and liquids returned through the nose. The drop of the jaw was still slowly becoming more marked. He was a strong, healthy-looking man, but his expression was vacant, and his features had lost much of their play. This, however, was not due to any defect of the seventh nerves (for he could whistle a tune perfectly well), but to separation of the jaws. When he tried to bring the upper and the lower teeth together he could not do it; the temporal muscles could, in fact, be scarcely felt to contract, and the masseters acted very slightly. The excitability of these muscles to the continuous current was much impaired, and they were obviously wasted. Yet the lateral movements of the lower jaw performed by the external pterygoid muscles were normal. On inspection of the fauces, the soft palate was seen to move symmetrically during inspiration, but the left side of the palatine arch was dropped, and narrower than the right side. It appeared clear, therefore, that the case, which (so far as Dr. Fagge knew) was unique, was one of a partial lesion of the motor nuclei of the fifth nerves, comparable with bulbar paralysis, and with Mr. Hutchinson's "ophthalmoplegia externa;" and, as in the last-named disease, the cause was possibly syphilis, for the man had, twenty years previously, had gonorrhœa and a bubo, and his wife, to whom he had been married nineteen years, was never pregnant. Another noteworthy symptom was the presence of sugar, to the amount of 54·7 grains per ounce, in the urine, which was of specific gravity 1049. He also complained of slight occasional diplopia, and the muscles of the arms and the extensor muscles of the forearms were found to have a diminished capability of reacting both to continuous and to faradaic currents. He was ordered to take one-twelfth of a grain of bichloride of mercury and two grains of iodide of potassium, three times a day. Under this treatment he rapidly improved, and he refused to stay in the hospital after the 5th of November.—Dr. ALTHAUS said that such affection of the motor portion of the fifth nerve was rare; and the question to determine was whether the lesion were basal or central. The singular involvement of the third nerve pointed to the base; whereas the bilateral character of the affection was in favour of its being central. He had seen a case, obviously inflammatory, of bilateral affection of the whole fifth nerve. In that case the pterygoids were paralysed. There was also tinnitus aurium, which he attributed to paralysis of the tensor tympani, it being supplied by the auricular branch of the fifth. There was also paralysis of the palate. Was the pupil affected in Dr. Fagge's case? After section of the fifth nerve in the skull there is contraction of the pupil followed by dilatation, and then sluggishness.—Dr. DOWSE had not much doubt that the disease involved the fifth nerve; but the difficulty in swallowing, &c., seemed to point to involvement of the roots of the vagi and glossopharyngeal; and the slight loss of power in the muscles of the forearm was a further indication of the downward extension of the lesion. The condition resembled those due to pachymeningitis or bulbar paralysis.—Dr. POORE thought there was slight deviation of the tongue to the right side. Did the muscles give the degenerative reaction to galvanism or the ordinary reaction to faradaism?—Mr. GODLEE pointed out that the buccinator acted fairly well.—Dr. FAGGE, in reply, said that no increased susceptibility to galvanism was obtained. There was no mention in the report of tinnitus or of the condition of the pupils. He considered the case allied to bulbar paralysis, progressive muscular atrophy, and ophthalmoplegia externa, and that the change involved the nuclei of the motor roots of the fifth nerve.

Mr. J. W. TEALE (of Scarborough) read notes of a case of Quiescent Scirrhus of the Breast. A lady, aged fifty-three, a widow, noticed eleven years ago a small, hard, painful lump in the left breast. The surgeon whom she consulted advised its removal, and Mr. Teale, who saw her soon after, considered it malignant, and gave the same advice. All idea of operation was declined. The tumour gradually increased, becoming adherent to the ribs; the nipple was retracted and then obliterated. Pain, which was often excruciating, was relieved by morphia, taken up to four grains daily, and sleep obtained by chloral in increasing doses up to sixty grains. She became emaciated, feeble, bedridden, and apparently at death's door, living for two years on milk only. Eventually, the chloral having been discontinued, owing to the distressing nervous symptoms to which it gave rise, a gradual change in the symptoms took place. The bodily health began slowly to improve, whilst the tumour began to shrivel, the discharge ceased, and the pain gradually diminished. Mr. Teale reported that during the last five years the patient has remained well and fairly strong, and able to walk some miles daily. She has gradually resumed ordinary diet and modes of living, and takes less than half of a grain of morphia daily, whilst the present condition of the shrivelled breast-tumour was shown by a photograph recently taken, which Mr. Teale exhibited to the Society. Mr. Teale raised the question whether the extremely debilitated condition to which the patient had been reduced, and her enforced low diet, had not determined the retrogression of the disease.—Dr. ALTHAUS said no doubt such cases did occur; they were classed by Nélaton under the head of "retrogressive scirrhus."—Dr. C. T. WILLIAMS, alluding to the fact that chloral was abandoned because of the presence of severe nervous symptoms, asked whether these symptoms were really due to that drug. He had often given large doses without serious effect. An old gentleman of seventy-four, the subject of mitral disease, took half a drachm of chloral every night for six months without a bad symptom. In a case of spasmodic asthma he had given fifteen grains every four, and then every six hours, for fifteen days; the asthma was subdued, but a purpuric rash appeared.—Mr. TEALE said that it seemed to him that the chloral was the cause of the bad symptoms, which disappeared on its being discontinued.—Dr. ALTHAUS had recorded in the Clinical Society's Transactions a case where a patient took as much as 120 to 180 grains in the twenty-four hours, causing total destruction of appetite. The chloral was suddenly stopped without ill effects; but ultimately the patient recurred to the drug and died.—Dr. FAGGE pointed out the great difficulty there was in chronic cancer of discovering the epithelioid elements; and he had long thought those cases where hard masses or strictures occur—(e.g., in bile-duct or intestine), the disease was really malignant, although the epithelial elements were not visible in the mass itself. The existence of distinct secondary growths often settled the question. The burden of proof lay with those who asserted these were fibrous strictures rather than fibroid cancers.—Mr. GODLEE asked whether the condition of the axillary glands had at all altered.—Mr. WARRINGTON HAWARD said the photograph was suggestive of a long-continued growth which had undergone degeneration. Analogous cases were seen in cancer of the rectum, where the growth often exists a long time, and eventually becomes of fibrous nature. Had the arrest of the disease any relation to the prostration and inanition? His own impression was that it was better not to press food on cancer patients, lest the growth be stimulated. A lady seen by Sir James Paget, suffering from cancer of the breast, and taking very little food in consequence of becoming addicted to morphia, became emaciated and very weak. For two years and a half the cancer gradually ulcerated, until at last only a large open wound was left, showing no tendency to heal, but giving rise to a small quantity of foul discharge. At the end of five years from the commencement, another growth appeared in the opposite breast, which progressed very slowly for about another year. She was still taking morphia, but now began to take also large quantities of brandy. Coincidently with this the growth made rapid progress, infiltrated the skin, invaded the lung and pleura, and led to death. The practical inference was that it is better to starve rather than feed the subjects of malignant disease.—Mr. TEALE, in reply, said in his case the nervous symptoms and prostration disappeared on leaving off the chloral, but the morphia was continued. The symptoms in the case attributed to chloralism were those of incipient insanity. The axillary glands had remained in a perfectly stationary condition. The diagnosis of cancer was confirmed by Mr. Teale of Leeds, who had no doubt as to its nature.

Dr. RADCLIFFE CROCKER described four cases of Erythema or Herpes Iris, one of which had been shown to the Society at a previous meeting, and another was brought to the present meeting to show the scars which sometimes result from this affection. A wax model of a typical case was also exhibited. W. G——, aged twenty-three, a butcher, had suffered from three attacks, and though there was no evidence to show what led to the first attack, which occurred during a voyage to the Cape, subsequently errors in diet aggravated or determined an outbreak. His general health was good, excepting a tendency to constipation. The eruption appeared most abundantly upon the hands and feet, especially the fingers and toes, but other parts of the limbs, and now the lower parts of the trunk were sometimes affected. The lesions were symmetrical, though often one patch was nearly well before the corresponding one on the other limb appeared. Each began as a flat red papule about one-sixteenth of an inch in diameter, with a red areola of about half an inch. Sometimes a pustule appeared on the papule, which ruptured, and a brownish-pink zone appeared round it, and outside that a white one, the patch increasing by the formation of fresh rings varying from white to pink or bluish-red tints, and reaching to about the size of a florin; the rings then broke up, and the patch gradually faded, leaving a purplish-red stain, which lasted for some time. The eruption was attended with burning and itching, but the general health was unaffected. Dr. Crocker alluded to the other varieties of this affection. Thus, in some no central vesicle or pustule was formed, but only a flat papule, which became depressed in the centre, and concentric rings spread from that. On the other hand, there might be a large vesicle, or even bulla, in the centre, with concentric rings of vesicles, which gave rise to the name "herpes iris." The tint of the rings in all varied from white to various pink and bluish shades of red. These variations depended mainly upon the quantity of fluid effused into the tissues. In the child, which attended the meeting, the eruption began as rings of erythema an inch in diameter; in a few days these disappeared simultaneously with an outbreak of bullæ of large size, around which came a ring of vesicles, and the contents becoming purulent these dried into scabs, which left the deep disfiguring scars now visible. Speaking generally, the noticeable features of the affection were: (1) its tendency to recur, especially in the spring and autumn, and often in the same month in any one case; (2) to attack children and young adults of either sex; (3) to develop symmetrically, the hands and feet being especially attacked, though in rare instances it was universal; and, finally, to run its course in a few weeks, apparently uninfluenced by treatment.

Dr. F. TAYLOR read notes of cases of Erythema and Herpes Iris. — CASE 1. A man aged forty, previously in good health, was seized one day while at work with violent sneezing and watering of the eyes, and in the morning found his gums and palate becoming swollen, and could only open his mouth with difficulty. These symptoms subsided in two days and an eruption appeared. It commenced on the left thigh in the form of blisters, to the number of twelve or more, about the size of a shilling piece, containing a watery fluid. The following day it appeared on both legs and arms, and he had at the same time a burning sensation in his feet and pains in the joints. The eruption then spread to the head, face, and trunk, the abdomen being the only part spared. When seen on the eighth day of its appearance the eruption consisted of vesicles and bullæ of various sizes, and for the most part arranged in a circular manner, so as to include an area of comparatively healthy skin as in a ring of blister. Some such rings were formed of six to eight isolated small vesicles with clear contents; others of one continuous bulla of vesication of completely circular form, the contents being then mostly deep pink or purple. In many places the circles had coalesced and formed irregular figures, and some circles and patches measured as much as two inches in diameter. The bullæ were upon a slightly inflamed base. The face was much swollen in the early stage of the eruption. There was no itching, but only a burning sensation on its first appearance. He began rapidly to improve without special treatment. After becoming full of dark sanguineous fluid, the bullæ burst, the secretion drying into a dark scab or leaving an open ulcer. These ulcers were slow in healing, and have left several scars, reproducing more or less accurately the consecutive and ringed shape of the original bullæ. They are numerous on the arms, forearms, thighs, and legs. The duration of the bullous stage was about three weeks, but the healing of the ulcers took much longer. Two years have now elapsed, and there has been no recurrence.—CASE 2. A child aged five months, recently vaccinated. Ten days after the operation the eruption began as pimples on a red surface completely surrounding the vaccination crusts, and, subsequently, spots appeared on the arms, chest, abdomen, and back. The spots or patches were oval or circular, touching each other by their borders, but not running freely together, of bright pink colour, with deeper red, very narrow, more prominent margin. In the centre of many was a bright red spot or pimple, and vesicles formed both in the central papule and at the margin of the patch. The child was seen on three successive days, on the last of which the patches were fading.—CASE 3. A boy aged nine years, who was generally delicate and had suffered from cough and weakness for three months. He presented an eruption on the chest, abdomen, neck, back, and lower extremities, consisting of patches about half an inch in diameter, with a central yellow crust; around this was an elevated ring, and upon this again small vesicles. The vesicles dried up into crusts, and around them formed fresh rings of redness with new vesicles upon them; and their contents, at first serous, became purulent, and then discharged and formed scabs. When the crusts separated the skin beneath them had a brownish stain. The eruption lasted about six months. Dr. Taylor remarked that these might be regarded as three different forms of the disease known as erythema iris, herpes iris, or hydroa; and further defined by Mr. Hutchinson as a vesicular form of erythema multiforme. In the case of the infant it was distinctly a vesicating erythema papulatum, or circinatum; in the boy the vesicular characters were more marked; in the adult (Case 1) the vesicles appeared before the redness, a feature characteristic of hydroa according to Bazin. In the sudden outbreak, spontaneous disappearance, symmetrical distribution, and in the co-existing inflammatory disturbance of the joints, it also resembled cases described as hydroa. The large size of the bullæ would have suggested the name pemphigus, as pemphigus circinatus, or serpiginosus.—Dr. STURGE related a case recently under his care. The patient was a lad six years old, who had been ailing for ten days when first seen. He had a temperature of 102°, and at the end of six days in hospital numerous papules and vesicles appeared on the legs in the form of rings half an inch in diameter. The patches had a red base, surrounded by a circle of vesicles; in some places a distinct bulla formed. He had also a crop of herpes on the lips, a sore throat (with vesicles on the palate), and an attack of dry pleurisy. He recovered in three weeks.—Dr. C. T. WILLIAMS asked if the vaccination in one of Dr. Taylor's cases had anything to do with the disease.—Dr. B. O'CONNOR said pyrexia was unusual in these cases, and in his experience the rash was not generally symmetrical in the limbs, although often on both sides of the trunk. Herpes iris was rare on the trunk. He asked Dr. Taylor for his experience as to the value of arsenic in pemphigus, and mentioned the case of an infant who had been vaccinated a few months before, escaping the contagion of measles (with which other members of the family were afflicted), but becoming attacked with pemphigus.—Dr. T. C. FOX protested against the confusion existing with regard to the relations between the erythematous and vesicular and bullous affections. The latter were only stages of the erythematous inflammation; and Hebra was right in including the various phases under the head of erythema multiforme. Vesiculation was not common; herpes iris was always met with on the back of the hands and fingers, instep, and front of the knees; and was always combined with herpes facialis. It had a great tendency to recur, especially in the spring and autumn.—Dr. CROCKER, in reply, said symmetry was the rule in these eruptions; although there was often a delay in the appearance of the rash on the opposite side to its first appearance. He did not think any treatment influenced the course of the affection. Fever, especially in children, is a common symptom, but is transitory. He agreed with Dr. Fox that the distinction between the vesicular and erythematous rashes was only one of degree, but he did not think herpes labialis so invariable a concomitant of the vesicular form.—Dr. TAYLOR, in reply, said he did not think the vaccination in one of his cases had anything to do with the erythema. Arsenic did good in some cases of pemphigus; in others it was of no use. He gave it usually in the form of Fowler's solution. He thought the depth of skin affected, as well as the intensity of the inflammation, had much to do with the variety of eruption produced.

The Society then adjourned.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

AT a meeting of this Association held on Wednesday, February 16th, 1881, Mr. THOMAS EDGELOW, President, made a few remarks on taking the chair. After thanking the Fellows for the honour conferred upon him, Mr. Edgelow alluded to the late meeting of the General Council, and stated that the result of its deliberations was the condition and claims of the Dental Register. The conclusions arrived at (were there no hope of obtaining an amendment or repeal of the Act, or a distinct recognition of the status of the *surgeon* practising our specialty in the new Medical Act) could not but be regarded with dismay by all interested in the welfare of the profession. The Dental Act has now so signally failed as a practical measure that its very authors must, one would imagine, be heartily sick of it. It has even proved too comprehensive for them, and a great number of names, withdrawn from the Dental Register at the suggestion of the British Dental Association, are now to be restored triumphantly to the lists. In fact, he regretted to state that of the five thousand and odd names that have been entered on this Register, *one* name alone has been expunged by the Council. It was also settled by counsel's opinion that the Executive and Dental Committees have no power to originate proceedings for the removal of any name from the Register, but that all initiation of proceedings to effect this object must rest with the General Medical Council itself. Another point to which he wished to direct attention was, that only the purely dental qualification was allowed to appear on the Register. As long ago as December, 1878, one of the Fellows of the Association applied formally to have his surgical titles entered, but without effect; and now the refusal was pronounced by counsel to be only in harmony with the Dentists Act, and should contain no reference "to other qualifications or practice in either medicine, surgery, or pharmacy." Thus the Dental Register will be very simply and easily divided into two sections—one containing only the purely dental qualification, the other no qualification appended at all. Thus the surgeons, and those without qualifications of any kind, are to be left indiscriminately mixed up, and the licentiates are to pass as the only true representatives of the qualified profession. But while our Association has never failed to recognise that the licentiate has a distinct advantage over the unqualified practitioner, and while it recognises and strives at the general elevation of the profession that undoubtedly has arisen from the higher state of dental education resulting from the institution by the College of Surgeons of its examination in matters purely dental, its very name and constitution would forbid it to sit down quietly without protesting against such an anomalous state of things. It will now become a matter for the personal consideration of those Fellows of our Association, whether under these circumstances it would not be desirable for them (should they not have done so), to withdraw their names from the Dental Register, and to content themselves with their position on the Medical Register. What action should be taken by this Association at the present juncture will receive the careful consideration of the Council, and whatever form this action may take its action will certainly be to strengthen the bonds already happily existing between ourselves and the medical profession, of which profession we have always claimed to be an integral part; and we shall jealously watch, and to the best of our ability oppose, any action, from whatever source it may emanate, that would seek to loosen ties which we trust and believe will prove to be indissoluble.

Mr. E. T. M. PHILLIPS of Liverpool then brought forward the following cases:—Case 1 showed the models of the mouth of a boy aged fourteen, from whom the two roots of the first right lower molar had been extracted, connected with which was a small cystic tumour, the result of an alveolar abscess. Cases 2 and 3 were examples of supernumerary teeth. Case 4 showed the altered appearance of the upper laterals from enlargement of the basal eminences. Case 5 was a very curious condition occurring in the mouth of a young lady aged fourteen, where, on the left side, the canine and first bicuspid were missing, but were erupted and in normal position on the right. Case 6 was one of rare occurrence, and was an example of the transposition of the canine and first bicuspid. Mr. Phillips thought the explanation of this transposition might be accounted for probably in the early removal of the temporary canine, thus allowing the first bicuspid to come close to the lateral incisor, and that the permanent canine, when erupted, not having room, had descended between the two bicuspids. Case 7 was that of a child aged five, and showed the presence of the supernumerary teeth ranged in regular order with the others in the dental arch, and it was a question which should be considered as the supernumerary ones.

Mr. W. A. N. CATTLIN exhibited four upper Incisor Teeth, with absorption of fangs, which were loose, and extracted from the mouth of a young lady, aged only seventeen.

Mr. FRANCIS FOX brought forward an example of a Supernumerary Tooth, removed from the mouth of a boy, aged eight. The tooth was placed in the centre of the upper jaw, in the situation between the two central incisors, which he regarded as somewhat uncommon, and raised the question whether it was a supernumerary tooth in relation to the milk or the permanent dentition. His opinion was that it belonged to the permanent set, as such teeth, when occurring in connexion with the deciduous series, are generally found in the lower jaw.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES.

Miss K. G. Simmie, late of Edinburgh, bequeathed £200 to the Royal Infirmary of that city. Ripley's Hospital, Lancaster, becomes entitled, under the will of Mrs. Ripley, to the residue of the estate, by which the income of the charity will be raised to £12,000 a year. Mr. Charles Hargrave, late of Bayswater, bequeathed £2500 each to the Middlesex and the London Hospitals, £1500 each to St. Thomas's and Charing-cross Hospitals, £1000 to St. George's Hospital, £500 each to the Royal Free, St. Mary's, University College, King's College, Moorfields, Poplar, the London Fever, and the East London Children's Hospitals, and the Margate Sea-bathing Infirmary.

Reviews and Notices of Books.

Atlas of Pathological Anatomy. By Dr. LANCEREAUX and M. LACKERBAUER. Translated by W. S. GREENFIELD, M.D., with additional Plates drawn by Mr. W. HURST. London: J. & A. Churchill. 1880.

ENGLISH medical literature has been singularly deficient in works of the kind to which this volume belongs. The first atlas of morbid anatomy in this country was that of Matthew Baillie, issued in 1799; in 1827 Dr. Bright published, in his admirable "Reports of Medical Cases," many plates of renal and cerebral disease; in 1834 Dr. Hope and in 1835 Sir R. Carswell respectively issued illustrations of morbid anatomy, and of these perhaps Carswell's work remained the best known. From that time until the commencement of their atlas by the New Sydenham Society no similar work has issued from the English press, the costliness of production of such works being a great barrier in the way of their more frequent publication. Pending, then, the publication of a work wholly based upon English material by English artists, we may heartily welcome this translated edition of Lancereaux's well-known atlas, and may thank Dr. Greenfield for having undertaken the task of editing it. He has thought fit to make some additions to the original work, illustrating many conditions, especially in pulmonary disease, which had been inadequately represented by M. Lancereaux. These additions comprise ten plates, executed with his usual fidelity by Mr. W. Hurst, whose drawings, for delicacy and finish, compare very favourably with many of the more highly coloured and somewhat exaggerated productions of the French artist.

A glance through the volume shows us that M. Lancereaux has paid especial attention to conditions often passed over by others. He figures, for instance, lesions of lymphatic glands, kidney, heart, lungs, membranes of brain, muscle, and bone, as well as the gastric and hepatic disorders attributable to alcoholism. Amongst other novelties he represents uræmic gastritis (with pyloric ulceration) and uræmic enteritis; but he only gives one figure—and that not a very good one—of typhoid enteritis, a deficiency which the editor has done well to supplement. The rare form of new growth known as adenoma of the liver is amply illustrated. A specimen of blood containing bacteria (? bacilli) from a case of malignant pustule is represented. We have also figures of the rare condition, almost unique in our experience, of tubercular endocarditis. M. Lancereaux represents a dissection of the cardiac plexuses in a case of angina pectoris, and devotes certain plates to represent the lesions of gout (in which we see he includes one of deposit on the aortic valves) and lead poisoning. On the whole, we think that there are certain defects as well as superfluities in the distinguished French pathologist's work.

Dr. Greenfield has, as we have said, done much to remedy the defects. The illustrations of phthisical changes, of chronic pneumonia, &c., which he gives, admirably supplement the work in the parts where it is most deficient. Other additions include illustrations of organs in Hodgkin's disease and leucocythæmia, as well as drawings of ulceration of the intestines in enteric fever, dysentery, and tuberculosis, scarlatinal nephritis, nutmeg liver, and fungating endocarditis.

In its present form the atlas will supply a long-needed want, and although in some respects (especially in the histological representations, many of which are unworthy of the work) it is still imperfect, it is certain to be much appreciated, and will, we hope, reward the enterprise of those who have undertaken its issue. Should this be the case, we may also look forward to the time when the stores of material accumulated by our own pathologists will receive similar illustration.

Fits, their Diagnosis and Immediate Treatment. By JOHN H. WATERS, M.D. &c., Surgeon to the C Division of the Metropolitan Police. London: J. & A. Churchill. 1879.

THE author has been led to write this little work, not with any idea of giving anything new to the profession, but to set forth the most prominent symptoms of those affections coming under the notice of police surgeons, in which insensibility or convulsions occur. Dr. Waters divides his cases into two tabular divisions: the first, cases of coma in which danger to life is imminent; the second, cases of coma not intense, in which no danger to life is expected to arise. The first division is further subdivided into two classes—(*a*) those in which the symptoms develop suddenly and severely, and where the coma is intense, in this group is included rupture of cerebral aneurism, severe injuries to the head, and sunstroke; (*b*) those in which the symptoms are slower in their advent, with more or less loss of insensibility. This group includes uræmic convulsions, sanguineous apoplexy, embolism, opium poisoning, &c. The second division likewise can be divided into two groups—(*a*) where sensibility is suddenly lost and the patient cannot be roused, and (*b*) where the sensibility is not lost suddenly, and the patient can be roused. In the first group are included epileptic and "excentric" convulsions, in the second alcoholic intoxication. These tables are undoubtedly useful, but experience teaches us that it is impossible to draw a hard-and-fast line in the majority of instances that come under observation, and the difficulty is increased by the case being generally complicated by other conditions.

OUR LIBRARY TABLE.

Midwifery for Midwives. By J. E. BURTON. London: J. and A. Churchill.—This little work is a translation of the Official Handbook of Midwifery for Prussian Midwives. The book was written by Professor Litzman of Keil, and submitted to a committee of experts. The name of the author alone is a sufficient guarantee for the excellence of the work. It treats the subject fully, and contains a clear account of the duty of the midwife to the woman during pregnancy, labour, and the lying-in period, as well as in the management of the child. Regular or natural labour is well and clearly explained, and the means whereby irregular labour can be recognised, and the *duties* of the midwife in all cases, are distinctly stated. We know of no work better suited for midwives than the one before us. We would add that the translator has done his part on the whole well, and has rendered the book into simple and clear English.

Questions on Magnetism and Electricity. By F. W. LEVANDER. London: H. K. Lewis. 1880.—This is a series of questions culled from the papers set at the Preliminary Scientific and First B.Sc. Examination of the University of London. It will doubtless prove of great service to many candidates, not only on account of the *matter*, but for the *manner* also. Many students fail from a want of knowledge of how to put their answers concisely into words, and from a cursory inspection of this little book, Mr. Levander appears to us to have answered the questions at once correctly and concisely.

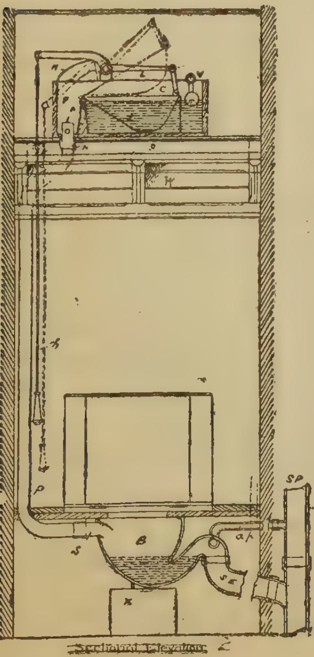
Atlas of Skin Diseases. By LOUIS A. DUHRING, M.D., Professor of Skin Diseases in the University of Pennsylvania, &c. Part VIII. Philadelphia: J. B. Lippincott and Co. 1880.—We have received the eighth part of this high-class atlas containing, as usual, four plates. Dr. Duhring has here selected for illustration the papular variety of Erythema multiforme as it appears affecting the backs of the hands every spring; a characteristic Tubercular Syphiloderm of the side of the scalp, face, and neck; an example of Nummular and Circinate Psoriasis of the back; and the chronic scaly condition of Tinea tricophytina of the scalp, neck, and face. We have so often expressed our appreciation of the marked success which has attended Dr. Duhring's efforts and we criticise the plates by so high a standard, that we almost shrink from saying that in Part VIII. there seems to us to be a slight falling off in excellence of execution. The subjects, however, are confessedly difficult. In the well-written letterpress accompanying the plates we see that Dr. Duhring employs the term Herpes iris so as to include all the vesicular varieties of Erythema multiforme.

Archives de Neurologie. Edited by MM. CHARCOT and BOURNEVILLE. No. II.—It is not every addition to medical periodical literature which can be welcomed as important and useful, but such is certainly the case with this French journal of Neurology, which fills a distinct want in the medical literature of France. It is to be published quarterly. In the second number, which is before us, there are three original articles: one on Subacute Parenchymatous Neuritis, by M. Gombault; a contribution to the Pathology of Tremor, by MM. Debove and Boudet; and an account of Epileptic Dementia, by MM. Bourneville and D'Olier, with a description of microscopical changes in that condition by M. Brissaud. About sixty pages are occupied by an analysis of recent papers on the Physiology, Pathological Anatomy, Symptoms, and Treatment of Nervous and Mental Diseases.

Note-book of Materia Medica, Pharmacology, and Therapeutics. By R. E. SCORESBY-JACKSON, M.D., F.R.S.E. Fourth Edition, revised and brought down to the present date, by Dr. FRANCIS W. MOINET, Lecturer on Materia Medica and Therapeutics, Surgeons' Hall, Edinburgh. Edinburgh: Maclachlan and Stewart.—This well-known book deserves to be even better known. It combines the most useful and important part of the British Pharmacopœia, with therapeutical notes, not bald and heartless, but sound and really suggestive of investigation, experience, and that equally rare quality—proper faith in the action and uses of medicines. We heartily commend it to students and practitioners.

New Inventions.

THE SHREWSBURY VALVELESS WATERCLOSET AND WASTE-PREVENTER.



THERE may be seen in the Parkes Museum at University College a very excellent closet, the invention of Mr. W. White, F.S.A. The great merit of Mr. White's closet seems to us to be its simplicity, and from seeing it in action we are in a position to state that it works effectually. A reference to the woodcut will explain its construction. The basin (*B*) is composed entirely of earthenware, and is fixed upon a block (*x*). The syphon is supplied with an air-pipe (*a p*) going from its highest point, and the discharge is through a curved pipe into the soil-pipe (*sp*). So far there is considerable resemblance between the "Shrewsbury" and Bostel's closet. The water-supply for the closet is from a special cistern (*c*) raised five feet above the basin and filled through a ball-valve (*v*). In the cistern is a receptacle capable of holding two gallons of water, which can be tipped by the action of the levers (*H L*) so as to discharge its contents instantaneously into the funnel (*F*), and through the funnel into the two-inch supply-pipe (*P*). This supply-pipe is furnished with a "spreader," which is fixed exactly opposite the aperture of exit of the basin. The mode of action is simple. The closet having been used, a pull is given to the handle shown in the figure, and instantaneously the two gallons of water rushes violently down the service-pipe and flushes the basin forcibly and effectually. The tip-tray is soon filled again, and a second flush can be given if necessary. The closet has the advantages (1) of being very simple, (2) of having a separate water-cistern, (3) of preventing waste of water, (4) of being efficiently ventilated, and (5) of being moderate in cost.

A NEW PORTABLE STETHOSCOPE.

WE have received from Messrs. Salt and Son, of Birmingham, a portable stethoscope, arranged by Dr. Sutherland. The stethoscope divides into four separate pieces—the ear-piece, the chest-piece, and two hollow rods, forming the tube. These four pieces, when screwed together, form an ordinary stethoscope; when separated, it is intended that the two rods should be inserted transversely through the chest-piece and through the ear-piece, so that the whole stethoscope again appears as one piece, but so flat in shape as to be easily carried in the breast- or tail-pocket of a coat, thus doing away with the usual method of conveying the instrument in the hat. A brief trial of the instrument has proved that although it conducts the cardiac sounds as well as the ordinary stethoscope, it is less useful for pulmonary auscultation. The peculiar construction of the chest-piece necessary for the purpose above described may have some effect on this result. The idea is an ingenious one, and certainly the instrument is portable enough, although, when put together, rather ungainly and clumsy-looking.

EUKNEMIDA BOOT-SOLES.

OUR recent annotation on the subject of boots, and the attention we drew to the fact that the chief source of danger in getting "wet in the feet" was owing to the evaporation from the saturated absorbent sole, have given rise to some suggestions. The patent Euknemida soles are the invention of Mr. W. H. Smith, of High-street, Birmingham. Their mode of preparation is as follows: The soles are soaked in cold water, and are covered on both sides with pure tallow. After an interval of some time they are placed between dies cast to the shape of the sole of the foot, and are then subjected to an hydraulic pressure of 150 tons. This has the effect of rendering the leather exceedingly dense and of saturating it with grease. The cost of the process is small, and we believe the result to be satisfactory. We placed a pair of boots with Euknemida soles in water, so that the soles only should be in contact with the fluid; after fourteen hours' immersion we found that the boots were not in the least damp on the inside, and had not appreciably gained in weight, and that when the superficial moisture adhering to the surface of the sole had evaporated, the soles remained perfectly dry. From the result of this test, we believe that the soles are waterproof, as alleged. They are said also to be more durable. Apart from the impregnation of the leather with tallow, the compression would, probably, increase their power of damp-resistance, and of wear. When the poet Gay said in his "Trivia, or the Art of Walking the Streets of London,"

> "Let firm well-hammered soles protect thy feet,
> Through freezing snows, and rain, and soaking sleet,"

he was ignorant of the value of the hydraulic press for attaining the same end. The word Euknemida is not, we think, well chosen. It is of Homeric origin, and was applied by the father of poetry to the "well-greaved" Greeks, and cannot, in any way, be applicable to the "well-greased" soles of Mr. W. H. Smith.

INDIA-RUBBER GLOVES FOR POST-MORTEM EXAMINATIONS.

WE have received from Messrs. Cow and Co., India-rubber Works, Streatham-common, a specimen of their gloves for post-mortem examinations. They are very well made articles, of the thinnest film india-rubber, purposely made as thin as is consistent with due strength, so as to interfere as little as possible with the sense of touch, which they leave almost normal. They are easily put on and taken off. Several sizes are made. To practitioners, for keeping their hands free from smell and contamination in post-mortem examinations, they will prove very valuable.

THE WELBECK POISONINGS.

OUR readers will remember the curious series of poisonings, in some instances fatal, which occurred at the time of a sale on the Duke of Portland's estate at Welbeck, Notts, in June of last year. It was suspected that they had been caused by some of the provisions used for purposes of refreshment during the sale, and suspicion fell upon certain cooked "American" hams which had been used. The Local Government Board, appealed to in the matter at the time, commissioned Dr. Ballard of its Medical Department to make inquiry into the source of the poisonings, and the report of the results of his inquiry is now before us. The report does not add much to our knowledge of the general facts of the case as they were made known during their occurrence in the local press, but it presents us with a clear, connected account of the occurrences, and throws a new and unpleasant light upon their source. Dr. Ballard obtained more or less complete accounts of seventy-two cases of poisoning, chiefly characterised by much and peculiar diarrhœa accompanied with marked intestinal irritation. Of these cases four died in a state of collapse. Dr. Ballard was able to secure portions of the meats, and particularly of the hams, in use on the day of the sale, and his general conclusion from the observed facts was that the ham was in fault. The meats were submitted to Dr. Klein, and the results of that gentleman's examination are so important that we give them in Dr. Ballard's own words:—

"1st. The absence of trichinæ in the ham was established.

"2nd. The presence in all three portions of ham—the raw ham and the cooked ham, both that which had been and that which had not been exposed to sewer air—of a species of bacillus, with sporules of the same, was demonstrated. The bacillus threads and sporules were in connexion with the muscular fibre and in the intermuscular tissue.

"3rd. Bacillus material from the raw ham and from that portion of the cooked ham which had not been exposed to the sewer air, was successfully cultivated in the incubator. Cultivation was not attempted with the ham and the mutton that had been exposed to sewer air.

"4th. Experiments upon animals, dogs, cats, mice, rats, rabbits, and guinea-pigs, by feeding or inoculation, or by both methods, were made both with material from the hams and with the cultivated material, with the following general results—viz., (*a*) The experiments made with the portion of ham that had been exposed to the sewer air, and with the mutton similarly exposed, produced only negative results. (*b*) The experiments made with the raw ham and with the portion of cooked ham not so exposed, produced in all but a few instances positive and remarkable results—viz., disease in the animals experimented on. (*c*) The experiments made with the raw ham were more uniformly successful than those made with the cooked ham. (*d*) The experiments made with cultivated material gave in all cases positive results. (*e*) The morbid condition produced in the animals, and found on post-mortem examination, was most uniformly pneumonia (in one instance with pleuritis) or pulmonary hyperæmia. In some, hæmorrhage into the pulmonary tissue was observed. In some, there was hæmorrhage into the tissue of the liver, or the organ was found enlarged. In some the spleen was found enlarged or congested. In three instances peritonitis, slight or severe, was found. Two dogs fed and inoculated with the cooked ham, and killed on the eighth day (one having suffered from colic on the first day of feeding), exhibited after death evidence of severe desquamative hyperæmia or inflammation of the stomach and intestines, the contents of which contained bacilli and a few pus-corpuscles. Bacilli were found in the blood of two white mice which died twenty-four hours after having been fed and inoculated with material from the raw ham; but no bacilli were discoverable in the blood of two other mice inoculated with this blood, although, when they were killed on the second and third days respectively, they both were found to have severe pneumonia with enlarged liver and large congested spleen. Nor were bacilli found in the blood of four other animals in which they were sought for after death.

"5th. In the kidney of W. W—— there were discovered evidences of parenchymatous inflammation, and the afferent arterioles and capillaries of the Malpighian corpuscles were found plugged with emboli formed of masses of bacilli.

"In these observations and experiments we have a clue to the solution of the difficulty, which the ordinary methods of inquiry failed to furnish. In two hams taken indiscriminately out of the same consignment there was found a *living parasitic thing*, capable of spreading by its growth and reproduction through the material in which it was found, and *capable of producing disease in animals into whose system it was introduced; capable also of growth and reproduction within the system of these animals.* Taking into consideration that the fact that a number of persons who ate of ham of the same consignment suffered from disease induced by such eating, and the further fact that in the kidney of one of them large numbers of bacilli (similar to those found in the hams experimented with) were found, it appears reasonable to infer that some of the hams of that consignment were similarly affected with the parasite, and that *either the parasite itself, or some virus essentially associated with it, was the active agent in the production of the diseased condition* observed in the human subjects of the epidemic, and in the animals which were experimented on by Dr. Klein.

"There are two difficulties in the way of accepting this explanation. There is, first, the fact that many persons who had partaken of other hams of the same consignment, in some instances day after day, altogether escaped disorder; and, secondly, the fact that part of the same ham which in Dr. Klein's hands produced disease in dogs and rabbits, had apparently been eaten with impunity in the hotel. The first of these difficulties does not seem to deserve much weight. It is not likely that every ham consumed at the sale was affected in the same way and to the same degree, that cooking had operated alike upon all portions of the hams, and that all who ate of the hams were alike susceptible to the injurious influence. So some of the consumers might be expected to escape. The second difficulty is perhaps more serious; but, if allowance be made for the unequal operation of heat upon the thicker and thinner portions of a ham; for the thinner portion being that eaten at the hotel, while Dr. Klein experimented with the thicker and presumably less cooked portion; and for the fact that Dr. Klein got even from this portion less uniform results than he got from a raw ham; there would not seem to be any great difficulty in understanding how people at the hotel may with impunity have eaten portions of a ham which really did contain material capable of producing disease. The escape of these people, then, does not count for much against the conclusion indicated by Dr. Klein's affirmative results."

THE LANCET.

LONDON: SATURDAY, MARCH 5, 1881.

POSSIBLY — we might say probably — the difference of capacity between a child born of parents and grandparents who have never been educated, and one bred from a stock which has been duly trained to intellectual exercises, is the difference of what we call brain-power as exhibited by two organs, one of which consists of cells or molecules endowed with an inheritance of "capacity" to be taught, while the other is composed of elements which have not reached the evolutionary status of being, so to say, educable. The physical basis of mind is undoubtedly capable of improvement by the developmental force of culture in successive generations. There is, however, a reverse to this view of the question, and it not less clearly and certainly points to the conclusion that the process of development by education may be carried so far as to destroy or exhaust the intellectuality which it is desired to exalt and perpetuate. The children of a stock which has been highly cultivated during several generations not unfrequently exhibit an instability of mental temperament which readily degenerates into a neurosis. This is especially notable in the cases of males in a family remarkable for the culture of its female members. The point — evidently one of the deepest interest — is strangely overlooked or wilfully disregarded by those psychologists and physiologists who lend the countenance of their scientific experience to the vague and mischievous hypotheses propounded by the promoters of the higher education of females and of women's rights.

In the ordinance of nature the female is endowed with a force tending to the reproduction from her arrested or suppressed organism of the perfect organism of the male. It is essential to the accomplishment of this physiological task that the female should be trained for the development of *capacity*—that is receptivity—as a cerebral property, rather than impressed with the particular bias of education in a special class of subjects, or on formulated lines. The distinction indicated is not fanciful but actual, and may be directly inferred from the lessons of experience. The male children of mothers who have been distinguished for *special* intellectual attainments are not, as a rule, remarkable either for their brain-power or the mental work they achieve; whereas the male children of mothers who have been notably characterised by *general* intelligence, without special talents, are commonly distinguished for intellectual ability. Experience seems to show that special brain-*work*, properly so called, on the part of the mother, exhausts the energy of brain-development—or reproduction—which, if conserved, would express itself in the mental perfection of her male offspring. The operation of the law of "development by work"—universal in its application under normal conditions—seems to be suspended when the work done is the result of a concentration of energy, by which force is drawn off from centres other than those thrown into special activity. It follows that the higher education of women is racially—whatever it may be in the case of the individual—an economic mistake.

There can be no question as to the possibility of educating women to the level of men on special lines. The total amount of cerebral tissue available for the production of a highly educated mind-organ is not so great in the case of an average female as in that of an average male. The cells or molecules ready to be impressed or combined—as the constituent elements of organised brain-substance must be impressed or combined to produce *positive* intellectuality—will be less numerous in the case of the female than in that of the male; but the greater pliability of the female constitution seems to render its component parts peculiarly susceptible of influences directing its powers into any particular channel. It is therefore in no sense — physiologically — surprising that women should excel in the intellectual exercises proper to men. Meanwhile the possible is not always the prudent; and those who, forming a hasty judgment based on appearances, conclude that because young women can achieve distinction in the pursuits of a university career, they ought to be allowed to do so, would do well to study the facts of heredity in the light of history and experience. When the subject comes to be investigated by this method, it will, we are convinced, be found that the course on which we are entering, and the policy to which we are committing ourselves in this country, are both unsatisfactory and, so far as the race is concerned, unsafe. For the sake of a little ephemeral distinction the feminine stock is being placed in jeopardy, and in the future it will be found that the totality of mind-weakness and mental disease has been augmented. Woman's mission is not, in any degrading sense, inferior, but it is complementary, to that of man; and not only her health and happiness, but the prosperity of the race as a whole, are directly dependent on the integrity with which the female discharges the duty that nature has devolved upon her in the economy of development. It is not a question of power, but of purpose; and those who have egged women on to overstep the boundary lines of the path marked out for them are not only doing wrong, but working mischief, of which the consequences will be apparent later on, when the time to remedy the effects of this evil counsel is past. Our appeal must now be to the observation and experience of the educators of youth and the students of national and intellectual history.

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SIR TREVOR LAWRENCE will receive the thanks of all men who love what is sound, whether in or out of the Scotch medical corporations, for his opportune question in the House of Commons on Monday last. The College of SYME, and LISTON, and FERGUSSON, not to say of the WOODS and the GAIRDNERS, has more to gain than to lose by the exposure of a system so worthless as that of granting qualifications that should be an honour and a distinction on the ground of holding the lowest surgical qualifications, and granting these possibly *in absentiâ*, and on conditions essentially pecuniary. It is many weeks since we explained and exposed this system. We have contemplated its exposure for a much longer period, but have deferred it partly in the hope that the College itself would take steps to free itself of a system so indefensible and discreditable. But not a word has been uttered by the College in refutation of our charges that its Fellowship can practically be *bought*, and bought *in absentiâ;* and that the purchaser of a Fellowship, procured *in absentiâ*, may compete for a Hospital appointment in London on the same footing as a Fellow of the sister colleges by arduous examination, or may go to a colony with the ambiguous letters F.R.C.S.E. after his name, and pass easily for something that he is very far from being. If any friend of the Edinburgh College, or of the other Scotch corporations—for we regret to say that they are all involved in this honourless system of trade in honours—thinks it ungenerous in us to have stirred up this muddy pool, we can only reply that it is very hard to leave such work to be done in the advanced year of 1881. Fifty years ago such reforms would have been more opportune. But that they should still remain unaccomplished is the condemnation of the whole weak system calling so loudly for legislation.

Nothing could be more satisfactory and complete than the exposure and the confessions contained in the question of Sir Trevor Lawrence on Monday, and the answer of Mr. Mundella. The very defence—if such it can be called—of the College is a condemnation. The College informs the Vice-President of the Council that the Fellowship, which is to be had without examination, and even *in absentiâ*, is not a licence or qualification, but is a distinction! Which is the less creditable act, to sell a licence or a distinction? Surely, to sell a distinction, as likely to mislead more gravely! If it is wrong to lead the public to believe that a man is qualified, it must be more wrong to make him believe that he is highly qualified. Next to the public, the members of the profession have the best right of complaint, when a practitioner flaunts these ill-gotten distinctions as a means of conveying the impression that he has achieved feats of study and examination beyond those of his brethren. The answer given by Mr. Mundella supplies another and a very striking illustration of the working of the Medical Council, of which we have given many before. Let us see how the Medical Council answers the charge suggested by Sir Trevor, that a system of granting degrees *in absentiâ* has gone on without remonstrance or representation from the Medical Council. The Council says that in the year 1859 it was decided, "that in the opinion of the Council, for the future no licence or degree should be given by any of the bodies without examination." Since that time the opinion of the Council has been entirely disregarded by the bodies, and the Council has in no practical way revived or pressed the question. It has thus given another signal instance of its impotence and of the futility of its Recommendations. It is gratifying to be told by Mr. Mundella that this subject will form part of the inquiry which it is now understood to be the intention of the Government to institute into the working of the Medical Acts. The scandal can scarcely survive the exposure of Monday. The House was full in every part, and neither the Scotch Corporations nor the Medical Council can feel proud of their appearance on the occasion.

The action of anæsthetics upon the various forms of reflex action has been systematically investigated by Professor Eulenberg, of Griefswald. He finds that, neglecting slight differences, certain types of action may be distinguished. Certain anæsthetics (as chloroform) cause an initial, very transient, augmentation of some reflex actions; as, for instance, the "patella reflex" in dogs and rabbits, and then a progressive diminution, and disappearance of the reflex actions, in which it is noticeable that the patella reflex disappears earlier than the corneal reflex. The latter is lost at the same time as myosis and rigidity of the pupil occur. Conversely as the effect of the anæsthetic is passing off, the corneal reflex appears considerably earlier than the patella reflex. The same sequence is observable in the human subject during the induction of anæsthesia. The nasal reflex remains much longer than the corneal reflex, a fact which agrees with some observations made by Rosenbach on the natural sleep of children; it is only in the deepest hypnosis that the nasal reflex disappears. The cessation of the patella reflex is a convenient indication that the degree of anæsthesia is sufficient for surgical purposes.

Other anæsthetics, as ether, and some other ethyl compounds, cause an increase in the tendon reflexes, which often amounts to an extreme degree, and continues for a considerable time after narcosis is complete. The corneal reflex, in anæsthesia from ether, is weakened only at a relatively late period, and is rarely completely abolished.

The double chloride compounds — ethylene-chloride, ethylidene-chloride, and methylene-chloride—diminish the reflex actions in rabbits and dogs, and the corneal reflex always disappears sooner than the patella reflex, and conversely the latter always reappears sooner than the former. It is worthy of note, in this connexion that, according to Liebreich, these agents have a primary action on the sensory cranial nerves; and also that, according to the observations of Eulenberg, in asphyxia the corneal reflex disappears some time before that of the patella. Some anæsthetic compounds, as bromethyl, have only a slow and slight influence on reflex action; the patella reflex is slowly lessened without preceding increase, and the corneal reflex lessens later, and is rarely completely arrested. The action of bromethyl is thus similar to that of ether, but feebler.

The state of the various reflex centres appears to stand in no definite relation to the condition of the psycho-motor or psycho-sensory centres. The depth of narcosis, the condition and degree of the anæsthesia, are in no way related to the condition of the reflex action. The order of affection of these centres is different in the case of different anæsthetics; so also is the action of the various narcotic drugs. An injection of half a gramme on dogs and rabbits has little influence on the reflex actions, and an injection during the course, or before the action, of an anæsthetic has no influence on the effect of the latter. In individuals who take morphia habitually, even when under the influence of the largest doses, the tendon reflexes are unaltered. Chloral hydrate, given to rabbits in doses of a gramme and a half, by subcutaneous injection, has an action similar to chloroform, but without causing any primary increase. In an advanced stage of narcosis the patella reflex gradually lessens, while the corneal reflex persists, although in lessened degree, in cases which are not fatal. Bromide of potassium, administered to guinea-pigs subcutaneously, in doses of one to two grammes, causes at first an increase, and then a gradual diminution, of the patella reflex. Bromal-hydrate and bromide of quinine have no definite action, if cases are excluded in which their action is fatal. If they cause death by producing asphyxia, the corneal reflex ceases, as a rule, before the patella reflex; the latter disappears only before the occurrence of exophthalmos, dilatation of the pupil, and the terminal convulsions.

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OUR public health legislation appears to be getting more and more paradoxical, if, indeed, this be possible. At one and the same time its method of procedure is, perhaps, the most careful and the most reckless in existence. When directed to general measures, it is approached equally by Members of Parliament and by Cabinet Ministers with a caution and hesitation and dread of encroachment upon the freedom of action of individuals which, however consistent with the general spirit of the Constitution, is at times too apt to frustrate the best intended provisions for the public welfare. But when directed to local measures, it is pursued with a recklessness wholly inexplicable to the uninitiated, and which to them appears not unfrequently to stultify the general measures. The time seems to have come when Parliamentary procedure in respect to local measures involving public health provisions should receive the consideration of the Legislature, with a view to its revision and to its being brought more into accordance with the principles which govern procedure in respect to general measures.

We are induced to make these observations in view of certain local Bills introduced into Parliament this session. These Bills are not considered by a Committee of the whole House, but by a particular Committee appointed by the House, and if approved by this Committee are passed by the Legislature, seemingly without further consideration, and become law. Now, several of these Bills—Salford and Lincoln, for example—contain provisions for giving the Local Authority further powers than those contained in the Public Health Act, 1875, of dealing with infectious diseases, with a view to prevention, which overpass even the powers conferred upon the Central Government in the old Quarantine Act, which are as unlikely to be of practical avail as the powers of that Act, frustrating themselves by their own stringency, and which tend to recreate that insensate fear of infection which characterised the populations of the Middle Ages in face of plague—a fear which it is well known overrode every social and moral consideration, and, under the influence of the mere brute instinct of self-preservation, intensified the very evils which the measures of quarantine were designed to prevent. We have more than once raised a warning voice against this certain result of the existing, and we fear growing, tendency of local authorities to construct schemes for the effective control of the spread of infection, founded chiefly on theoretical views of *possibilities* of contagion; and suggested that a more careful study should be given to the history of quarantine in its efforts to this end. But there are other and singularly grave social considerations in the proposition to give almost absolute control over the actions and movements of the members of a family in which an infectious disease may appear, which should be dealt with by Parliament at large, and not by a small committee of its members.

We sympathise fully with local authorities and medical officers of health in their anxious desire to secure powers giving them fuller control over the dissemination of infectious diseases, but we deprecate the multiplication of measures which are mere "paper plausibilities," such as those of quarantine, and which involve such absolute dislocations of family, social, and industrial life as are now contemplated, and have in a few instances been permitted by Parliament. Any large exercise of these powers we believe to be impracticable—if, indeed, such exercise has ever been contemplated; and the necessary complement of them, in the provision to be made for the sustenance and avoidance of pecuniary loss by the persons subjected to them, are so imperfect in our estimation that the measures are certain to break down under trial, to the immeasurable injury to public health administration. There must be a limit to measures for the arrest or control of infection; and that limit is approached perilously near, if not exceeded, when powers are sought which would at the same time arrest the food-earning powers of the members of a community. After all, there are even greater evils to dread in a community than the spread of infection; and it is well to remember, in legislating for the avoidance of sickness and death, that the first consideration is the maintenance of life, and this at a somewhat higher level than Poor Law, municipal, or eleemosynary help contemplates.

Another and equally important subject with reference to this legislation on public health matters in Committee refers to questions of building. A glaring instance is here supplied by the Leicester Improvement Bill now before Parliament—or rather before a Committee of Parliament. There is probably no town in England where it is more necessary that the regulations of buildings should be subjected to careful regulation than Leicester. Under the Public Health Act, 1875, local authorities may make by-laws for this purpose with the assent and approval of the Local Government Board. To assist local authorities in their judgment in this matter, it is well-known that the Local Government Board have issued a series of by-laws as to new buildings which, as carefully explained in a circular letter, have two objects in view—namely, first, precision of provision, so that the house-owner knows precisely what he is called upon to do under the law, and is relieved from the crotchety action of local authorities when the matters were left to their discretionary judgment—a judgment which has been found by experience to be the source of endless mischief from the necessary changes in the individual members of the authorities; and, secondly, a careful and complete rendering of the law and practice on the subject. In this latter respect the model building by-laws are, it must be said, unique. Now, if the Leicester Improvement Act should be approved by the Committee of Parliament in its present form, it will traverse for this locality all that the Local Government Board has been attempting to achieve in the matter of building regulations under the Public Health Act, 1875, and leave the citizens of Leicester at the entire mercy in this important matter of their municipality and its surveyor for the time being. This has happened in other localities, and Parliament has not hesitated through its Committee on Bills thus to stultify its action in general measures.

Surely this cannot be necessary. Localities may have their peculiar requirements, but there are certain general principles which apply to all localities, and these cannot be tampered with in public health matters without detriment to the cause of public health generally.

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A BILL, embodying the provisions of the Alkali Acts of 1863, 1868, and 1874, with some further provisions, and an extension to some other chemical works, has been introduced into the House of Lords by Lord MELDRUM. The Royal Commission on Noxious Vapours reported in 1878, and Bills founded on the recommendations of this Commission were introduced in 1879 and 1880, only to fall with the other "innocents" at the end of the session. There was but little difference between these two Bills. Each was supplementary to the Alkali Acts, and provided for the registration and inspection by officers of the Local Government Board of many chemical factories besides alkali works. The Bill of 1879 gave power to sanitary authorities to take proceedings on their own account if they failed to get their grievances redressed by the action of the Government inspector. This power was omitted, wisely, we think, in the Bill of 1880. In each Bill the factories were divided into three classes, each class being subject to different regulations.

The Bill now before Parliament bears a general resemblance to its predecessors, but differs from them in one or two important particulars. In the first place, it incorporates, and therefore repeals, the Alkali Acts. This is an obvious improvement; one Act is nearly always better than four. Then the chemical works are divided into two, instead of into three, classes. The first of these classes consists of alkali works proper and of those copper works in which hydrochloric acid is evolved. The second class consists of only six kinds of works, the nature of which is described in a schedule. The works enumerated are sulphuric-acid works, cement works, chemical manure works, gas-liquor works (but not tar works), nitric-acid works, and sulphate of ammonia works. Salt works have evidently been omitted by accident from this schedule, for they are referred to specifically in Clause 9 of the Bill. A large number of other works, of which the most important are those of metal, coke, tar, salt-glazing pottery, and glass, are, however, excluded by design, and this emasculation constitutes the gravest fault of the new Bill. All the last-named works are notorious offenders in respect of noxious vapours, and inflict injury upon thousands, and it is impossible to imagine upon what principle of justice they have been struck out of the schedule. Take the tar works, for example. The fumes given out in the distillation of tar are extremely offensive, and even injurious to health, inasmuch as they contain sulphuretted hydrogen. Now, we willingly admit that the larger tar distillers take great precautions to avoid nuisances; but that their success is very limited will be attested by anyone who has the misfortune to live within the radius of their influence. Glass and pottery works are just as bad, and it is a common complaint with the owners of alkali works that their neighbours are allowed to throw into the air with impunity the very gas which the Act of Parliament compels them to condense with the utmost care.

The claim made by the public is certainly not an unreasonable one. The value of these great chemical industries to the country is fully recognised, and the present is certainly not the time when anyone would wish to see our manufacturers handicapped in the great struggle with foreign competition. Some nuisance must be caused by such manufactures, and if it be unavoidable, and not absolutely unendurable, it must be borne like the income-tax and many other annoyances. All that the public asks is that the manufacturers shall, in the words now commonly used in Acts of Parliament, use "the best practicable means" to avoid or abate such nuisances. With regard to acid fumes, good practicable means are well known, and are not costly; and it can hardly be denied that most nuisances might at least be reduced by proper care. Such care, involving nothing ruinous to manufacturers, should surely be enforced by Government.

Up to this point the public, as represented by several large sanitary Associations in the north and south of England, are not really out of harmony with the manufacturers. The evidence taken before the Noxious Vapours Commission proved the fact, often asserted in these pages, that the more influential manufacturers fully recognise their duty to the public, and are only anxious that their difficulties shall be recognised, that they shall be treated fairly, and that, to use the common expression, "they shall all be tarred with the same brush." The case for the manufacturers was ably stated by Mr. E. K. MUSPRATT in a paper read before the Society of Arts on Feb. 25th, 1880, and our own somewhat extensive experience confirms his statements. It is admitted on all sides that factories liable to inflict annoyance or injury on others should be registered, inspected, and subjected to penalties for the infringement of fair rules. At this point, however, agreement ends, for the manufacturers insist most strongly upon certain conditions which the Associations have hitherto been unwilling to concede. The manufacturers profess themselves willing to submit to the visits of properly qualified inspectors armed with the authority of the Central Government, but declare that they will not stand the intermeddling of local authorities, and local officials likely to be biased by local interests, and almost certain to be ignorant. This objection we hold to be a sound one, and the point has been practically conceded in the last as well as in the present Bill.

The other point in dispute is less simple. At the instance of the Associations a clause has been inserted in each of the three Bills allowing "any person" to take proceedings against any one or more of several manufacturers who jointly cause a nuisance. Such a right is already enjoyed as regards injury to property under the Judicature Act, and has already been successfully claimed. In principle the claim is not an unfair one, for when several factories lie close together it is often impossible to detect the offender. But we admit that we think the clause quite out of place in a Bill which on the face of it is merely an extension of the Alkali Acts, or, in other words, a scheme for more comprehensive Government inspection.

Let us try the system of the Alkali Acts first, and, if that fails give more power to sanitary authorities, or private individuals, or both. If the Government are wise they will strike this clause out of the Bill, and try one experiment at a time. The manufacturers will then lose their only fair reason for opposition.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Fellows on the 1st inst., a report from the Council was adopted recommending the annual appointment of two auxiliary examiners in each subject of the examinations for the licence, to be called upon whenever a candidate was liable to be examined by his own teacher. For the rest of the current year the following gentlemen were nominated to act as auxiliary examiners:—Chemistry: Dr. Marcet. Anatomy and Physiology: Dr. Allchin. Medicine: Dr. Ringer. Materia Medica: Dr. Moxon. Midwifery: Dr. Galabin. Surgery: Mr. Holmes. Dr. J. Braxton Hicks was elected councillor in the room of Dr. Greenhow, appointed censor.

ST. THOMAS'S HOME FOR PAYING PATIENTS.

THE St. Thomas's Home is at last announced as being open for the reception of paying patients; and Dr. Walter Edmunds, F.R.C.S., has been appointed as resident medical officer to the institution. It will be remembered that this Home Hospital has been the subject of much controversy in our columns and elsewhere for the last two or three years, and that very various views have been expressed as to the expediency of an attempt to admit well-to-do patients into an institution designed for charitable purposes. On many grounds, any attempt to make such an institution form part of the general system of a public hospital seemed undesirable, especially if the medical staff were to take part in its management, or be called upon to give their services gratuitously. But, as we have often pointed out, there is no such objection to a paying block, organised and nursed under the auspices of the lay authorities of a hospital, if the patients are allowed to select their own medical men; and on the other hand, such an institution may be of great benefit to many sufferers who are above the class of ordinary hospital patients.

It is therefore with no small interest that this experiment, which is in some degree the outgrowth of a germ idea thrown out in our columns, will be watched by ourselves and by the public generally. There is no concealment of the fact that to the authorities of St. Thomas's Hospital the scheme is simply one for making money, and restoring their finances to a more satisfactory condition. This is a legitimate object, if in its pursuance the comfort and well-being of the patients are chiefly kept in view. We are not sanguine of the financial success. We doubt even whether a fair interest will be paid on the initial expenditure. But what is of far more importance to the public and to the profession is that the scheme should have a fair trial, and that the possibility of its general adoption should not be prejudiced by any failure due to imperfect organisation.

So far as the medical and nursing arrangements are concerned, the outlook appears satisfactory. The nursing arrangements are to be under the direct control of the matron of the hospital, and for resident medical officer a gentleman "of the highest medical and surgical qualifications" has been selected. He is to be regarded as the ordinary medical attendant of the patients, who are, however, to be permitted to call in consultation with him any legally qualified medical practitioner. This, we presume, means that the ordinary medical attendant of the patient would, if desired, continue to attend, and the resident medical officer carry out his treatment and instructions in his absence. Only on such an understanding could the scheme be made to work satisfactorily to the profession.

The arrangement of the wards leaves much to be desired As at present planned, two of the ordinary large wards have been fitted up, the one for male the other for female patients. A portion at the entrance of the ward is separated by a wooden partition, and is to be used as a sitting-room. The main body of the ward is occupied in the centre by a passage, and on each side are curtained spaces, each of which forms a separate compartment or chamber. Viewed from above, the arrangement would resemble that of sheep-pens at a fair, the hurdles being replaced by curtains, which do not attain a height of more than six or seven feet. What degree of privacy can be provided by a heavy linen curtain may best be judged by those who have made the trial. Every word spoken, every cry of pain, every cough, or even snore emitted in the ward will be heard by every patient and intensified by the imagination; nor will there be that control on the part of the nurses, or the mutual sympathy and forbearance, which exert so powerful an influence in a general hospital ward. Much tact and discretion will be needed by the medical officer and the nurses to keep matters comfortable if the ward should happen to be full, the male ward being destined for twenty-four, and the female for sixteen patients. Seeing that experience has shown the authorities of the Fitzroy House Home Hospital that even four patients cannot be put in one ward, we fear that there will be serious friction if even twice that number are admitted to each, unless the "silent system" is superadded to solitary confinement.

For the rest, the arrangements of each compartment appear to be well made, although they may not satisfy the most æsthetic tastes. The charge which is to be made, from eight shillings a day upwards, is not exorbitant; indeed, we doubt whether it will be remunerative unless the wards are fairly well filled.

We have made these remarks in no unfriendly spirit, and we trust that our anticipations will prove groundless. What is perfectly clear is that, as at present arranged, the Home will not suit every case—if, indeed, many cases; nor will it serve as a substitute for private hospitals or lodgings. Whilst wishing it success, we cannot but regret that the experiment had not been made on a smaller scale, and under more suitable conditions.

COLLATERAL CIRCULATION.

IT is commonly believed that when an artery is occluded the establishment of a collateral circulation is due to a general increase of blood-pressure dilating the anastomoses of the occluded vessel. The accuracy of this explanation has been carefully investigated by Talma. Experiments on the tongue of the frog, showed that after the occlusion of an artery there is not only no immediate increase, but even a primary diminution, in the rapidity of the current in the collateral branches. In the dog, by means of a tonometer, it can be demonstrated that the pressure in the crural artery is not increased by compression of the carotid or subclavian artery, or both, nor is it lessened when these vessels are opened. Hence Talma concludes that the establishment of a collateral circulation, when an artery is closed, cannot be explained by increase in the general blood-pressure, but is due to dilatation of the vessels produced in some other way. In order to ascertain whether this be due to an influence of the vaso-motor and vaso-dilator nerves, he examined the temperature of the limb before and after section of the nerves which supply the branches of the occluded artery, and also the effect of stimulation of the peripheral extremity of these nerves. The experiments were made upon dogs, and led to the conclusion that after ligature of the crural artery, although dilatation of the vessels of the leg is produced by the influence of the nerves, so that the quantity of blood passing through them is increased, this increase is very slight. He also stimulated the spinal cord after ligature of the crural artery, and came to the conclusion that the dilatation of the vessels was not the result of the action of the vaso-motor nerves. The dilatation of the vessels which could be produced through the vaso-motor nerves was altogether insufficient to explain the complete restoration of the circulation. Since this cannot thus be attributed either to the effect of increased general blood-pressure, or to the action of the vaso-motor nerves, Talma proceeded to investigate the anatomical condition of the collateral vessels, a main branch of which had been tied some time before death. In order to ascertain the dimensions of the vessels he injected them, and compared them with those of a normal leg similarly injected. From such experiments on dogs and rabbits he ascertained that the collateral vessels dilate shortly after the ligature, then those of moderate size, and later still the largest. More careful observations showed that there were rhythmical movements of the vessel between the point ligatured and the first collateral branch above, and that in this part of the vessel a local increase of pressure could be demonstrated, with which a dilatation of the capillaries corresponded. By means of the tonometer he demonstrated that this increase of pressure is purely local, and not general in the arterial system, and that it is proportioned to the size of the occluded branch in relation to that of the main trunk. Hence he arrives at the conclusion that the establishment of a collateral circulation is due purely to mechanical influences—an explanation which differs from that commonly held only in the extent of its application.

THE ACCIDENT TO MR. GLADSTONE.

WE are able this week to give the particulars of the accident—which was certainly serious, and might have been fatal—that happened to the Premier on the night of the 23rd ult. Alighting from his carriage at the garden entrance to his house in Downing-street, and springing quickly on to the stone steps, his foot slipped on a piece of ice; he fell backwards, and striking the back of his head violently against the edge of the kerb cut his scalp, crosswise for two or three inches, to the bone. Otherwise unaffected by the accident, he was immediately on his feet again; and, bleeding profusely from the wound, walked into the house. Dr. Blake, in the absence of Mr. Bond, the usual family attendant, speedily arrived and dressed the wound. Later on it was thought desirable that Mr. Gladstone should be seen by Dr. Andrew Clark, and when this gentleman arrived in the middle of the night he found the illustrious statesman calm, cheerful, and free from the smallest evidence of constitutional disturbance. Next day he was also visited by Sir James Paget, who, with Dr. Andrew Clark, has been since in daily attendance. We further learn that the wound united by "first intention," and that there have been no unfavourable general symptoms of any kind.

LIGHT AND LIFE.

MM. PAUL BERT and REGNARD showed some time ago that the rays of light which are necessary for the growth of vegetables, and especially for the development of chlorophyll, are situated in the red rays, near the line B of the solar spectrum. It has, however, been long known that other rays will suffice to restore the green colour to plants which have been blanched by deprivation of light, although the effect is produced more slowly; and the researches of M. Guillemin have shown that this effect can even be produced by the invisible ultra-red and ultra-violet rays. But there is such a difference between the action of the several rays that it seemed to MM. Bert and Regnard desirable, if possible, to discover the law which regulates their activity. The red rays, which give the maximum effect, have a length of 670 millionths of a millimetre. It was thought *à priori* probable that the other rays, acting in a specially energetic manner, would have a simple relation in length to the red rays, analogous to the relation existing between the wave-lengths of the vibrations of sound which produce the fundamental tones. The octave would be 335, and corresponds to the ray P. But here we are in the ultra-violet region, and the spectrum lessens so rapidly that nothing conclusive could be demonstrated. But the fifth, 450, falls in the region where the dispersion is not excessive—the indigo, between the lines F and G. Barley was allowed to germinate in complete darkess, and when the yellow blades were ten centimetres high, the box was placed two metres from an electric light, from which the light was dispersed by means of a powerful sulphide of carbon prism. In the spectrum thus produced the barley was placed and allowed to grow. The first green tint was visible in the region of the ray B; the third day it appeared between F and G, precisely in the region of the "fifth"; on the fourth day a green tint was perceptible in the red, orange, yellow, blue, indigo, and violet, with two maxima at the points indicated by theory, in the red and the indigo. A second experiment gave quite similar results. The experimenters propose to repeat their observations in regard to other actions of light upon vegetables. In conclusion, they point out that the green region of the spectrum was, on the whole, that in which the barley was least coloured, and there the growth which took place during the exposure was notably less than elsewhere. It thus seems that the green rays have a positively noxious influence.

CO-OPERATION OF HOSPITALS AND PROVIDENT DISPENSARIES.

THERE seems to be a very steady progress of public opinion in favour of really provident dispensaries, and further in favour of their being in organic relation with neighbouring hospitals. From year to year we have given our readers some account of the great movement for providing Manchester and Salford with provident dispensaries. The annual meeting of the Manchester and Salford Provident Dispensaries Branch of the District Provident Society was held on February 24th, under the presidency of Dr. John Watts. The report was a very instructive one, including much information, and may be found in the *Manchester Guardian* of February 25th. Nine branches are now in active co-operation in Manchester and Salford, and a tenth will soon be added. There had been an increase in the membership, and the whole of the six branches first opened were either quite or nearly self-supporting. The total number of ordinary paying members on the books was 9283, members in connexion with the clubs at large works 981, total 10,264; an increase of 828 on the numbers of the previous year. A much larger increase is expected this year. Great care and some money are expended in investigating the circumstances of applicants. The consequence is that in those charities connected with the provident dispensaries there is a much more considerable decrease in the number of persons relieved than in others. In the former there is an average decrease of 38 per cent.; in the latter the decrease is much less. Before the establishment of the provident dispensaries in 1872, the total number of in- and out-patients treated by the free medical charities was 89,442; in 1880 it was 72,837. The various parts of the great problem of provident dispensaries and their relation to hospitals are touched in this report, and have evidently been the subject of much labour and investigation. An attempt was made to alter the rule as regards the wages of those admitted as members from 30*s.* to 40*s.*, but it was unsuccessful. We should still desiderate more information than is given in our contemporary's excellent report on the amount of work done and money received by the medical men.

The *Hampshire Telegraph* contains a full report of a meeting to forward the provident dispensary scheme in connexion with the Royal Porstmouth, Portsea, and Gosport Hospital. The meeting was most harmonious, and showed how good a thing is a little consultation and conference with the medical staff. The dispensaries are to have a separate committee and separate accounts. Four medical officers are appointed as the out-door staff — viz., Messrs. Normal, Rundal, Pike, and Ford. They are to receive any surplus after the expenses are paid, and the payments of members are to be on the scale in use at the Royal Albert Hospital, Devonport, which has a provident dispensary in good cooperation.

TRICHINÆ.

THE meeting of the Académie de Médecine of February 22nd was devoted to the discussion of the viability of trichinæ, and opinions were expressed of a more reassuring character than those to which attention was called last week. M. Colin of Alfort has investigated the extent to which the process of salting renders meat innocuous, and he concluded from a number of experiments that the salting always finally destroys the trichinæ, but that it is impossible to determine the lapse of time necessary, and the danger from such food is greater the shorter the time since the salting. He also investigated the question of what amount of cooking is requisite to ensure destruction. Boiling he found to be effective provided it is maintained for a considerable time, which varies in its necessary length according to the size of the pieces of meat. Roasting only killed the trichinæ when it had been carried beyond the point common for mutton or beef. Quick roasting or boiling, leaving the central parts of the meat red, was quite insufficient. He expressed the opinion that many cases of gastric and intestinal disturbance are the indications of slight trichinisation. M. Davaine, however, mentioned that as low a temperature as 56° C. (134° F.) is sufficient to destroy them, and that in estimating the amount of time needed to cook a joint, thirty to thirty-six minutes should be allowed for each half kilogramme. The same question was considered also by M. Vallin, the results of whose experiments agreed with the statements of M. Davaine. He found that it was necessary that joints of less than six kilogrammes should be cooked for four hours, and that for larger joints boiling for at least five hours was required. The effect of salt in preventing the decolorisation renders the tint, he thinks, an uncertain indication of the sufficiency or insufficiency of the cooking. M. Chatin maintained that salting does not necessarily kill trichinæ. Infested meat was preserved in salt and then given to guinea-pigs, and in several of the animals trichinæ in process of development were found. Moreover, in meat which had been heated to 111° F. the trichinæ were found perfectly mobile.

In spite of the doubt as to the exact temperature at which trichinæ die, and the uncertainty as to the efficacy of ordinary cooking for their destruction, there is a general disposition to rely upon the fact that trichinosis in man is a very rare disease, in spite of the importation of diseased pork. Mr. Mundella lately stated in the House of Commons that our importation is twelve times as great as that of France; and it is reasonable to conclude, therefore, that twelve times as many trichinæ come to us as come to France from America. What is their actual number cannot, of course, be known, but it may be remembered that a single cutlet has been found to contain a hundred thousand worms. The fact that no outbreaks have occurred in this country is probably to be ascribed not only to the influence of cooking, but to the process of salting, which, as just stated, if efficiently performed, seems to kill the parasite. Mr. Mundella intends to wait for an outbreak of trichinosis before following the example of the French Government, and prohibiting the importation of American pork; and the Belgian Government have formed a similar resolution. It would be more satisfactory to know that some measures were taken, by systematic examination of samples of the meat, to ascertain the reality of the danger to this country; for it must not be forgotten that outbreaks and deaths have occurred here in past years.

A ROYAL ACADEMY OF MEDICINE.

IN his address at the annual meeting of the Royal Medical and Chirurgical Society on Tuesday last, the retiring President, Mr. J. E. Erichsen, took occasion to advocate anew a proposition made, discussed, and almost carried into effect more than ten years ago, that the different Societies (representative of the various departments of the profession) meeting in Berners-street should be amalgamated into one body. He pointed out that most of the Fellows of the Medical and Chirurgical Society are members of one or more of the other Societies, and that an amalgamation under one organisation would simplify the working, economise the time and expense, and systematise the labours now distributed between the older Society and the Pathological, Clinical, and Obstetrical Societies. He felt sure that a Royal Academy of Medicine with several sections might thus be securely established, and would be a gain in every way. The reasons which were adduced before against the scheme had, he thought, lost much of their force. This may be so, but it is possible that the same difficulties in adjusting the various claims of the other Societies—all of which have grown with remarkable rapidity since that time—will be even more apparent now than then. Mr. Erichsen will doubtless follow up his suggestion, or at any rate induce the in-coming Council of the Royal Medical and Chirurgical Society to take it up; and knowing what those difficulties were which prevented the amalgamation in the past, a way may be found to satisfactorily carry out the design. The matter is one fairly open for earnest consideration, and if raised again we shall probably hear much of "vested interests" and the like. The project can only be carried out by means of a cordial co-operation and a certain amount of mutual concession on the part of each of the Societies concerned.

DIPHTHERITIC ALBUMINURIA.

THE albuminuria which occurs so constantly in diphtheria was long believed to be a direct effect of the altered blood-state, without any renal lesion. Lancereaux and Brault, however, have described certain organic changes in the kidney. They found the epithelial cells swollen, badly defined, infiltrated with granules of protein, and the lumen of the tubules obliterated in many points by colloid or granular masses. These lesions are analogous to those described by M. Cornil in acute poisoning by cantharidin.

The nature and mode of production of this diphtheritic nephritis is the subject of a recent communication by M. E. Gaucher to the Société de Biologie. It may be *à priori* expected that the lesion would be due to the same mechanism as that which produces the similar changes which have been found in some other infectious diseases. In the nephritis which sometimes occurs in typhoid fever, for instance, there is a similar granular infiltration of the epithelial cells and a similar obstruction of the lumen of the tubules by diffused material or globular masses. These alterations have lately been ascribed by Bouchard to the infiltration of the kidney by bacteria. In a case of malignant diphtheria in which the urine contained a considerable amount of albumen, M. Gaucher, adopting all precautions to prevent the access of external germs, was able to demonstrate without difficulty the presence of bacteria in both the blood and the kidneys. The urine was collected in a glass, washed with alcohol and heated, and, examined immediately, was found to contain a large quantity of spherical or punctiform mobile bacteria (monads or micrococci). There were no rods or chains. In the blood the same organisms were found, less numerous, but perfectly distinct. The patient died seven days after the onset of the disease. The kidneys, examined in the fresh state, were found crammed with bacteria similar to those which had been found in the urine and the blood during life. The epithelial cells of the urinary tubules were filled with highly refracting granules, strikingly similar to the micrococci found in the urine. In sections which had been hardened in osmic acid the same granules were found. From these facts Gaucher concludes that diphtheritic nephritis is of parasitic origin, and that the albuminuria is the result of the passage of the bacteria of the blood through the kidneys. The albuminuria is thus to be regarded as an effort at the elimination of the poison.

OPENING OF MUSEUMS AND PICTURE-GALLERIES ON SUNDAY.

WE are glad to find that the medical profession is well represented in the list of signatures to the address presented to the Premier in favour of opening the British Museum on Sundays. Those who are not compelled to remain in town on Sunday, or who simply obtain such glimpses of the streets as may be gained on the way to or from a place of worship, can have no notion of the melancholy and morally mischievous state of any large city, and particularly London, on the day set apart in every week for rest and religious observances. It is difficult to understand how the youth of the metropolis is preserved from recourse—in sheer dearth of occupation—to the practice of the worst vices. The well-to-do classes, with their comfortable homes, their Sunday *réunions*, or family gatherings, do not participate in the general misery of gloom and inactivity. Some recent inquiries and investigations have led us to take an especially urgent view of this question, and we are convinced it is one which ought to be pressed on the attention of the Government. The argument that a few officials may be inconvenienced to meet the demand cannot weigh for one moment against the crying need of the masses. Let the personal service be made optional; and, if it must be so, let public subscriptions be invited to defray the increased cost. Prejudice must be set aside, and the question discussed on its social merits. It is one of a pressing character, and it relates to a grievance which lies at the root of much demoralisation, and the ruin of many lives.

THE TRANSMISSION OF GLANDERS TO THE DOG.

THE fact that glanders may be communicated to the dog by inoculation, even more certainly than to the rabbit, has long been known, and has lately been confirmed by M. Galtier, who has never met with a refractory subject. Usually, however, the morbid effects remain limited to the points inoculated; the region becomes swollen, and an ulcer forms analogous to the chronic farcy ulceration in the horse. The wound secretes an abundant oily, yellowish pus, which often forms a crust, beneath which the ulceration goes on. As a rule recovery soon follows. Very rarely ulceration occurs elsewhere in the body, and now and then there is evidence of a widespread action of the virus. A dog having been inoculated on the shoulder, and presenting only slight local lesions, the pulp of a lumbar gland was inserted beneath the skin of a donkey, with the result of causing the disease. This seems to show that the poison may be generalised, although the lesions are local; that the virus may be widely spread throughout the system of the dog, and yet cause no general anatomical alterations. It has been said that one attack of glanders in the dog confers immunity against subsequent attacks, but M. Galtier found that two, three, four, five, and even more successive attacks could be induced. After successive inoculations, however, the susceptibility of the animal, originally much less than in the solipeda, lessens, the disease is characterised by lesions less and less marked, and seems ultimately to disappear. Another fact ascertained is that the power of the virus decreases when it has been several times cultivated in the same animal. Donkeys inoculated from a third, fourth, or fifth attack of glanders have had much milder and less acute attacks. They commonly lived three or four weeks after inoculation, and presented more limited lesions than those animals which were inoculated from the horse or from the first attack in the dog.

THE SECTARIAN SPIRIT IN HOSPITAL CHARITY.

SOONER or later the sectarian spirit must be eliminated from hospital charity if we are not to relapse into the religious barbarism of the Middle Ages. Every step forward in the quest for Truth enlarges the view and tends to the discovery that what have been supposed to be the essentials of religion are at best its accessories, and in many cases its shackles. We cannot afford that progress should be hampered by the bonds aud weights imposed by those who have founded churches and charities with limited regards and special purposes. Nowhere are such limitations more intolerable than in relation to the aid human nature impels us to render to the sick. Such restrictions as require that the physicians and surgeons attached to particular hospitals shall be members of the Church of England are antagonistic to the broad principle of humanity, and discredit the form of Religion, in whose name they are imposed. Equally absurd and offensive, not only to good taste, but to common-sense, are requirements like that which appeared in a recent advertisement for a resident secretary for Charing-cross Hospital—namely, that "candidates must be members of the Church of England." It would be well if the logic of facts could be brought to bear on the committees of institutions conducted on the narrow principles indicated by notices of this class. Those who are free from the prejudice they indicate would do well to withhold their subscriptions both to hospitals and Hospital Fund, unless these can be accepted with the stipulation that the charities to which it is intended to contribute shall be administered on the simple grounds of *need*, by agents untrammeled by special affectations of belief or pretences of churchmanship, against which the spirit of manliness revolts.

EXTENSION OF THE HIP-JOINT.

DR. E. H. BRADFORD has recently been experimenting upon the effects of weight extension on the hip-joint in the cadaver. Needles were inserted into the pelvis and into the great trochanter of the femur upon the same side, and "extension was applied in such a way as not to alter the axis of the limb relatively to the plane of the pelvis, and thus disturb the position of the needles." In the body of a child, ten years old, an extending force of 150 lb. was applied without producing any change in the distance between the needles; in another experiment, on an adult male, 100 lb. was employed, but no separation of the needles could be noted, and this not even when all the soft parts over the joint and the capsule had been cut through, and the head of the femur dislocated and replaced. On the other hand, in the body of a full-term fœtus, a weight of a pound was quite sufficient to separate the needles 1 mm. Dr. Bradford states that the fibro-cartilaginous ring attached to the acetabulum grasps the head of the femur so securely that separation of the two bones is quite impossible by extension alone; in the fœtus at term this ring is not fully developed. It must be borne in mind that these observations were all made on healthy joints. It is not difficult to understand that disease of the articulation may cause such a softening and relaxation of the cotyloid ligament that separation of the bones may be readily produced. At any rate, of the efficacy of this plan of treatment intelligently carried out there can be no doubt.

LATTER v. BRADDELL AND WIFE AND ANOTHER.

THIS case, which was tried in the Court of Appeal on Feb. 24th before Lords Justices Bramwell, Baggallay, and Brett, is one which shows the occasional annoyances to which medical practitioners may be subjected from no fault of their own. It appears that Latter was a servant girl in the employ of the Braddells, and that in October, 1879, Mrs. Braddell, suspecting Latter to be pregnant, accused her of it, and, on her denying it, had her subjected to a medical examination by Mr. Sutcliffe, of Knutsford. The girl then brought an action for assault, which was tried at the Assizes before Mr. Justice Denman, but as the jury were unable to agree upon a verdict they were discharged. The case was next tried before Mr. Justice Lindley, who withdrew the case as against the master and mistress from the jury, and as against the surgeon he instructed them that they must be satisfied "that the girl had been overpowered by force, or by threat or terror of actual force." The evidence, however, went to show that the girl never objected to take off her clothes, and that she lay down and was quietly examined. Mr. Murphy urged, on behalf of the plaintiff, that the fact of the girl neither struggling nor forcibly resisting was no more proof of consent than a schoolboy holding out his hand to be struck, but Lord Justice Bramwell upheld the instructions given to the jury by Mr. Justice Lindley, and thought that there had been no evidence that the girl's wish had been overborne by violence or threat. The doctor, his lordship added, had appeared to have acted kindly throughout, but he dropped a word of warning to the effect that in such cases the wish of the master and mistress was no authority in the eye of the law for a doctor to examine a patient against her consent. It appeared to his lordship to have been rather a high-handed proceeding throughout. Judgment for the defendants was accordingly given.

GLYCOGEN IN MUSCLE.

THE relation of glycogen and lactic acid in muscle has been investigated by Böhm. The common method of estimating the amount of glycogen by the prolonged action of heat fails to extract at least 20 per cent., and this can only be obtained by heating the muscle pulp for twelve hours, with water, in a Papin's digester. In a series of investigations the amounts of glycogen extracted by simple heat and by heat under pressure were compared, and it was found that by the latter the amount was from 12 per cent. to 25 per cent. greater than by the former; but even on this method about 5 per cent. of the glycogen is left behind, and hence the procedure is unsuitable for the determination of slight differences in the amount of glycogen.

According to Böhm, the amount of glycogen in muscle does not exceed 1 per cent. of the moist tissue, and its amount is greatest two or three hours after an abundant flesh meal. In fasting animals it does not exceed ½ per cent. In one case, after a full meal, the whole of the glycogen in the muscles of the body was estimated to amount to fifteen grammes, and that in the liver to sixteen grammes. A storage of glycogen thus evidently occurs in the muscles, just as in the liver, and to nearly the same extent. When no food had been taken for thirty-six hours, the amount of glycogen was only ·276 per cent., and three days after the last meal it was only ·036 per cent. Contrary to many statements, Böhm found that the amount of glycogen does not lessen during the first two hours after death, even when the post-mortem rigidity reaches its highest point, which in the animals experimented on—cats—is attained in six to eighteen hours after death, provided the onset of decomposition is prevented by a low temperature. If, for the sake of comparison, one-half of the body is kept in a warm chamber, the amount of glycogen rapidly falls, although it does not completely disappear. From these observations it would seem that the glycogen cannot be the source of the lactic acid which makes its appearance during the post-mortem rigidity. In order to ascertain the relation between the two, the glycogen and lactic acid were estimated in a series of observations, and the result was that the production of lactic acid was not attended by any diminution in the amount of glycogen.

SCIENCE LECTURES.

PROFESSOR STRUTHERS delivered a few days ago a Science Lecture in St. Katharine's Hall, Aberdeen, in which he gave an account of the circulation of the blood and the general balance of the economy. He referred to the practice of bleeding in former times and to its discontinuance as an indication of progress. "We confess," he said, "that the old practice of bloodletting was wrong, and to our brethren of the clinical profession who are wont to be the most severe on us for these changes, we can only reply with that meekness which becomes the confession of error, that unfettered by articles we have moved on and left our errors behind us." Professor Struthers concluded his lectures by showing how many of the facts he had presented to his audience had been obtained by the practice of vivisection, and spoke strongly in regard to the absurdity of those decrying vivisection, who in deer-stalking and grouse-shooting were in the constant habit of wounding sensitive animals, and of leaving them without compunction to die.

A CAUSE OF SUDDEN DEATH IN GANGRENE.

J. PARISE has lately attempted to show that one of the causes of death in cases of extensive moist gangrene is the entrance of putrid gas into the veins, and its rapid passage towards the heart. To support his proposition, he has placed on record two cases of sudden death during gangrene of the leg, in which very shortly after death—an hour and a half and two hours respectively—gas was found in the large venous trunks and in the heart. There is not here any decisive proof that this gas was present before death; but from the great development of gas which is known to take place in the soft tissues in a state of moist gangrene, there is some probability that this is so, and then, if in sufficient quantity, it might in reaching the heart cause sudden death like air drawn into veins during operations close to the heart. Parise maintains that it is thus, and not by any special toxic effect of the gas, whose nature he does not record, that death is produced. He advises that where prompt amputation cannot be performed, the main vein of the limb should be compressed or tied to prevent this absorption of gas, and then later on amputation be performed above the point of pressure. We conceive, however, that there are very serious objections to interfering with the return of blood to the heart in gangrenous limbs, and that this suggestion arises from an exaggeration of the danger of the absorption of the gas at the expense of more general and important pathological conditions.

THE BLOOD IN HIBERNATION.

In the autumn of 1879 Prof. v. Wittich received twelve living German moles (Mus montanus), in order to investigate the amount of glycogen in the liver during their winter sleep. One animal was killed accidentally immediately after its arrival, and the results obtained on a microscopical examination of the blood led to an examination of the blood of the other animals, all killed in perfect health, and in all the same appearances were found. One of the animals had died on the journey without signs of disease, although perhaps in consequence of a bite from another animal.

The blood taken from a vein in the peritoneal cavity contained a large number of thread-like moving objects, which moved the blood-corpuscles lying near them, and, after diluting the blood with a half-per-cent. solution of chloride of sodium, presented an appearance identical with that of the spermatozoa of the frog. These organisms appear to be the same as those described by T. R. Lewis as existing in the blood of healthy rats. They are much larger than the spirillæ met with in the blood in relapsing fever. They were found in the blood from various parts, arterial and venous, in every animal. They disappear from the blood as soon as the decomposition sets in and the putrefaction-bacteria appear. They were very numerous, ten or twelve being found in every drop of blood, and they furnish a new proof of how large a number of parasitic organisms may exist in the blood without causing any disturbance to the general health. Attempts were made to inoculate guinea-pigs, but in every instance with a negative result.

THE INVESTIGATION INTO THE WORKING OF THE MEDICAL ACTS.

It may now be considered settled that we shall have an inquiry by a Royal Commission into the working of the Medical Acts. Mr. Mundella says the determination to proceed by a Royal Commission has been arrived at after consultation with members of the House who served on the late Select Committee. If this Commission is so appointed as to consist of competent persons it will justify itself.

CASE OF NEPHRECTOMY.

On Feb. 22nd Mr. Morrant Baker performed the operation of nephrectomy on a child in the Evelina Hospital. Several weeks previously Mr. Baker had cut down upon the right kidney from the loin, and had found it to be sacculated and suppurating. As free drainage failed to relieve the symptoms, the organ was excised from within the capsule through the nephrotomy wound. We are informed that the child is "doing remarkably well, the temperature for the last day or two ranging from 100° to 98°, takes nourishment well, and is picking up strength." This operation has not yet established itself as a recognised surgical procedure, and it is most important that all the cases in which it is attempted should be fully recorded.

THE CAUSE OF DEATH IN INQUEST CASES.

Many coroners habitually disregard the enactment of the Birth and Death Registration Act of 1874, which specifies the "cause of death" as one of the particulars to be ascertained and certified for insertion in the death register in inquest cases. This detracts much from the value of the mortality statistics prepared and issued from time to time by the Registrar-General. The Registrar-General, in his last weekly return, calls especial attention to a recent inquest in Hackney, which was held upon a child aged three years, the verdict in which case was "Sudden, suppressed eruption." Well may the Registrar-General deplore the vagueness of such a verdict, which is useless for the purposes of public health or mortality statistics. There are good grounds for believing that this case was one of suppressed small-pox, but if this were the case the record of fatal small-pox cases in London last week is made deficient. As inquests are held in more than 5 per cent. of the total deaths in England and Wales at an average cost of about £3 each, it is manifestly important that the verdicts should throw some light upon the true cause of death.

A case of some importance, as bearing on the use of morphia as a local application in skin diseases, formed the subject of a coroner's inquiry at the London Hospital on the 28th ult. The report from which we quote (*The Times*, March 1st) does not state the nature of the skin affection, which occurred in a woman fifty years of age. Lead lotion was at first prescribed, but owing to the irritation this was changed for a lotion containing liq. morphiæ hydrochloratis. It appeared that the prescription was misread by the dispenser, the word "liq." being written in the wrong column and overlooked by him, and the strength of the solution was, therefore, made half as much again (as regards the morphia) as intended. The mistake was most unfortunate, for the patient succumbed with symptoms of narcotic poisoning, and her death seems to have been attributable to the morphia. It would be obviously unfair to offer any criticism on the facts as here presented; but the case should inculcate the caution necessary to be observed in prescribing powerful toxics to the diseased skin.

The *Manawatu Times* records the death, on Christmas Eve, of Dr. Walker, surgeon to the Constabulary Forces stationed at Taupu, at the age of thirty-six. The deceased gentleman had obtained the New Zealand Cross for distinguished bravery in the field during the last native war. A local newspaper, at the time the decoration was awarded, testified of Dr. Walker that times out of number he had "carried men out of the thick of various frays when the bullets were as plentiful as hailstones; on one occasion he was carrying a wounded man on his back to a place of safety, when he (the wounded man) was shot dead whilst being so transported."

Edmonton still continues to furnish illustrations of the practices of builders in the metropolitan suburbs. Five summonses against a builder were recently heard before the magistrates of this district for having used improper lime, bricks, and timber in the erection of certain houses. Fines and costs were imposed to the amount of £75 11*s.* 6*d.* Would that the example of the Edmonton local authority were more largely followed by the local authorities of the metropolitan suburbs.

A coach-builder of Lyons has just completed forty ambulance-waggons, which are to be sent to Athens at an early date. These are constructed after an improved model, and are destined to follow the army over the roughest and most difficult country. They are very light, and have only two wheels. Each waggon contains four beds, which are suspended in a manner calculated to lessen, as far as possible, the shaking incidental to the road.

We are informed that the Royal College of Physicians and the Royal College of Surgeons of London contemplate making a grant of fifty guineas towards the expenses of the International Medical Congress, to be held in August next. The other medical corporations are considering whether they will not follow this example.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Barnsley (*Rural*).—Dr. Michael Thos. Sadler's report for 1880 is one of exceptional interest. In addition to information on the sanitary state of the district for the particular year to which it refers, it gives a brief summary of the work which has been done in the district since it was formed seven years ago. This account is peculiarly gratifying, and shows what may be effected by a judicious officer of health under circumstances of industries and populations having many and peculiar difficulties, to which, we fear, medical officers of health have too frequently yielded. When Dr. Sadler began his duties he had to contend with centres of population which had grown without any regulation whatever from pure rural villages into crowded colliery towns, without drains and sewers, insufficiently supplied with water, and this not always pure, and with no arrangements for the proper disposal of filth of any sort, liquid or solid. The populations were, in fact, living in a most deplorable state amidst their own accumulated filth, and the result was seen in an average rate of mortality of nearly 27·0 per 1000 inhabitants throughout the district, and in some parts a death-rate of 40·0 per 1000. "Since then, by patience and perseverance, by repeated statement of pressing needs, by not asking for too much at a time, but bringing forward first the most urgent wants, and those the necessity for which could be most clearly proved, a great improvement has been brought about." No less than 13,881 yards (nearly eight miles) of main sewerage have been constructed, exclusive of a large amount of drainage work done by private owners; several parts of the district have now an excellent water-supply; and a system of public scavenging has been introduced into sundry townships. By-laws respecting new buildings have also been adopted, and under them not less than 667 houses have been erected, which it may be assumed will, at least, be free from the structural evils which too commonly characterised the older houses. There is still much to be done in the district, but Dr. Sadler shows that by pursuing the same course he has hitherto done improvements of the sort already accomplished are still being steadily prosecuted in the parts of the district that need them; and a death-rate of 23·3 in 1880, as compared with the death-rate of 27·0 seven years ago, may be taken as evidence of the benefit the district has already obtained from the change effected in its sanitary state.

Kettering (*Urban*).—Mr. J. Winter Dryland's report for this sanitary district for 1880 is particularly interesting from its giving an account of the sanitary improvements which have been made in Kettering during the past eight years. Eight years ago this town, although occupying an admirable natural situation, was without proper drainage, had numerous filthy open privies and ashpits, its soil was sodden with leakage from such apologies for drains as existed, and from its foul middensteads, and a large number of the wells from which it derived drinking water were polluted. As a consequence of this state of things every summer and autumn brought its long list of cases of diarrhœa and typhoid fever with many deaths; and whenever small-pox, scarlet fever, or measles appeared, they spread rapidly, and the cases were usually of a malignant type. Now, Kettering has an excellent system of drainage, the sewers are fairly well ventilated and periodically flushed, and the sewage is almost completely purified before being cast into the brook into which it is ultimately passed. The town has the luxury of a constant supply of pure water from a deep well. A thorough system for the removal of ashes and dirt has been organised, and is well carried out by the servants of the Local Board. The greater number of privies have been converted into waterclosets. Where sink-pipes have been found in connexion with drains they have been disconnected. A hospital for infectious diseases has, moreover, been provided. Accompanying these changes fever and diarrhœa have diminished. No death from typhoid fever was recorded in the town in either of the years 1877, 1878, and 1879, and only nine deaths from diarrhœa occurred in 1880. Other zymotic diseases have also diminished. Kettering has reason to congratulate itself on the intelligent action of its sanitary authority and officers.

Mile-end Old Town (*Metropolis*).—Dr. Corner estimates the population of this district for the purpose of his report at 110,000, and he gives the birth-rate for 1879–80 at 38·5 per 1000 inhabitants, and the death-rate at 22·96, that of the metropolis generally for the year being 23·25. He has little eventful to relate in his proceedings during the year. Scarlet fever was the one exceptionally fatal disease, but although Dr. Corner holds it to be "the most intractable infection with which we have to combat," he thinks that "even its subtle destructive power can be successfully defeated by judicious management and sanitation."

Hastings (*Urban*). — Mr. Ashenden in his summary for 1880 gives the death-rate for that year as 18·16, the population being estimated at 40,400. The infantile mortality is reported to be "still very high," and is assigned, "unquestionably," to "the increasing use of artificial foods." The use of the sanatorium appears to be becoming more and more appreciated, and a combination of the urban sanitary authority with the rural sanitary authority for erecting a more capacious building is suggested.

East Dereham (*Urban*).—Mr. Henry Bird Vincent reports a death-rate of 16·4 per 1000 inhabitants during 1880 among a population estimated to number 5790. Two things specially attract attention in his report—namely, his comments upon the futility of his action in dealing with scarlet fever, and his expression of a hope that presently his sanitary authority will put a scheme of scavenging (and that not an expensive one) in operation in his district.

Axbridge (*Rural*).—Dr. De Courcy Lyons reports a death-rate of 13·3 per 1000 inhabitants during the last nine months of 1880. He refers to cases of diphtheria in one part of the district, apparently in connexion with the use of very filthy pond-water for drinking.

Longton (*Urban*).—Mr. James Weaver, reporting to the Town Council, and tendering his resignation on account of ill health as medical officer of health, observed:—"I have been your medical officer for ten years, and the first year (1871) I took office the death-rate of the borough averaged 41 per 1000, and the rate for the first three years (1871, 1872, and 1873) averaged 31·3. The average death-rate for the last three years (1878, 1879, and 1880) was 24·2, and the rate for 1880 is 22·9 per thousand. These figures show a saving, at the lowest calculation, of 150 lives a year, and I think your officials may fairly congratulate themselves on the result of their ten years' work; and to save so many lives each year is, I consider, a grand reward to the authorities of the borough for the money and labour which have been expended on its sanitary arrangements."

Peterborough (*Urban*).—Mr. Sinclair Thomson estimates the population of the city at 25,000, and gives the death-rate for 1880 at 20·3 per 1000 of the inhabitants. Last year appears to have been exceptional from the little prevalence of zymotic diseases in the city. But it is obvious there are several things to be done in Peterborough before it will enjoy the full degree of health its population ought to have. Although the municipal water-supply is excellent, there are still many wells in use, of which the water is impure. Moreover, from certain illustrations of the occurrence of typhoid fever given by Mr. Thomson, it would appear that the privies and ashpits of the city are not always constructed or regulated as they should be.

Greenock.—Dr. Wallace reports that the mortality of the town, during the four weeks ending Jan. 29th, was at the rate of 25·0 per 1000 of the population annually. Among the cases of infectious diseases ascertained during this period by the sanitary department to exist in the town, 107 in number, there were twelve cases of typhus. The number of these cases removed to the local authority's hospital was twenty-one, including the whole of the typhus patients. The greater proportion of cases of typhus were traced to pre-existing instances of the disease.

Holbeach.—Mr. R. R. Harper reports for this town during 1880 a death-rate of 12·9 per 1000 inhabitants. Although he regards this rate of mortality as very satisfactory, he is by no means content with the sanitary conditions under which the population lives, and particularly complains of the bad state of privies and ashpits and the faultiness of the water-supply.

St. Marylebone.—Mr. Wynter Blyth has some interesting observations in his report for St. Marylebone for the month ending the 9th February on the probable effect of the interruption of domestic-refuse cleansing and of due flushing of drains and waterclosets, in his district, during the memorable frost and snow-storm in January. The "dust-carts" had to be taken away from their work to free the great thoroughfares, and the frost sealed for several days numerous water-pipes. Mr. Blyth gives some instructive advice as to dealing with the infection of foot-and-mouth disease now existing among the metropolitan cattle-sheds.

VACCINATION IN LEEDS.

The vaccination officer for Leeds, Mr. Thos. Holmes, has presented to the Board of Guardians his report for the half-year ending June 30th, 1880, and a supplementary report for the year 1879. These reports, as previous ones by the same officer, show what can be done when the vaccination officer does his duty thoroughly, has his heart in his work, and is efficiently supported by an intelligent Board which is loyal to the vaccination law. The reports make clear the remarkable fact that the proportion of children vaccinated in Leeds is 3·14 larger than in the whole of England and Wales. The Local Government Board, in its last annual report, observed of vaccination in Leeds, "that it showed with what completeness a system of vaccination may be carried out by efficient administration." By the present reports it is evident that the efficiency is kept up. No death from small-pox has been registered in Leeds since July, 1877, and one case of the disease only occurred then. While the number of children born from year to year who are unaccounted for in vaccination is now reduced almost to a vanishing point in Leeds, over 9000 young children are unaccounted for annually in London. Mr. Holmes says of his present reports, they "give the largest numbers that I have yet been able to present as vaccinated; and clearly show that the general disposition of the inhabitants is to obey the law and secure for their offspring the safeguard against small-pox afforded by vaccination."

THE MONSALL FEVER HOSPITAL.

A conference has been held at the Royal Infirmary, Manchester, between the Committee of the Monsall Fever Hospital and the representatives of various local authorities and boards of guardians on the financial state of the hospital. A proposition has been made to the boards of guardians who use the hospital to raise their weekly payment per case, and a committee has been formed, consisting of representatives of the local authorities (eleven in number) and of the Manchester Health Committee, for further conference with the committee of the hospital, on the 17th inst.

Mr. Dodson has been questioned in the House upon the vaccination of very young infants in workhouses. It would appear that the mothers leave the workhouse not unfrequently as early as one fortnight after their confinement, and that as a rule children born in the workhouse pass into the outer world unvaccinated, and probably remain so. As, however, these children are as liable to small-pox as any other unvaccinated children, efforts are being successfully made to secure their vaccination before going out of the workhouse. There is no medical objection to this early vaccination, but the susceptibilities of certain persons who object to vaccination altogether are offended thereby.

The Guildford Rural Sanitary Authority having been called upon to provide proper outlet sewerage for the Charterhouse School at Godalming, and having refused to do so, has, after local inquiry, been declared by the Local Government Board in default under the 299th section of the Public Health Act, 1875, and ordered to provide the necessary sewerage. The Sanitary Authority has, however, refused to obey, and determined to submit the case to the opinion of counsel.

The report of Messrs. Crookes, Odling, and Meymott Tidy, to the Local Government Board, on the composition and quality of daily samples of the (filtered) water supplied to London from Jan. 20th to Feb. 19th, 1881, shows that although many of the samples examined were more or less turbid from finely suspended clay and sand, the water was, nevertheless, wholesome, of good quantity, and well oxygenated.

A person has recovered from his landlord, in the Greenwich County Court, £40 rent (paid in advance), and £10 expenses of removal for having let to him a house which proved most unwholesomely damp.

A correspondent using the signature "Medicus" write to the public journals complaining that the public vaccinato of his district refused to revaccinate a daughter of his cook aged ten and a half years. It is difficult to believe that an qualified medical man can be so grossly ignorant of th practice and law of vaccination as to have written this letter

At the Leicester Borough Police Court last week, twenty seven anti-vaccinationists were summoned for non-complianc with the Compulsory Vaccination Acts. Conscientiou objections were urged in most cases, but the Bench inflicte in each case a fine of 10*s*., including costs, or seven days imprisonment.

The Uxbridge magistrates have dismissed the summon taken out by the Thames Conservators against the Uxbridg Local Board for allowing the sewage of their district to flow into the Thames, the Bench regarding the evidence of th fact as insufficient. A case for a superior court was granted

Of fourteen deaths from small-pox among children unde five years of age reported by the Registrar-General last week eight of the sufferers were known to have been unvaccinated and there was no evidence as to the vaccination of five others

Mr. Roland P. Blennerhasset, M.P., believes, apparently that "cleanliness, ventilation, &c." would be sufficiently protective against small-pox. If other persons were no concerned, it is a pity he cannot be left in this belief.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality continues to decline, and is now very considerably below its average for the season. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5400 births and 3195 deaths were registered last week. The births exceeded by 214, whereas the deaths were 62 below, the average weekly numbers during 1880. The deaths showed a further decline of 72 from recent weekly numbers; and the annual death-rate, which had decreased from 31·0 to 22·4 in the four preceding weeks further fell to 21·9 last week. The lowest death-rates in the twenty towns last week were 16·7 in Sheffield, 18·5 in Bristol, 18·7 in Portsmouth, and 19·0 in Leicester. The rates in the other towns ranged upwards to 24·1 in Newcastle-upon-Tyne, 25·9 in Manchester, 26·6 in Oldham, and 28·6 in Liverpool. During the past eight weeks of the current quarter the death-rate in the twenty towns averaged 25·0 per 1000, against 26·0, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had steadily declined from 390 to 315 in the five preceding weeks, did not exceed 290 last week; these included 76 from whooping-cough, 56 from scarlet fever, 45 from small-pox, and only 25 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged only 2·0 per 1000 in the twenty towns, and ranged from 0·3 and 0·4 in Hull and Sunderland, to 2·7 and 3·1 in Leeds and Norwich. Scarlet fever showed the largest proportional fatality in Oldham, Portsmouth, and Leicester. The 13 deaths from diphtheria in the twenty towns included 8 in London and 2 in Birmingham. The death-rate from fever in the twenty towns was unusually low. Small-pox caused 49 more deaths in London and its outer ring of suburban districts, and one in Brighton, but not one in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the seventeen preceding weeks from 77 to 704, further rose to 752 on Saturday last, a higher number than has been under treatment in these hospitals since the spring of 1878. The number of new cases of small-pox admitted to these hospitals, which had been 176 and 183 in the two previous weeks, further rose to 187 last week. The Highgate Small-pox Hospital contained 49 patients on Saturday last, against 46 and 53 at the end of the two preceding weeks.

The deaths referred to diseases of the respiratory organs in London, which had steadily declined from 702 to 364 in the four previous weeks, were 367 last week, and 100 below the corrected average number in the corresponding week of the last ten years; 252 resulted from bronchitis, and 71 from pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·2 per 1000 in London; the rate from the same diseases was 8·7 in Liverpool.

The causes of 94, or 2·9 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths was 1·8 per cent. in London, while it averaged 4·0 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth or Norwich, while their proportion was largest in Wolverhampton, Bradford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 22·5 per 1000 last week, against rates declining steadily from 34·7 to 23·9 in the four preceding weeks; this rate was, however, 0·6 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 16·5 and 21·1 in Greenock and Edinburgh, to 25·4 and 25·7 in Paisley and Aberdeen. The deaths referred to the seven principal zymotic diseases in the eight towns, which had steadily declined from 125 to 87 in the four previous weeks, further fell to 70 last week, and were equal to an annual rate of 2·8 per 1000, which was, however, 0·8 above the average rate from the same diseases in the twenty English towns. The zymotic death-rate in the eight Scotch towns ranged last week from 1·3 and 1·9 in Greenock and Perth, to 3·3 and 4·3 in Edinburgh and Leith. The 70 deaths from zymotic diseases included 17 from whooping-cough, 14 from diarrhœa, 14 from fever, 13 from diphtheria, 7 from scarlet fever, 5 from measles, and not one from small-pox. The 17 deaths from whooping-cough showed a further decline from recent weekly numbers, and included 8 in Glasgow and 3 in Dundee. The fatal cases of scarlet fever also showed a further decline, and 4 of the 7 were returned in Edinburgh. The deaths referred to fever, which had been 8 and 10 in the two previous weeks, further rose to 14 last week, and included 6 in Glasgow, 3 in Edinburgh, 2 in Leith, and 2 in Greenock; the annual death-rate from fever in the eight towns averaged 0·55 per 1000 last week, and was more than three times as high as in the twenty English towns. The fatal cases of diarrhœa were less numerous than in the previous week. The 13 deaths referred to diphtheria also showed a decline, and included 6 in Glasgow and 4 in Edinburgh. Four of the 5 fatal cases of measles occurred in Glasgow. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had declined from 348 to 193 in the four preceding weeks, further fell to 150 last week, and were equal to an annual rate of 5·9 per 1000; the death-rate from the same diseases in London did not exceed 4·7 per 1000. The largest excess in the fatality of lung diseases in the Scotch towns occurred last week in Paisley and Perth.

HEALTH OF DUBLIN.

The rate of mortality in Dublin continues to show a marked excess compared with that prevailing in most of the large English and Scotch towns. The annual death-rate from all causes in the city, which had declined from 47·4 to 38·5 in the four preceding weeks, was equal to 38·1 last week. During the past eight weeks of the current quarter the death-rate in the city has averaged no less than 40·6 per 1000, against 24·5 in London and 23·0 in Edinburgh. The 245 deaths in Dublin last week were within one of the number in the previous week, and included 24, or nearly 10 per cent., which were referred to the principal zymotic diseases, against 22 and 31 in the two previous weeks. These 24 zymotic diseases included 10 from fever (typhus, enteric or typhoid, and simple continued), 4 from scarlet fever, 4 from whooping-cough, 3 from diarrhœa, and one each from small-pox, measles, and diphtheria. The annual death-rate from these zymotic diseases was equal to 3·8 per 1000 in Dublin last week, while it did not exceed 2·3 in London, and was 3·3 in Edinburgh. The deaths referred to fever, which had been 7 and 17 in the two preceding weeks, were 10 last week, and equal to an annual death-rate more than nine times as high as the average rate from the same cause last week in the twenty large English towns. The fatal cases of scarlet fever in Dublin showed a slight increase last week, while those of whooping-cough were less numerous. The deaths both of infants and of elderly persons exceeded the numbers returned in the previous week.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SALFORD INFECTIOUS DISEASES HOSPITAL.

There are few more important subjects connected with practical sanitation than the hospital treatment of infectious diseases in large towns. Dr. Tatham, in his valuable report on the sanitary condition of Salford in 1879, unfortunately only just issued, gives some valuable information bearing upon the work done during that year in the Wilton Hospital for Infectious Diseases belonging to the borough of Salford. This hospital now contains 70 beds for the isolation and treatment of infectious diseases, and we are told that the Town Council have decided not only to enlarge it by the erection of an administration department, but to secure its more complete isolation by the demolition of some neighbouring houses, and also to add at least twenty to the number of beds available for patients. We often hear as an argument against the erection of such hospitals that the prejudice against their use on the part of those for whom they are intended is so great as almost to defeat the object in view. At any rate this is not the case in Salford. It appears that between the opening of the hospital during 1876 and the end of 1878 no less than 868 cases were admitted, and that 307 cases were admitted during 1879. Thus the prejudice against hospital treatment in Salford, if it existed, seems in a fair way to be overcome. The 307 cases of admission during 1879 included two of small-pox, four of typhus, thirty-one of enteric fever, 157 of scarlet fever, sixty-two of measles, and one of diphtheria. The total cost of maintenance in the hospital during 1879 was little less than £3000, and was equal to 21*s.* 6*d.* per week for each inmate, including the officers of the institution; and as the average duration of each patient's residence in hospital was thirty-six days, it may be calculated that the average cost of each patient for maintenance was about £5. The number of completed cases recorded in 1879 was 313, of which 236 were recoveries and 77 deaths; thus the rate of mortality was equal to 24·6 per cent. of the completed cases, and exceeded the average proportion in such hospitals. The rate of mortality was equal to 16·6 per cent. among 42 cases of enteric fever; 25·6 per cent. among 156 cases of scarlet fever; and 21·3 per cent. among 61 cases of measles. With regard to enteric fever, the rate of mortality among 443 completed cases in the Metropolitan Asylum Hospitals during 1879 was 18·6 per cent., showing a difference of 2 per cent. in favour of the Salford Hospital. The fatality among the 1317 cases of scarlet fever treated at the Metropolitan Asylum Hospitals during 1879 showed a mortality not exceeding 16·2 per cent., against the high rate of 25·6 in the Salford Hospital. This excessive fatality of scarlet fever in Wilton Hospital may, in part, be due to the disease assuming a more virulent type in Salford than in London. The subject, however, is worth inquiry. The mortality among cases of measles is also undoubtedly great, and we hope that Dr. Tatham, in his next report, will give some further information on this point, which may show that the rates during 1879 were exceptionally high. Such variations may always be expected in dealing with small numbers.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.

The annual report of the Committee of the Manchester and Salford Association for 1880, while showing that the Association is continuing its useful work, does not, unfortunately, show any tendency to resiliency in its funds. During the last few years the income of the Association has been gradually diminishing, owing to death and removal of former members and other causes, and now it is compelled to appeal to the public for pecuniary help if it is to continue its usefulness. Let us hope that the next annual report will show good results from the appeal. The sanitary inspection department has not been so successful as was anticipated.

HEALTH OF CALCUTTA.

Dr. M'Leod's report for the last quarter of 1880 on the health of Calcutta shows no very striking departure from the usual meteorology of the period; food plentiful and cheap, but a considerable mortality from disease generally. The mortality from fevers was below the average; that from cholera above. The autumnal cholera exceeded in amount the spring cholera, "a very unusual circumstance." Wherever any tendency to grouping of the disease was observed, a special inquiry was made, and in all such instances the grouping was found around very filthy tanks. The arrangements for carrying out the new vaccination laws have been completed.

PLAGUE IN MESOPOTAMIA.

Information has reached the general press by a roundabout route through Russia that plague has broken out at Djaffar in Mesopotamia. Four deaths from the disease are reported.

It is hardly necessary to state that the announcement in an evening paper of the existence in Dublin at the present time of over 150 cases of typhus fever, from which disease "no less than seven doctors have died," is very far from being accurate. The only death in the ranks of our profession, of which we have received information, is the lamented one of Dr. Peele, a short obituary notice of whom will be found in our present issue.

Small-pox and scarlet fever are stated to be prevalent in Rio de Janeiro, and the outbreak of yellow fever has not yet subsided. Guayaguil is now reported to be free from the latter disease.

THE SERVICES.

THE AFGHAN HONOURS.

The *Gazette* of Tuesday, conferring honours and rewards on the officers who served in the late Afghan war, contains the names of four medical officers on whom Her Majesty has bestowed the distinction of Companion of the Bath. Deputy Surgeon-Generals Annesley Charles Castriot De Renzy, Stephen Chapman Townsend, of the Bengal Army; Deputy Surgeon-General Henry Bolton Hassard, and Brigade Surgeon James Arthur Hanbury, of the British Medical Service.

THE TRANSVAAL WAR.

A number of medical officers are under orders for South Africa to reinforce the medical staff in the Transvaal. Surgeon Coats embarked at Kingstown, on the 27th ult., in the transport *Calabria*, in medical charge of the 7th Hussars; Surgeon Woods, proceeding in charge of the left wing of the 7th Hussars, in the transport *Nemesis*. Brigade Surgeon Corbett, Surgeon-Major Joseph Watts, and Surgeon H. Scott have also embarked for Durban. Two officers of the Army Hospital Corps, with a detachment of thirty-five non-commissioned officers and men, are detailed for service, and will sail in a transport next week. Surgeon-Major Frederick B. Scott, M.D., has been appointed to the staff of Sir Frederick Roberts, G.C.B.

We deeply regret to announce the death, from wounds received in the recent action at Majuba Hill, of Surgeon-Major Cornish, A.M.D. He was the son of a much respected member of the profession, Dr. Cornish, of Taunton. We regret to learn that Surgeon Arthur J. Landon, A.M.D., is also amongst the list of officers killed in the battle near Lang's Nek, on Saturday last.

On Tuesday Sir Frederick Roberts called on Sir William Muir, Director-General of the Army Medical Department, in reference to the supply of further surgical appliances for use in the field, the authorities being in possession of information which leads them to believe that an extra supply is necessary. As a result a consignment of medical instruments and drugs will be sent in the *Balmoral*.

THE INDIAN MEDICAL SERVICE.

The new pension rules for the Indian Medical Service have, we understand, been approved by the Secretary of State for India, and will be promulgated very shortly. They will take effect from the 1st January, 1881, so that officers who are now retiring will benefit by the new terms, which will be liberal and comprehensive. Under the provisions of the Warrant of November 16th last for the Indian Medical Service twenty-one brigade-surgeons will be appointed in the Bengal Presidency—fourteen in Madras, and nine in Bombay. These promotions are to be made by selection from the list of surgeons-major on full pay. Their commissions will be antedated to 27th November, 1879, so as to harmonise with the British Service.

Lord Hartington has informed Mr. Cowan, M.P., as President of the Indian Medical Defence Fund, that a despatch has been received from the Government of India with reference to the recent changes in the Indian Medical Service, and is now under the consideration of the Secretary of State in Council. The correspondence will be shortly presented to Parliament.

CONVALESCENT DEPÔTS, INDIA.

Surgeon-Major Curtiss Martin is appointed to the Medical Charge of the Landour Depôt; Surgeon-Major J. Fergusson to the Medical Charge of the Darjeeling Depôt; Surgeon-Major Robert Lewer to the Medical Charge of the Murree Depôt.

The undermentioned Medical Officers are attached for duty at the Convalescent depôts as under for the ensuing hot season: Surgeon J. F. Williamson, Nynee Tal; Surgeon-Major C. E. Smith, M.D., Landour; Surgeon A. W. Browne, Kasauli; Surgeon J. Boulger, Dalhousie; Surgeon-Major J. H. Moore, Murree.

Surgeon-Major J. H. Robothom and Surgeon H. A. Fogarty have been granted six months' leave from India on private affairs. Surgeon-Major J. H. Loch, Bengal Medical Service, has been granted furlough to Europe for fifteen months.

Surgeons-Major T. Butler Power O'Brien and Decimus F. de Hodgson sailed for Bengal in H.M. troopship *Malabar*, which left Portsmouth on the 4th inst.

Brigade-Surgeon S. A. Lithgow has been granted six months' leave from India on private affairs.

Surgeon-Major Edmond Townsend, M.D., Army Medical Department, is under orders to proceed to the West Coast of Africa for service on the Gold Coast in connexion with the threatened Ashantee war. Surgeons J. J. Lamprey and N. Cameron, M.D., have proceeded from Sierra Leone with the 1st West India Regiment to Cape Coast Castle for the expedition against the King of Ashantee.

ARMY MEDICAL DEPARTMENT.—Surgeon-General Henry Kendall, M.D., has been granted retired pay; Surgeon-Major Thomas Moriarty, M.D., who has been granted retired pay, to have the honorary rank of Brigade Surgeon; Surgeon-Major Samuel Flood retires on temporary half-pay.

BOMBAY MEDICAL ESTABLISHMENT.—To be Surgeon-Major: Surgeon John Robb, M.D.

ADMIRALTY.—The following appointments have been made:—Surgeon G. W. F. Armstrong, M.D., to the *Malabar*, vice Clarke; Surgeon Robert M'Ivoer to the *Monarch*, vice Bell.

INTERNATIONAL MEDICAL CONGRESS (1881).

PREPARATIONS for the approaching International Medical Congress are being vigorously pushed forward by the Executive Committee, and the arrangements are now beginning to take a more definite form. The inaugural address by Sir James Paget, the President-elect of the Congress, will be given in St. James's Great Hall, which has been already engaged for the purpose, on Wednesday morning, Aug. 3rd. The following mornings will be devoted to the business of the various Sections; while the afternoons (with the exception of Saturday afternoon, which will be left free for garden parties, excursions, &c.) will be occupied by the general meetings of the Congress, at which four addresses will be given by distinguished men of four nationalities. Three gentlemen have already promised to give these addresses: Professor Huxley, probably on "The Connexion of General Science and Medicine"; Professor Volkmann, of Halle, on "Modern Surgery"; and Dr. Billings, of Washington, on "Medical Literature." The fourth address, to be given by a distinguished Frenchman, has not as yet been finally arranged. The meetings of the various sections will be held in rooms at Burlington House, courteously placed at the disposal of the Committee by the University of London, the various learned societies, and the Royal Academy of Arts. This, however, not providing the required amount of accommodation, the Committee have engaged Willis's Rooms for the occasion, and four of the sections will hold their meetings there. As stated in an earlier notice, no less than 40,000 individual medical men in various parts of the world received the original circular of invitation during August and September of last year, and since then the secretaries of the various sections have been actively engaged in circulating provisional lists of subjects which seemed in the opinion of the Committees of the sections those best suited for discussion and papers. Numerous replies have been received in answer to these communications, in some cases leading to alterations in the subjects selected. These amended programmes have again been distributed among those most likely to take interest in them, and are now combined into a pamphlet, and are issued together with the rules of the Congress printed in the three official languages to any medical man making application for them to the Secretary General.

Since the list of names published in November last, a large number of our foreign colleagues have definitely announced that they will come to the meeting, and there seems every prospect of the attendance from abroad being a full one. Meanwhile, depending on the number of names appearing as officially connected with the Congress, and on the subscription list, together with the number of gentlemen from abroad who have positively stated their intention to attend, a certain estimate of one thousand members may be made; and it seems not unreasonable to assume that at least double that number will attend.

The Reception Committee are busily engaged, and have decided upon giving an evening reception at South Kensington, and perhaps a second in the Albert Hall, but at present the state of the subscription list does not warrant them in making the arrangements definitive. The Lord Mayor purposes entertaining members of the Congress at dinner at the Mansion House on August 4th.

ST. THOMAS'S HOSPITAL.—MURCHISON MEMORIAL FUND.

Statement of Accounts.

RECEIPTS (including interest)	£	s.	d.	EXPENDITURE.	£	s.	d.
...	282	13	8	Bust and pedestal	148	0	0
				Printing	3	6	0
				Postage, wrappers, &c. ...	4	17	3
				Balance	126	10	5
					£282	13	8

H. H. CLUTTON, R. P. SMITH, } Auditors.
T. D. ACLAND, W. H. BATTLE, } Hon. Secs.
Feb. 24th, 1881.

The balance has been handed over to the Treasurers of the London Murchison Memorial Fund for the purpose of aiding in the formation of a Scholarship in Clinical Medicine.

GLASGOW ROYAL INFIRMARY.

THE annual meeting of qualified contributors and subscribers to this institution was held on January 31st. The report then submitted showed that 5117 patients had been admitted into the hospital during the year, being 195 less than in the previous year. The mortality in the medical wards was 12·7 per cent., in the surgical wards 6·4 per cent. The total mortality of patients treated to a conclusion was 9·3 per cent., or deducting 147 deaths which occurred within forty-eight hours after admission, 6·6 per cent. The number of patients treated in the dispensary was 21,232; of these, 10,515 were medical and 10,715 surgical. The treasurer reported that the total revenue, ordinary and extraordinary, amounted to £28,294 10*s.* 11*d.*; the total expenditure, ordinary and extraordinary, to £32,365 2*s.* 8*d.* The deficit of £4070 11*s.* 9*d.* was met by drawing on the capital account. The explanation given as to the increased expenditure of recent years is of considerable interest, as it shows the progress made in the management of such institutions as the Royal Infirmary, and the more enlightened views which are beginning to prevail among managers and directors. It is stated, in the first place, that the whole nursing system, and the domestic arrangements generally, have been greatly improved. In 1861, when the accommodation supplied by the hospital was greatly increased by the opening of the new Surgical House, the number of nurses was 44, their wages were from 15*s.* to 17*s.* 6*d.* per month; they were inadequately fed; no regular meal, not even dinner, being provided for them; their food consisted chiefly of such articles as herrings, eggs, chops, cheese, &c., which they cooked in their respective wards, and they did all the scrubbing, cleaning, and washing connected with the wards. Now the number of nurses on regular duty in the same number of wards (31) is 62; these are divided into two classes, day and night nurses. One of each class is appropriated to each ward, and her services are reserved exclusively for the physician or surgeon of the ward to which she belongs. There are also 29 probationer-nurses, who may be called the floating staff; one of these is placed as an assistant in each ward. There are 20 scrubbers and cleaners constantly employed, and 16 washerwomen and laundry-maids. The probationer's wages is £12 a year; after she is qualified she receives £20, which increases at the rate of £2 a year till it reaches £30. Thus the amount paid as wages to nurses and other officials has risen since 1862 from £2648 to £6000. The expenditure on medicines and medical and surgical appliances has also increased from £810 to £2580. Provisions have risen in price, and the diet scale has been improved all round. The results of this liberal policy have been very satisfactory. A better class of women have come forward as nurses, and a most marked improvement has taken place in the general tone of the institution. The death-rate has also fallen in a remarkable degree. In the five years from 1861 onwards the average annual deaths were 623; in the last five years they averaged 478; in the last four years only 468. Much money has been spent in adding to the accommodation of resident assistants, nurses, and others connected with the establishment. There still remain to be provided additional and better sleeping apartments for the nurses, and plans are now under consideration for an extensive range of dispensary buildings to be erected at the back of the hospital. In these new buildings ample space is provided for the medical school associated with the dispensary. The managers concluded by stating that the expenditure, though undoubtedly great, contrasted favourably with that of other similar institutions, and that it could not, with due regard to efficiency, be reduced.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Friday, further petitions for redress in connexion with the East India Army Medical Department were presented from Messrs. J. Anderson and A. S. Reed. On the motion of Mr. Woodall, the Blind and Deaf Mute Children Bill was read a second time. The second reading of the Coroners (Ireland) Bill, which is "blocked" by a notice of opposition from Mr. Warton, was further deferred for a week.

Scotch Medical Qualifications.

On Monday Sir Trevor Lawrence asked the Vice-President of the Council if he was aware that the highest qualification of the Royal College of Surgeons, Edinburgh—viz., the Fellowship—is to be had without examination, and even *in absentiâ*, by persons holding lower qualifications, on payment and by a process of vote by ballot; if he was aware that the highest qualification of the other two Scottish medical corporations—viz., the Royal College of Physicians, Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow—is given on similar terms; and if he could inform the House whether such a system has ever been the subject of representation or remonstrance by the General Medical Council.—Mr. Mundella: I have reason to believe that, with regard to the Royal College of Surgeons of Edinburgh, a Fellowship can be obtained by persons who are already members of the Colleges of Surgeons in England, Scotland, or Ireland, upon the terms stated; but I understand that Fellowship is not a licence or qualification for practice, but is a distinction conferred by the College by a three-fourths vote. With regard to the Faculty of Physicians and Surgeons of Glasgow and the Royal College of Physicians, Edinburgh, I have not yet been able to obtain certain information. With respect to the question of so-called higher titles, I understand it was discussed by the

Medical Council in 1859, and it was then decided that in the opinion of the Council in future no licence or degree should be given by any of these bodies without examination; and in the year 1870 the subject was again brought forward in reference to Clause 16 of the Medical Act Amendment Bill, but in consequence of the withdrawal of the Bill and pending further legislation, the subject has not been at present renewed. The question of these higher titles will form part of the inquiry into the working of the Medical Acts which the Government propose to shortly institute. A petition for inquiry into the East India Army Medical Department was presented from Alexander Campbell.

Medical Reform.

On Tuesday, in reply to Mr. Errington, Mr. Mundella stated that the Government had arrived at the conclusion that they should best attain a satisfactory investigation of the subject of medical reform by referring it to a Royal Commission.

Workhouse Vaccination.

Mr. Hopwood asked the President of the Local Government Board whether it was true that a practice of vaccinating infants as early as the first week after birth, "and even earlier," (!) has been adopted in some workhouses. If it was done under the sanction of the Local Government Board; and was the free consent of the mother in these cases first obtained. Mr. Dodson said it was quite true that the practice of vaccinating children in the first week after birth had been adopted in some workhouses, and in some individual cases the operation had been performed even earlier than the completion of the first week. But, in the circular recently issued by the Local Government Board, it had been pointed out that it was desirable that children should be vaccinated when six days old in order that the result might be ascertained before the thirteenth day—that was, before the mothers left the workhouse, which was often at a very early period. If the vaccination of children born in workhouses was not performed before they left they would probably not be vaccinated at all, and thus add to the large number of children in the metropolis who escaped vaccination altogether. No complaint had reached him with regard to the result of these operations. He was asked if the free consent of the mother was in all cases at first obtained. In many cases the free consent of the mother to the vaccination of the children had been specially obtained; in other cases where it had not been asked for, acquiescence, in the absence of objection, had been assumed. (Mr. Hopwood: "Oh!") He was not aware of any instance where a child had been vaccinated after the refusal of the mother.

Revaccination.

Mr. Firth asked the President of the Local Government Board whether he was aware that, owing to the increase of small-pox in Western London, many inhabitants were being revaccinated; and whether, having regard to the fact that no lymph can be obtained from secondary vaccination and that great difficulty exists in obtaining lymph, he was prepared forthwith to provide a proper supply of calf vaccine or humanised lymph for all duly qualified persons applying for the same. Mr. Dodson replied that there could be no doubt that owing to the prevalence of small-pox in the west of London many persons were being revaccinated. Although no doubt it was very desirable that everyone should be revaccinated, it would have been much better in many cases that, instead of waiting for this epidemic, they had been revaccinated as the Board had recommended. With regard to the supply of lymph, it must be borne in mind that the National Vaccination Establishment was intended to supply lymph to registered practitioners, not to individuals, and he was not aware of any case in which a registered practitioner had applied for lymph and had failed to obtain it. With regard to the last portion of the question, he might state that arrangements were in progress for providing a supply of calf vaccine, but considerable difficulty would be experienced in organising the necessary establishment. He could only hope that the arrangements would shortly be made.

Trichinosis.

Mr. Dixon-Hartland asked the Vice-President of the Council whether he had been informed of the prevalence of trichinosis amongst swine at Chicago, and was aware that large quantities of pork, ham, bacon, &c., are exported from that city to this country. Whether he was further aware that the French and other Governments have, in consequence, prohibited the importation of pork from the United States. And whether, in view of the deadly character of the disease propagated by the consumption of diseased meat, two deaths having been reported from Dublin within the last few days, he had taken any, and, if so, what steps to ascertain if any infested meat had been imported into the United Kingdom; and if not, what steps he was prepared to take to prevent such importation. Mr. Mundella said the Privy Council had no evidence of the prevalence of trichinosis in swine at Chicago. That place was merely the centre to which hogs were sent to be cured from the surrounding districts before being sent to this and other countries. He understood the disease could not be detected in the living animal, and generally only by microscopical examination of the flesh. He was aware that the importation of American pork had been prohibited in France, but the importation in that country was only one-twelfth of the import to this country. Italy, France, Portugal, and Spain prohibited the import two years ago, but those countries were self-sustaining countries, and not dependent, as we are, on foreign supplies. It was only right to say that no facts had been brought to his knowledge to justify any alarm on the subject. With respect to the prevalence of disease in dead animals, the Local Government Board were responsible. The Privy Council only dealt with disease in living animals, but he must say that the prohibition of such an enormous food-supply would only be justified by the most urgent necessity. With regard to the deaths in Dublin, there was no evidence to show that the deceased died from trichinosis, or that they had been in the habit of eating American pork.

A petition was presented from Falkirk for inquiry into the subject of medical relief in Scotland. Lord F. Cavendish, in reply to Captain Maxwell Heron, stated that the Government proposed to insert in the estimate an increased grant in aid of the medical relief in Scotland. The return recently ordered, on the motion of Mr. A. O'Connor, of examinations in London for the naval medical service, was presented. Colonel Alexander was discharged from further attendance on the Select Committee on the Contagious Diseases Acts; and Colonel Tottenham was added to the committee in his place. Sir Herbert Maxwell fixed the 29th inst. for the discussion on spurious American compounds, sold as butter, upon which he will move the following resolution:—"That it is desirable that such steps shall be taken by the Legislature as will ensure, as far as possible, that such of these compounds as are harmless shall only be sold under distinctive names, and that the importation and sale of those which are hurtful or dangerous to health be prohibited altogether." Mr. Dixon-Hartland gave notice that on an early day he will call attention to the danger of trichinosis arising from the importation of American pork, and move a resolution.

Fulham Small-pox Hospital.

Mr. Firth gave notice of the following questions for Thursday:—To ask the President of the Local Government Board, whether it is the fact that Fulham Small-pox Hospital is now made the receptacle for more than one-third of the small-pox patients of the whole of London; whether the borough of Chelsea, which includes the whole of Kensington, Notting-hill, Fulham, Chelsea, and Hammersmith, have volunteered to take charge of their own small-pox patients; whether the Metropolitan Asylums Board and the Local Government Board have not declined to confine the said hospital to such district; whether the Local Government Board do not decline to receive a deputation to urge such limitation; whether, according to the decision in a recent case, a small-pox hospital is not a nuisance *per se*, which may at any time be stayed by injunction; whether he is aware that the inhabitants of Western London, in consequence of such refusal as aforesaid, propose to take legal proceedings to obtain such injunction; and whether, in order to save public money being wasted in fruitless legislation by the Metropolitan Asylums Board in defending such proceedings, he is prepared forthwith to advise such Board to close Fulham Small-pox hospital, and to remit the patients to the care of local authorities, or otherwise to abate uch nuisance.

On Thursday, in answer to Mr. Firth, Mr. Dodson said, the notice of the hon. member contains no less than seven questions. I will endeavour to answer them as concisely as I can. My answer to the first question is, that it is not a fact that Fulham Small-pox Hospital is made a receptacle for more than one-third of the small-pox cases in the metropolis. The total number of patients in the hospitals is 763, of whom 217 are in Fulham. The answer to the second is, that I have not received any offer from the borough of Chelsea to take charge of their own small-pox patients. The borough has no power to undertake any such charge, and the vestries of the several parishes in the borough have not provided any hospital for such cases, although express power was given them to do so as far back as 1866, and they have from time to time been reminded of it. The answer to the third question is, that the hospitals of the Metropolitan Asylums Board, of which Fulham is one, were provided for the whole metropolis, at the cost of the ratepayers generally, and so long as there are space and accommodation admission will not be refused to patients coming from any part of that area. In answer to No. 4, I have to say that the answer to No. 3 will afford a reason why it is useless to receive a deputation on the subject. As to whether, according to the decision in a recent case, a small-pox hospital is not a nuisance *per se*, which may at any time be stayed by injunction, I have to say that it is now the subject of appeal in the House of Lords. I am not aware that the inhabitants of West London propose to apply for an injunction; and in reply to the last question I have to state that I am not prepared to advise the Metropolitan Asylums Board to close its hospitals, and to remit the small-pox patients generally to the care of the local authorities, especially seeing that the Vestries and District Boards have as a rule failed to provide asylums as they should have done—at all events for non-pauper cases, who form more than one-half of the cases.

Correspondence.

"Audi alteram partem."

ANEURISM TREATED BY THE USE OF THE CATGUT LIGATURE.

To the Editor of THE LANCET.

SIR,—The results of the cases whose history was read at the Medico-Chirurgical Society on Feb. 8th are so important that I think some review of them is necessary in the interests of surgery. The President said that the condition of artery revealed by post-mortem examination was unknown to him, and other speakers, myself among the number, proffered similar opinions. My remarks, however, indicated that I intended to devote further study to the subject, having at the time a suspicion, awaiting investigation, as to the reason of the non-closure in the lumina of the vessels.

This suspicion was awakened by the absence of clot, above or below the ligature, in either Mr. Adams's or Mr. MacCarthy's case. In studying the subject it is to be observed that although there were but two patients, yet there are three cases—(1) the right carotid, tied by Mr. Adams; (2) the right subclavian of the same patient, tied by Mr. Treves; (3) the left subclavian, tied by Mr. MacCarthy. In Mr. Treves's deligation considerable suppuration took place; and the vessel is the only one of the three which exhibited perfect closure, the operator attributing the difference between the result of his operation and of the previous one by Mr. Adams to the inflammation and thickening which took place around the artery which he had tied. The wound over the carotid (Mr. Adams') had not inflamed.

There is, however, another factor. So many vessels have now been tied successfully while asepticism has been maintained that we can hardly go back upon that improvement and consider it a detriment. We must think of other matters, and more especially the singular absence of clot. Now, if the carotid artery tied by Mr. Adams, or the left subclavian tied by Mr. MacCarthy, had really been closed by the ligature (even though none of the tunics were divided), and if those vessels had remained occluded, as clinically appeared, in the one case for thirty-six days, and in the other for forty-one days, clot would have formed above and below the ligature, and would in that time have become so adherent that no restoration of passage could have been possible.

The condition must then, I think, be otherwise explained. Mr. Adams tied the carotid thus: "A stout catgut ligature was used and tied in a double, and then a single hitch." Mr. MacCarthy kindly answered a question I addressed to him by letter thus: "The ligature was tied with a double hitch, and then a single one, only differing from the ordinary knot by the doubling of the first hitch." Therefore, out of the three cases the only one which was tied by a single hitch repeated was Mr. Treves's operation on the right subclavian, and it was the only one which succeeded in occluding the artery.

If a piece of prepared catgut be drawn through the fingers, it will rarely be found to be smooth, but to be roughened by little asperities studded over the surface. These are not sufficient to obstruct in a knot made with single hitch. As soon as I came home from the meeting specified, I tied, with double hitch, a number of knots round different arteries, and I found that these roughnesses sufficed in the intensified friction thus produced to render the tightening of the first knot difficult and even uncertain. In one or two instances the sense to my hand was that of having tied the experimental object tightly, the loop being afterwards found evidently lax.

This, however, is only the hypothetical explanation; the fact remains that two out of the three cases were tied with the double hitch, and in those two occlusion either did not take place or was very transitory.

I am, Sir, your obedient servant,
RICHARD BARWELL, F.R.C.S.,
Senior Surgeon and Lecturer on Surgery,
Charing-cross Hospital.
George-street, Hanover-square, Feb. 15th, 1881.

To the Editor of THE LANCET.

SIR,—That an artery may be temporarily occluded by the use of the catgut ligature, and may then again become pervious, is the main point demonstrated by Messrs. Treves and MacCarthy's cases brought before the Royal Medical and Chirurgical Society on Feb. 8th. The inference, however, as to the bearing of this fact upon the treatment of aneurism should be, I venture to think, somewhat different from that drawn by the writers of the papers alluded to, and by the speakers on those papers. To them the temporary nature of the occlusion (even though in Mr. Treves's case the period of occlusion was eighteen days) seemed an argument of overwhelming force against the use of the catgut ligature in such cases. To them it seemed an essential point in the treatment of aneurism by the ligature that the artery ligatured should be obliterated. But is this so in all cases? Does not Mr. Treves's case present an instance in the opposite direction? The aneurism for which the ligatures were used was cured, though the carotid afterwards became pervious. Still I am willing to allow that in cases of distal ligature we should aim at the absolute obliteration of the artery ligatured. It is, however, an open question whether in the cases requiring proximal ligatures the temporary nature of the occlusion is a fatal objection. That aneurism can be successfully dealt with by temporary obstruction of the channel of the artery on its proximal side has been proved by the many recorded cases of cure of aneurism by digital or mechanical pressure, kept up perhaps for six, eight, ten, or twelve hours. Why, then, should not *ligature-pressure* be as effectual? Have we not in the catgut ligature a means of employing temporary pressure, with as little risk to the patient, as by digital or mechanical pressure? If we could always ensure primary union of the wound by employing antiseptic dressings there is no doubt that the answer would be in the affirmative. Nevertheless, the increased probability of our getting primary union when the catgut ligature and antiseptic dressing are used makes this method a very much safer one than that of the hitherto orthodox plans. So that when digital or mechanical pressure cannot be used or has failed, we have the comparatively safe method of *ligature-pressure* to fall back upon. And in the term *ligature-pressure* I would include the plan of passing a catgut ligature round the artery without necessarily cutting through its two inner coats; the object being simply to bring together the inner surfaces of its channel and to retain them for a certain number of days in such apposition. I adopted this method successfully in a case of femoral aneurism—*ligature-pressure* by means of a catgut ligature was employed around the external iliac artery. Though the wound did not heal by the first intention there was no accident following the operation, and the aneurism was completely cured. I am, Sir, yours obediently,

Henrietta-street, Feb. 15th, 1881. W. SPENCER WATSON.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—Dr. Bramwell has asserted in the most categorical manner that "Naunyn, George Balfour, and others *deny* that the inorganic murmurs of chlorosis are *ever* arterial." It turns out that Naunyn has written nothing whatever on the subject; while the ultimately arterial character of the chlorotic murmur follows as a necessary corollary, from the dependence, as I suppose, of the primary murmur upon ventricular dilatation, and has been distinctly described by myself in your own journal, little more than three years ago, as occurring in the later stages of chlorosis. In these circumstances it seems to me that a simple apology for his carelessness would be more consistent with Dr. Bramwell's position than an attempt to defend himself by showing that others are also to blame. It is surely not too much to expect of a teacher of medicine and a writer on the "Diagnosis of Cardiac Murmurs," that he should at least know so much of the literature of the subject as will prevent him misrepresenting the views which he criticises.

Dr. Bramwell has also quoted at some length the opinions of Rosenstein, Sibson, and Hayden in support of the idea that reduplication of the second sound is produced by irregular contraction of the two ventricles, the left getting into diastole before the systole of the right is finished. It is difficult, however, to see how this theory can explain that "combination of double second sound with valvular inadequacy at the aortic orifice," which, according to Hayden, is not an infrequent occurrence. Neither is it easy to understand how a satisfactory solution could be found for any one of the many physiological and physical difficulties which are opposed to this view. It is quite needless to enter upon them now, because modern physiology has supplied us with an explanation of this phenomenon, which each one can investigate for himself, and which is not only sufficient but also consistent with both physics and facts. Ceradini has experimentally taught us that during a ventricular systole the segments of the arterial valves are not flapped back on the walls of the artery, but float within the blood current. They are maintained in equilibrium on the one hand by the axial stream escaping from the ventricle; and on the other by reflex currents originating at the exterior of this axial stream, which flow outwards and downwards against the arterial wall, from which they are reflected upon the posterior surfaces of the semilunar segments. Ceradini has also taught us that the moment the blood pressure within the artery equalises that within the ventricle, the semilunar segments of the arterial valve, no longer kept in equilibrium by opposing currents, fall together and close the arterial orifice. This systolic closure of the valves, as he terms it, is accompanied by an audible snap that initiates the second sound, which is only strengthened, but not produced, by any of the events accompanying the cardiac diastole. When the intra-arterial blood pressure is so great that it equalises that within the ventricle before the systole of the latter is finished, then we have the systolic closure of the valves and its audible snap, separated by an appreciable interval from the diastolic snap (of the arterial systole), and thus we have a reduplicated second sound. The primary systolic snap occurs only in that artery the blood pressure within which is in excess—in mitral regurgitation this is, of course, the pulmonary artery,—while the diastolic snap is simultaneous in both. Thus we have reduplication of the second coming and going, with variations of the intra-arterial blood pressure, without any interference with the action of the heart, the systole and diastole of both ventricles continuing to be both regular and synchronous, any residual blood not sent into the artery finding its way backwards to the auricle. And we have also a perfectly efficient explanation of the concomitance of a reduplicated second, with free aortic regurgitation. It is only when we wander amidst a maze of opinions that we find the facts of cardiac pathology difficult to explain; so soon as we deal with them according to the laws of physics and in the light of experimental physiology, the obscurity disappears. I am, Sir, yours obediently,

Edinburgh, Feb 25th, 1881. GEORGE W. BALFOUR.

"OVARIAN DYSMENORRHŒA, WITH RETROFLEXION OF THE UTERUS."

To the Editor of THE LANCET.

SIR,—I am glad that a remark in a letter of mine, which you were so good as to publish, has elicited from Dr. Wynn Williams the statement that he does not know the termination of many of the cases which he has treated with his intra-uterine stem.

It is well known that many deaths have occurred after the use of intra-uterine stems, and I am not alone in having met with or heard of many cases in which prolonged illness followed the application of such instruments. (I refer in this statement to intra-uterine stems generally, and not to Dr. Wynn Williams's stem in particular; on the contrary, I regard that with which his name is associated as one of the least dangerous.) Remembering these cases, it has been with astonishment that I have heard Dr. Wynn Williams say that he has *never* seen any ill consequences from the use of his stem. This startling statement is now, I am glad to find, explained. Dr. Wynn Williams has not seen any bad results, because he has not inquired as to the subsequent course of all his cases. Is it not possible that some of those whom he has not followed up may have left off coming to him because they were too ill to do so?

Anteflexion is very often found without any symptoms, and symptoms associated with anteflexion do not necessarily depend upon it, and may often get well without alteration in the shape of the uterus. Therefore it is to be expected that any kind of treatment applied to a large number of cases of anteflexion associated with symptoms would, if not immediately fatal, occasionally be followed by apparent improvement.

The publication of isolated cases proves nothing, either as to the safety of the remedy, or its efficiency in removing symptoms. It is necessary that *every case* should be recorded, and not merely those who came back to thank their medical adviser for the good done to them.

I am, Sir, faithfully yours,
G. ERNEST HERMAN.

West-street, Finsbury-circus, E.C., Feb. 1881.

NOTE ON THE DIAGNOSIS OF CAVITY IN THE LUNG.

To the Editor of THE LANCET.

SIR,—In your issue of Dec. 18th, 1880, Mr. S. C. Smith of Halifax described a physical phenomenon which he had observed in two cases of cavity of the lung—namely, a sound, synchronous with the cardiac systole, which could be heard over the trachea, so loud in tone that it could be distinctly perceived at a distance of some inches from the patient.

In Mr. Smith's opinion this sound is "obviously produced by the impact of the contracting ventricle against a neighbouring cavity, expelling such a puff of air as to produce a sound in the bronchus and trachea."

Permit me to draw Mr. Smith's attention to the fact that the same physical sign has been observed and described by Professor Gerhardt of Würzburg, in whose "Lehrbuch der Auscultation und Percussion," third edition, p. 270, I find a passage of which the following is a translation:—"Very rarely one can hear over cavities, as in one case described by Cejka, and in another by myself, a systolic whistling murmur of high pitch. I could show at the post-mortem examination of the latter case that a dilated branch of the pulmonary artery which ran through the cavity probably gave rise to this bruit. Cavities situated near the heart often give rise to râles or to musical and metallic sounds synchronous with the heart's systole. Remarkable are the few recorded cases (I have personally had occasion to observe one instance) in which râles *synchronous with the heart's systole became so much louder in consequence of 'resonance,' that they were audible at a distance of several feet.*"

This extract from Gerhardt's "Lehrbuch" probably contains the correct explanation of the above-mentioned phenomenon, which is otherwise difficult to account for. In THE LANCET of Jan. 8th, Dr. Drummond of Newcastle has already pointed out that Mr. Smith's explanation is untenable, for the reason "that systolic contraction of the ventricle means a diminution in the bulk of the heart." I think that the theory of increased resonance, the cavity itself acting as the resonator, also explains the cessation of the sound during inspiration which took place in Mr. Smith's cases, when the patient was breathing deeply or quickly; inasmuch as, under these circumstances, the conditions favourable to resonance may cease to exist.

I have recently had occasion to observe a similar symptom in a young lady suffering from the third stage of phthisis. Signs of cavity existed in the left apex, and another cavity could distinctly be made out in the right infra-clavicular region, giving a tympanitic sound on percussion, which changed its pitch according as the patient assumed either the recumbent or the erect posture; the sound was also modified by the opening and closing of the mouth. On auscultation, amphoric breathing, with large bubbling râles, could be heard, and at the same time a *systolic bruit*, which was present during inspiration and expiration, and was also distinctly audible over the trachea.

Bearing in mind what I saw personally at the very post-mortem above referred to by Gerhardt, I at once diagnosed in the case before me the presence of a dilated branch of the pulmonary artery, which had not as yet become impervious, lying across the cavity.

The patient died of profuse hæmoptysis in a few days; and although a post-mortem examination was not permitted, I think there can be no reasonable doubt of the correctness of my diagnosis, having regard to the peculiar termination of the case. Your obedient servant,

SIEGMUND MORITZ, M.D.,
Assistant Medical Officer to the Manchester Royal Infirmary.

Manchester, Jan. 31st, 1881.

"A SLANDER REFUTED."

To the Editor of THE LANCET.

SIR,—Under this title the *Philadelphia Medical Bulletin* publishes in its January number a letter from Dr. S. D. Gross, in which he asserts that a statement made by me in your journal "is false in every particular."

The absence of clinical clerks and dressers in the Pennsylvania Hospital, Philadelphia, led me to make inquiries of the doctor who most courteously showed me round. His reply so surprised me that before leaving the hospital I asked the question again, to be sure that I was not mistaken. "I was assured" by this gentleman "that at Jefferson College, which is one of the leading medical schools in the country, *a man might take his degree in medicine without ever having seen a case.*"

I am surprised that Dr. Gross should call my statement false, and then endorse it himself. In the last paragraph of his letter he makes the supposition that I have taken a degree at Jefferson College "without ever having seen a case," and in proof that I am not a solitary or exceptional instance, he adds, "precious pearls are daily thrown before *such* swine in the ample amphitheatres of the Philadelphia hospitals."

If I or any other man can obtain the degree of M.D. at Jefferson College, Philadelphia, "without ever having seen a case," I think I may justly remark that "clinical study is apparently unnecessary," and in so doing make no reflection on "the standard of clinical teaching in Philadelphia hospitals." I am, Sir, your obedient servant,

London, Feb. 23rd, 1881. A. E. BROSTER, M.R.C.S. Eng.

IRELAND.

(*From our own Correspondent.*)

THE Bazaar recently held in the Ulster Hall, for the benefit of the Belfast Royal Hospital, has realised the handsome sum of £1073 12*s.* 11*d.* The collections held on Hospital Sunday for the same institution amounted to £530 10*s.* 11*d.*, which, although somewhat in advance of that obtained the previous year, yet must be regarded as a sum totally unworthy of a wealthy town like Belfast. This hospital recently received a donation of 100 guineas from Mrs. Lyons of London, "as a token of gratitude for kindness shown to her son." It appears that the young gentleman in question happened to be in Belfast amongst strangers, and was admitted to the Royal Hospital, in which he died, after ten days' illness, from typhoid fever. The concert held last week for the benefit of the Belfast Hospital for Diseases of the Skin realised £35 2*s.* 7*d.*

At the Cork Fever Hospital last year there was an increase of 284 patients under treatment, as compared with 1879. This increase accounted for the additional expenditure, which the committee of the hospital hope will be materially reduced by the next corporation grant. The mortality from typhus fever was equal to 14 per cent., and, excluding seven cases admitted in a moribund condition, an actual mortality of 11 per cent. was obtained, a result which compares very favourably with the returns from other institutions of a similar kind.

A case of successful ligature of the right subclavian and right common carotid arteries simultaneously, for aneurism of the arch of the aorta, under the care of Dr. J. Mansergh Palmer, surgeon to the Armagh County Infirmary, deserves record. The patient, a woman aged fifty, was admitted to hospital on Feb. 10th, 1880, having noticed a slight swelling close to the right sterno-clavicular articulation during the previous November. On the night of the 12th Dr. Palmer found her suffering from great difficulty of breathing, stridulous respiration, lividity of face and neck, coldness of extremities, and other symptoms which rendered an immediate operation absolutely necessary. She was removed to the operation room, the right common carotid artery was tied, and as the tumour did not appear to decrease and pulsation continued, the subclavian was also ligatured. On the 29th the carotid ligature came away, and on March 2nd the subclavian. On April 27th she left the hospital, both wounds being quite healed. Early in June she caught cold and was readmitted to the Infirmary, but refused to take any medicine. On June 14th hæmorrhage took place from the old cicatrix in the neck over the carotid vessel, being complicated with hæmoptysis, which also occurred on the following day, and on the 10th there was profuse hæmoptysis, and death supervened 125 days after the operation. A post-mortem examination showed that the aneurism involved not only the arteria innominata, but also the arch of the aorta, while at the posterior and left side of the arteria innominata was an opening communicating with the left vena innominata, which latter communicated with the trachea at one point and at another opened into the right lung.

A Local Government Board inquiry was held at Bangor last Saturday in reference to a petition from the Bangor Town Commissioners, as the urban sanitary authority, to be allowed to construct waterworks for supplying the town and district with water, and also for a proper sewerage scheme. The commissioners have applied for a loan of £14,000 to carry out the necessary works. At the inquiry Dr. Bolton, medical officer of health, and others, gave evidence as to the great necessity which existed for a water-supply, not only for domestic purposes, but for flushing the sewers when formed.

Dr. Alexander Duke, recently assistant-physician at the Rotundo Lying-in Hospital, has been presented by the students of that institution with a handsome timepiece, bearing a suitable inscription, and also a valuable gold locket from the nurses belonging to the hospital.

At a recent meeting of the students of the Catholic University Medical School it was resolved to appoint a committee to receive subscriptions from past and present students of the School towards the erection of a memorial to the memory of the late Dr. Cryan, who for twenty-seven years discharged the duties of Professor of Anatomy and Physiology in the Medical School.

A man named Creagh died from hydrophobia in the Tipperary Infirmary last week, having been bitten by a mad greyhound so far back as July, 1880.

At a coroner's inquest held last week in Dublin the following rider was appended to the verdict by the jury:—"We are of opinion that the Bill now introduced into Parliament, providing remuneration for coroners and giving them power to appoint deputy coroners, should be entertained by the Government, and we feel the metropolitan county coroners are inadequately paid, and should be provided with a deputy."

THE Duke of Connaught has consented to preside at the anniversary festival of the Hospital for Sick Children, Great Ormond-street, to be held at Willis's Rooms on Wednesday, March 16th.

Obituary.

EDWARD PEELE, M.K.Q.C.P.I., L.R.C.S.I.

IT is with great regret we record the untimely death of Mr. Edward Peele, of Dublin, which sad event took place on the 18th inst., from that scourge of the profession, typhus fever, after two weeks' illness, aged forty-three. The deceased was connected with one of the city dispensaries, and it was in the discharge of his professional duties that he contracted the disease from which he died. Educated for the musical profession, he afterwards turned his attention to medicine; and in 1872 obtained the licence in medicine of the College of Physicians, and the following year the diploma in surgery of the Royal College of Surgeons in Ireland. He was one of the medical staff of the Hospital for Diseases of the Throat, Physician to the Hospital for Incurables, a Demonstrator of Anatomy in the Royal College of Surgeons' Medical School, and Visiting Physician to the Coombe Lying-in Hospital. Mr. Peele was one who made many friends, and in private life his kind and genial disposition, with musical abilities of a very high order, combined to make him a general favourite. His remains were interred last Monday in Mount Jerome Cemetery, being accompanied to their last resting-place by a large number of his professional brethren and of the citizens of Dublin.

The Committee of Council of the Irish Medical Association, at a meeting held on Feb. 22nd, passed the following resolutions:—"That the Council of the Irish Medical Association have learned, with the deepest regret, of the untimely death of Dr. Edward Peele, a member of the Council, and they desire thus to record their sense of the loss sustained by the Association in the removal of one so loved and trusted." Resolved further—"That the Hon. Secretary to Council be requested to convey to the relatives of the deceased an expression of the sympathy felt with them in their bereavement by the members of the Council." The Committee of Council, after passing these resolutions, adjourned as a mark of respect to the memory of Dr. Peele.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates of the College on March 1st:—

Griffiths, Herbert Tyrrell, Devonshire-place.
Holberton, Henry Nelson, Hampton, Middlesex.
James, Herbert Ellison Rhodes, Livermere Rectory, Bury St. Edmunds.
James, James Thomas, Llwnjack, Llandovery.
Jay, Melville Richard Hindmarsh, Fentiman-road.
Mathews, Sidney Robert Harvey, Bickley.
Milne, James Kershaw, Royal Infirmary, Manchester.
Mouritz, Arthur Albert, Richmond-street.
Nance, Henry Chester, St. Bartholomew's Hospital.
Shelswell, Oscar Berridge, Trinity-square.
Sutton, Samuel Walter, Richmond-terrace.
Thistle, Frederick Thomas, Vincent-terrace.
Thomas, John, Ystalyfera, Swansea.

BRITISH MEDICAL SERVICE.—The following is a list of candidates for appointments as Surgeons who were successful at the competitive examination in London on Feb. 14th:—

	Marks.		Marks.
Davies, A. M.	2320	Younge, G. H.	1675
Hubbard, H. W.	2290	Clements, W. G.	1670
Fitzsimon, P. C. C.	2090	Babtie, W.	1625
Noding, T. E.	2065	O'Brien, R. F.	1620
Yourdi, J. R.	1992	Thiele, C. W.	1610
Culling, J. C.	1960	Nichols, F. P.	1580
Hackett, R. J. D.	1955	Cox, T.	1570
M'Geagh, R. T.	1950	M'Laughlin, J.	1570
Trewman, G. T.	1910	Fowler, R.	1560
Johnston, H. H.	1900	Creagh, S. H.	1510
Wilson, E. M.	1900	Lambkin, F. J.	1500
Risk, E. J. E.	1895	Reade, W. L.	1490
Davies, J. D.	1880	Peard, H. J.	1475
Birrell, W. G.	1850	O'Grady, G. S.	1455
Dundon, M.	1840	Rennie, S. J.	1425
Lingard, T. R.	1830	Carmichael, J.	1405
Magrath, C. W. S.	1830	Farmer, E. D.	1390
Lane, A. V.	1780	Creagh, G. W. B.	1370
Beatty, J. W.	1740	Wilkinson, F. T.	1370
Weston, G. E.	1695	Semple, J.	1345

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 24th:—

Sicard, William Edgar, Trinidad.
Young, James Vance, Maharafelt, Ireland.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Davies, Guy's Hospital; Arthur Dening, Queen's Hospital, Birmingham.

THE Baroness Burdett-Coutts has contributed £50 towards the funds of the Parkes Museum of Hygiene.

THOMAS HAMILTON MOORHEAD, M.D., of Errigle, Cootehill, has been appointed to the Commission of the Peace for the county Cavan.

CAMBRIDGE UNIVERSITY.—On the 24th ult. the degree of Bachelor of Medicine was conferred on Henry Richard Hutton, St. John's.

MR. W. INGLIS MASON of the Snelbury Union, Suffolk, has received the Government grant for successful vaccination (fourth time).

THE governors of the bequest of the late Mr. H. Heywood (who left about £26,000 for the benefit of the sick poor of Burslem) have appointed a committee to inquire and report as to a site upon which a hospital can be built.—*Charity Record.*

AT the meeting of the Ophthalmological Society, on the 10th inst., the Discussion on the Relation between Optic Neuritis and Intracranial Disease, of which notice has been given, will take place. Dr. Hughlings Jackson will introduce the subject, and Dr. Stephen Mackenzie, Mr. Hutchinson, Dr. Buzzard, Dr. Greenfield, Mr. Walter Edmunds, Dr. Gowers, Dr. Brailey, and others are expected to speak.

MIDDLESEX HOSPITAL.—The report read at the annual meeting of the subscribers of this institution gave a gloomy account of its financial condition. It was intimated that unless the coming year witnessed an improvement in this respect, it would be necessary to temporarily close one male and one female ward. It is sincerely to be hoped that such a step may be averted by the timely generosity of the public.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ACLAND, T. D., M.B., M.R.C.S.E., L.R.C.P., has been appointed House-Physician to St. Thomas's Hospital.

ANDERSON, H., M.B., C.M., has been appointed Medical Officer to the Bellinge District of the Wigan Infirmary.

ARCHER, E. J., B.A., M.B., M.Ch., has been appointed a Surgeon to the Oddfellows' Club, Southampton.

BEEVOR, W. C., M.B., M.R.C.S.E., has been appointed House-Surgeon to Newark-on-Trent Hospital, vice J. Reckett, resigned.

BUTLER, H. P., M.R.C.S.E., L.R.C.P., has been appointed House-Surgeon to St. Thomas's Hospital.

CARPENTER, A. B., M.R.C.S.E., L.R.C.P., has been appointed House-Surgeon to St. Thomas's Hospital.

COLLIER, M. P. M., M.R.C.S.E., L.R.C.P., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

ELLIS, J. L., L.K.Q.C.P.I., has been appointed Medical Officer for the Mallwyd District of the Dolgelly Union.

EXHAM, A. R. F., M.B., B.Ch., L.M.K.Q.C.P.I., has been appointed Medical Officer to the Fifth District of the Drayton Union.

FIRMAN, C. G., L.F.P.S.G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Hatfield District of the Dunmow Union.

FLETCHER, J. S., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Honorary Physician to the Hospital for Consumption and Diseases of the Throat, Manchester.

GARMAN, J. C., L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.L., has been appointed Assistant Medical Officer to the Highgate Infirmary, vice E. C. Cripps, M.R.C.S.E., L.R.C.P.L., resigned.

HODGKINSON, A., M.B., C.M., has been reappointed Honorary Physician to the Hospital for Consumption and Diseases of the Throat, Manchester.

HOVELL, T. M., F.R.C.S.Ed., has been appointed Surgeon to the Throat and Chest Hospital, Golden-square.

HUTTON, H. R., M.B., L.S.A.L., has been appointed House-Physician to St. Thomas's Hospital.

JEFFREYS, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Districts of Brampton and Walton, Chesterfield Union.

JONES, Mr. E. W. T., has been reappointed Public Analyst for the Borough of Wolverhampton for one year.

JONES, J. Ff., L.F.P.S.G., L.R.C.P.Ed., L.S.A.L., has been appointed Medical Officer for the Llanegryn District of the Dolgelly Union.

KNIGHTS, Mr. J. W., has been reappointed Public Analyst for the Borough of Cambridge till Jan. 1st, 1882.

LLOYD, T. F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Second District of the Reigate Union.

LUNN, J. R., L.R.C.P., M.R.C.S.E., L.S.A.L., has been appointed Resident Accoucheur to St. Thomas's Hospital.

PHILLIPS, L. W. K., M.R.C.S.E., L.S.A.L., has been appointed Resident House-Surgeon to the Western Branch of the Brighton and Hove Dispensary, vice Buckle, resigned.

POOLEY, T. A., B.Sc., F.C.S., has been appointed Public Analyst for the County of Essex.

POTTER, H. P., F.R.C.S., L.S.A.L., has been appointed Medical Officer for the Workhouse and Infirmary of St. Mary Abbotts', Kensington.

SMITH, R. P., M.B., B.Sc., L.R.C.P., M.R.C.S.E., has been appointed Demonstrator of Practical Physiology in the St. Thomas's Hospital Medical School.

SOUTHEY, A. J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Harmondsworth District of the Staines Union.

STEWART, T. G., M.D., F.R.C.P.Ed., has been appointed Consulting Physician to Heriot's Hospital, vice Sir R. Christison, resigned.

SWALE, H., M.R.C.S.E., L.R.C.P., has been appointed Junior Assistant House-Physician to St. Thomas's Hospital.

VINRACE, F., M.R.C.S.E., has been appointed House-Surgeon to the Queen's Hospital, Birmingham, vice J. W. Moore, resigned.

WADE, A. B., M.B., C.M., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon to the Oddfellows' Club, Southampton.

WALTERS, L. R., M.R.C.S.E., L.S.A.L., has been appointed Senior Assistant House-Physician to St. Thomas's Hospital.

WHITE, P., M.B., C.M., M.R.C.S.E., has been appointed Senior House-Surgeon to the Halifax Infirmary.

WINTERBOTTOM, A. T., M.R.C.S.E., L.R.C.P.Ed., L.M., has been appointed Resident Obstetric and House-Surgeon to St. Mary's Hospital, Manchester, vice Wm. Walter, M.D., elected Honorary Surgeon.

YOUNG, A. H., M.B., C.M., has been appointed Honorary Surgeon to the Hospital for Consumption and Diseases of the Throat, Manchester.

Births, Marriages, and Deaths.

BIRTHS.

GRAYSON.—On the 25th ult., at The Poplars, Rayleigh, the wife of F. Dorrell Grayson, M.R.C.S.E., of a son.

TAYLOR.—On the 26th ult., at Champion-park, Denmark-hill, the wife of William Bramley Taylor, Esq., of a daughter.

WALKER.—On the 23rd ult., at Shrubland House, King Edward-road, Hackney, the wife of W. Newman Walker, jun., Esq., M.R.C.S.E. &c., of a daughter.

MARRIAGES.

ALLSHORN—WHITEHEAD.—On the 22nd ult., at St. Andrew's Church, Sheffield, by the Rev. E. B. Chalmers, D.D., assisted by the Rev. F. W. Goodwin, M.A., Adolph H. Allshorn, M.D., of 90, Dalston-lane, London, to Feronce Ada, third daughter of the late William Whitehead, Esq., of Sharrow Head, Sheffield.

BUCKLE—WHEELER.—On the 1st inst., at Londwater Church, by the Rev. W. P. Woollcombe, Vicar, assisted by the Rev. F. B. Ashley, John Buckle, M.R.C.S.E., of Great Bardfield, Essex, to Katherine, daughter of the late Henry Wheeler, Esq., of Beechwood, Londwater, Wycombe.

GREATHEAD—MERRIMAN.—On the 25th January, at Uitenhage, Cape of Good Hope, John Baldwin Greathead, M.B., of Grahamstown, to Esther Louisa Merriman, youngest daughter of the Bishop of Grahamstown.

RENDLE—BIRT.—On the 26th ult., at St. Mary's, Bryanston-square, George, eldest son of William Rendle, F.RC.S.E., of Treverbyn, Forest-hill, to Emily Mary, eldest daughter of the late Daniel Birt, of Lee.

SPENCE—BENNETT.—On the 23rd ult., at St. Matthew's, Redhill, James Beveridge Spence, M.D., Medical Superintendent of the Burntwood Asylum, near Lichfield, to Elizabeth Roebuck, eldest daughter of Richard Bennett, Esq., of Redhill, Surrey.

DEATHS.

AVENT.—On the 21st ult., at Lansdown-place, Plymouth, Nicholas Avent, M.R.C.S.E., late of H.M. 66th Regiment, and son of the late Nicholas Bastard Avent, Surgeon, of Modbury, Devon, aged 46.

BURN.—On the 20th ult., at The Cedars, Shirley, Southampton, of heart disease, George Burn, M.D., C.B., Inspector-General of Hospitals and Fleets (Retired), aged 70.

MACKENNA.—On the 24th ult., at Great Marlborough-street, John William MacKenna, Esq., M.D., L.F.P.S., L.M., in his 78th year.

THOROLD.—On the 24th ult., at Windsor Villas, Plymouth, Ellis Frederick Thorold, Esq., M.A., M.D., eldest son of the Rev. Henry Baugh Thorold, of Hougham-cum-Marston, Lincolnshire.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

MEDICAL SOCIETY OF LONDON.—7 P.M. General Meeting for the Election of Officers and Council.—8½ P.M. Ordinary Meeting, when Dr. C. Theodore Williams will read a paper "On the Pathology and Treatment of Diarrhœa in Phthisis;" and Mr. J. C. Wordsworth, "On some Defects of Sight, said to be due to Railway Accidents."

Tuesday, March 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Dr. Hilton Fagge, "On a Probable Cause of Lead Colic."—Mr. Barwell, "On Experience and Specimens of the Ox Aorta Ligature, and some Remarks on the Variability of Catgut."

Wednesday, March 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

HUNTERIAN SOCIETY.—7.30 P.M. Council Meeting.—8 P.M. Mr. Clement Lucas, "On Cases of Trephining."—Dr. Herman, "On Prolapse of the Ovaries."

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. D. Michael, "On a Species of Acarus believed to be unrecorded."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. William Arnot, "On Improvements in the Treatment of Esparto for the Manufacture of Paper."

Thursday, March 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Rev. W. Houghton, "On Cuneiform Characters."

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Microscopical Specimens.—8.30 P.M. Discussion on "The Relation between Optic Neuritis and Intracranial Disease," to be opened by Dr. Hughlings Jackson.

Friday, March 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1¼ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Gulstonian Lectures: Dr. Coupland, "On Anæmia."

ROYAL INSTITUTION.—8 P.M. Prof. R. S. Blackie, "On the Language and Literature of the Scottish Highlands."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Berkeley Hill, "On a Case of Fracture of the Spine treated with Sayre's Jacket."—Mr. Barwell, "On a Case of Excision of the whole Tongue by means of a small Supra-hyoid Wound, with remarks on the best material for the Loop of Ecraseurs."—Mr. Berkeley Hill, "On a Case of Round-celled Sarcoma, in which no repetition of the Disease took place during the remainder of the Patient's Life—namely, six years after the Operation."—Dr. Radcliffe Crocker, "On a Case of General Bronzing of the Skin without Constitutional Symptoms."—Mr. R. W. Parker will show (1) a Child with Pulsating Tumour on the Forehead, and (2) Three Brothers with Undescended Testicle.

Saturday, March 12.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Ancient Egypt."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 3rd, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 25	30·16	E.	37	34	..	39	34	..	Overcast
„ 26	29·90	E.	33	31	..	42	29	..	Bright
„ 27	29·92	E.	36	35	..	39	36	..	Snowing
„ 28	29·74	N.E.	33	..	..	35	27	..	Overcast
Mar. 1	30·07	W.	38	..	..	42	24	..	Bright
„ 2	30·25	S.W.	32	..	..	43	25	..	Overcast
„ 3	30·16	E.	38	35	..	41	31	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

THE present issue of THE LANCET is the **three-thousand-and-first** number, the thirty-sixth of the **fifty-eighth year** of its publication.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

Mr. A. G. Chitty.—We are sorry that the printed reports do not include the points raised by our correspondent, on which the coroner seems to hold peculiar views.

Mr. Roger Hughes.—Consult Murchison on "Diseases of the Liver," Dickinson on "Diseases of the Kidney," and other such authorities. Dr. Richardson's works, of course, bring a heavier accusation against "alcohol and its effects on the human system."

A. B.—The prefix mentioned belongs properly only to graduates of a university, and there is no probability of any legislation altering this state of things.

B. H. H., *B. W. A.*, and *Junior* have not enclosed their cards.

PARTIAL DISLOCATION OF THE HEAD OF THE HUMERUS FORWARDS.

To the Editor of THE LANCET.

SIR,—On the evening of the 5th inst. I was called to a female patient, aged thirteen years, who had the same morning fallen downstairs. She complained of pain in the right shoulder. The symptoms elicited by examination were slightly limited movement, she being able to raise the arm outwardly almost to the horizontal, but could not approximate it to the side nearer than about five inches, any forward movement being painful. The length from acromion to external condyle of humerus was not appreciably different from that of the opposite side. A slight prominence existed on the front of the shoulder, less than might even have been accounted for by a sprain, but more defined, as if the result of a contusion. There was, however, no discoloration. By grasping the limb above the elbow with the right hand, the shoulder being embraced firmly above by the left hand, two fingers in front, the thumb behind, slight pressure caused the head of the bone to at once slip into its place. The movement of the head of the humerus on reduction was unmistakably evident both to myself and to the patient, the functions of the joint being immediately restored.

The only cases I remember to have seen described are two—one by Mr. Le Gros Clark, and the other by Mr. Smith. Since the condition appears to be a rare one, whose existence was at no very distant date disputed, perhaps you may think the present case worthy of record.

I am, Sir, yours, &c.,

Gorton, Feb. 7th, 1881. EDWD. KENNEDY.

THE FROST OF JANUARY, 1881.

A PAPER was read at a recent meeting of the Meteorological Society by Mr. William Marriott, F.M.S., on the frost of January of the present year. The author pointed out that the severe frost of the 7th to the 26th was remarkable for its unexpected appearance, its long continuance, and its sudden breaking up. The weather during the first week of January was comparatively mild, but frost set in over the north of Scotland on the 5th. The author then gave the lowest thermometrical readings from about 300 stations in the United Kingdom for each day of the frost, which were marked upon diagrams, clearly showing the relative severity of the weather experienced in each district. The lowest readings were 15° at Garstang on the 16th, and 22° at Blackadder, 16° at Kelso, 15° at Stobo, 11° at Thirlestane Castle, and 10° at Melrose on the 17th. Reference was also made in detail to the rivers and lakes which had been frozen over and to other incidents, proving the remarkably low temperatures which had occurred. Some idea of the intensity of the frost may be gathered from the fact that in the south of Scotland the temperature fell below 10° on more than 11 occasions, below 20° on 19 occasions, and was below 32° on 25 to 29 occasions. In the London district readings below 10° occurred on 2 or 3 days, below 20° on 10 days, and below 32° on 20 days. In Ireland temperatures below 10° were registered on 6 or 7 occasions, below 20° on 12 or 14 occasions, and below 32° on 22 to 24 occasions. No place in the British isles was exempt from the frost; even at Scilly the temperature was below 32° on 3 days, the lowest being 29° on two occasions. The winter seaside health resorts afforded no protection from the frost; at Penzance the temperature fell below 32° on 10 occasions, at Torquay on 11 occasions, and was below 20° on 6 occasions; at Ventnor it was below 32° on 19 occasions, and below 20° on 3 occasions; and at Bournemouth it was below 32° on 23 and below 20° on 10 occasions. The heavy falls of snow prevented the frost from penetrating far into the ground, but where the snow was cleared away the temperature of the soil fell considerably. A diagram was exhibited showing the mean temperature of January in the neighbourhood of London for each year from 1774 to 1881, from which it appeared that the low mean temperature of 31·6° for January had only been surpassed on two occasions, and that the three years 1879–81 have been very cold, the mean for this period being only 32·2°. There is no instance during the past 100 years of any three consecutive Januarys having so low a mean temperature.

DESQUAMATION AFTER SCARLATINA.

To the Editor of THE LANCET.

SIR,—While this subject is under discussion in your columns I should like to call attention to the effect belladonna seems to have upon the character of the desquamation. Having heard belladonna much vaunted as a prophylactic in scarlatina, I decided to try its value by giving it in small doses (quarter minim of the tincture every four hours) to four children in apparent health who were residing in the same house as a child suffering from scarlatina. The result was not satisfactory, in so far as it did not prevent them from taking the fever, for all of them had it one after the other, the last having taken the belladonna for over a week before the scarlatina rash appeared; but in each case I found that the desquamation was in fine branny scales, instead of the large flakes usually seen after scarlatina, and which were well seen in the case of the first child, who had not had any belladonna. This led me to try the drug in cases where the rash had already appeared, and in each case I have obtained the branny kind of desquamation. I have now treated over twenty cases, and in all I have had the same result, while a number of cases during the same epidemic untreated by belladonna have had the usual large flake peeling. I do not find this effect from the internal use of belladonna in scarlatina mentioned in any of the works on therapeutics I have consulted, although its distinct action upon the functions of the skin, as seen in its control over the sweating of phthisis, is now fully recognised.

As a prophylactic I may add that I have given it a fair trial, having in five years been twice in the thick of epidemics of scarlatina, and although in two or three cases I have thought it must have averted the infection, the other result has so often occurred that I am inclined to regard it of but little value for this purpose. I believe it to be beneficial in the fever itself, for those cases in which it has been administered have all made good recoveries, and in each the sore-throat has been specially slight.—I am, Sir, yours faithfully,

J. ALFRED MASTERS, L.R.C.P. Lond., &c.

Hednesford, Staffordshire, Feb. 22nd, 1881.

AS bearing upon the above question, *Septic Solvent* desires to direct attention to the value of acetic acid in scarlatina. He says he has for some years adopted the practice of sponging all his scarlet fever patients with the diluted acid (one part of the strong acid to five parts of hot water), commencing the application as soon as the nature of the illness was suspected, and repeating it three times a day until the establishment of convalescence. In no case where this treatment has been carried out had there been the slightest desquamation.

MORBIFIC ODOURS.

To the Editor of THE LANCET.

SIR,—We have had a serious outbreak of small-pox here, about twelve cases, four of whom died. In two of the cases I noticed the following phenomenon, of which I should be glad to have an explanation:—

T. M——, a labourer, was working in a brickfield when some rubbish was shot close behind him. He immediately complained how horribly the rubbish smelt, was violently sick, and felt so ill that he was compelled to give up work and go to bed. The same evening he had a rigor, and in a few days the small-pox eruption made its appearance. Subsequently he informed me that his perspiration smelt just like the rubbish that had made him sick. I, however, noticed no peculiarity in the smell.

J. B——, paperhanger, went into a room with a companion in which a small-pox patient had lain. He immediately complained of the dreadful smell, was very sick, went straight home to bed, and in due course the eruption appeared on him.

In neither case was the smell complained of noticed by the companions, who also escaped the disease. I am happy to say that both men did well. I remain, Sir, yours obediently,

ALFRED BERNARD, M.R.C.S.

Queen's-road, Upton-park, E., Feb. 28th, 1881.

Subscriber.—"Boston Medical and Surgical Journal," Nov. 11th, 1880.

L. M.—He cannot.

T. J. G.—Any qualified medical practitioner may be consulted in the case.

Dr. H. Kennedy (Dublin).—The book has been received, and will shortly be noticed.

COMPENSATION FOR RAILWAY INJURIES.

To the Editor of THE LANCET.

SIR,—A friend of mine was injured in a railway collision, and his condition was such that the company privately allowed him £415 out of a claim made for £500. The medical agent of the company who "settled" the matter with my friend saw his tottering condition, and, in spite of his protests, insisted that perfect recovery would result in two years at the utmost. My friend is now in an advanced state of locomotor ataxy, never having recovered his health since the accident in 1875. He has had regular explosions of the usual symptoms of spinal injury up to the recent continuous and, I fear, final stage of the confirmed disease. He was induced to sign a document absolving the Company from all further liability. This payment of £415 was at last made as the result of a threat of legal proceedings. The Company has lately been applied to for moderate further compensation during total disability, and has absolutely refused it without examination of the patient.

I wish to ask you and your readers if, 1st, the "document" will hold water in a court of law? and, 2nd, if any such cases have arisen in which a jury have adjudged adequate further compensation?

I am, Sir, yours, &c.,

Shepton Mallet, Feb. 28th, 1881. F. PORTER SMITH, M.B. Lond.

FOREIGN BODY IN THE INTESTINES.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Feb. 12th Surgeon-Major O'Brien has reported the case of a soldier's son who had swallowed a pin. Will you allow me to mention the case of a youth who swallowed a needle in a similar way? In March, 1880, Mr. N——, a linendraper in this village, came to me in a great state of alarm, telling me his son, a boy about six years old, whilst playing with a needle placed it in his mouth, and by some means swallowed it. Of this they were certain, as he was seen to place it in his mouth, and it suddenly disappeared. The father was very anxious that I should supply him with some strong aperient, as he said, to work it through him, and was very much surprised when I advised him not on any account to give the child purgative medicines, but to give him principally dry food, keep him quiet, and well watch every motion for some days. This they did, and on the fourth day were rewarded by finding the needle pass entire, though of a somewhat altered appearance, it having become quite blackened during its voyage through the canal. I need not say the child recovered without a single bad symptom, but had the father given the strong dose I believe it would have terminated very differently.

I am, Sir, yours truly,

Shirley, Southampton, Feb. 17th, 1881. RICHARD J. CÆSAR.

ACUTE RHEUMATISM AS A SEQUENCE OF TONSILLITIS.

To the Editor of THE LANCET.

SIR,—I was glad, amongst others, to see this subject brought forward by Dr. Fowler, as I believe it is not a generally known fact. Some time ago I had a case of tonsillitis in a young married woman, followed in the course of a few days by a severe and, as it eventually proved, a fatal case of acute rheumatism, seriously affecting the heart. The interval in my case, between the throat symptoms having passed away and the commencement of the rheumatism, was only about two or three days. I am, Sir, yours faithfully,

Feb. 9th, 1881. H. P. ILDERTON, L.R.C.P. Edin.

"THE APPLICATION OF WARMTH TO THE HEAD."

To the Editor of THE LANCET.

SIR,—I should have said that in cases of suspended animation, as from drowning, I would suggest applying considerable warmth to the head and likewise to the back of the neck and the spine, so far as to include the phrenic and all the respiratory nerves, and this with the view of either restoring circulation or relieving congestion and promoting the regeneration of nervous force at their origins, and in the brain and spinal cord. Proper warmth to the other parts of the body and other approved means of restoration to be used, of course, as well. I had not noticed this subject mentioned, and therefore I hoped to make a useful suggestion. I remain, Sir, your obedient servant,

Chilton-Polden, Feb. 1st, 1881. CHARLES YOUNG, M.R.C.S.

THE DETERMINATION OF SEX.

To the Editor of THE LANCET.

SIR,—The following case seems to me to have considerable interest in relation to this question, which is now under discussion:—A man, at present in the Sussex County Hospital, has only two phalanges on each of his forefingers. His mother had the same deformity. He has six brothers; the two eldest have no deformity, but the other four have. He has two sisters who have no deformity. Of his children, the eldest, a girl of thirteen, and the third, a girl of three and a half, have, like their father, only two phalanges; while the second, a boy of five, and the youngest, a boy of eight months, have the normal number.

I am, Sir, yours, &c.,

Brighton, Feb. 19th, 1881. JOHN C. UHTHOFF, M.D. Lond.

DEATH FROM CHLOROFORM.

To the Editor of THE LANCET.

SIR,—I beg to report a death from chloroform, which occurred at this hospital on Saturday, Feb. 19th. The following are the particulars of the case:—

J. W——, a cabman, aged fifty-five, but looking much younger, came to the hospital suffering from a dislocation of the left shoulder of two days' standing. Attempts to reduce it having failed, chloroform was given. During the administration the patient struggled a good deal, but no symptoms of danger appeared. Anæsthesia was produced in about three and a half or four minutes. The inhalation was then discontinued, and the dislocation reduced. Immediately afterwards the breathing became stertorous, the face congested, and the pulse suddenly stopped. Artificial respiration was kept up for half an hour, an enema of brandy given, and galvanism employed without effect. The post-mortem examination showed considerable fatty change in the heart, with some fibroid thickening of the valves, which, however, were all perfectly competent. The lungs and other organs were much congested, but healthy. The reports of the inquest which have appeared in the papers were, of course, much garbled, and in some points entirely opposed to the real facts. I may mention that the chloroform was given on a cone of flannel, and about two drachms were used.

I am, Sir, yours faithfully,

R. D. H. GWILLIM, M.R.C.S., House Surgeon.

St. Mary's Hospital, Paddington, March 1st, 1881.

Anxious Inquirer should consult a medical adviser.

Inquirer had better make application at the office of the association, St. John's-gate, Clerkenwell.

M.R.C.S.—We regret that we have not space to print the letter. The case is not an unusual one either in its nature or in its duration.

Aboe should consult a surgeon.

Broad Arrow.—We think it would be advisable to wait until the effect of the new Warrant has been fairly tested.

Scrutator.—We must refer our correspondent to the General Medical Council.

Registered.—We should say that our correspondent is fully qualified.

VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—A great number of medical men apply to me for animal lymph from the Government Institution of Vaccine at Brussels. They are either not aware or may have forgotten that Mr. Ed. Darke, of 3, Hemming's-row, Charing-cross, London, W.C., is my only agent for the supply in the United Kingdom, and it is to him that all applications must be made. If you will have the kindness to insert this letter in the next number of your journal, it will be the means of saving fruitless trouble to many members of the profession.

I am, Sir, your obedient servant,

Brussels, Feb. 25th, 1881. DR. WARLOMONT.

N.B.—All orders must be transmitted before the Tuesday in each week. The price of the large tubes or points is two shillings each, and one shilling for the small ones; payment to be made by Post-office orders.

Economy of Fuel.

Our contemporary, *Design and Work*, publishes a series of data from experiments made by Mr. A. Percy Smith, of the Temple Observatory, Rugby, which go to show that the use of gas for cooking in properly constructed apparatus is much more economical than the use of coal.

SALICYLATE OF CINCHONIDIA AND OF QUINIA.

To the Editor of The Lancet.

Sir,—Dr. Hewan's interesting observations in The Lancet of Saturday last concerning salicylate of quinine are likely to be confirmed by others, for in many cases salicylic acid and quinine seem both to be indicated, and excellent therapeutical results have been reported from the one and the other, while a combination has sometimes succeeded after the failure of either. Upon the introduction of salicin and salicylic acid for rheumatism I tried them alternately with quinine. At length salicylate of quinine was manufactured. Dr. Hewan and others who have found it so efficacious will no doubt welcome another salt which I beg now to introduce—viz., salicylate of cinchonidia. This less costly preparation is very efficacious. Five grains may be given every two, three, or four hours, or in chronic cases three or four times a day. In severe neuralgic and rheumatic pain ten grains or more as an initial dose may be given. I have sometimes found five grains produce "singing in the ears," lasting for several hours, "exactly like the quinine medicine." At other times several doses were given before this occurred. The salt contains nearly one-third of its weight of salicylic acid, and it is of course incompatible with iron; it is rather insoluble, and so the taste is less pronounced than that of quinine. It can be given in pills or in wafer-paper, or in suspension. I give the solid drug in the form of Wyeth's compressed tablets, a very convenient method for administering various remedies. The tablets can be swallowed like pills, and, on account of the insolubility of the cinchonidia salt, the bitter taste is not perceived. Of course, for any special purpose they could be crushed to powder, but this would scarcely ever be desired. In neuralgia and in chronic rheumatism salicylate of cinchonidia deserves further trial. I have not employed it in acute rheumatism, but there must be many cases in which it might replace with advantage other salicylates.

I am, Sir, yours, &c.,

Dean-street, Park-lane, W., Feb. 21st, 1881. Prosser James.

P.S.—Having mentioned Wyeth's tablets in the above, let me take the opportunity of adding that I suggested the compression of iodide and of bromide of potassium by the same process, and such tablets (five and ten grains) are now in the market. Of course, it is usually desirable to give these salts dissolved in a full quantity of fluid, but to travellers and other persons the compressed tablets will often prove specially convenient.

STRUCTURE OF THE ANAL MUCOUS MEMBRANE.

To the Editor of The Lancet.

Sir,—In reference to this subject, I would beg leave to state that the late William E. Horner, Professor of Anatomy in the University of Pennsylvania, Philadelphia, was in the habit of demonstrating the existence of the pouches referred to in The Lancet of Jan. 29th, 1881 (page 187), and of Feb. 3rd (page 216), to his class as long ago as 1833, when I was a member of his class, and are described in his work on general anatomy, published in 1833. The late Dr. Geo. W. Norris, of Philadelphia, operated upon me in 1854 for purulent discharge from the anus, dividing the pouches by a curved knife such as Mr. Clegg states is used by Mr. Bickersteth. The division of these pouches has long been practised by the surgeons of the United States.

I am, Sir, yours very respectfully,

Ferrara, Italy, Feb. 8th, 1881. Morris S. Wickersham.

Erratum.—In our report of the meeting of the Clinical Society on the 11th ult., the question put by Dr. A. E. Longhurst in relation to Dr. Sutherland's paper was wrongly attributed to Dr. Robinson.

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A Lecture
ON THE
PATHOLOGY OF THE OBSTRUCTION OF THE CIRCULATION OF THE BLOOD IN THE LUNGS,
AND OF THE FAILURE OF THE HEART'S ACTION, WHICH ARE LIABLE TO OCCUR DURING THE ADMINISTRATION OF CHLOROFORM.

Delivered at University College Hospital on Thursday, January 20th, 1881,

By WHARTON JONES, F.R.C.S., F.R.S.,
PROFESSOR OF OPHTHALMIC MEDICINE AND SURGERY IN UNIVERSITY COLLEGE, AND OPHTHALMIC SURGEON TO THE HOSPITAL.

GENTLEMEN,—Of all the various bodies the vapour of which has been administered by inhalation to produce insensibility to pain during the performance of surgical operations, ether, chloroform, and ethidene dichloride are those which have stood their ground best in the estimation of practitioners. Of these three anæsthetics chloroform has proved the most dangerous, and ether the least so. Leaving ethidene aside, I propose to confine my observations to the effect of inhalation of the vapour of chloroform and of ether on the blood in the vessels of the lungs, and on the action of the heart. As data, I take the facts recorded in the report by the Committee of the British Medical Association, recently published. And, first, I shall direct your attention to the phenomena which admit of being observed by direct inspection of the lungs and heart of frogs anæsthetised with chloroform and ether. But introductory to this let me briefly describe to you the phenomena of the pulmonary circulation in the water-newt and in the frog as observed under the microscope in the natural state. The lung of the water-newt is of simpler construction even than that of the frog, but the distribution of the vessels in its walls and the mode of circulation of the blood in them are similar. [Here a drawing was shown representing the vessels of the lung of the water-newt and of the frog, drawn from the life.]

The ramifications of the pulmonary artery occupy an external stratum of the wall, and the radicles of the pulmonary vein an internal stratum, while the capillary network is interposed between the two. Into this capillary network, occupying the intermediate stratum, the extreme arterial ramifications open, and from it the venous radicles arise. In thus opening into the capillary network, the extreme arterial ramifications subdivide abruptly, whilst by an equally abrupt union of capillaries the venous radicles have their origin. Viewing the circulation of the blood in the lung from the outside, we come, in adjusting the microscope, first on the streams in the small arteries, then underneath them, on the streams in the capillary network; and lastly underneath the latter, on the streams in the veins. The streams in all the vessels may, indeed, be seen under the adjustment for the capillary network; but with an objective one-eighth of an inch they are seen, each stream most distinctly, of course, under the adjustment for its own level. The width of the meshes of the capillary network varies somewhat according to the degree of distension of the lung with air. The pulmonary artery has thickish muscular walls; but in the course of my observations I never actually saw constriction of any of its branches occur, as we so often see in the case of the arteries of the frog's web. I have, however, seen arterial ramifications with their calibre already somewhat constricted here and there, while some presented their calibre rather wider than that of the trunk whence they sprang. At the extremity of the pulmonary sac the termination of the main trunk of the pulmonary artery was in one case dilated in a varicose manner at three different points. The pulmonary artery and its branches are accompanied by a nerve and its branches, in the same way as are the arteries of the frog's web. The walls of the pulmonary veins are not so thick as those of the arteries. Here and there the calibre of a vein might be seen slightly constricted, as if by the contraction of a muscular coat.

At the commencement of the sittings at which the particulars I have now described were noted I found the flow of blood in the vessels rapid and uniform. The white corpuscles were mingled together with the red in the streams, but towards the end of a sitting the circulation was observed to have become slower, and white corpuscles were seen to settle on the walls of the vessels—both arteries and veins—in small numbers. None were seen to escape from the interior by boring through the vascular wall, but I have seen extravasation by rupture. In an artery leading to capillaries which had become obstructed by congestion and stagnation of blood-corpuscles in their interior, the blood thereby arrested in its course was seen to oscillate to and fro rhythmically with the systole and diastole of the heart. This oscillating collection of blood, which consisted of a large proportion of plasma with few red corpuscles, but a considerable quantity of colourless corpuscles, accumulated on one side of the vessel, corresponds with those collections found in the truncated ends of divided arteries, and designated by the name of "internal clot."

To speak next of the frog's lung and the phenomena of the circulation of the blood in it. The frog's lung represents a sac on the inside of the wall of which there are small compartments formed by reduplications of the lining membrane. Externally the lung is mapped out into polygonal spaces which correspond to the parietal compartments, and are bounded by anastomosing bands composed of fibrous tissue enclosed within the reduplications of membrane which form the pulmonary walls. It is in these polygonal spaces of the pulmonary wall corresponding to the parietal compartments that we see the circulation going on in the capillary network. As in the lung of the water-newt, the arterial ramifications form an external stratum, and the venous radicles an internal stratum in the wall of the pulmonary sac, while the capillary network occupies an intermediate place. I have not observed in the frog's lung, any more than in that of the newt, constriction of the calibre of the arteries take place except in a slight degree. As in the lung of the water-newt, the flow of blood in the vessels of the frog's lung is rapid and uniform. The arteries and veins compared with those of the web of the animal's hind-foot appear fuller and more distended with red blood. A point to be particularly remarked in regard to the pulmonary circulation in both the newt and the frog is the great sensitiveness of the red corpuscles to the action of impure air, as manifested by the readiness with which they become aggregated and stagnant in the capillaries. This I long ago showed by blowing carbonic acid gas on the lung of a frog disposed under a microscope.[1] Obstruction of the pulmonary circulation, then, has its origin in the capillaries by aggregation and stagnation of the red corpuscles therein under exposure to the action of impure air.

In coming now to a consideration of the pathological phenomena which admit of being observed by direct inspection of the lungs and heart of anæsthetised frogs, it is to be premised that, while in mammiferous animals complete obstruction of the pulmonary circulation necessarily prevents any further affluence of blood to the left side of the heart, and thence to the system by the aorta and arteries, affluence of blood to the system is not necessarily so prevented in frogs; the reason being that the heart of the frog has only a single common ventricle into which the impure blood which the right auricle receives from the system and the pure blood which the left auricle receives from the lungs are poured. The impure and the pure blood thus received into the common ventricle are, in the natural state, there mingled, and the mixture is sent by its contraction, some back to the lungs by the pulmonary artery, and some to the system at large by the aorta. When the circulation through the lungs is completely obstructed in an asphyxiated frog, you thus see that, though no blood can be received from the lungs into the left auricle, the venous blood which is received from the system at large by the right auricle can pass therefrom into the common ventricle, from which cavity of the heart the blood is free to pass off by the aorta to the system, but cannot be propelled back into the obstructed vessels of the lungs.

Let us now endeavour to trace the correlations of the phenomena presented in an experiment on a frog subjected to the influence of chloroform, described in the report under notice, and which was this: The frog being anæsthetised with chloroform until reflex action was suspended, it was so disposed that one of its lungs and the web of the right foot might be observed under a microscope. By means of a cannula introduced into the glottis, the lung was first inflated with pure air, and in this state the circulation in its walls was seen, on examination under the microscope, to be active. Air mixed with chloroform vapour was now introduced by artificial respiration through the cannula, whereupon the flow of blood in the capillary network was seen to become, first, less rapid, and then to cease. A few seconds after this the flow of blood in the arteries leading to the obstructed capillary network, and in the venous radicles coming from it, was found to have ceased also. This stoppage of the circulation in the lung I interpret thus. For want of due aeration of the blood, and perhaps by a special action of the chloroform also, the red corpuscles became aggregated and stagnant in the capillaries, so as to block them up—an effect similar to that produced by the direct action of carbonic acid gas on the lung of a frog, in the experiment to which I have before referred. Consequent on the progressive obstruction of the pulmonary circulation in the frog under chloroform, the heart no longer received aerated blood, and the venous blood which the common ventricle received from the right auricle passed off by the aorta into the systemic arteries, in which it was, however, feebly driven, in consequence of the impaired energy of the heart, now no longer supplied with pure blood. Soon after the stoppage of the circulation in the lung, stagnation of the blood in the capillaries of the web was found to have taken place. This, I consider, was owing to aggregation of the red corpuscles of the impure blood, favoured by the small degree of force with which it was now propelled through the system.

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[1] British and Foreign Medical Review for October, 1842.

In continuation of the experiment under notice, artificial respiration with pure air was next employed, and in the course of eight minutes' time the contractions of the ventricle, which had fallen to four, were now increased to nine a minute. As a result of this increased rapidity of the heart's action, the blood, it is stated, was seen to begin to flow slowly in the larger vessels of the lung.

The real sequence of events in this case must, however, in my opinion, have been this: Under the influence of the pure air, the red corpuscles blocking up the capillaries of the lung by their aggregation, became less tenaciously adherent to each other and to the walls of the vessels, so that they admitted of being pushed on by the force of the heart, weakened though it was. Resolution of the congestion of the corpuscles of the blood in the capillaries thus tending to take place, the force of the heart proved sufficient to propel the blood somewhat onwards in the pulmonary artery. In proportion as the circulation in the lung was gradually becoming re-established in this manner, the power of the heart increased, and so the blood was propelled more and more freely through the vessels of the lung, and thence in a pure state to the heart, as well as to the system generally, until the circulation became fully re-established, as was found to be the case in twelve minutes more, at which time the systolic contractions had risen to fifteen in the minute. The artificial respiration thus did not operate directly on the heart, but operated first on the blood stagnant in the capillary network of the lung. Stagnation had continued in the capillaries of the web, but now the circulation was observed to become gradually re-established there also. This was, no doubt, owing to an action of the pure blood, which would now be driven onwards by the increased force of the heart, and of which the affluence to the capillaries would be permitted by a concurrent relaxation of the small arteries. The impaired activity of the heart, I have said, is owing to its not being supplied with pure blood. But the congestion and stagnation of the corpuscles in the capillaries of the lungs were not owing to the deficient power of the heart. As the full power of the heart was incapable of preventing the congestion and stagnation from taking place at the first, so in its impaired state it was still more incapable of driving onwards the blood-corpuscles, which by their aggregation had come to block up the vessels of the lungs, until by the access of pure air their adhesion to each other and to the walls of the capillaries became loosened.

In short, chloroform, when its administration proves fatal to a patient, appears to operate by first inducing stoppage of the circulation in the lungs in a manner similar to that in which carbonic acid gas operates when directly applied, as I have before stated. Failure of the heart takes place secondarily, in consequence of the interruption of the respiratory process; and, of course, if the heart be already morbidly weak, failure of its action will all the more readily take place for want of the circulation of pure blood in its walls.

From this it would seem a legitimate corollary that artificial respiration ought to precede the employment of any cardiac stimulant in a case of failure of the heart. But let it be repeated that this state of asphyxia is only gradually established, and that it is only in proportion to the obstruction of the blood in the lungs that failure of the heart's action at last takes place, the apparently sudden failure being the equivalent merely of the proverbial breaking of the camel's back by the last feather added to its burden.

The conclusion I have here deduced from the facts before me as to the occurrence of failure of the heart being subsequent to obstruction of the circulation in the lungs must be qualified if the opinion which I shall mention further on be well founded—viz., that the chloroform, with which the blood circulating in the coronary vessels in common with those of the system generally is impregnated, directly causes primary failure of the heart by paralysing its muscular power independently of any obstruction in the lungs.

I next come to the experiment on a frog subjected to the influence of ether as described in the report. The effect of ether was similar to that produced by chloroform, but the administration required to be kept up for a longer time before anæsthesia took place. In the experiment stagnation of blood-corpuscles was observed first in the capillary network, and after that stoppage of the flow of blood in the small arteries took place. Pure air being now administered by artificial respiration in substitution of the ether vapour, a flow of blood was seen to become re-established in the small arteries, and this indication of renewed activity of the heart, it is stated, was followed by dispersion of the congestion in the capillary network. But here, again, I have no doubt that, as before remarked in reference to the experiment with chloroform, the aggregation of the red corpuscles in the capillaries had first become loosened under the influence of the pure air. It was not until after the stoppage of the circulation in the lung that congestion and stagnation of blood were observed in the vessels of the web. And it was not until the circulation in the lung became re-established that the blood again flowed in the web. As was the case in the experiment with chloroform, obstruction of the pulmonary circulation was found to precede any diminution in the pulsations of the heart. This, again, shows that the stoppage of the flow of blood in the lung was not owing to primary impairment of the heart's action, but that it was dependent on stagnation of the blood-corpuscles in the capillaries of the lung, and that this arrestment of the respiratory process was the cause of the impairment of the activity of the heart. Though inhalation of a larger quantity of ether vapour than of chloroform vapour was required to produce anæsthesia, it was found that respiration with pure air more rapidly led to complete re-establishment of the circulation in the lungs under ether than when chloroform had been given. This and the fact that the heart did not become so much affected under ether, would seem to indicate that the circulation in the lungs did not become so much obstructed as it did under chloroform. The continued vigorous action under ether, which the heart is stated to have maintained, would, indeed, seem to indicate that in the case under consideration obstruction of the pulmonary circulation had not only not fully taken place, but that stimulation of the heart was caused by the ether which impregnated the blood circulating in its walls.

I now come to consider the effect of chloroform and ether on dogs and rabbits, as recorded in the report. One of the most striking effects of anæsthetic agents observed in the experiments on those animals was engorgement of the venæ cavæ and right cavities of the heart, indicating obstruction to the passage of blood through the vessels of the lungs. Under chloroform the respiration was very liable to become thus arrested, whilst the action of the exposed heart was found to cease soon after. By artificial respiration with pure air the action of the heart was resumed; but this was, no doubt, the effect of commencing re-establishment of the circulation in the lungs in the manner already contended for in the case of the frog. Under ether the action of the exposed heart was not, it is stated, found to be interfered with. This would indicate, as before observed, that the circulation in the lungs continued more or less free. In accordance with this no engorgement of the veins and right cavities of the heart is particularly mentioned as having taken place. No doubt, however, more or less impure blood—impure both from defective oxygenation and from impregnation with the anæsthetic—was during this time circulating through both lungs and system, so that there existed a moderate degree of asphyxia. This suggests the question, Is anæsthesia owing simply to a state of asphyxia, or to a more special action of the anæsthetic in addition? As bearing on this question you will call to mind the well-known fact that inhalation of atmospherical air loaded with carbonic acid gas induces a state of insensibility.

In reference to these and other clinical questions the opinion of so experienced a practitioner as my colleague Mr. Clover is of the highest value and authority. He thinks that a state of anæsthesia may be produced independently of any obstruction of the circulation in the lungs, and that anæsthetics have a special action of their own on the nervous system, though a state of asphyxia may assist the operation of this action. As to failure of the heart under chloroform, Mr. Clover is of opinion that it may take place primarily, the *modus operandi* in this case being that the blood, impregnated with chloroform, in circulating through the substance of the heart, acts as a poison to its irritability. But he at the same time allows that the heart's substance, when as yet only partially affected by the paralysing influence of the chloroform, will succumb the more readily if obstruction of the circulation in the lungs supervenes. When obstruction in the lungs occurs during the administration of ether, the action of the heart fails less quickly than under chloroform. This Mr. Clover attributes to a stimulating action which the ether, impregnating the blood, exerts on the muscular substance of the heart.

To conclude, I have not here noticed the subject of the heart's force and blood-pressure as indicated by the hæmatodynamometer in dogs under the influence of an anæsthetic. My reasons for this are—first, that, practically, it does not concern us; and, secondly, that from a physiological point of view, the indications of the blood-pressure afforded by the instrument are not, I believe, so trustworthy as has been commonly supposed. The fact is that the calculations based on observations of the rise and fall of the column of mercury in the hæmatodynamometer have been made under the erroneous impression that the whole force of the heart's action bears upon the blood in the tube inserted in the artery experimented on, whereas a part only of the force is indicated, seeing that the principal part of the *vis a tergo* comes to bear on the current of blood which is now diverted into arterial channels nearer the heart. This is shown by the fact pointed out seventy-five years ago by Dr. J. F. D. Jones, in regard to the *vis a tergo* in an artery of some size, on which a ligature was applied. The stream of blood Dr. Jones found did not continue to be impelled against the closed extremity of the artery with the same degree of force as that with which it was driven in the vessel before it was tied. He observed that the stream of blood in the artery experimented on immediately turned aside into the collateral branches of the vessel higher up. To such a diversion of the *vis a tergo* what success has resulted from tying the artery on the distal side of an aneurism is, I believe, mainly owing. To this I have to add, that under the microscope we may see in a small artery leading to obstructed capillaries, or in one which has been divided, that the current of blood readily passes off in a collateral branch of the vessel situated higher up towards the heart. (This is shown in the drawing representing the "internal clot, in divided arteries of the bat and frog.) The force of the heart in this case evidently no longer acts strongly on the column of blood which occupies the artery below the collateral branch by which the stream passes off. The only indication of pressure by the *vis a tergo* here is the oscillation of the column of blood. This column of blood in an artery leading to obstructed capillaries, whether of the lung or web of the frog, or in the upper segment of a divided artery, which may be seen oscillating synchronously with the action of the heart, corresponds, as I before remarked, in respect to the nature of the conditions under which it thus presents itself, to what has been named the "internal clot" within the ends of divided arteries. It corresponds also, you will understand, to the column of blood in the hæmatodynamometer. By the systole of the heart the column of blood I am speaking of is pressed on, but progressive motion of it being prevented, the small amount of force from the heart to which it is subjected is expended, causing merely some distension of the vessel. On the supervention of the diastole of the heart a recoil of the column of blood takes place by the elastic reaction of the wall of the vessel. In the case of an experiment with the hæmatodynamometer, the rise and fall of the column of mercury corresponds to this oscillation with distension and collapse of the vessel.

It is, however, let me repeat, only a small degree of the force of the heart which is herein exerted. Higher up in the artery towards the heart, the stream of blood passes off by some large collateral branch, and it is there that the full force of the heart's systole is expended, a degree of force which is far from being indicated by the hæmatodynamometer.

ON THE NATURE AND SEQUENCE OF THE CARDIAC AND VASCULAR CHANGES IN INTERSTITIAL NEPHRITIS.

BY GEORGE JOHNSON, M.D., F.R.S.,
PROFESSOR OF CLINICAL MEDICINE, SENIOR PHYSICIAN TO KING'S COLLEGE HOSPITAL.

IN a paper on the above subject recently published in THE LANCET (Feb. 5th and 12th), Dr. Bryan C. Waller does me the honour to confirm the accuracy of my observations with regard to the hypertrophy of the middle muscular coat of the arterioles in the kidney and other tissues in cases of so-called "interstitial nephritis." It is satisfactory to me to find so able and industrious an observer as Dr. Waller amongst the numerous pathologists who, whilst differing as to the explanation of the phenomenon, admit the fact of a genuine muscular hypertrophy in this class of cases. Dr. Waller goes on to express his dissent from my statement that in the hypertrophied renal arterioles there is an inner longitudinal as well as an outer circular layer of muscular fibres. If he will do me the favour to refer to a paper of mine published in the *British Medical Journal* of May 25th, 1878, he will find that I no longer maintain that the inner longitudinal layer of fibres is muscular. The following is an extract from the paper referred to:—"All the characteristic specimens of renal arterioles in the form of disease under consideration (the small red granular kidney) show an inner longitudinal and an outer circular layer of fibres of nearly equal thickness. I formerly supposed that the inner longitudinal as well as the outer circular layer was muscular; but I am now convinced that the inner is the thickened elastic coat; and since this thickened inner layer has precisely the same structural appearance and arrangement as the elastic layer in the larger, but still microscopic, arteries, I cannot but look upon it as being thickened by a true hypertrophy or overgrowth of the normal tissue. And a probable explanation of the hypertrophy of the elastic inner tissue of the arterioles is to be found in the need for resisting the tendency to elongation of the arterioles by the injecting force of the hypertrophied left ventricle. The tortuosity of many of the hypertrophied renal arterioles shows that they have become more or less elongated by the injecting force of the heart, notwithstanding the increased thickness and strength of their longitudinal elastic tissue; and it can scarcely be doubted that, but for the strengthening of the elastic coat by this hypertrophic thickening, the elongation and tortuosity of the arterioles would be much greater than they are."

The thickening of the tunica intima in the hypertrophied renal arterioles is so constant and so uniform in its structural characters—in this respect differing entirely from syphilitic or tuberculous, or other undoubted pathological thickenings—and, as a rule, it bears so constant a relation to the hypertrophy of the muscular coat, that I cannot but look upon both as examples of a true physiological hypertrophy, as distinguished from an inflammatory or other pathological thickening. Dr. Waller, while admitting the anatomical fact of hypertrophy of the muscular walls of the arterioles, doubts my physiological explanation of the phenomenon, but has "no feasible exegesis of his own to offer." His explanation of the cardiac hypertrophy associated with advanced granular kidney is that it is a result of obstruction caused by "obliterative thickening of the tunica intima" of the systemic arterioles. With regard to this theory, I would remark that it affords no explanation of what Dr. Waller admits to be the "inconvenient" fact of the muscular hypertrophy in the walls of the arterioles. And it also takes no account of the undoubted fact that in cases of acute renal disease, with uræmia, there is evidence of high arterial tension with increased cardiac action, phenomena which entirely pass away with the cessation of the renal disease. These facts admit of a complete physiological explanation by the theory of temporary over-action of the muscular arterioles ("arterial stopcocks"), excited through the vasomotor nerves by the influence of the morbid blood, as in chronic cases the continued over-action of the same arterioles results in hypertrophy of their walls and correlated hypertrophy of the left ventricle of the heart.

Savile-row, W.

OBSERVATIONS IN URINARY PATHOLOGY AND THERAPEUTICS.

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(Continued from p. 129, vol. ii., 1880.)

III. CASES OF DIABETES INSIPIDUS CHARACTERISED BY AN EXCESSIVE ELIMINATION OF PHOSPHORIC ACID (THE SO-CALLED PHOSPHATIC DIABETES).

Under the terms Diuresis, Diabetes insipidus, Polyuria, and Polydipsia, writers have described a certain morbid condition of the system characterised by the excessive and persistent discharge of urine of low specific gravity—containing, however, neither sugar nor albumen. Most authors apply either of the above terms to denote this urinary superflux, without reference to the quantitative relationship that may exist in individual cases between the urinary water and solids. Others, of whom Willis[1] seems to have been the first, have attempted to form a classification on this basis. Thus Willis divided cases of diabetes insipidus into three groups: (1) those attended with excessive discharge of aqueous urine, in which the solid matters are deficient—*hydruria;* (2) those attended with a copious discharge of urine characterised by a deficiency of urea—*anazoturia;* and (3) those in which the excessive discharge of urine was attended with a superabundance of urea—*azoturia.* Parkes[2] also supported the view that diabetes insipidus was to be found existing under three different conditions—(1) In cases where there is no increase or decrease of tissue metamorphosis; (2) in cases where there is a decided decrease of tissue metamorphosis; (3) cases where there is evidence of increased tissue metamorphosis as shown by the increase of some of the urinary solids. To this latter class of cases Professor Parkes thinks the term polyuria preferable to that of azoturia, which only expresses the fact of the urea being increased; whereas in the cases quoted by him the fixed salts, as chlorides, sulphates, and phosphates, were also present in abnormal quantities. Lately Dr. Tessier[3] of Lyons has recorded a series of cases closely resembling saccharine diabetes, in the increased discharge of urine, the thirst, the neuralgic and rheumatic pains, the wasting, and the secondary lung complications, only that no trace of sugar could be found in the urine, and that the constant phenomenon was a very considerable increase in the quantity of phosphoric acid excreted (fifteen to twenty grammes of earthy phosphates in twenty-four hours). In some of Dr. Tessier's cases the urea was also eliminated in excess, but not in all, a fact which Dr. Tessier thinks serves to distinguish them from the cases originally described as "azoturia." Dr. Tessier has given the name "phosphatic diabetes" to this class of cases. He divides them into four groups—1. Those in which nervous symptoms are predominant. 2. Those which accompany pulmonary consumption. 3. Those which alternate with or co-exist with saccharine diabetes. 4. Those which run a distinct course resembling saccharine diabetes, but without sugar. As a few cases resembling in many respects those described by Dr. Tessier have come under my observation, although in none of them were the symptoms so marked or the excretion of phosphoric acid so considerable as in those described by him, I venture to think a brief account of them may be of some service in illustrating this interesting and obscure point in urinary pathology.

Case 1. *Polyuria with increased excretion of phosphoric acid and urea; nervous symptoms.*—J. H——, aged sixteen, was admitted into the Seamen's Hospital July, 1876, in a stupid, semi-comatose condition, extremely feeble, and emaciated. Weight under 9 st.; no great thirst; passing large quantities of urine of medium specific gravity, with trace of albumen; no sugar. No history of syphilis or injury to head. Analysis of the twenty-four hours' urine gave the following result:—

Quantity	2900 cc.	
Specific gravity	1010	
Earths } (phosphoric acid)	2·3 }	5·2 grammes.
Alkalies }	2·9 }	
Urea	51· grammes.	

The lad remained in bed for several days in a dull, stupid condition, and then gradually brightened. The diuresis continued excessive during the whole period of his stay in hospital, the specific gravity ranging from 1010 to 1015. He was treated successively with large doses of valerian, with small doses of opium, with cod-liver oil and quinine. He improved greatly under treatment with regard to his general condition, but he was still polyuric when discharged. In this case the quantity of urine passed was about three times, the solids about double (calculated from the specific gravity), the phosphoric acid more than treble, and the urea rather more than double the normal for a lad of his age. In this case there was a decided increase of tissue metamorphosis, as evidenced by excessive excretion of urea and phosphoric acid, the latter especially. It comes under Dr. Parkes's third definition, and corresponds with the first group of Dr. Tessier.

Case 2. *Polyuria; increased elimination of phosphoric acid; death; small syphilitic gumma at base of brain.*—T. G——, aged twenty-four, a patient of the late Dr. Murchison, came under my observation on August 24th, 1878, during Dr. Murchison's absence from town. The patient, a slight man weighing about 9 st., had been ailing four or five months; sight failing for a month, but has got rapidly worse during the last week; cannot now read or count fingers when held up. Passing large quantities of water; syphilis five years ago. Ophthalmoscopic examination only revealed slight fulness of veins. He was instructed to collect and measure urine, and bring some for analysis next visit.—August 28th: Patient much worse; complains of violent pain in head. Quantity of urine passed in the last twenty-four hours 9500 cc.; reaction neutral; sp. gr. 1004; phosphoric acid 6 grammes.—August 30th: Violent pain in head; now quite blind; as he required more care and attention than he could in his circumstances receive at home he was taken to St. Thomas's Hospital. Here, shortly after his admission, he became delirious, and then comatose, and died on September 2nd. I am indebted to the courtesy of the then house-physician for a note with regard to the condition of the brain, as found at the post-mortem examination: "A small syphilitic gumma, about half the size of a small hazel-nut, situate in the middle line under the floor of the third ventricle, obstructing some of the vessels at the base; some softening of the brain substance."[4]

Case 3.—*Polyuria moderate; increased elimination of phosphoric acid; hypochondriasis; rheumatic pains in loins; emaciation.*—Out-patient, under my care at the London Hospital. First seen September 16th, 1880. A small but well-built man, aged twenty-five, weighing about 9 st., employed on the East London Railway; attributes his illness to over-work. No history of syphilis. Temperate habits. Has a pale, anxious, haggard expression. States that he has been ailing some months, has lost flesh, and complains of a feeling of extreme nervousness and exhaustion, with frequent fits of trembling. Constant tearing pains in loins; often shooting round the pelvic region, with cramp-like spasms in lower parts of abdomen. No lightning pains, patellar-reflex unimpaired. Vision perfectly distinct. No apparent disease of abdominal or thoracic viscera. Digestion fairly good; bowels constipated. Urine pale, whey-like, of medium specific quantity; alkaline reaction; no sugar; no albumen. States that he passes more urine than he should, and is frequently disturbed at night to pass it. Instructed how to collect and measure it, and to bring a sample of the mixed twenty-four hours' urine at the next visit. The patient, however, did not comply with all the conditions necessary for accurate measurement, and it was not till Oct. 21st that I was satisfied that my instructions had been carefully carried out. By that time he had been five weeks under treatment (mineral acids and nux vomica), and had improved to some extent. Analysis of twenty-four hours' urine.—Oct. 21st: Quantity 2300 cc.; sp. gr. 1015; reaction alkaline. Phosphoric acid 5·8 grms., or nearly treble what it should be for a man of his weight. Ordered codeia pill, one-third of grain, and a mixture with bromide of potassium and nux vomica.—Nov. 18th: Very much improved; is gaining weight, feels stronger, has nearly lost the pains, discharge of urine still more abundant than it should be. To collect and measure it as before and bring a sample at next visit. To continue mixtures but to discontinue the codeia.—Nov. 25th: Analysis of urine: quantity 2300; sp. gr. 1015; reaction alkaline. Phosphoric acid 5·8 grms.; urea 33·5 grms.

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[1] Robert Willis, M.D.: Urinary Diseases and their Treatment. London, 1838.

[2] Ed. Parkes, M.D., F.R.S.: The Composition of the Urine in Health and Disease.

[3] L. J. Tessier: Du Diabète Phosphatique. Paris: Baillière et Fils. 1877.

[4] This case was plainly one of hydruria, or diabetes insipidus, without increased tissue metamorphosis, the diuresis being a consequence of the cerebral lesion. The increase of the phosphoric acid (nearly treble the normal) is, I think, sufficiently accounted for by the large quantities of milk and beef-tea taken to quench thirst at that period of the illness when the analysis was made, and also to some extent to the washing out of the tissues by the drainage going on through the body.

CASE 4. *Excessive elimination of phosphoric acid; no polyuria; hypochondriasis; enormous quantities of calcium oxalate in urine.*—A gentleman's servant, aged twenty-seven. First came under observation September 28th, 1880. He is a thin spare man, weighing about eight and a half stone; of sallow, haggard complexion. No history of syphilis; habits temperate. Complains of aching pains, especially in the loins, shooting down the hips, and occasionally affecting the bladder and testicles. Alleged loss of virile power. Abdominal and thoracic organs apparently healthy. Digestion fair, bowels constipated. Feels very wretched and depressed. Urine passed at the time of visit (11 A.M.) acid; specific gravity 1028, containing eight grms. of phosphoric acid in 1000 cc. The secretion of urine, he said, was not excessive; he was rarely troubled during the day, but frequently at night with calls to micturate. (He was requested to collect and measure the urine for a few days, and send a note with regard to the quantity passed in the twenty-four hours; this proved to be just under two pints, or about 1100 cc.) The urine he passed in my presence deposited in a few hours an enormous quantity of oxalate of lime; no sugar; no albumen. Ordered codeia pill, a quarter of a grain, at night, and a mixture of hydrochloric acid in nux vomica and cod-liver oil.—Nov. 18th: Is much better. Less pain in loins. Not so despondent, though still fears he is impotent; confesses, however, to occasional manifestations of "his nature." To discontinue codeia and take phosphorus pills, one-sixtieth of a grain, instead. To collect urine for twenty-four hours and send it for examination.—Dec. 1st: Quantity 1520 cc.; sp. gr. 1022; urea 41·2 grms.; phosphoric acid 5·2 grms. Still under observation.

CASE 5. *Polyuria; increased elimination of phosphoric acid, co-existing with a mild form of glycosuria.*—A gentleman aged thirty-seven, who for the last eighteen months has suffered intermittently from a mild form of glycosuria, which did not apparently affect his general health, began in the autumn of the present year (1880) to suffer from constant aching, boring pains in the loins, shooting round the pelvic regions, with occasional cramp-like sensations in the bladder, and a tired, sore feeling in the muscles of the thighs and calves of the legs. He also became dispirited and hypochondriacal; began to lose weight and flesh. The amount of sugar passed had never been excessive, and had always been controlled by restricted diet. At this time he was certainly not passing more sugar than he had done in the earlier stage of his illness, and it again disappeared when he placed himself on restricted diet for a few days. Still, however, the pains and malaise continued.

On Oct. 12th the urine was collected for twenty-four hours, and subsequently on Oct. 14th and 15th, and Nov. 3rd, 21st, and 26th. On each occasion the amount of phosphoric acid present was estimated with the following results:

	Quantity.	Sp. gr.	Phosphoric acid.	Sugar.	Urea.
Oct. 12th	2020 cc.	1018	7·6 grms.	nil.	—
,, 14th	2300 cc.	1015	6·9 ,,	nil.	—
,, 15th	1520 cc.	1020	5·7 ,,	nil.	—
Nov. 3rd	2500 cc.	1012	7·5 ,,	considerable	—
,, 21st	2350 cc.	1019	8·2 ,,	,,	—
,, 26th	2300 cc.	1018	4·6* ,,	,,	69 grms.

* Phosphoric acid in combination with the earths, 2·1 grms.; with the alkalies, 2·5 grms.

The patient began taking codeia in half-grain doses at bedtime on the night of Oct. 12th, and continued to take it till Oct. 25th; it was then discontinued, as he was feeling better. On Nov. 3rd the pains, however, returned with considerable severity, and the codeia was resumed, but it was only taken occasionally up to Nov. 20th. Sugar also reappeared in the urine in more considerable amount than had been previously noted and continued till the patient left town. No special reason could be assigned for the reappearance of the sugar, as the diet was in no way different on the days of its reappearance than it had been during the period immediately preceding. That is to say, the diet had been restricted, with the exception of a small quantity of crust of bread taken with each meal. Grain doses of extract of opium were now given at bedtime till Dec. 4th, when the patient left town for a month's rest. During that time he took no medicine. Most of the holiday was spent at watering-places, where he bathed daily and made use of tepid saline douches; he also took a considerable amount of walking exercise. He returned to town, feeling better in every respect. He has regained his lost weight, and is now bright, cheerful, and hopeful. The pains in the loins and thighs still, however, trouble him occasionally. The urine (January 15th) on examination gave the following result. Quantity 1900 cc.; sp. gr. 1020; urea 66 grms.; phosphoric acid 3·8 grms.; no sugar.

(To be concluded.)

THE
MECHANICAL TREATMENT OF CROUPOUS MEMBRANE AFTER TRACHEOTOMY.

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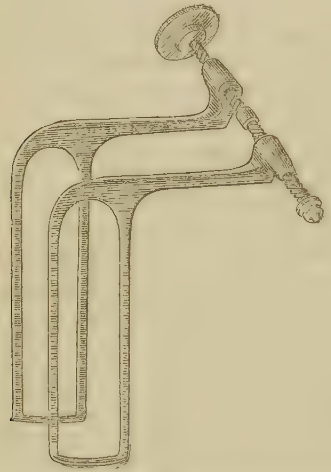
IN membranous laryngitis, after tracheotomy has been performed, the case resolves itself, as far as the surgeon is concerned, almost entirely into one of foreign body in the trachea and bronchi, that is if the membrane has already reached so far down; if not, then the dyspnœa will be for the time quite relieved by the operation, but in due course the disease having reached the lower parts of the windpipe, symptoms of a foreign body obstructing respiration again appear. The remarks now made and the cases quoted are in illustration of a method of dealing with such a condition as that last named. Usually on the opening of the trachea a suitable silver tube is at once inserted, as much with the idea of stopping blood getting into the trachea as of relieving the dyspnœa. For some time after the child coughs up clots and blood-stained mucus, with perhaps some membrane, while the greatest anxiety is felt lest the tube should become blocked, and very careful cleansing by feathers, &c., has consequently to be carried out at very frequent intervals; and the patient often does not even then breathe satisfactorily. Such a mode of procedure is *mechanically* wrong, to say the least of it. Everything save air and a minute amount of mucus in the windpipe is a foreign body; and such are the blood and mucus, as well as the membrane, in every croup case. These can scarcely be expelled *viâ* the glottis, for that is already blocked by membrane, while the chances of their finding their way out through a lateral, rigid, and bent tube, the end of which hangs freely in the trachea, like the stem of a funnel in a wide-mouthed bottle, are very remote. If the tracheotomy tube were of the same calibre as the trachea itself, expectoration would be more easy; but it is not only smaller of necessity, but hangs (or should hang) freely in the lumen of the trachea, and with some degree of mobility. That blood and mucus—let alone the more solid membrane—will be readily forced by natural efforts exactly through the mouth of this tube is unlikely, clinical experience shows; and then these foreign matters collect around or below the tube and are sucked backwards and forwards for long before they hit the right path; while the futile efforts of a piece of membrane to make its exit is announced by a valve-like flapping noise, familiar to all who have had much to do with tracheotomy in croup.

Until therefore the trachea has been cleansed as far as possible from all foreign bodies, the tracheotomy-tube should not be inserted, but other means should be adopted to keep the tracheal wound patent. In eight cases during the last nine months I have acted upon this rule, employing at first the ordinary German nose speculum, as doubtless others have done, instead of a tracheotomy tube, the blades of the instrument being inserted into the tracheal wound, and then screwed open. Although fairly self-retaining, there were many reasons against its being perfect for the purpose, and so the tracheal dilator here figured has been designed. It is inserted, with the blades screwed together, into the trachea, the handle lying against the top of the sternum; on rapidly turning the screw the blades separate to the required extent, and their shape renders them self-retaining. If desired, tapes can be tied to the blades where they join their handles, and fastened round the neck, but this is not often requisite. The blades retain their parallelism even when fully open, as they do not work from a hinge, but travel along the double screw. This improvement of the screw over the hinge (which I first employed) was suggested to me by Mr. Lund of Manchester. The same sized dilator does for all cases, whether infants or adults. In any case it may take the place of a tracheotomy tube on an emergency, even when no foreign body has to be extracted. After tracheotomy in every case of membranous laryngitis two distinct mechanical problems are presented to the surgeon:—(1) The establishment of a free passage through which membrane, &c. may be expelled by natural efforts; or, this failing, (2) its removal by artificial means. In either case, as a preliminary, a sufficiently free opening into the trachea must be made—five-eighths of an inch even in infants, and proportionately longer in older persons. This done, the following steps fulfil as nearly as possible the above requirements :—



This instrument, as well as the brushes on steel wire, are made by Millikin and Down, St. Thomas's-street, S.E.

(*a*) At once insert (with the left hand) into the tracheal wound the blades of a pair of dressing forceps, and then open them as widely as possible. Free expectoration of blood, mucus (and perhaps membrane) will follow, and these can be rapidly sponged from the lips of the wound. A clear passage being thus insured, expectoration and coughing are rapidly over and full inspiration restored, while all blood is brought up from the air passages within a few minutes.

(*b*) To determine the presence of membrane in the trachea (i. e., below the glottis) reflect a strong light into the wound from a mirror on the operator's forehead. If there is no membrane, the posterior wall of the trachea may be seen, pink and moist, and looking very much like the outer wall of the œsophagus. Small pieces of sponge held in dressing forceps can be used to clean it from bubbles of mucus. If healthy it may be taken for granted that there is no membrane below—the formation of membrane proceeding from above downwards. If an inspection be now made in an upward direction through the wound, membrane will perhaps be seen just entering the trachea from the larynx. The operator is at present below the obstruction.

(*c*) To maintain the tracheal opening patent, a tracheotomy tube can be now inserted, until evidence of membrane in the trachea is forthcoming; but supposing this stage now reached, or to have existed at the time of the operation, a tube is best dispensed with. Instead of dressing forceps or tube, insert the tracheal dilator into the trachea itself, not only into superficial tissues, and dilate until it holds firmly; the least possible opposition is thus offered to natural expulsive efforts. An inspection of the trachea will now show either a layer of characteristic membrane or else the mucous surface will have lost its pink colour, be cloudy and white; when this is seen it may be taken as a sure sign of coming membrane. In cases where the membrane has been stripped off and the normal appearance as far as possible restored, this white cloudiness will be always a sure precursor of a fresh formation.

(*d*) To remove membrane if seen. If natural efforts have failed the surgeon should (lighted still by the mirror on forehead) remove with forceps (for example, aural polypus forceps) all that can be seen, or that is coughed up to the opening. Membrane may be now searched for below the wound. Minute pieces of sponge held in curved forceps, or feathers, can be passed down; but I prefer for this purpose a brush, like a rather large pipe cleaner, on strong but flexible steel wire. I at first used Maw's feeding-bottle brushes, but they are very liable to break, and therefore had the stronger ones made. Before use they should be put into hot water. They may be passed in a child three inches from the wound—that is, well into the first division of the bronchi, and if rotated sharply at the moment of retraction will detach and draw up often large pieces of membrane. When mucus rather than membrane obstructs, feathers and minute sponges are preferable. If the air passages are thus rendered free, the patient can be left again to the nurse with instructions to mop out frequently with small pieces of sponge, held in artery forceps, anything coughed up to the wound; and also, by reflected light, to pick out any visible pieces of membrane. At the same time the usual adjuncts of alkaline and other sprays should be employed. Hot flannels can be placed over the dilator. There is less anxiety to the surgeon now, for there is no tube to get blocked or to be cleaned by the nurse; for the dilator need never be touched even for days, and as the wound granulates it is imbedded and held more and more firmly. It is perfectly comfortable, and seems to give no pain; it causes no irritation, and except in one case, not under my care, where a small abrasion was seen after death of the mucous membrane of the trachea, it has left no mark of its presence. Automatic retractors for the soft parts, during the operation, are recommended by some; but to urge the systematic employment of tracheal dilatation instead of a tracheotomy tube, as long as any foreign body, of whatever kind, has to be got rid of, is the object of this communication.

While the chances of death from suffocation are by this means, I believe, much diminished, the use of the dilator does not seem to influence one way or the other the onset of pneumonia or pleurisy—the usually fatal terminations to croup. Of the eight cases already referred to, four died of pleurisy or pneumonia, two recovered, and two died with suffocative symptoms. Of these, one a girl aged two years and a half, showed on inspection the smaller tubes blocked with membrane, but the trachea and bronchi were quite free, having been cleansed during life and there having been no reformation of the membrane; the other, a boy aged five years, had had the upper air passages cleared of large casts on several occasions, the child each time being completely relieved of all symptoms; at last, however, all efforts to sponge or brush up membrane failed and the child died asphyxiated, the inspection showing a peculiarly adherent membrane in the trachea that required some force to tear off with forceps, while the tubes, both large and small, were lined with membrane of ordinary character and appearance.

The case appended illustrates the points above mentioned. A fatal case is taken that the post-mortem appearances may be noted. The only remarks on cases of recovery would be that the expectoration of membrane gradually gave place to one of muco-pus, and that in its turn to one of simple mucus; between these two last stages the dilator is removed for good.

CASE.—Julia W——, three years and a half old. First seen at 8 A.M. on Dec. 26th, 1880. Symptoms of dyspnœa for two or three days; now struggling for breath, and semi-cyanotic. Frothy expectoration. The child's general health, apart from its present attack, not good. Tracheotomy at once without an anæsthetic, and dressing forceps inserted into the wound and opened; blood and mucus freely expectorated. Two more rings now cut, and by reflected light a complete cast of the trachea seen, and removed with forceps. A few shreds of membrane were also brought up from below the wound with a feather and brush. Forceps now withdrawn, and tracheal dilator inserted, and the patient returned to her cot breathing comfortably. At

11 A.M. frothy mucus in the trachea was removed with a feather, and the nurse was provided with artery forceps to hold minute pieces of sponge, or to remove membrane, if any seen. At 6 P.M. the nurse reported membrane brought up on feather; so by reflected light the trachea was again examined, and much membrane removed with a feather and brush; some was coughed into view, and removed with forceps. Child was left breathing comfortably. Ordered carbonate of soda (three grains to one fluid ounce) as spray to trachea twice every hour, or whenever breathing became difficult. At 10 P.M. the child expectorated through the wound much muco-pus. On Dec. 27th, at 9 A.M., the same report; large tubes seem clear. At 4 P.M. the respiration was very rapid, and symptoms of pneumonia had developed since the morning, and at 7 A.M. on Dec. 28th the child died. Throughout the child had been in a tent, with steam, and had worn the dilator.

Post-mortem examination. — Basic pneumonia; membrane in all the smaller tubes; there was none in the trachea or larger bronchi; there was no mark to show where the dilator had been worn.

St. Thomas's-street, S.E.

ON THE

ANTIPYRETIC TREATMENT OF TYPHOID FEVER BY MEANS OF SODIUM SALICYLATE.

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THE subject of the treatment of typhoid fever will doubtless by many be considered as one that has been threshed out over and over again without yielding results at all commensurate with the time and labour bestowed upon it; and perchance there are but few who have not come to the conclusion that whatever be the treatment adopted in this disease, whether most active or most passive, the general results obtained will be of very little practical difference. But whilst we have year by year a death-roll facing us of nearly 10,000 souls of every rank and condition of life, in this country alone, but little apology is needed for again bringing forward any treatment that offers a probable reduction in the above mortality.

At the present time the lines upon which our treatment of typhoid is laid down may be broadly stated as two—viz., the expectant or non-therapeutic, and the specific or active treatment, this latter having taken the form of a vigorous attack upon the pyrexia of the disease, which is looked upon, and justly so, as one of, if not the most important of all its attendant phenomena. For at the present day no man having any pretension to a rational knowledge of medicine would any more dream of conducting a case of typhoid fever without the constant use of his thermometer, than he would of diagnosing a lung affection without his stethoscope.

It has been truly said that 80 per cent. of all these cases need no medicinal treatment. In a sense this is true; but what about the remaining 20? For the former the "expectant" treatment is sufficient, but when we have to deal with the more severe minority, how helpless do we feel when we see the patient slowly drifting beyond the borderline of safety, the temperature steadily rising and maintaining a degree which, as we know all too well, cannot long be borne by the system without speedily inducing a fatal termination.

If, as is now generally held, all the so-called "zymotics" depend, as we have positive evidence some do, upon the presence within the body of a specific living poison, a true contagium vivum, having properties as distinct and powers of reproduction of its kind as perfect as any genera or species known to botanist or zoologist, then surely it is not an idea so very chimerical that we may have a specific remedy or antidote for each of these living toxic agents; and although I have no evidence to bring forward that sodium salicylate is a specific remedy, still we know that our most powerful agents for reducing the body heat are also powerful germicides and preventives of fermentation, quinine standing high on the list, and salicylate of soda still higher, 1 part in 20,000 of the latter sufficing to perfectly preserve saccharine fluids from fermentation, and to arrest the action of myrosin in mustard and other well-known fermentation processes. On this point also may be cited an experiment made last summer with the saliva of a rabid dog. Two others were inoculated from it, the one with saliva pure from the rabid animal, the other with the same to which 1000th part of salicylate was added. The former developed all the symptoms of a severe attack of rabies, and died on the thirteenth day; the other is still alive and well. And could we isolate the typhoid poison, or cultivate it apart from the body, as with some infective organisms, sodium salicylate would possibly prove a certain destroyer of that poison also. Therefore I would suggest only as a *possible* theory, as we know so little how it acts, that the antipyretic powers of this agent may be due to its power as a germicide; the more so as these properties are very much less seen in febrile action due to local inflammations, as pneumonia or pleurisy, than in those where we have ground for supposing some poisonous principle is circulating in the blood. But putting all theory aside and keeping solely to facts, and using it simply as a remedy for the treatment of a symptom in the typhoid process, the same as we would use styptics for hæmorrhage, alcohol for failing circulation, or sedatives for delirium, we have in it a means, and a most powerful one, of controlling the much-dreaded increased temperature of the body. And here we may briefly consider upon what rational grounds the employment of any antipyretic treatment is *à priori* to be advocated. In typhoid fever we have a disease for which we have no specific remedy that will abort or cut short its career, and all that lies within our power is to treat symptoms as they arise. Amongst its more dangerous manifestations is that of a long-sustained high temperature, which not unfrequently becomes the most important factor in our diagnosis, prognosis, and treatment. In the greater number of fatal cases (setting aside those due directly to hæmorrhage and perforation) the patients appear to succumb to the direct effects of the excessive febrile movement; and therefore, if we can with certainty guard against the deleterious influence of this pyrexia, we shall rob the disease of a great part of its terrors. It is undisputed that the rapid degenerative changes found throughout the body, in muscle, glands, and viscera, are due directly to the increased temperature, these changes being found in proportion to the height and duration of the pyrexia; but of even greater importance is the deleterious effect produced upon the heart, and through it upon the circulation and upon the central nervous system. This being so, surely any agent that offers itself as an available weapon with which to combat, if not the specific poison, yet one of its most serious manifestations, is deserving of a fair trial before it is declared to be found wanting.

Does therefore salicylate of soda offer any, and if so, what, advantages over the means more commonly used to reduce this temperature? Foremost stands at present the cold bath. Many and enthusiastic, especially on the Continent, have been the advocates of this method, but I make bold to say that in the typhoid of this country at least it is not a remedy upon which we can always rely, neither is it always safe; and, chief point of all, it is not capable, and never will be, of daily ordinary application. And as much of the treatment of typhoid is not conducted in hospital, but by the usual medical attendant, it practically is not possible, to say nothing of the prejudice of the patients' friends, to carry out this treatment in the manner that its advocates demand.

Again, even its most ardent supporters, such as Leibermeister of Tübingen, admit that it is not admissible in all cases, as it is apt where there is a high degree of cardiac weakness to induce fatal collapse. And the same authority says that, if he were restricted to the sole use of either the cold bath or quinine, of the two he would prefer the latter.[1] Quinine without doubt has large powers as an antipyretic, but the doses necessary for the full production of its effects are taken by patients with extreme loathing, and are exceedingly apt to produce nausea, vomiting, and serious disturbance of the stomach, to say nothing of the practical objection to its extensive use from its present high commercial value.

That sodium salicylate is a powerful agent, and one requiring skill and care in its administration, is at once admitted; its physiological effects are powerful and well marked. When given in full doses certain well-marked phenomena are observed—deafness, noise and ringing in the ears, a certain amount of restlessness, copious and rapid excretion by the kidneys, with usually a small amount of albumen in the urine. It is to be noted that no effect, or at most a very slight lowering, is produced upon a normal temperature, but very different is the case when we are dealing with a supra-normal temperature.

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[1] Vide Ziemssen's Encyclopædia, article Typhoid, p. 216.

Although it is now matter of common experience that in the salicylates we possess the most powerful antipyretics to be found in the whole range of our therapeutic armamenta, yet it would appear that in this country at least these properties have in the treatment of typhoid been but little made use of. Even recently in the masterly address given by Sir W. Jenner on the treatment of this disease, alluding to salicylate of soda, he dismissed it with the remark, "it is said to reduce the temperature." In Germany it has been used, but chiefly in conjunction with other remedies, as quinine, digitalis, and concurrently with the use of the cold bath; and lately in France Dr. Hallopeau has given to the Société Médicale des Hôpitaux a favourable report of the results obtained by its use in a small number of cases treated by him solely with this remedy.[2] The number that I have treated with salicylate up to June, 1880, is forty-six, twenty-eight males and eighteen females, varying in age from seven to fifty-six years, the larger proportion being between fourteen years and thirty-five. They represent only the more serious cases received into this hospital, and are about one-third of the whole number admitted during the time over which the treatment extends. In no case was the soda given when the temperature in the axilla was below 102°. The general treatment, in addition to the special, may be summed up thus: perfect rest, milk diet, with small quantities of beef-tea, acid and opium when diarrhœa excessive, acetate of lead or turpentine, with iced injections, for hæmorrhage. Alcohol was never given unless the state of the circulation decidedly demanded it, except in the convalescent stages of some few cases in the form of wine. It should be noted that in the whole of these the temperature was taken every two or every three hours, night and day, whilst the salicylate treatment was being pursued, so that its effect hour by hour could be distinctly watched.

The routine practice has been this:—As soon as it was certain that there was a continuous temperature of more than 102° in the axilla, fifteen to twenty grains of the soda were given every two hours. This after about six doses usually reduced the temperature two to three degrees; if not, the same dose was continued a few more hours until it had done so, this seldom exceeding twenty-four hours from the commencement. The dose was then diminished one-half, and given every two or three hours, increasing it through the day if there was much tendency to exacerbation towards night-time. This was carried on for a period varying from three or four to nine or ten days, seldom exceeding the latter time, when the temperature would usually be fairly normal, with a little inclination to an evening rise in many cases for a few days after the salicylate was entirely discontinued. In most of the cases the usual physiological effects were observed, and in several alcohol was freely administered with the soda, in the form of brandy, whenever the pulse was feeble or the weakened action of the heart appeared to be becoming dangerous. *(To be concluded.)*

Cork Fever Hospital.—During last year 784 patients were under treatment, being an increase of 284, when compared with the number admitted in 1879. This increase was mainly due to the great prevalence of typhus, scarlatina, and typhoid fever. The mortality in the typhus patients amounted to fourteen per cent., which, deducting seven cases admitted in a hopeless condition, represents a mortality of only eleven per cent. The cases of scarlatina were mostly of a malignant type—the mortality being seven per cent. Cork was exempt from small-pox, which had prevailed in Dublin and other cities. An instance is given in the report in which a "wake" was held lately upon a person who died from typhus, and six cases were subsequently admitted to hospital who had attended that "wake." Since the year 1802, up to 1880, 114,213 persons were treated at this hospital, with a mortality of 6250, including 925 from Asiatic cholera, which averaged fifty per cent., and 150 from small-pox, with an average of twenty-two per cent., the total deaths from fever being but five and a half per cent.

A CASE IN WHICH THE MASTOID WAS PERFORATED FOR SUPPURATION, WITH SATISFACTORY RESULT.[1]

By SIMEON SNELL, L.R.C.P. Lond., &c.,
OPHTHALMIC SURGEON TO THE SHEFFIELD GENERAL INFIRMARY, AND TO THE SCHOOL FOR THE BLIND.

On the 25th of June, 1879, I was asked to see in consultation with a medical friend the subject of the following remarks, and he has kindly furnished me with his notes.

The patient was a man aged about forty, and he had always enjoyed good health until April 21st, 1879, when he suffered from rheumatism or rheumatic gout in the left knee. About three weeks subsequently he experienced for the first time pains in the right ear, though he thinks he must have noticed that his hearing on this side was defective for some short period previously. The pain increased, and he tried a week at Matlock to see, as he expressed it, what change of air and scenery and absence from his employment would do for its relief. Still, however, becoming worse, in the early part of June (9th) he placed himself under the care of his medical attendant. The pain then appears to have been very severe, and of a neuralgic character, behind the ear, and extending over the side of the head and far down the neck. Chloral hydrate and bromide of potassium in combination afforded only temporary relief. By the 21st the intensity of his suffering had increased, the pain being particularly severe over the mastoid region, and, becoming worse at night, rendered sleep impossible. The treatment consisted in emollient and sedative applications to the painful part, and subsequently a blister was applied over the mastoid region. The mixture of chloral hydrate and bromide of potassium in increased doses was continued. Still, however, his condition became worse, the pain progressed in severity, and the paroxysms were getting now very intense, especially at night, and he suffered at times from delirium. Suppuration in the mastoid cells was suspected, and I was requested to see the patient, which I accordingly did.

On June 25th I found his condition to be as follows:—The pain he complained of was of a most violent and excruciating character, worse at some times than at others, and particularly so at night. It was chiefly situated over the mastoid region, but extended above over the head and below in the neck. He had had no sleep for several nights. There was also great swelling and puffiness over the mastoid, and the browniness extended far down into the neck and up along the side of the head. There was a slight purulent discharge from the ear; this, however, he informed me, was of recent origin. The membrana tympani was perforated, and pus was seen in the tympanum. A watch, audible to the normal ear at about forty-six inches, was heard only on contact ($\frac{0}{46}$). The character of the pain, its situation, and the symptoms generally, led me readily to concur in the accuracy of the opinion already formed. It seemed evident, also, that an attempt, though an ineffectual one, was being made to get rid of the pus in the mastoid cells by its passing through the channel of communication between the cells and the tympanum, and from the latter cavity through the membrana tympani and meatus. The symptoms were, however, urgent, and seemed to demand interference. The propriety, therefore, of cutting through the brawny tissues over the mastoid process, and then opening the cells by a trephine, or otherwise, was discussed. The patient, however, expressed himself as somewhat relieved since the application of the blister the day before, and, in addition, the parts were still so vesicated that we decided to accede to his desire to wait a few days; and in the meantime the treatment suggested consisted of poultices over the affected region, the frequent cleansing the ear with warm water, and the administration of quinine and opiates. The relief he experienced, as was to be expected, if our diagnosis were correct, proved very transitory, and I accordingly saw him again on July 1st. The symptoms were then if anything aggravated, and the swelling over the mastoid was certainly more extensive. We decided to operate immediately. An incision was therefore made in the brawny integument over the mastoid two inches in length, and on cutting through the periosteum a little pus escaped. A stout director was then introduced, and catching in a depression, a little pressure caused the bone to yield, and it was pushed on into the interior of the bone, and the opening enlarged by levering the director about in different directions. Pus now readily escaped, in quantity equal perhaps to half a teaspoonful or more. A poultice was directed to be applied, and care was also ordered to be taken to prevent the too rapid closure of the wound. I did not visit the patient after performing the operation, but heard of his immediate freedom from pain, his speedy convalescence, and of his soon being able to resume his occupation. In the early part of April, 1880, however, an opportunity was afforded me of again seeing him. He was then in perfect health—the perforation in the tympanic membrane was closed, and the hearing on this, the defective side, was much improved, the watch being audible at seventeen inches $= (\frac{17}{46}.)$

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[2] Gazette Hebdom, Août 20, 1880

[1] Read before the Leeds and West Riding Medico-Chirurgical Society.

Mastoid suppuration, or the minor affection, periostitis, is more frequently met with in connexion with chronic tympanic disease. In the present instance it assumed a more subacute form, and the patient was probably correct in assigning its cause to a metastasis of his gouty affection. The relation of gout to ear affections is referred to by Hinton, Kramer, and particularly by Harvey. Mastoid disease once set up becomes of serious importance, because, if neglected, septicæmia or pyæmia may prove the result. "An extension of the disease to the brain taking place either through the numerous foramina which transmit branches of the middle meningeal artery, or pus may be carried into the circulation through the mastoid vein which passes to the lateral sinus." Many of us must, however, have seen instances in which nature has herself relieved the disease, the evidence being in the sinuses and scars over the mastoid, especially in children. But the present case is, I believe, of interest and importance as exemplifying the good effects resulting from opening the mastoid when suppuration is diagnosed. It is merely the application of general surgical principles so frequently carried out in other regions.

The operation of trephining the mastoid was introduced two centuries ago. Doubtless it, and other procedures with the same object, are performed now more frequently than the scant reference to the subject in the general surgical works would lead one to suppose. In aural treatises its advantages are recognised, and finds amongst its supporters Hinton, Roosa, Troltsch, &c. Roosa puts it that this sound surgical procedure may be fairly said to be established in practice. Twenty-six out of thirty-four cases he refers to, as recorded by Buck, resulted in recovery.

Speaking also of this operation, Von Troltsch says: "It is now to be included among those operative measures which may be demanded by the 'vital indication,' and just as every conscientious surgeon under definite circumstances will feel himself compelled to open the larynx or to operate for hernia, just so urgent conditions occur when perforation of the mastoid process remains as the only possible means of saving life."

Sheffield.

SACCHARINE URINE IN CHRONIC ECZEMA.

By ROBERT LIVEING, M.D., F.R.C.P.,
PHYSICIAN TO THE DEPARTMENT FOR SKIN DISEASES AT MIDDLESEX HOSPITAL.

DURING several years past I have, as a matter of routine practice, tested the urine of all cases of obstinate eczema that have come under my care for sugar and albumen, and I find the presence of one or both very common. It is, however, the frequent presence of the former in the urine of those suffering from severe, obstinate eczema, to which I desire to call attention, and especially with reference to treatment.

One may say broadly that there are two principal and quite distinct groups of cases in which saccharine urine occurs—(1) we have diabetes in its graver forms, depending on profound nervous lesion; and (2) glycosuria, depending on defective assimilative processes, in which certain functions of the liver are especially at fault. It is only to the latter group that I wish to refer. The glycosuria which is met with in the latter half of life is neither uncommon nor always serious; it is, as I have said, apt to be associated with very irritable and obstinate eczema, and in women the saccharine urine acts in addition as a *local* irritant, and makes the eczema about the pudendum almost intolerable; indeed, excessive and intractable irritation in this region in middle-aged women is very commonly associated with sugar in the urine, and is often incurable as long as much sugar remains.

Now I come to the point to which I wish especially to draw attention, and that is that the eczema and the sugar in the above-named class of cases are mainly due to *over-feeding.* I use the term in its broadest sense, and include quality as well as quantity of food. I frequently meet with cases of intractable eczema pudendi in women past middle life, of sedentary habits, and eating three large meat meals a day, and trying by all means in their power to stimulate their appetite, under the erroneous impression that they are "keeping up their strength." Now, in these and similar cases, medicine and local treatment are almost equally useless, unless there is, at the same time, a thorough reform in the diet. The first point is to deprive the patients of sugar as an article of food, except just enough to make light puddings palatable. The reason for this is that much of the sugar passes the liver unchanged, and is therefore worse than useless as a food. The next point is greatly to reduce the animal food, especially mutton and beef, and to substitute for it simple clear soup, and poultry or fish in moderate quantity once a day. Lastly, the chief part of the daily diet should be made up of light farinaceous and milk food, such as bread, rice, and macaroni. This is, I know, contrary to the view often entertained, that saccharine urine should be treated by an animal diet, and that starch should be as much as possible excluded. Now, whatever good may result from such a diet in some cases, I am quite sure that it does not answer in those to which I refer; on the contrary, exactly the reverse holds, and the old routine practice, except so far as sugar is excluded, is quite wrong. I have seen the sugar disappear from the urine and the eczema depart under a change of diet such as I have above recommended. The truth is that many people at sixty, when the tissue changes are slow, eat as much or more than they did at twenty, when all the processes of change are at the height of their activity; what wonder then that unnatural work is thrown upon the skin, kidneys, and other excreting organs of the body. There is some substantial truth in the saying that small eaters live the longest.

Manchester-square, W.

ON CONGESTIVE DYSMENORRHŒA.

By G. ERNEST HERMAN, M.B. LOND.,
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(Concluded from p. 329.)

IT seems to me that if we have a menstrual pain which is caused by congestion of otherwise healthy pelvic organs, such congestion being brought about by some trifling and passing cause, this pain may with fair accuracy be called congestive dysmenorrhœa; and we may prefix to it the adjective "primary," to distinguish these cases from those in which the congestion is but secondary to some other morbid condition. I shall not discuss which are the parts most congested, or whether they ought to be called congestive or inflammatory. Of course congestion never arises without a cause; but the cause may be transitory, and the resulting changes of longer duration, so that we may be able to discover the latter only, or the cause may be so insignificant that our modes of investigation cannot detect it.

Supposing that cases of this kind of dysmenorrhœa do exist, can any kind of proof be adduced that congestion is the sole cause of the pain? The only proof that I can imagine is, (1) that no other cause for the pain should be discoverable; and (2) that if the pain be due to hyperæmia, it should be relieved by depletion of the overfilled blood-vessels, and, if no abiding cause for the congestion be present, sufficient local bloodletting should cure the patient. Such cases are met with, and I will instance one.

A. K——, aged forty-four, a canvasser's wife, came to the obstetric out-patient department of the London Hospital on Nov. 13th, 1878. Her complaints were of infrequent, scanty, and painful menstruation, of pain between the periods in the right inguinal region, and of dyspareunia. She stated that she had always lived well, and had tolerably good health. Five years ago she had suffered from a skin disease, which lasted a month. For five years she had been subject to "neuralgia" down the left side of the head. During the last winter she had been troubled with rheumatic pains, but they were not severe enough to lay her up. These were the only illnesses she remembered having had. She had never had any bad sore-throat, loss of hair, or bad eyes, and the skin disease mentioned was only on the trunk, not on the arms or legs. She first menstruated at fifteen, and was regular until her pregnancy, the flow usually lasting seven days, and not being copious. It was attended with a good deal of pain, but not enough to lay her up; she did not remember the character of the pain. She was married at thirty-three; her first child was born twelve months afterwards; the labour was a long one, and the child was stillborn. Her second child was born seven years ago; the labour was a long one, but the child lived. She kept her bed for a fortnight afterwards, and suckled the child fourteen months. Between the two pregnancies she menstruated regularly, the flow being rather less than before marriage, and not accompanied with quite so much pain. She had never been quite well since the last confinement, but had suffered from languor and aching in her limbs. She had been regular since weaning the child, the flow at first returning every three weeks, being scanty, and attended with more pain than formerly. During the last two years the interval had been eight or nine weeks, and the flow only lasted a day or so, but sometimes a slight "show" would appear every day for a month. For the same time she had suffered from dyspareunia. She had also had a "dragging pain," referred to the right inguinal region, which was worse at the menstrual period and on any exertion. This pain was relieved by lying down, and when severe was accompanied with nausea. She also complained that she could not hold her urine long, of pain in the dorsal and sacral regions, and of pain in the calves of the legs on standing. For twelve months her appetite had been poor, she had had pain at the epigastrium after meals, and been annoyed much by flatulence, and her bowels had been confined. There was no pain on defecation. Just before the menstrual period there was usually a slight white discharge. She had suffered from "sick headaches" ever since she was about fourteen, from "fainting fits" since the age of twenty, and from hysterics since about twenty-seven. She had been less subject to the fainting fits and hysterics since her marriage, and all three kinds of seizures—sick headaches, fainting fits, and hysterics—had been better during the last three or four years. She was a well built, well-nourished woman. So far from being anæmic, her complexion and mucous membranes were unusually florid. She showed no signs of having wasted. Nothing abnormal was detected by abdominal palpation; there was no marked tenderness anywhere. On vaginal examination the cervix was found large, and to bimanual manipulation the whole uterus seemed increased in thickness, but its cavity only measured two inches and a half in length. The position of the uterus was normal; its shape was not altered except in the manner mentioned; it was quite movable, and pain was not caused by moving it. There was no swelling, nor any local tenderness, in any other part of the pelvic cavity. There were no signs of disease in any other part of the body except that there was an enlarged and slightly painful gland in the right inguinal region, below Poupart's ligament. She was given an aperient mixture, and at intervals local depletion was effected by scarification of the cervix uteri. The times chosen for doing this were the days on which she stated that her symptoms were worse than usual, which was generally at or near the menstrual period. She was scarified on Nov. 13th, Dec. 4th and 11th, and Jan. 8th, 1879. It is not necessary to describe the progress of the case from week to week, during which the same treatment was steadily followed out, and the only change consisted in a progressive diminution of the symptoms. It will be enough to state that on Jan. 15th she said that she thought herself quite well.

On March 14th she complained that her old pains occasionally returned, although they were not so severe as when she first came to the hospital. She was again scarified. On March 28th she again said that she thought herself quite well.

On April 29th she again came to the hospital, but this was not on account of any return of her uterine symptoms, but because the enlarged femoral gland before mentioned was now suppurating. She was transferred to the care of my colleague, Mr. Adams.

Dec. 7th.—She attended in answer to an inquiry. She said that she had continued well. Menstruation had recurred at intervals of from four to six weeks, the flow lasting four days, and being accompanied with pain, but not with more pain than she was accustomed to have before marriage, and much less than the pain she suffered before coming to the hospital. Until September she had hardly any pain at all.

The distinguishing marks of the form of dysmenorrhœa which this case exhibits are these: There is diminution in the quantity of the menses, without any change in the general condition of the patient, such as usually lessens the amount of the flow. There are many diseases which it is well known lead to scanty menstruation; any kind of wasting disease, or any cause of anæmia may do so. The spammenorrhœa which results from conditions such as these is conservative; is not accompanied with pain, and does not demand special treatment, and it is generally evident from the patient's appearance and condition that there is an adequate cause for it. In the congestive cases, on the contrary, the patient remains florid in the face, her mucous membranes continue highly coloured, and her general appearance is so much that of health that it ought to at once suggest to the observer that the cause of her troubles is probably local and not constitutional. With the decrease in the quantity of the menstrual flow there is increase in the accompanying pain. This pain is not very intense, it is not paroxysmal, although there may be remissions in its severity; it is not definitely localised. It is described as a constant dragging, aching, throbbing, or "gathering" pain, and its seat is vaguely indicated as round the lower part of the back and abdomen and down the thighs. It is relieved, but not completely removed, by lying down. It precedes by a day or more, accompanies, and may last a day or two after, the flow. The patient usually also complains of too frequent desire to make water and of slight pain during micturition. Whether other pains are present or not will depend upon the degree of congestion, and so will the severity of the pain and the length of time it lasts; it may be continuous from one menstruation to the next.

Local examination shows no very striking change in the condition of the pelvic organs. The uterus is quite movable, is natural in shape, but may be slightly enlarged; its canal is pervious. There is no swelling to be felt in either vaginal cul-de-sac. Pain is usually produced by moving the uterus or by compressing it between the hands. These, I believe, are the chief marks of the cases in which congestion is the cause of painful menstruation. Diminution in quantity of flow, with increase of pain, and absence of any condition of the general health which could account for the former, and of any definite local disease which could cause the latter.

In further support of these statements I may cite Aran, who, speaking of congestion of the uterus, says, "Most often the menses become more scanty and more irregular, sometimes altogether wanting at the period, which is yet accompanied by pains which indicate an evident molimen, sometimes appearing at very short intervals, every three weeks, every fortnight, or every week, but consisting in a very small discharge of blood. This diminution in the quantity of menstrual blood is almost characteristic of the dysmenorrhœa which is connected with congestion, or congestive dysmenorrhœa."[1] I have already referred to Dr. West's lectures, in which he states that there are two forms of congestive dysmenorrhœa—one in which menstruation is profuse, another in which it is scanty. He doubtless, in mentioning the latter group, had in mind cases such as those described by Aran. Barnes describes the same thing, but he puts it under the head of "inflammatory dysmenorrhœa." He says, "Inflammatory dysmenorrhœa is not common in single women. The clearest examples are those in which dysmenorrhœa follows on suppressed menstruation, as from the sudden shock of cold, injury, or emotion, sustained during the flow. Under this circumstance, metritis, or at least uterine congestion, is very likely to arise; and an inflamed organ necessarily performs its function, if it be performed, with pain. Not uncommonly, in these cases, pelvic peritonitis and oöphoritis complicate the metritis; and these conditions in themselves will make menstruation painful."[2] Becquerel recognises that there is a form of dysmenorrhœa which is relieved by depletion.[3]

I follow Aran in calling these cases "congestive," because

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[1] Maladies de l'Utérus, p. 358.

[2] Diseases of Women, 1st edition, p. 352.

[3] Traité Clinique des Maladies de l'Utérus et de ses Annexes. 1859. Tome ii. p. 393.

I do not see definitely present signs of inflammation. I do not wish to attempt a too exact definition of the pathological nature of the deviation from health which is present; for as the disease is not fatal, we seldom, if ever, can ascertain exactly what changes have taken place. Paget says of congestion: "Herein ...... is one of the pieces of neutral ground between health and disease; a step in the one direction may effect the return to health; in another the transit to what all might admit to be the disease of inflammation."[4] I shall not discuss whether in the cases in question the congestion has or has not made the transit to inflammation. As to the seat of the congestion, the hyperæmia which accompanies natural menstruation affects more or less all the pelvic organs, and therefore I suppose the congestion which causes pain does so too. Signs pointing to an especial affection of one part are in these cases absent.

It is these cases that I think best deserve the name of congestive dysmenorrhœa. It is by the study of uncomplicated cases only that we can hope to ascertain the natural history and clinical features of any form of disease. I do not say that with the various forms of disease which have been set down as causes of congestive dysmenorrhœa, menstrual pain due to congestion does not occur. It would be surprising if it did not, and doubtless it often does. But I do not think it is always the case that the dysmenorrhœa accompanying these conditions is due solely to congestion, or that sufficient criteria have been laid down to enable us to pick out the cases in which the pain is of this kind. Cases of this primary form (so-called "idiopathic," a term which I think objectionable, because implying that the congestion arises without a cause) are not common, and I have not notes of a sufficient number to enable me to draw any conclusions from them as to etiology. I believe that, as Barnes says, it is more common in women who have had children than in virgins, and that it may be produced by cold, or by physical or emotional shock, such as fatigue, fright, anger, &c. The effect of venous congestion from heart, lung, or liver disease, in producing this (as Scanzoni asserts) or other uterine disorders, is in itself a wide subject, which I will forbear discussing here.

The proof of the correctness of the diagnosis in these cases is the success of the treatment. It is commonly the case that in diseases which are not fatal, and in which, therefore, post-mortem verification of our views regarding them is not possible, the effect of treatment is the only test of the accuracy of diagnosis. *Curatio ostendit morbum.*

The effect of treatment in these cases is definite and certain. It will be obvious that if the symptoms depend upon congestion, relief of the hyperæmic vessels ought to cure; and so it will. Local depletion is here the remedy. The blood may be withdrawn either by leeches or by scarification, the former being the more effectual, although slightly the more troublesome. Beside local depletion, everything which tends to cause congestion of the portal system should be removed. Therefore moderate purgation is desirable, saline aperients being given the preference. I doubt the advisability of ordering complete rest; moderate exercise does not aggravate the local symptoms, and is good for the general health. It is only necessary to warn the patient against over-fatigue and prolonged standing. Alcoholic drinks and heavy meals should be forbidden. In the simple cases about which I have been speaking the symptoms are not very acute. Great local pain and tenderness, elevation of pulse and temperature, thirst, loss of appetite, &c., indicate more than simple congestion, and require somewhat different treatment, a description of which does not come within the scope of this paper. The result of proper treatment in these cases is prompt and unmistakable. The patient is relieved at once. If the case be recent and the symptoms slight, it may be that a few days' purgation and one sufficient local bloodletting will be enough to remove the patient's symptoms, and that she will then go on menstruating, both as to quantity and pain, in the manner which is for her normal. In slight cases I believe that if the patient observe the ordinary laws of health, and is not exposed to any fresh cause of disturbance, recovery will often take place spontaneously. In slight cases, therefore, we may do enough if we simply try to amend anything that may be unhealthy in the patient's habits of life or surroundings, and give medicine to gently act on the bowels. Local depletion is not essential in every case, although it is the most effectual, speedy, and certain remedy. On the other hand, if we are not consulted until the patient has suffered for many months or years, lengthened treatment and repeated local bloodletting may be needed before menstruation becomes natural. The longer the case has lasted, the more the condition approaches that which we are accustomed to call chronic metritis, and the longer will treatment be required before recovery takes place. Even in the most chronic cases we can almost invariably relieve for the time by taking blood from the uterus, even though the benefit be not persistent. This form of congestive dysmenorrhœa is not only met with alone, but it often coexists with other morbid conditions. Therefore I would add, as a kind of corollary, that, as a general rule, the cases of uterine disease in which local depletion does good are those which are associated with this kind of congestive pain, in which we have the combination of scanty menstruation with pain in a florid, healthy-looking woman.

I will conclude by recapitulating the points to which I ask attention in this communication.

1st. The term *congestive dysmenorrhœa* is one which has no definite and generally accepted meaning, but is applied by different authors to different conditions.

2nd. That there is a form of dysmenorrhœa characterised by deficiency in the quantity of the flow, with increase in the pain, these changes occurring in a patient whose general condition is not such as would cause menstruation to become scanty, and who is otherwise in good health.

3rd. In such cases local depletion always relieves, and if the changes be recent, cures the patient.

4th. That in these cases the absence of appreciable morbid conditions other than congestion, and the prompt relief by local depletion, give good reason for thinking that the pain is due to congestion.

5th. That it would be well either to restrict the term "congestive dysmenorrhœa" to these cases alone, or at least to separate such cases from all the other forms of disease to which the term congestive dysmenorrhœa has been applied, the adjective *primary* being suggested as the best distinguishing prefix.

ERRATA.—In the first part of this paper, published in the number for Feb. 26th, "Monat" should have been *Nonat*, and "Courtz" should have been *Courty*.

West-street, Finsbury-square, E.C.

CASE OF ANÆSTHETIC LEPROSY TREATED BY STRETCHING OF BOTH ULNAR AND BOTH SCIATIC NERVES.

BY E. LAWRIE, M.B.,

PROFESSOR OF SURGERY, LAHORE.

KOUDA, Hindoo cooly from Gujerat, aged thirty, was admitted into the Mayo Hospital, Lahore, on Nov. 30th, 1880, suffering from anæsthetic leprosy. There were anæsthetic patches on the trunk and limbs, especially well marked in the ulnar areas of the hands and on the legs and dorsal surfaces of the feet. The hands were wasted, and he had lost the power of grasping to such an extent that he had been unable to follow his occupation for six months. Under chloroform both ulnar and both sciatic nerves were stretched. They were all thickened; the right ulnar was partially softened, and the left sciatic adherent to the fascia of the biceps. Listerism was employed in the treatment of the wound, which healed by the first intention.

After the operation the patient improved rapidly. The first sign of improvement noticed by himself was the return of power in the hands, and this was so decided that in a few days he felt able to work, and insisted on leaving the hospital. The result noted when he was discharged on Dec. 13th, 1880, was that he had regained power in the hands, and that sensibility was restored, though not fully, in all the patches on the hands, legs, and feet which had previously been anæsthetic.

Lahore.

LAST week a banquet was given by many of the leading citizens of Bristol to the Hon. Theodore Canisius, M.D., who, after six years' residence there as United States Consul, was about to leave the city. At the conclusion of the banquet an address was presented to Dr. Canisius, signed by the Mayor of Bristol and several of its more influential inhabitants.

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[4] Lectures on Surgical Pathology, 3rd edition, p. 227.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

ATONY OF THE BLADDER; RECOVERY.

(Under the care of Mr. PEARCE GOULD.)

FOR the following notes we are indebted to Mr. Charles Rooke, dresser.

J. L——, aged fifty-seven, was admitted into Luke ward on Aug. 10th, 1880, suffering from retention of urine. He was a labourer with small but very firm muscles, no subcutaneous fat, bald and grey, and looked more than his age, and had marked arcus senilis. He had always enjoyed good health until twelve months before, when he found difficulty in passing his urine. This gradually increased until the night before admission, when after a hard day's work he was unable to pass a drop. He went to a medical man, who gave him some medicine and sent him to the hospital. The "difficulty" he noticed was a slow, feeble stream, and inability to empty his bladder, with frequency of call to micturate.

On admission the distended bladder formed a prominent tumour in the hypogastrium, reaching almost up to the umbilicus. The prostate felt from the rectum was hard and moderately enlarged. Mr. Gould passed without any difficulty an olive-headed catheter, No. 10 English scale, and drew off rather more than four pints of clear, acid, healthy-looking urine. The urine flowed slowly, falling vertically from the end of the catheter. The influence of respiration on the stream was evident. After the escape of about a pint the flow ceased, and the rest was forced out by the hand above the pubes, and when the pressure was relaxed air was heard to be sucked in through the catheter. The man was kept in bed on full diet, and his bladder was emptied by catheter night and morning. On Aug. 15th a mixture containing five minims of tincture of nux vomica was ordered to be given three times a day. The catheter used was always carefully washed in carbolic lotion—5 per cent.—before being used, and lubricated with carbolic oil—10 per cent. This appeared to cause some irritation of the meatus, and vaseline was substituted for the oil, and the irritation quickly passed away. There was no sign of any vesical irritation; the urine remained clear, acid, free from mucus and albumen, and the bladder gradually regained its expulsive power. Thus on Aug. 15th the patient could pass 4 oz. of urine by his own efforts, and on Aug. 17th this had increased to 10 oz., and thus he improved until on his discharge from the hospital on Sept. 15th there was only half an ounce of "residual urine" to be drawn off.

Remarks.—This case is an example of the extreme degree of atony of the bladder with complete retention of the urine, not unfrequently met with in connexion with chronic prostatic enlargement. The daily use of the catheter has long been recognised as the proper mode of treatment for such a condition, but the occurrence of decomposition of the urine with subsequent chronic cystitis have too often prevented the attainment of a perfect result. The case illustrates one application of antiseptic surgery to urinary surgery, and its value in preventing the decomposition of the urine can hardly be overrated. The result of the daily emptying of the bladder in leading to a gradual and almost perfect recovery of the bladder's power throws considerable light on the way in which this atony of the bladder is originally produced. For it is clear that it is not by obstruction to the outflow of urine with retention and stretching of the muscular coat of the bladder, nor is it from any local action of decomposed urine; but rather, it seems, from a small primary "residue" of urine. A few drachms which the bladder cannot evacuate have a paralysing influence upon the bladder muscle, which leads to the retention of a greater amount of urine; this, again, to further diminution of expulsive power, and so on until the stage of complete retention and atony is reached. The history of such cases before they come under treatment, as well as the results of catheterism, bear out this view. The symptoms often arising from a very small quantity of "residual urine" and the importance of its relief have been laid stress upon by Sir H. Thompson. The patient attends the hospital as an out-patient every month, and up to the present time (March 2nd) his condition remains as on the date of his discharge; he continues to draw off the few drachms of "residual urine" every night. The quantity has not increased since he left the hospital.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

EXOSTOSIS OF THE ANTRUM; REMOVAL OF SUPERIOR MAXILLA; DEATH.

(Under the care of Mr. RANSFORD.)

R. P——, admitted December 24th, 1879, a coloured seaman, aged forty-three, married, born in Liverpool; never had syphilis or other venereal disease; no disease in his family; brothers and sisters alive and healthy; father and mother died when he was young. He was much troubled with toothache and gumboils until about fourteen years ago, when they ceased. About this time he received a blow on the mouth, and a lump appeared on the left side of his face, which very slowly increased in size till it became as large as a pigeon's egg; a swelling began to appear on the left side of the roof of the mouth about the same time. These swellings were quite painless, and did not discharge. About six weeks ago the patient began to have little boils all round the external swelling, and the whole tumour began to increase rapidly, and his lower jaw began to get immovable. About three weeks before admission the swelling burst, with much relief, in two places on the left cheek. He had not been able to take solid food for some time.

On admission he was a feeble, thin-looking man, with feeble pulse, and the left side of his face bulging very much. His nose was pushed over to the right, his left eye pushed up, and two sinuses were discharging on the left cheek, one just over the malar bone, and one over the lower jaw, both leading to the necrosed malar bone. His lower jaw was rather fixed, and he was not able to open his mouth more than half or three-quarters of an inch; but on looking into the hard palate on the left side it was seen to be pushed down to the level of the crowns of the teeth. On introducing the finger the antrum was felt to be bulged outwards and downwards by a hard tumour. There was a most offensive smell from the mouth, and from the sinuses on the cheek. Taking into consideration its long history, with its recent rapid increase, and from its very offensive odour, it was believed to be an innocent tumour, probably fibrous, taking on a malignant nature. The odour was thought to be due to suppuration within the antrum, and with a view to explore it the left canine tooth was extracted, and a probe was introduced into its cavity; this came into contact with something rather hard, but no pus was seen. The patient was recommended to have the superior maxilla removed, which was done.

On Dec. 31st the operation was performed with the usual Fergusson incision, the orbital plate and the malar bone being removed. On lifting out the superior maxilla with the tumour, a large sloughing cavity was seen, from which there arose an offensive smell. This at first seemed to confirm the diagnosis as to the malignant nature of the growth. The bleeding, which was slight, was stopped; the surface was washed with a solution of chloride of zinc (40 grains to the ounce). All suspicious points were touched with the thermo-cautery. A sponge, wrung out with carbolic acid (1 in 20), was placed in the hollow, and the flaps were adjusted. After the operation the patient seemed very faint, and the pulse was very weak, so he was ordered two teaspoonfuls of brandy every second hour.

On Jan. 1st he took, during the night, a pint of beef-tea and nearly two pints of milk. Next morning pulse good—112; temperature 101°. The sponge was removed from the cavity, and he was ordered chlorate of potash as a wash for the mouth, also Condy's fluid. On the 2nd the wound was looking well; no tension; most of it had healed up by first intention; breath not very offensive; cavity syringed with

Condy's fluid. Food taken well. Temperature 102·6°; pulse 102; evening temperature 102·8°; pulse 104; respiration 20. On the 3rd he seemed a little weaker. Ordered half an ounce of brandy. Slept well during the night; no pain; cicatrix of wound looking well; sutures removed. Bowels open; no rigors; temperature 102°; pulse 100; respiration 24; morning and evening temperatures alike. Lint, saturated with boracic acid, introduced into the hollow caused by the removal of the growth. On the 4th, morning temperature normal; evening 100·8°. On the 5th, temperature morning and evening 99°; pulse 100; respiration 24. On the 6th, morning temperature 98°; pulse 88; respiration 16; evening temperature 102·8°; pulse 104; respiration 18. Great rise of temperature in the evening. No rigor. On the 7th the upper lip and left cheek swollen; much œdema of left eyelids. Morning temperature 101·2°; pulse 80; respiration 16; evening temperature 103°; pulse 100; respiration 20. On the 8th great fall in temperature; morning 101·6°; evening 101·2°. Notwithstanding the high temperature, the man had taken his food well—namely, four pints of milk, digested with pancreatised glycerine, as suggested by Dr. W. Roberts of Manchester, two eggs, bread-and-butter, sago, &c. On the 9th cicatrix at the situation of the old sinus over the malar bone had given way; an opening the size of a pea inside of wound seemed to be covered with crusts of dry pus. No active granulation seemed to be going on. Cheeks not so swollen. Bowels regular. Further fall in his temperature, morning 98·8°; evening 99·2°; pulse 90, compressible; respiration 20–26. In the evening a blush extending over the forehead was noticed. On the 10th the temperature was rising: morning 100·2°; evening 101·6°. The blush had not extended, but was rather less. Discharge from mouth not so free, nor so offensive; felt chilly in the morning. On the 11th redness had disappeared; discharge was free from the mouth; patient complained of soreness in the mouth. The temperature had fallen to 97° in the morning; evening temperature 99°; and so he went on, his temperature rising and falling, but all the time eating and sleeping well, yet without gaining strength. On the 25th he complained of great pain along the left sciatic nerve; ordered a blister, and the surface to be dusted with powdered morphia. Temperature 99°; pulse 70. Next day he did not complain of any pain; temperature normal; appetite good; no action about the site of the old sinus over the malar bone; no granulations; no pus. On the 28th, morning temperature 99°; pulse 100; respiration 16. At about one o'clock he had a rigor; at 1.30 P.M. his temperature had risen to 103·8°; his pulse to 144. Ordered five grains of quinine, every four hours. At 2.30 his temperature was 105°; pulse 160. At 3.30 it had fallen to 104·2°; his pulse to 138. No pneumonic signs; no pains in any part of the body. 8.30, temperature 105°; pulse 104. On the 29th, pulse 126; temperature 103°; skin hot and dry; some cough; no sputa; tongue dry and brown; bowels open. On the 30th, seemed better and stronger in the morning, and took some food, but soon after the house-surgeon left him he suddenly collapsed, became unconscious, and died.

Necropsy, twenty-four hours after death.—The whole of the seat of operation had healed up both inside and outside, with the exception of a small portion of the skin wound over the malar bone at the situation of the old sinus, where an oblong opening about half an inch long existed. Some of the veins in the neighbourhood contained pus. No secondary deposits anywhere. The heart was flabby, no fatty degeneration. "The tumour" (Report by Mr. F. T. Paul, now in the Museum of the Liverpool School of Medicine) "weighed four ounces, size two and a half inches by two and a quarter inches. The growth consists of dense osseous tissue, and has generally a rounded form. It is discoloured and fetid, and has no connexion with any other bone, nor are the soft tissues genuinely adherent to it. All the upper part is quite bare. The front and under surface are loosely covered with facial tissues and mucous membrane. A molar tooth is firmly rooted in the mass, and is not carious, though probably dead. The osseous tissue is very hard but brittle, and is as discoloured in the centre as outside. The texture is somewhat more open in the middle. The nature of the tumour seems to be that of an exostosis or osseous hypertrophy of some part of the superior maxilla, certainly involving the alveolar process. During its growth it probably caused the absorption of most of the bone by pressure, and ultimately necrosed through lack of nourishment."

Remarks.—This tumour somewhat resembles Mr. Hilton's case, reported in the Guy's Hospital Reports, vol. i. p. 493, in the fact that the tumour had necrosed spontaneously, but it differed from it in structure, as it was not hard and polished like ivory. If it absorbed the palate process, the orbital, the zygomatic, and the internal and external walls of the antrum, in front it had the thin anterior wall of the antrum covering it. The alveolar process also existed.

YORK COUNTY HOSPITAL.

NEEDLE IN KNEE; AMPUTATION; RECOVERY.

(Under the care of Mr. JALLAND.)

FOR the notes of this case we are indebted to Mr. F. H. Weekes, house-surgeon.

S. B——, a dressmaker, aged twenty-five, was admitted on May 17th, 1880, suffering from acute synovitis of her right knee. Close to the outer margin of the patella a minute puncture could be seen, and this the patient stated had been caused in the following manner:—Six days prior to admission the patient ran a needle with considerable violence into the knee, but this she pulled out immediately. The puncture indicated the point of entrance. On the day following the accident the knee became hot, swollen, and painful, so that the patient was compelled to remain in bed until her admission into the hospital. As far as could be ascertained, no rigors had occurred.

On admission, a back-splint and ice-bags were applied to the knee. During the same afternoon a slight rigor took place, and the evening temperature was 103°. The knee continued to increase in size, and the pain in it became so severe as to greatly interfere with sleep at night. The appetite also became very bad. On May 20th, after the occurrence of a rigor, an incision was made over a prominent part of the joint, with the aid of anæsthetics and antiseptics, and about an ounce of exceedingly fetid pus evacuated. This cavity, which probably communicated with the joint, although this fact was not certain, was washed out with antiseptics, had a drainage-tube inserted, and gauze applied as a dressing. In the evening the temperature was 103°, the same as it had been on previous evenings. The patient had a good night's sleep, and the pain in the knee was much less next morning, when the temperature was 98·8°. Evening temperature 98·2°. On the 22nd the morning temperature was 98·8°. The wound was dressed. Free discharge of offensive pus. Evening temperature 103°, and the patient had a very restless night. The pain in the knee was very severe next morning. During the afternoon (23rd) the patient was seized with a rigor, in which the temperature rose to 106·4°. After this the wound was dressed, and a free incision made on each side of the patella into the joint cavity, with the effect of setting free several ounces of very offensive pus. The knee was again well cleansed with carbolic lotion, drainage-tubes were inserted, and the whole was dressed with gauze, everything being done, as on the former occasion, with antiseptic precautions. The wound was dressed daily on the Listerian plan, but it was never aseptic. The evening temperature averaged 103°. On the 28th pus was found to be running up the back of the thigh; for this an exit was made, and one hour afterwards the patient had a rigor, with a temperature of 105°. The soft palate ulcerated, interfering a good deal with deglutition, but under the local use of perchloride of iron the ulcers soon began to heal. A careful examination of the patient showed that the lungs, liver, kidneys, and the joints, excepting the knee, were healthy. The evening temperature continued to average 103°. The appetite is improved; and with the aid of chloral a fair amount of sleep at night is procured.

On June 5th the gauze dressings were discontinued, and charcoal poultices were substituted. An accumulation of pus in the popliteal space was evacuated by a counter-opening, all the other wounds discharging freely a fetid pus. On the 7th a large abscess was opened on inner side of thigh, a short time after which a rigor took place with a temperature of 104·5°. On the 12th the patient was very pale, extremely thin, taking but little food, subject to profuse perspirations and rapid variations in temperature. Nearly every day a fresh accumulation of pus was found, requiring to be opened. None of the wounds healed, and all discharged a profuse, fetid, purulent fluid. On moving the knee distinct grating can be felt. Under these circumstances, amputation at the lower third of thigh was performed by Mr. Jalland with antiseptic precautions. The patient had a good night's sleep, and there had been neither vomiting nor hæmorrhage. As there was much discharge the wound was dressed next day; all looking well. On the 15th the wound was again dressed, and most of the sutures were removed. On the 18th there was slight discharge; the wound was dressed. On the 20th the wound was dressed again; all sutures and drainage-tubing were removed; the flaps were almost entirely healed.

On July 5th the stump was examined, and found to be quite well and free from pain; the dressings were discontinued. The general health was much improved, the patient taking her food well, and sleeping through the whole night; allowed to get up. Temperature has been normal since amputation. On the 17th discharged well.

Remarks.—We are frequently in the habit of pushing the needle of the hypodermic syringe into various parts of the body without producing any serious effects, that one is astonished to find what severe mischief may be set up by a simple needle puncture. In this case the girl said positively that the whole of the needle came out, so that the damage to the knee-joint must have been set up by the septic matter conveyed on the needle.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

A Probable Cause of Lead Colic.—The Ox Aorta Ligature and the Variability of Catgut.

THE ordinary meeting of this Society was held on the 8th inst., the newly elected President, Dr. A. W. Barclay, taking the chair for the first time.

A paper was read "On a Probable Cause of Lead-colic," by Dr. C. HILTON FAGGE. After referring to the fact that in certain observations on the nature of the lead line in the gums, published in the fifty-ninth volume of the Transactions, he had been anticipated by a French physician, M. Cras; the author remarked that both he and M. Cras had on theoretical grounds suggested that it was almost certain that sulphide of lead must be formed in the intestinal mucous membrane of persons exposed to the action of the metal, by the reaction of the sulphuretted hydrogen of the intestinal gases upon a soluble combination of lead circulating in the capillaries. The author had since had few opportunities of examining the bowel in patients who had had symptoms of lead-poisoning. In two instances the results were negative. In the other two instances a marked and extensive blackening of the interior of the bowel was observed. Dr. Stevenson was kind enough to make analysis of the discoloured contents of intestine, and to compare them with analysis of healthy pieces of intestine from the same patients, and he proved that there was an excess of lead in the blackened part, amounting in one case to as much as 320 times the quantity present in the non-coloured part.—Dr. DOUGLAS POWELL asked whether any microscopical examination of the intestine was made, as the precise seat of the deposition of lead might explain whether it occurred by direct action of the sulphuretted hydrogen on the lead in the bowels, or on the lead on the way to being eliminated by the large intestine after its absorption higher up. The treatment of lead colic by iodide of potassium was generally followed up by purgatives, in the view that the lead is so eliminated.—Dr. R. THOMPSON said it was important to remember there were two ways in which the intestine might be blackened by lead. It may be that the metal is deposited in the mucous membrane from the blood, and converted into the sulphide by the intestinal gases, or that, like bismuth, it is acted upon by these gases before absorption. He had found in those who took bismuth that the mucous membrane of the large intestine was blackened by the sulphide of bismuth, which by means of chromic acid could be converted into the yellow chromate. He referred to Dr. de Mussy's observations on the Claremont cases treated by alkaline sulphide baths. The skin was blackened—a condition which Dr. Thompson had found in another case similarly treated to be due to the deposit of sulphide of copper, from the action of the solution in the metal of the bath.—Dr. POWELL added that Dr. Fagge's views as to the cause of the blue line on the gums were confirmed in a very marked case of lead paralysis without any such blue line being present. This absence of the blue line was associated in the case with a complete freedom from tartar on the teeth. It was well known also that no blue line appears on edentulous gums.—Dr. CAVAFY asked Dr. Fagge whether he regarded the deposition of the sulphide of lead in the intestine as the cause of lead colic, and, if so, did he think it acted on the nerves of the intestines. *Primâ facie* there was no reason, if this were the case, why the deposition of the salt on the gum should not give rise to toothache.—The PRESIDENT pointed out that lead was undoubtedly absorbed into the blood, and its action was not merely local like that of bismuth. Was the lead only partially absorbed, or was it eliminated again into the alimentary canal, as Dr Powell stated. The presence of the discolouration in the large intestine was due to the larger amount of sulphuretted hydrogen in that portion of the bowel. He presumed that lead colic had its seat in the small intestine, so that it could not be attributed to the existence of the deposit.—Dr. FAGGE, in reply, said that a microscopical examination was made in the first case, and showed the black granules to be deposited around the capillaries of the villi, just as on the gums. Dr. Thompson's remarks as to the discolouration of the intestine from bismuth were suggestive. Bismuth blackened the tongue, and Brinton suggested that it also produced a blue line on the gums, but this Dr. Fagge had not been able to confirm. The lead line was due to the deposition of the metal in the tissue of the gums, and its conversion into sulphide by the tartar. It was by following out the line of inquiry thus suggested that he had sought for discolouration of the intestinal mucous membrane, where a much greater amount of sulphuretted hydrogen would be in operation than in the gums. There was no reason to suppose that any large quantity of lead would escape absorption. He did not adduce the fact of deposition as explanatory of lead colic, which, however, had, he thought, its seat in the large intestine.

The following is an abstract of a paper "On Experience and Specimens of the Ox Aorta Ligature, and some Remarks on the Variability of Catgut," by Mr. RICHARD BARWELL, F.R.C.S. The object of a paper read before this Society two years ago was, firstly, to point out the cases of aortic aneurism which might be benefited by deligation of the right carotid and subclavian; secondly, to show the advisability of leaving all the coats of arteries tied in continuity intact; thirdly, to introduce a flat ligature to carry out this object. The experience, necessarily small, which I could then adduce may now be supplemented by two additional cases of aortic aneurism treated by tying the above-named vessels with the ox aorta ligature; thus there are three in all. 1. My own case; lived sixteen months in fair health and comfort. 2. A case of Dr. Lediard (now of Carlisle); lived ten months. 3. A case by Dr. Wyeth of New York; is now alive and in good health. Besides these I have to report a case in which I tied for aortic aneurism the vessels on the left side of the neck. The operation failed to prolong, but I do not know that it shortened, life. The patient survived thirty hours. The parts of my first case, and of Dr. Lediard's case (by the kind permission of Dr. Hopkins), are on the table, as are also certain specimens removed from the last case. The arteries of the first have been injected; the carotid ligature was *ab origine* tied too loose. It was the first artery I had tied with the ox aorta, and I attributed the almost immediate return of temporal pulse wrongly to free collateral circulation. The loop of ligature probably remains on the vessel. The subclavian is quite closed, and, being slit lengthwise, shows the tunics entire. Collateral circulation is well established. Of the second case Dr. Lediard writes: The aneurism is filled with very firm clot. Nothing could have been more satisfactory than the action of your ligature in this case. The vessels were entirely occluded, there being no trace of the bands seen, but a firm clot above and below the seat of constriction, such as is usual in vessels tied in continuity. The parts from the last case are the subclavian, showing where tied no injury to any of the coats—the severed ligature from that artery. The other ligature with the knot entire, and showing no tendency to loosen. Four other vessels have been tied with this ligature—two iliacs (Mr. Holmes and Mr. Johnson Smith), two femorals (Mr. Bellamy and Mr. Barwell); in these four cases the aneurisms did perfectly well, the wounds healed at once, and nothing more was seen of the ligature. The twelve deligations are more than sufficient to show that the ox aorta ligature becomes absorbed with sufficient slowness to be perfectly reliable in tying vessels in continuity. They show this with the more force because this material is not prepared, the ligatures are cut from the fresh aorta and dried, hence they are uniform. What has happened with those that have been employed will happen with all. This power of becoming gradually absorbed is common to all the soft connective tissues, provided they are perfectly fresh—i.e., not decomposed. The submucous tissue of sheep's intestine, of which catgut is made, would, if it were dried while fresh, act like other soft connective tissues, with no need whatever for after preparation. But in the manufacture of catgut this structure is separated from the rest by processes of scraping, a procedure which would be impossible unless the intestine were to some extent decomposed. The various modes of preparing catgut into ligatures are devices for getting rid of the results of this decomposition. Catgut sutures, more easily watched than ligatures, dissolve in very various periods, though prepared in identically the same way. One of the chromic acid processes gives cords, dissolving some in nine, some in nineteen days. The usual (old) method has supplied me with sutures, some of which have dissolved in forty-eight hours, some remained persistent, and had to be cut away on the fourteenth day. This results from the various degrees of decomposition in the catgut itself; it cannot happen with tissues that are fresh and require no after-elaboration. When a piece of catgut is buried deep round a large vessel, we cannot be more sure of its behaviour than we can predict the duration of the sutures; nor can we deduce from the good behaviour of certain such ligatures that the particular piece supplied us will act properly. For tying large vessels near the heart, or lying deep, a material whose action is more uniform, which is therefore more reliable, is essential. —Mr. LISTER said it was interesting to learn that the tissue of the aorta resisted absorption for so long a time. He disputed the statement that the preparation of catgut by scraping was due to putrefaction. On the contrary, the fresher the intestine the better the quality of catgut. The rapidity of absorption of improperly prepared catgut was not due to the state of putrefaction, but to the difference between cellular tissue and aortic tissue. Unlike Mr. Barwell, he had found old catgut less readily absorbed than new catgut; but by the new mode of preparation he had described both kinds were brought to the same level in this respect. Speaking of the desirability of dividing the inner and middle coats of an artery tied in continuity, he said that in one of his early experiments (using a ligature of a strip of ox's peritoneum) he had tied the carotid of a calf without dividing the middle coat; but this did not prove that the division of the inner and middle coats was not essential. Indeed, general experience went to show the desirability of such division—incomplete ligature or insufficient injury to the coats being followed by a tendency to the opening up of the vessels. He always applied the catgut ligature so as to divide the inner and middle coats; although whether this was absolutely necessary when the catgut was of the best form—(i.e., not too readily absorbed), he was not prepared to say. Referring to the case recently related by Mr. Treves, where the opening up of the carotid artery after antiseptic ligature was ascribed to the rapid healing of the wound, the subclavian in the same case being perfectly occluded, and the wound not antiseptic, Mr. Lister showed a specimen where the external iliac had been tied for femoral aneurism. An antiseptic silk ligature was used, and the wound followed an antiseptic course. The external iliac artery was wholly occluded. A small knot of silk remained, and a minute abscess occurred at the seat of ligature. Death took place one year after ligature. Here was evidence of extensive obliteration following the application of an antiseptic ligature. On the other hand, secondary hæmorrhage from the distal side followed sometimes on the use of ordinary ligatures, from absence of coagulation; and such cases proved that suppuration around the vessel did not invariably lead to obstruction. That failures in occlusion might follow the use of catgut, when not of proper quality, he was fully aware. Such failures were recorded, but the multitude of successful cases were not. He felt sure that if all the cases were reckoned in which the catgut ligature was applied to arteries in their continuity with strict antiseptic treatment, the results would compare very favourably with other methods of ligature. But if surgeons use the catgut ligature and allow the wounds to putrefy, good results could hardly be hoped for. Such cases as those recorded by Mr. Bryant were due to the lucky chance that union by first intention took place in the deep parts of the wound, thus preventing putrefaction around the ligature. He ventured to think that surgeons who undertake such operations are bound to take measures to avoid putrefaction. At the Cambridge meeting of the British Medical Association he adduced a long series of cases in which no putrefaction occurred, and since then he had had many more cases without putrefaction in a single instance. He did not state this in a spirit of boasting, but simply as a matter of duty. His cases at King's College Hospital were not dressed by himself, but by the house-surgeon and dresser, to whom the praise was due. Surely if such results can be obtained it was worth while to master the simple measures of preventing putrefaction. By the use of such measures the two great dangers to ligature of arteries in their continuity—viz., secondary hæmorrhage and diffuse suppuration —may be avoided, and these were objects deserving the best attention.—Mr. TREVES said that in the case he had reported where the carotid after antiseptic ligature became partially reopened, the catgut was of good quality and the coats divided. The small abscess at the seat of ligature in Mr. Lister's case of iliac ligature was hardly consistent with an absence of inflammatory reaction. With regard to the mode of tying arteries alluded to by Mr. Barwell, he had found by experiment that it was almost impossible to divide the inner and middle coats when a double hitch was made in the ligature before tightening it.—Mr. LISTER pointed out that the abscess referred to was of very minute size, and could not have produced any inflammatory change around the vessel.—Mr. HEATH remarked that in one of Mr. Barwell's specimens the carotid artery which had been ligatured was quite pervious, and showed no trace at all of any ligature. The subclavian in the same specimen was completely obliterated. Was there division of its internal and middle coats? He doubted if the surgeon could so graduate the force he applied as not to cut through the inner and middle coats.—Mr. BARWELL, in reply, said that much depended on the mode in which the ligature was tied. He had found that, owing to the roughness of catgut, it was difficult to tell from the sense of resistance whether the artery was being sufficiently pressed on or not. The carotid artery in the specimen alluded to by Mr. Heath had been incompletely tied. The condition of the coats of the subclavian was not ascertained in that specimen; but in another the internal and middle coats were not divided. By means of flat ligatures it was hardly possible to tie the vessel so tightly as to divide the inner and middle coats. He had been struck with the fact that the recorded cases of ligature of the largest vessels were fatal from secondary hæmorrhage, and it struck him that this would be obviated by keeping the artery entire. He did not at all suppose that this could only be done by means of the ox aorta ligatures. Mr. Pollock last year tied the subclavian and carotid successfully, using ligatures of kangaroo tendon. Professor Wyeth had used ligatures of the whole thickness of the aorta. Why should not catgut act in the same way? He certainly thought the preparation of catgut was attended by putrefaction, and had attributed its unreliability largely to this. One surgeon used chromic acid many times the strength of that used by Mr. Lister to make the catgut reliable. In the old methods of preparation Mr. Lister had got perfectly reliable ligatures; but in one case where he had supplied Mr. Pemberton with such a ligature a large abscess formed, and the ligature came away. In a case of double popliteal aneurism Mr. Bellamy tied one femoral with the aortic ligature, and with good result. The same operation performed on the opposite leg with the chromic catgut ligature supplied by Mr. Lister was followed by the formation of a sinus leading down to the ligature, the rest of the wound healing by first intention. These different modes of preparing catgut ligatures may suit one or other form of catgut, but not all, and therefore he said the catgut ligature was not a reliable one. Nor did experiments in blood serum touch the point, for the experiments should be made in the living body in the midst of the tissues.

PATHOLOGICAL SOCIETY OF LONDON.

Unilateral Hypertrophy of Head and Face.—Glioma of Cord, with Dilatation of Central Canal.—Fœtal Tumour.—Vesical Calculus in Dog.—Syphilitic Disease of Skull.—Malformation of Heart.—Cancer of Bladder.—Leucoderma.—Zeroderma.

The ordinary meeting of the Pathological Society was held on Thursday, March 3rd, the President, Samuel Wilks, M.D., F.R.S., in the chair. There was but a small attendance, probably owing to the meeting not being held on the usual evening.

Mr. Barwell showed the head and also a model of a case of Unilateral Hypertrophy of Head and Face. He met the boy, the subject of this deformity, accidentally six years ago. He was then about seven years of age. Last year he tied the right carotid artery just above the clavicle, more as a preliminary treatment than in the hope of bringing about a permanent cure. On the sixth day the boy died from secondary hæmorrhage. The condition was congenital, and the disproportion between the two sides was steadily increasing. The enormous development of the right side of face with the infantile character of left was the great characteristic, giving a very grotesque appearance. The tissue was soft, with a patch of ichthyosis of recent formation, and rapidly growing near the ear. The bones were also involved, as shown by casts of the upper and lower jaws. The cranial sutures and raphé of the tongue were pushed quite over to the left of the middle line. Was the cause some affection of trophic nerves, or of the middle coat of the arteries, which may have also led to the fatal hæmorrhage? Unilateral overgrowth of the head and face is not very uncommon; he had often seen it. Also overgrowth of right side of trunk, which is one of the causes of lateral curvature of the spine; it is very occasionally seen on the left side—not more than one in fifteen of the opposite condition.—Dr. N. Moore asked Mr. Barwell whether there was any new growth in the large mass. The appearance was not like a new growth; but such might be its cause if the tumour arose very deep. He once saw a young woman with a very large right hand, the left being small, of natural size; her skull and the rest of her body were quite symmetrical.—Dr. Wilks asked if these cases were to be associated with cases of atrophy on one side, as in wryneck, and whether the pathology was the same in the two sets of cases.—Dr. Goodhart asked whether the boy was mentally sound.—Mr. Barwell replied that he was sound, but ignorant. The nerve condition at the bottom of this case is not the same as in wryneck. The nervous condition in wryneck he thought to be more connected with the spinal nerves than with the sympathetic, and the appearance of the two is different—one is dwindled, the other gigantic. In cases of difference in length of limbs merely, the change may be explained by injury to the epiphyses. There was no tumour or new growth; the bones were all affected, and the ichthyosis and size of tongue showed that it was hypertrophy and not new growth. Some years ago he showed to the Society a case of overgrowth of the parts of the face supplied by the facial arteries. Ligature of these arteries did no good.

Dr. Whipham showed a specimen of Tumour of Spinal Cord with Dilatation of Central Canal. The patient was a bricklayer, aged thirty-three, in St. George's Hospital, under Dr. Barclay. He suffered from numbness in both hands, with weakened grasp, especially on right side. He had worked in white lead. He improved under galvanism. Later on he had paralysis of arms, legs, and intercostal muscles; there was wasting on the right side, dropping of the hand; and the forearm was held up by the left hand. A large bedsore developed; later on he died of exhaustion. The post-mortem examination showed red hepatisation of left lung, congestion of right; upper end of cord much enlarged and fluctuant. This was found to be due partly to an infiltrating new growth, and partly to cavities in the position of central canal, lined by a shining membrane containing a soft gelatinous mass in minute structure resembling glioma. The central canal of the cord below the swelling was enlarged. The tumour in the upper part was glioma, there the lymphatics were dilated and filled with lymph, the normal nervous tissue being nearly entirely destroyed. No traces of the epithelium of the central canal could be found. In the dorsal region the anterior horns of grey matter were widely separated by nerve tissue, and the distended canal flattened; ganglion cells compressed. In part, however, the white nerve tissue was also evidently compressed, and homogeneous masses of serum were found. This case appeared to furnish one explanation of cases of cavities in the cord. Dr. F. Taylor has recorded a case without any new growth, but in this case the cavity was probably formed by the new growth spreading into and dilating the central canal.—Dr. Horrocks asked if the superficial and tendon reflexes were tested in this case.—Dr. Whipham replied that the case was under observation many years ago, before the days of these reflexes.

Mr. Pearce Gould read for Mr. C. Macnamara the description of a Tumour removed from a female child under his care at the Westminster Hospital, a photograph of the child and the tumour were shown. The child, two months old, had the tumour springing from the back of the sacrum and buttock; it had considerably increased since birth. Mr. Macnamara removed it by the chain écraseur after having expressed the blood from it by Esmarch's bandage, and reflected up two flaps of skin from the pedicle. The tumour was examined by Mr. Pearce Gould. The tumour, ovoid in shape, with an even surface, was covered with skin, which was raised in a thin, narrow, fringe-like band half round its base. Projecting from the left side was a curved finger-like process. On section one large cyst and several smaller ones were found, lined by a thin smooth membrane, and containing serous fluid. The greater bulk of the tumour was solid, and consisted of fœtal fat, in which bands of fibrous and unstriped muscular tissue were seen, and an irregularly-shaped jointed piece of cartilage, partly ossified, was embedded; the cartilage extended into the finger-like process as a chain of small nodules firmly jointed together. Mr. Macnamara stated that these tumours were of interest to surgeons, because it was sometimes difficult to determine whether their removal would be attended with serious injury to important viscera, and to pathologists because they formed a link of connexion between united twins and dermoid cysts. This tumour was evidently an impregnated ovum, which had not arrived at maturity, and had early become attached to the fœtus, of which it subsequently formed a part, and grew with its growth.—Dr. Wilks said that this case was no doubt the remains of another ovum; in many cases it was not at all clear what the origin of the tumour was.

Mr. Treves showed a Vesical Calculus of a Dog which died of uræmia. It completely filled, and was adherent to, the bladder. The dog had convulsions and coma. There were frequent micturition, pain, passage of blood, and irritation at the end of the penis.—Dr. Wilks asked if the dog could jump. Sir A. Cooper used to make his patients jump off a chair, and if this produced pain it was held to be diagnostic of vesical calculus.

Dr. N. Moore showed a specimen of Syphilitic Disease of the Skull from a man, aged forty. The whole surface of the calvaria looked worm-eaten. When fresh the little pits were filled with yellowish-red soft material, in structure like a recent gumma; the brain was unaffected. There were scars of gummata in liver. A very distinct scar on the penis and many on the legs, and necrosis of left thyroid cartilage also bore evidence of the existence of syphilis. During life there was very little sign of the disease of the bone, only two small patches on the scalp, which might have been mistaken for eczema. The skull resembled those found in barrows which have been deformed by the roots of plants, but the patches on the interior are not found in the bones altered by rootlets.—Dr. Wilks remarked that any signs of repair would distinguish these cases from those referred to by Dr. Moore. Were there no symptoms during life?—Dr. Moore replied that there were none.—Dr. Wilks said that many cases of destruction of skull were considered to be due to mercury, but there was very little evidence—none, in fact, to prove this.—Dr. Moore said there was no evidence of this man having taken mercury continuously at any time.—Dr. Barlow remarked that the skull showed some changes quite unlike the action of rootlets; there was an eroded surface with slight thickening, and also a cicatrix in the bone. M. Parrot had not referred to this form of skull-syphilis as evidence of that disease in prehistoric times; but to a form with considerable hyperplasia of bone with little or no destruction of bone. M. Parrot's specimens show actual new osteophytic deposits, and this specimen did not throw a slur upon M. Parrot's demonstration. All bones exposed to water and buried show a granular and osseous surface.

Dr. Norman Moore exhibited also a very rare Malformation of the Heart, in which all four cavities communicated together. The patient was a girl, aged seventeen, who had enjoyed good health up to the age of seven, after which she had several attacks of rheumatic fever. She was admitted to hospital in a dying condition. There were found a systolic and a presystolic murmur at the apex, and a presystolic thrill. The impulse of the heart was heaving and irregular, and the chest wall was bulged over the heart. The septum ventriculorum was complete; foramen ovale closed; coronary sinus well developed. The musculi papillares of the mitral valve both arose from the outer wall, and were abnormally close together; the mitral cusps were fixed close to the aortic orifice, they were thickened, and had small growths upon them. The aortic and pulmonary valves were normal and competent; the aorta was healthy, and the pulmonary orifice was twice as wide as the aortic; coronary arteries normal; ductus arteriosus closed. On opening the pericardium the external peculiarities of the heart were enormous dilatation of both auricles, and of the right ventricle; moderate dilatation of the left ventricle. The bifid character of the apex, which was nearly as great as in Dugong's heart. The septum auriculorum did not meet the septum ventriculorum, and there was a large opening below it but above the flaps of the auriculo-ventricular valves, one part of each of which was attached to the septum ventriculorum just below that opening. Thus the auricles were in communication with one another, and each auricle with both ventricles. In a large number of cases of cardiac variety, as such cases may be called, there is some other departure from the normal, and in this case there was a large omphalo-mesenteric diverticulum of the ileum. In the post-natal attacks of acute rheumatism the very minute growths on the mitral and the slight thickening of the bone of the septum of the auricles probably occurred. The right side of the heart was free from any sign of endocarditis, which would also seem to justify the belief that the endocarditis of the left side took place after birth.

Mr. Davies-Colley showed a case of Epithelioma of the Bladder, with Calculus in Kidney and Bladder. A man, under Dr. Habershon's care in Guy's Hospital, died at the age of forty-seven. Twenty-one years ago he had a large stone removed from the bladder, and ever afterwards suffered from a pricking pain at the end of the penis. Five years before death he had passed blood, and Mr. Davies-Colley sounded him; no stone was found. These hæmorrhages were repeated many times. Last year his legs swelled, and he became very ill, and died in October with symptoms of gangrene of the lungs. Small patches of cancer were found in liver and lungs, and around one of the latter was a patch of pneumonia becoming gangrenous. The bladder was occupied by a shaggy mass, the size of the hand, which had spread into the lumbar glands, and had obliterated the vena cava. The left kidney was very dilated and occupied by a large branching calculus of triple phosphate. The point of interest was the occurrence of vesical cancer twenty-one years after the removal of a stone. This was hardly a coincidence. The pricking pain felt ever since the operation was probably due to a scar, which ultimately gave rise to cancer. The tumour was an epithelioma. The growths in the liver and lungs were not examined microscopically. Dr. Fagge had shown a case of cancer of the bladder due to frequent catheterism. He had under his care at the same time another patient with vesical hæmorrhages, who had had a stone removed from the bladder. — Dr. Wilks had seen a few cases of cancer of bladder with calculi, and several of cancer of gall bladder and ducts with biliary calculi; and Frerichs had told him that he had frequently noticed the latter association.—Mr. Morris asked how long the tumour in the bladder had lasted, and whether the stone twenty-one years before could be really the cause of a cancer so long after.—Mr. Davies-Colley could not say how long the cancer had lasted, but five years before death he had passed blood in his water, which, in his opinion, came from the bladder.

Mr. Startin showed two living specimens, one a case of Leucoderma, a man who had lived in Canada for three years. A year after coming home he noticed several symmetrical patches of skin and hair devoid of pigment. Sensation was perfect in these patches. The other was a case of Zeroderma in a child ten years old. Both palms and soles were affected with dense layers of hypertrophied skin; it began at the age of twelve months; there was no history of syphilis. The case was almost if not quite unique.—Dr. Payne asked if the general colour of the skin of the man with leucoderma was darker than usual. The two conditions of excess and absence of pigment were usually combined. The pigment in the darker part in one case examined was curiously near the surface, as if the pigment had been set loose from the Malpighian layer, and might be expelled at the surface and so cause the blanched patches of leucoderma.—Mr. Startin said there was no increased pigmentation.—Dr. Wilks asked if local treatment for the hand had been tried.—Mr. Startin was using liquor potassæ and spirit locally, and tonics and arsenic internally.

Dr. Abercrombie showed a card specimen of Sarcoma of the Testicle, removed the same day by Mr. Morgan from a child four years old.

Mr. Shattock showed a card specimen of a Congenital Sacral Tumour growing into the pelvis, sarcomatous in character.

Dr. Horrocks showed a Heart removed from a young woman recently under Dr. Fagge's care, aged twenty-three. She was in good health up to the age of ten; she then suffered from rheumatic fever, scarlet fever four years later, and a year after rheumatic fever again, when there was well-marked evidence of valvular disease of the heart, systolic and presystolic murmur at the apex, with thrill. The mitral and tricuspid valves were found to be "button-hole" and thickened, but there were no vegetations; both auricles were dilated. It was an illustration of the facts elucidated by Dr. Fenwick; for the patient was a young woman, and there was a history of rheumatic fever. The stenosis, although sought for during life, was not recognised; and this case shows that that condition may exist without any signs to declare it. There was no special appearance of youth in this patient, which has been noted in others and much commented on.—Dr. Wilks said Dr. Fenwick had mentioned one case of tricuspid stenosis in which a presystolic murmur to the right of the ensiform cartilage was heard. —Dr. Fenwick said that in both the cases he brought forward such a murmur was heard. In thirty-two out of forty-six cases the murmurs heard had been noted, and in nineteen or twenty those at the xiphoid cartilage were different from those at the apex, in thirteen presystolic, and in six or seven systolic. He asked if there was any increased cardiac dulness on the right side in Dr. Horrock's case. This was very often found on account of the enormous dilatation of the right auricle. In twelve out of thirteen cases collected by Dr. N. Moore the patients were females. Dr. Coupland had sent him notes of two females, and Dr. Peacock also two females. — Dr. Horrocks, in reply, could not say whether the cardiac dulness was increased to the right or left, but from post-mortem appearances he should be inclined to think the dulness greater to the left; the increased breadth of heart was mainly on the left side from the enormous left auricle; the heart, too, was pushed over to the left.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Renewal of Upper Part of Femur after Removal for Necrosis.—Ataxy with Knee-phenomenon.

At the meeting of this Society on February 28th, Mr. F. J. Gant, president, in the chair—

Mr. Thomas Bryant exhibited a female child, aged six, in whom the upper part of the femur, with its head, had been renewed after the removal of the orginal bone in November last. The case had been brought before the notice of the Society on the 26th of that month, and the preparation was shown, including the epiphysis of the right femur, neck, trochanter, and half of the shaft. The disease had been one of acute necrosis, and the femur with suppuration of the hip-joint, following an attack of acute periostitis. At the time of the operation in November the only evidence of periosteum was seen at the lower neck of the dead shaft, which was surrounded by an ensheathing casing of new bone; and as no attempt to form new bone at any other spot was possible, it was reasonable to conclude that there was no other periosteum present; for if there had been new bone would have been formed by it as certainly as it had been formed about the lower end. After the operation in November everything went on well; the wound was kept clean by means of a drainage-tube and the washing by iodine water, and was dressed with terebine and oil. The limb was kept quiet and in a state of slight extension by means of the double splint with its elastic pulley. No elevation of temperature followed the operation or attended the progress of repair, and in less than a month the wound through which the bone had been removed had quite healed; indeed, the progress of the case was so rapid and satisfactory that Mr. Bryant said, had he brought the case forward to illustrate a new form of dressing wounds he might with some show of reason have held it forth as a marked example of its value, and been weak enough to suggest that such a result could not have been obtained by any other method than the one he was advocating. But during this time other changes were taking place, and from the present condition of parts these changes were clearly the formation of new bone, with a new joint, for within three months of the operation the case was found to present the same features as it now exhibits—that is, the complete reformation of the bone that had been removed with a new joint. This was demonstrated by the smooth movement of the femur in the acetabulum, and the perfection of the movements of the limb—flexion, extension, adduction, and rotation of the limb existing at the present time almost as perfectly as they do in a sound joint. The new bone was, however, about one inch shorter than the opposite. How this new bone had been reformed was a somewhat difficult problem to solve, since it seems very clear that there was no periosteum left by which such a physiological process could have been effected. Still, the fact remains that a new head, neck, and upper half of the femur had been remade, and for lack of a better explanation the author expressed his belief that this result had been brought about either *directly* by the effusion of new bone-forming material from the small ensheathing casing of new bone which surrounded the lower inch of the dead shaft; or *indirectly* by the catalytic action of this bone forming material upon the reparation matter which the surrounding tissues had found out. For his own part Mr. Bryant was disposed to think that the first explanation was the correct one, for it particularly coincides with a piece of experience he had acquired in dealing with a somewhat similar case some years ago. He brought the case before the Society as a unique one in his knowledge and experience, as a singular example of joint and bone repair under exceptional conditions, as a physiological problem for the Fellows of the Society to solve; and, above all, as a surgical case full of encouragement in the line of conservation, and valuable for future guidance in the treatment of joint and bone disease.—The President referred to the difficulties of arriving at a true explanation of the facts of this case, and thought the bone-forming properties of bone was not sufficiently recognised. He gave two instances which bore on this point, and which supported the view that in these cases bone was formed from the bone ends. In cases where no periosteum remained this was the only solution of the question, unless the new bone was formed by the surrounding tissue.—Mr. Adams considered the case unique. There was no doubt that the upper third of the shaft was regenerated, but whether there is a new head and neck, it is impossible to say. With regard to the formation of new bone, he thought periosteum may have been present, although in an altered condition, and that the subperiosteal tissues were engaged in the production of new bone. — Dr. Crichton Browne agreed with Mr. Adams, and referred to facts observed in skin-grafting in support of this view. — Mr. Pearce Gould inquired whether when the splint was first removed there was free motion in the joint.—Mr. Bryant replied, that no doubt the view that the periosteum originated this new bone was the more probable one and most taking, but (difficult as it was to believe) there was no periosteum left, nor was there any altered or gelatinous periosteum to be seen. He therefore thought that this solution of the difficulty could not be entertained. In reply to Mr. Gould he said the splint had been removed for ten weeks, extension being kept up during that time within the limits of pain; when the splint was removed, rotation, abduction, and adduction were as perfect as now. He still recommended that the limb should be used as little as possible until the new bone had acquired strength.

Dr. Heron showed a male patient, forty-nine years of age, suffering from Ataxic Symptoms with marked knee-phenomenon. There was no history of syphilis; and the man was healthy up to three years ago, when he had severe gastralgia, followed by diarrhœa. Then followed numbness in both hands, and some months later in the toes of both feet, and typical ataxic symptoms developed. Sexual power diminished, and became extinct. Spasmodic twitchings of legs and cramps occurred from April to June last. Since the beginning of 1880 he has had sensation of cord-like constriction around the trunk at two levels. No change in fundus oculi; pupils natural; tactile sensation diminished, especially in fingers; marked incoördination; knee-reflex excessive in both legs, most markedly so in the right; ankle clonus readily elicited, especially on the right side; front tap no response; diminished muscular irritability to both currents in the intrinsic muscles of the hands and in the muscles of the legs and feet. Dr. Heron regarded the case as one of sclerosis of the posterior root-zones of the crossed pyramidal tracts and of portions of the anterior cornua.—Dr. Dowse thought the case anomalous, and alluded to a similar one. He did not think it was locomotor ataxy, although the posterior roots were affected, but as one of chronic transverse myelitis; in which opinion Dr. Crichton Browne concurred.

Dr. Woakes then read a paper "On the Treatment of Goitre by Fluoric Acid," which will be published *in extenso* in our columns.

Reviews and Notices of Books.

Disease of Liver and Portal Vein. Vol. IX. Dr. H. Von Ziemssen's Cyclopædia of Medicine. English translation. London: Sampson Low & Co. 1881.

When Bartolini, in his controversy with Riolanus, wrote his celebrated epitaph on the liver, triumphantly announcing that its dominion was henceforth at an end, the mortuary scroll inscribed on the escutcheon of the deceased organ should have been *Resurgam.* Certainly the physiological investigations of the last quarter of a century have more than restored this organ to its former importance, and the result has been that more attention has been drawn within the last few years to its diseases and derangements by practical physicians than during the whole period that had elapsed since its interment in the middle of the seventeenth century by Bartolini. Thus during the last decade we have Dr. Habershon's Lettsomian Lectures on the pathology and treatment of some of the diseases of this organ, Dr. Murchison's Croonian Lectures on its functional derangements, as well as the second edition of that physician's Clinical Lecture on the diseases generally of that organ. Nor must we omit to mention the valuable observations contributed by the late Dr. Stephen H. Ward, embodying that gentleman's clinical experience, derived from a long connexion as visiting physician to the Seamen's Hospital, an institution which affords a peculiarly rich field for the study of hepatic disease.

The present decade opens with two important works—that by Dr. Wickham Legg on bile, jaundice, and bilious diseases, and that which forms the subject of the present notice. The volume commences with an account of the topography, structure, and function of the liver, deserving of praise from its clearness and brevity. The subject of jaundice is next treated of, and the causes that produce that symptom under various conditions are briefly but lucidly discussed. The author (Ponfick) adheres to the view that the jaundice appearing in phosphorus poisoning belongs to the "hepatogenous" variety, and is to be explained by the swelling of the secreting cells combining with catarrh of the finer ducts to produce obstruction. This is borne out by experimental fact, since in the livers of dogs poisoned by phosphorus the finer ducts within the liver are found always plugged with a colourless mucus, which hinders the descent of the bile. Icterus menstrualis, a peculiar malady first described by Senator, in which the jaundice recurs regularly at intervals of four weeks, is also placed in the same class; the jaundice, however, in this case, he does not attribute to catarrh of the bile-ducts, but to sudden changes produced in the blood-pressure of the portal system. Whether this explanation is the correct one the present state of our knowledge makes it impossible to decide. The influence of menstruation and gestation upon the functions of the liver is a question which ought to be made the subject of experimental research. The connexion between acute yellow atrophy and pregnancy, periodic jaundice and menstruation, and the important observation made by Prout, that in various uterine affections he repeatedly met with a temporary excess of urea in the urine, point to an intimate sympathetic relation between the two organs. Thierfelder contributes a succinct account of the various forms of hepatitis and of acute and simple atrophy of the liver. With respect to the treatment of hepatic abscess we are surprised at the scant references made to the employment of the aspirator either as a means of diagnosis or for relief, nor are the valuable rules laid down by Murchison with regard to the best method of operative procedure under different conditions even alluded to. The same paucity of information with regard to the radical cure of hydatid cysts is also manifest in Heller's article on this subject. Schueppel and Leichtenstein contribute a conscientious but ponderous article on cancer of the liver. The former also writes on the subject of amyloid and fatty degeneration of the liver and diseases of the biliary passages, gall-stones, and diseases of the portal vein. The article on amyloid degeneration contains nothing that is novel, and omits some points of interest, whilst that on diseases of the biliary passages and portal vein is probably the best, as it is the most interesting, article in the work. In conclusion, we would observe that this translation gives the most complete account of diseases of the liver, in their entirety, that we at present possess in the English language, but we qualify this by remarking that that part which deals with the clinical aspect of hepatic affections cannot be compared with Murchison's work in this department, whilst that portion of it which treats of matters of physiological and pathological interest is behind, in respect both of labour and recent information, the exhaustive and able treatise of Dr. Wickham Legg.

Conscious Matter. By W. STEWART DUNCAN. Pp. 128. London: David Bogue. 1881.

THIS small and unpretending, but very suggestive volume, is an attempt to show that the various systems of psychology which are now generally received, including even those of Bain and Herbert Spencer, rest upon an unstable basis, and that the ordinary statements which imply that mind is the antithesis of matter, that all things are resolvable into the subjective and the objective, or into the *ego* and the *non ego*, are wholly and entirely inadmissible. Mr. Duncan maintains that it is much more logical to hold that the physical world is constituted by matter in the dynamical or energetic phase, and that the mental or psychical world is to be regarded as a sentient or feeling phase or property of matter. In working out his views he shows, first, that so late as up to the middle of the present century psychologists held that in man the body was animated or inhabited by a separate soul, but that the tendency of modern thought and inquiry has been to reject the hypothesis of an immaterial soul, and to demonstrate that it is only a property of matter. The point that has been often urged to prove the existence of a separate soul is that no analogy can be shown to exist between mental and physical phenomena. But, as Mr. Duncan pertinently observes, the antithesis between mind and matter is not complete or perfect; it really consists only in opposing matter, or matter *plus* energy, to a property of matter. He observes that the word "physical" has been employed in several senses, sometimes meaning pure dynamics, or the play of forces, sometimes matter apart from either force or feeling, or any quality except mass or extension, and sometimes the two just mentioned in combination, as in the cases of moving bodies. He limits it himself to "force" or "energy." In like manner the term "mind" has been regarded as an *immaterial* substance, capable of feeling and thinking, and also as a certain condition. Now, he goes on to say, it is consistent with clear thinking to contrast one substance with another, as spirit with matter, if there are two substances, or it is consistent to contrast one property with another property, as feeling with consciousness, or consciousness with action. But if it be allowed to contrast one of the properties inhering in a single substance, as mind or feeling, with matter *per se*, then it must be allowed as equally relevant to contrast its companion property, energy, with matter *per se*, in which case it must be further allowed as equally reasonable and consistent to say "dynamics is opposed to matter," as it would be to say "mind is opposed to matter." Instead, then, of "objective" being the true antithesis of "subjective," in the new psychology we should have "active" as its opposite. "What," he asks, "are the two phases or properties inherent in each living man, and therefore in all matter? Is not one a subjective mental, conscious, feeling phase? And is not the other an active, energising, dynamical, physical phase? Where, then, is the use of the term 'objective' or '*non ego*'?"

Mr. Duncan then proceeds to point out that, so far from there being no points of analogy between the physical, as represented by "force," and the mental or psychical, many analogies may be shown to exist between them: as, for example, that they are both destitute of space extension; that they are both related to that which has space extension —to wit, matter; that both have the characteristic diversities that each have, the quality of time, extension, or duration, and so on. He then adduces various reasons for believing that matter is single, and, in fact, is itself only a group of forces, more or less complex, in equilibrium. When this equilibrium is disturbed, the atom or group of forces is alive in the sense of being the seat of momentary feeling, and perhaps even sensation, though it may immediately relapse into unconsciousness. It has, so to speak, its own *ego*. The bodies of the higher animals are made up of a number of such atoms, which are bound together to form a compound or comprehending *ego;* and hence the author arrives at the unlooked-for conclusion—considering that it is the outcome of uncompromising materialism—that if the universe is to be regarded as "an organic whole," as many philosophers admit, there must be an *all-comprehending ego* which represents or is constituted by the synthesis of universal feeling, while the physical aspect of the material universe is, as a whole, the synthesis of universal energy.

Silverlock's Medical Reform Book. Edited by GEORGE BROWN, M.R.C.S. London: H. Silverlock.

WHATEVER value this little volume might otherwise possess is negatived by a very indiscreet attempt to compile a list of "Consulting Physicians and Surgeons, London and Provincial," for the use of general practitioners in times of emergency. This idea is a mischievous one, and the manner in which it is carried out may be inferred from such facts as the following. The List of Consultants in some instances does not include the names of several of the best-known practitioners, and in other instances the best-known writers are omitted.

GEORGE H. PORTER, F.R.C.S.I., has been appointed by his Excellency the Lord Lieutenant a member of the Board of Superintendence of the Dublin Hospitals, in the room of the late Christopher Fleming, M.D.

THE LANCET.

LONDON: SATURDAY, MARCH 12, 1881.

THERE is only too much reason to conclude that the Government have resolved to have no medical men in the Royal Commission for investigating the working of the Medical Acts. With every disposition to believe in the desire of the Government to appoint Commissioners of ability and impartiality for this work, we cannot but fear that in this matter they are taking a course which will satisfy neither the public nor the profession, and which will be very unsatisfactory in its results. Why should the medical profession, as a profession, be excluded from a Commission for considering the working of the Medical Acts? Is the question to be investigated so simple that it can be mastered entirely by lay Commissioners, or is it a rule in appointing Commissioners to exclude from them persons of special knowledge? Both of these questions must be answered in the negative. The existing machinery, or rather nineteen machineries, for diplomatising medical men, are as complex and various as anything could well be. As such they will be hopelessly unintelligible to lay Commissioners. Under these circumstances the lay Commissioners will have to be guided and inspired. By whom? By the Medical Council, which is supposed to have some official monopoly of knowledge and some official right of advising Government on its own efficiency. This is the very way in which Governments have been misled and the question of Medical Reform obstructed for ten years. And it is very difficult to understand how a Commission of laymen only will be able to escape from the delusion that they are to take counsel of the Medical Council, or of one or two ubiquitous members of it who seem to have no occupation so systematic and no pleasure so great as that of opposing the will of the profession. We repeat that a Commission of laymen only will be hopelessly embarrassed by the number and complexity of questions and interests that will have to be considered in connexion with this subject.

Secondly, is it a rule in appointing Commissioners to exclude persons of special knowledge? We do not pretend to much learning in this matter; but we have enough to give a decided negative answer to the question. Two illustrations occur to us at the moment, not to mention others. A Commission exists at present to investigate the rules made by the judges for the working of the Judicature Acts. Surely, this is a subject in which the public are most seriously interested? Of whom is the Commission composed? Entirely of lawyers, either solicitors or barristers! Again, there is at present at work a Royal Commission on Tonnage, one-fourth of which, at least, consists of shipowners. These cases are only two out of a host of instances that we might quote to show that persons of special knowledge are generally included in Commissions. Why should it be otherwise when medical legislation is contemplated — legislation that has reference chiefly to the education and registration of medical men, subjects in regard to which even educated and enlightened laymen are apt to be singularly apathetic and ill informed?

We venture most respectfully to urge on Lord SPENCER and his colleagues that the profession will feel most deeply hurt by excluding its members from this Commission, which may affect for generations the efficiency and the rights of medical men. Even laymen are amazed at the idea of excluding medical men. We grant that members of the Medical Council should be excluded. But there are a dozen men outside of the Medical Council, and sufficiently independent of medical corporations, who could render the most valuable assistance to the Commission, and whose presence in the Commission would be a security to the profession that its feelings and interests were not overlooked. We can only leave the matter with the Government. We repeat our belief that it wishes to do what is right; but we repeat our questions too: What is the hope of lay commissioners understanding the working of nineteen medical corporations, and of a General Medical Council in which they all meet to support and belaud each other? And what is the reason for dealing so exceptionally with the medical profession in constructing a Royal Commission likely so deeply to affect its future?

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ON the 7th inst. the Lord Chancellor delivered judgment on the appeal to the House of Lords in the case of the Hampstead Small-pox Hospital. He decided, with the concurrence of the lords sitting with him, that the Metropolitan Asylums Board, the appellants, were not shielded from any consequences of their acts affecting injuriously the private rights of individuals by the Acts of Parliament under which they were created and exercise their functions, any more than if they had been an association of private individuals. The appeal was, therefore, dismissed, and the costs of the proceedings were imposed upon the Board.

Thus ends this lengthy and expensive litigation. The lower Court found, in fact, that the hospital at Hampstead had been conducted so as to become a nuisance to the plaintiffs—in other words, persons occupying houses in the vicinity of the hospital; the highest Court now finds that the legal grounds upon which the Metropolitan Asylums Board sought exemption from certain consequences of its acts are delusive. It is difficult to overrate the important effect the decision of the House of Lords will exercise upon the provision of hospitals for infectious diseases, not only in the metropolis, but also in the country generally. In the metropolis it will confirm the dead-lock which already exists, if it does not lead directly or indirectly to the closure of other hospitals of the Asylums Board, and will paralyse all efforts of that Board with reference to the disease until probably fresh legislation on the subject can be effected—if, indeed, it does not lead to the reorganisation of the Board—a consummation devoutly to be wished. In the provinces the decision will probably give rise to a crop of litigation, and, what will prove a more generally spread evil, will give a plausible excuse to unwilling authorities not to exercise their powers as to hospital provision under the Public Health Act, 1875.

In considering the results of this Hampstead case, it is to be trusted that neither the Legislature nor the public will lose sight of the circumstances which underlie the case, and which have brought about consequences so disastrous to public health administration as concerns sanitary hospitals. It has been too much overlooked during the whole progress of the case, that the original constitution of the Metropolitan Asylums Board rests at the root of the whole matter. This Board was created wholly for Poor Law purposes, the hospitals which it erected and controls were also created for like purposes, and the law under which they were called to act limited them to their Poor Law functions. So far as these functions had relations to public health, it was indirectly in relation to their duties with regard to pauper sickness, and particularly infectious sickness. The Board was placed by the Legislature under the supervision of the Poor Law Board, a Board accustomed to govern itself by the straitest interpretations of law and the practice of routine, and which having in earlier days initiated officially public health administrative reform in England, had afterwards become distinguished by the fatality which had accompanied its association with any public health or sanitary matters. It had signally failed in the one public health piece of administration entrusted to it—namely, public vaccination. It had equally failed in the one sanitary matter for which it was responsible—the sanitary administration of workhouses.

Under these circumstances the Metropolitan Asylums Board infectious disease hospitals were carried out without sufficient regard—if, indeed, any—for the public health considerations involved in them, and they had to be administered and supervised by two bodies, one of which had no knowledge of what was included in such considerations, and the other had proved itself unfitted for them. Hardly had the epidemic of small-pox which began in 1870 manifested itself before the unsuitability of the two public bodies who were entrusted with the charge of the great hospitals which had been erected by the Metropolitan Asylums Board for their task was made manifest, and this curiously enough at Hampstead. Incidents which then occurred at the hospital there, and which should have at once led to investigation, were put aside without investigation, on the plea that it was not within the province either of the Asylums Board or the Poor Law Board; and although both bodies were fully aware of the necessity of investigation under the circumstances, no appeal was made by either for assistance to the department of Government which could have given efficient help in the matter—namely, the Privy Council.

But the Poor Law Board was presently merged into the Local Government Board, and it seemed likely that the Board exercising the functions of both Central Poor Law Authority and Central Public Health Authority in the kingdom would, while the epidemic of 1871–72 was quite fresh in the memory, take steps to ascertain the meaning of the rumours and statements at Hampstead, which even then threatened the consequences which have now happened. But it was otherwise. The Local Government Board gave not the least attention to the matter, and continued to treat the subject, as it has continued to treat it until the last few weeks, as if it were a Poor Law matter solely. The successive public and judicial inquiries as to the Hampstead Hospital failed to arouse it to a true sense of its importance; and so great has been the judicial blindness the Board has displayed, that we are by no means sure that even the disastrous results of the Hampstead case will clear its vision.

It is with the part played by the Local Government Board and the Metropolitan Asylums Board that the Legislature and the public have most concern. The former throughout have failed to recognise the respective parts of Poor Law administration and Public Health administration in the question at issue; the latter have proved themselves utterly unfitted to the combined Poor Law and public health duties which have been thrust upon them in the administration of their hospitals—duties which have been given a sort of legislative sanction in the Poor Law Amendment Act, 1879. As a Poor Law body they would doubtless have performed, and as relates to the Poor Law have probably performed, their work admirably. But when their original duties have been brought into contact with public health considerations, they have failed miserably. It seems to us clear that if the functions of the Asylums Board are to be continued, the Board should undergo reorganisation. The Local Government Board will now have to take up the question of sanitary hospital accommodation in London, and doubtless also in some respects in the provinces, in a different and much wider aspect than it has hitherto considered the subject, and let us hope that they will at least profit by their recent experience.

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THE subject of the physique of our soldiers under the present short-service system in the army has been brought prominently forward by Sir FREDERICK ROBERTS in a recent speech at a Mansion House dinner, and has been discussed in an article in the *Nineteenth Century* by Sir GARNET WOLSELEY. Sir FREDERICK ROBERTS complains that our soldiers are too young, and that they are in consequence wanting in discipline, *esprit de corps*, and power of endurance. In support of this view he stated in some detail the result of his observations on the condition of the men who served under him in the Afghan war, and in the justly celebrated march from Cabul to Candahar. He found that the newly arrived drafts, consisting almost entirely of young men, broke down under the continued strain and fatigue which the older and more seasoned soldiers were able successfully to contend against; and from this he argues in favour of reverting to the old system of long service. If it were practicable, there can be no doubt that it would be greatly to the advantage of the army if no recruits were enlisted under twenty-five years of age, when they have attained full growth and development, and if their services were secured for a period of ten years. We should then have an army unexceptionable in point of physique, with powers of endurance, and, if judiciously trained, also with habits of discipline, and *esprit de corps*. But we fear such a state of matters is a consummation to be wished for, but never realised. We believe it would be perfectly impossible to recruit our army under such conditions. Most men at twenty-five have entered upon some course of life, have developed for themselves some line of business, and it would require a much stronger inducement than the pay or social position accorded to soldiers to lead them to exchange for a military career. The greater portion of the men thus joining the army would be the failures of civil life—in too many instances failures from the lack of those qualities and habits which are most desirable in the army. But the question presents itself whether, as this primary constitution of the army appears unattainable, much of the advantage pertaining to it might not be obtained by reverting to the old system of long service—say for twenty-one years; for we do not believe it would be possible to introduce the system of life service again into this country. The quality of the recruits has not deteriorated with the introduction of enlistment for short service; for on comparing the returns of 1865 with those of 1878, we find that in the former, when the minimum period was ten years, the proportion of recruits under twenty years of age was 5488 in every 10,000, while in the latter year, under the existing system, the proportion under twenty was only 4699. Again, looking at weight as a measure of development, the proportion of recruits under 120 lb. was 2597 in 1865, and 1452 in 1878 in every 10,000; so that during the later period the age and development were both more favourable than during the earlier. The falling off complained of therefore must have depended on the removal of the older soldiers to the army of reserve, their places being of necessity supplied by newly raised recruits. The advantage to be gained by reverting to the system of long service would be that the proportion of young men serving in the ranks would be considerably reduced, their places being filled by men of mature age, longer under discipline, and consequently more able to resist the hardships incident to field service, and more likely to be steady and well in hand under discouraging circumstances. But with the question of enlistment for long service arises the very important one of the possibility of maintaining under it an army of reserve. It appears to be a very general feeling that such an army is imperatively required to prevent a recurrence of those scares which have frequently of late years seized the public mind, and that there should be some security against the possibility of being wholly unprepared in case of an attack upon our shores. A good nucleus of such a reserve has been made, and it now becomes an important question in what way it can be maintained with the least interference with the efficiency of our standing army. Mr. CHILDERS proposes to adopt two measures for this purpose: the first being to raise the minimum age on enlistment from eighteen to nineteen years, and the second to increase the period of service with the colours from six to, in most instances, eight years. The first of these measures, while it will reduce by one-fourth the number of immature lads enlisted, will doubtless create some difficulty in raising the requisite number of recruits in the year. We would also caution Mr. CHILDERS that unless some additional precaution, such as the establishment of a minimum weight, be introduced, the rule with regard to age will be systematically broken through, as is well known to be the case under the present rules with lads of seventeen, who invariably, unless when very slight and likely on that account to be rejected, declare themselves to be eighteen years of age. It is true Mr. CHILDERS states "that no man who (though nineteen) has not the physical equivalent of that age will be accepted;" but he has not stated how that is to be gauged; and we fear that unless some definite measure, such as weight, be adopted, the regulation will be of no value. The addition of the two years to the other end of the scale will of course be an advantage, as it will retain men arrived at maturity and well disciplined. We confess we should have been well pleased had Mr. CHILDERS seen his way to revert to the old limited-service period of ten years, but he has stated that in his opinion such a course could not be followed without the adoption of a scale of pensions, "such as no House of Commons could be expected to sanction."

Mr. CHILDERS stated that "no man under twenty years of age, or with less than a year's service, will in any circumstances be sent to India or a tropical station." He does not appear to be aware that this has been the established rule for a good many years past, but that, like many other Horse Guards' regulations, it has been systematically disregarded, as shown by the returns presented to Parliament. If, then, this rule is to be of any practical value, his first care must be to take steps to prevent it being evaded whenever it is found convenient to do so. With a view to meet the complaint of the difficulty of getting good non-commissioned officers, thoroughly up to their work, Mr. CHILDERS proposes to allow them to renew their service with the colours—corporals to the full period of twelve years, and sergeants for a second term of nine years, subject only to the veto of the War Office in each case. He also proposes to improve their condition so much as to make their continuance in the army desirable to them. If in this manner he can secure the services of the best men it will go to some extent at least towards overcoming the difficulty complained of by Sir F. ROBERTS of want of discipline and steadiness, for to good non-commissioned officers much of the efficiency and steadiness of the men is due. We most sincerely trust that Mr. CHILDERS may be successful in his endeavours to improve our standing army, while at the same time he maintains an adequate army of reserve, and that the improvement in the condition of the non-commissioned officers may be such as to lead to the enlistment of a good class of men, who will look forward to promotion and to having an "assured military career" ending with a pension, and with the prospect of Government employment in a civil capacity after their discharge.

NO one who has seen men of different mental calibres and orders of development, of dissimilar types of physical organisation, with natures and personal characteristics barely comparable, exhibiting in their diverse fashions the quality we call "courage," can doubt that this attribute or property of life which we are apt to look upon as a simple virtue, is, in fact, composite in its character, made up of various parts or properties, and that it may spring from either or several of a multitude of causes. The courage of the unreasoning and barely sensate boor who faces a danger of which he is ignorant or unappreciative, is not the courage of the man of culture and high sensibility, who is keenly alive to his peril, and yet dares it. The courage of the hardy mountaineer bears little resemblance to the corresponding quality as exhibited by the pampered and debilitated dweller in cities. Nor is the difference solely one of degree. That strong exercise of the will which enables the man of acute feeling and intelligence to discharge his duty under circumstances of almost overwhelming anxiety, has scarcely anything in common with the stolid immobility of the man who neither feels nor recognises the situation of peril in which fortune has placed him. Nor is the will always the dominant faculty in the physico-mental process by which the result—i.e., conduct characterised as courageous—is produced. Other faculties are often in the ascendancy, and, to use precise terms loosely, organised matter is as often the prime factor as a trained or naturally intelligent and potent mind. In short, what BICHAT says of sleep is true of courage—the general is made up of the particular. One man has courage because he happens to possess a highly developed nervous system gifted with the stability and vigour of health. Another exhibits this quality in consequence of the mature and well-knit development of his muscular system; while a third may triumph over the defects and deficiencies of his "bodily" nature by the force of his mind. There are many forms of courage—mental, nervous, muscular, and, we may even add, visceral—that is to say, courage springing from the excellence and stability of any particular part or system of the being which, for the moment, asserts itself, and, so to say, assumes control. Courage displaces cowardice when the *better* part of a man's nature gains the upper hand, and grasps the reins of conduct; but that better part is not always the mental—or the conscientious will,—it may be, and often is, a relatively ignoble element of the general constitution that comes to the rescue in a critical emergency, so that, if we may paraphrase a truism, the man is saved from being a poltroon as by the skin of his teeth.

Mental courage may take the form of an exceptional effort of the Will, subjugating the turbulent instincts and impulses of fear, and enabling the individual to assume and preserve a bold exterior, while within his whole being is quaking with fear. In one sense this is the highest form of mind-courage triumphing over a weak and shrinking body. Or the mental habit may be such that the consciousness, as it were, inhibits the perceptive faculties so completely that the supreme cerebral centres are not impressed with the keen intelligence of surrounding perils. This is what happens when the mind is so concentrated on the work in hand as to forget its danger. Enthusiasm, passion, revenge, ambition, or a strong sense of devotion, will throw the consciousness into such a mood that it is not harassed by fear, although occasions of fear abundantly powerful to disturb it are present. The danger is there, and the mind is so constituted that it must feel fear, but its attention is arrested and diverted. If it were not for this method of courage-induction, the majority of educated and sensitive men would probably figure as cowards; but the need of personal action or the strong stirring of the emotional nature which occurs—say during an engagement—supersedes and, by diverting the consciousness, suppresses fear. A man of strong passions or relatively weak sensibilities—which amounts to the same thing—can readily establish this mental absorption, which shuts out the impressions of danger, and so appear courageous. The difference between the dogged courage of half-cultured races and the set purpose of highly educated soldiers illustrates this position. The diverse workings of mental courage are, however, so well understood that it is not worth while to dwell upon them. It is the part played by the lower elements of man's nature in the production of valour which we are interested to elucidate.

A courage dependent upon, and arising out of, nervous force, is common, and expresses itself in steadiness of conduct in action without the easily recognised evidences of an overmastering excitement, or even absorbing interest, in what is going on. The nerves not only are under control, but are themselves disciplined; they do not scare the consciousness inopportunely; they do not play it false, or betray it in a moment of urgency. The highest token of power is a self reserve of force, and the integrity of nervous development shows itself in a deep tone of resilience the opposite of the state of irritability, which is, according to the old formula, a disposition to act without the power to act with. The possession of a stable nervous system will often enable an individual who is lacking in will-force or "moral courage" to stand without flinching in the face of deadly danger.

Again, there is a muscular courage due to the excellence of the voluntary system of muscles. It may, at first sight, seem difficult to distinguish this quality from that last indicated, the relations of nerve and muscle being of the closest, when the two are studied under conditions of activity. There is, nevertheless, a sharply defined difference between the two qualities, as viewed from the physiological standpoint. The characteristic property of muscle in a high and healthy degree of development is sustained contractility, or, which does duty for that operation of force, the power of bringing the functions of individual fibres and fasciculi into such coordination that the result may be a steady exercise of power. This steadiness is not the expression of nerve strength, but of muscle strength. Nerve force calls muscular tissue into action, and endows it with motive force, but the *manner* of muscular contraction is more directly dependent on the integrity of muscular development and the excellence of the fibre than the force moving it. Muscular sense or consciousness, automatism and tonicity, are all more directly properties of muscular tissue than of the nerve tissue by, or through, which it is supplied with the energy of action. An apt illustration of these conclusions is found in the difference between two men exposed to the same danger—the one possessed of a strong nervous system, free from the recognised tokens of mobility, the other having a vigorous muscular system in a high state of development. The first will go into action with mental and nervous fortitude, but with a hesitating gait and awkward bearing, with trembling fingers and staggering limbs, while the other, in spite of an even stronger sense of fear, will be steady in his movements. Moreover, the first man is generally pale, the latter either unchanged in colour or slightly reddened, not, however, to any marked extent, face-flushing either indicating vaso-motor depression or an exaltation of cardiac force, the result of passion.

There is also a form of courage which is visceral, or perhaps it would be more correct to say healthy viscera form the physical basis of a state which in its integrity gives rise to an equanimity of temper and a firmness that render the consciousness tranquil and self-protected, and establish a physico-mental condition the reverse of that described by MARSHALL HALL as "the temper disease." It must suffice to sketch the outline of our argument, leaving the scientific memory to fill in the details.

The moral of the view we propound may be pointed in a few brief sentences. It must not be assumed that such "courage" as commanders, or troops, show on the field is of a simple and voluntary character, or is always due to the same cause, still less that it is generally, or even often, the effect of an effort of the Will. The body is not merely the instrument of the mind, but an integral part of the mind itself, if not practically its base and centre. Sometimes one part of the nature and sometimes another is in the ascendancy. Individuals vary with their own states of health and "feeling," and with the circumstances by which they are surrounded. There are also radical differences of physico-mental constitution whence spring great and contradictory differences of nature and character. Courage is quite as much a result of mental and physical training as of congenital qualities. Healthy development, and health as a state, are essential to courageous acts and bearing. Meanwhile general inferences as to courage and generalised methods of producing it, are certain to fail in individual instances, because while one man may evolve courage as an effort of the will, another, though equally strong-minded, cannot appear courageous because his nervous, or muscular, or visceral system is not in a condition to contribute its quota to the general result. The history of heroism in different ages, read in the light of development and with regard to the domestic and general habits of the people, will be found to supply food for reflection of the highest suggestive nature. It will teach lessons which it would be well to lay to heart in any reorganisation to which our army may hereafter be subjected. The time has not arrived when the physiologist and the psychologist are deemed worthy to have a voice in councils of State; but in relation to matters involving questions of *development* it is strange that the obvious teachings of science should be entirely disregarded or set aside. Experience may have heaped together large stores of information; but there are branches of knowledge which only science can supply.

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OUR knowledge concerning the source of the liquor amnii is somewhat uncertain, and two theories are held with regard to it. The first is that it is the product of the secretion or transudation from the maternal vessels in the uterus; the other, that it is the product of the secretions of the fœtus. Accurate knowledge upon this subject is of very great importance, for its elucidation lies at the foundation of the pathology of some of the diseases of pregnancy and intra-uterine life, and involves the whole question of the activity of the kidneys in the fœtal state. Experiments have been made upon pregnant animals with a view to solving the problem, and the most recent are those conducted by WIENER in Breslau, the results of which are published in a paper in the *Archiv für Gynækologie.*

Two or three kinds of experiments have been performed. In the first, a solution of sulph-indigotate of soda was introduced into the jugular vein of rabbits in an advanced state of pregnancy, and the animals killed at intervals ranging from a quarter of an hour to two hours and a half after the injection was made. It was then found that the liquor amnii in all the cases contained the colouring material used, its presence being proved by the microscope. In none of the cases was the colouring material found in the organs of the fœtus, with the exception of the stomach and intestines, into which it had obtained admission by the process of swallowing; none appeared to have passed by the fœtal kidneys. The quantity of the material found in the liquor amnii was small, and this appeared to be due to its elimination by the maternal kidneys. To obviate this the kidneys were extirpated before the injection was made, and in cases thus treated a large quantity of it passed into the amniotic fluid. When animals in the early stage of pregnancy were similarly treated, hardly a trace of colouring matter was found in the liquor amnii. To decide what part the fœtus plays in the production of the liquor amnii, the colouring material was introduced into the body of the fœtus. A quantity of the coloured solution was injected into the amniotic sac and the fœtus made to swallow, but it was found that the material did not in this way enter the blood of the fœtus. It was then injected under the skin of the back of the fœtus. On subsequent examination, the colouring material was found in the kidneys of the fœtus in precisely the same situation as it was found in those of the mothers in the first series of experiments. It was traced there as soon as twenty-five minutes after the injection, and in one case a drop of coloured urine was discovered in the bladder. In these experiments, moreover, the liquor amnii was coloured blue.

From these data WIENER argues that the fœtal kidneys are not only active during fœtal life, but that they secrete rapidly, and are the chief source of the liquor amnii. He maintains, moreover, that during early life the fluid comes exclusively from the embryo until the fœtal membranes come into intimate contact with the maternal tissues, and the placenta is formed. At first the fluid is derived from the cutaneous vessels of the fœtus, afterwards from the Wolffian body, and later from the kidneys. After the membranes have come into intimate connexion with the uterus, a portion of the fluid comes from the maternal vessels. WIENER explains the varying results of chemical analysis of the liquor amnii, and the occasional absence of urea in it, by the statement that the urea in it continuously undergoes decomposition or diffusion into the maternal blood.

Besides the experiments referred to, other evidence bearing upon the question is brought forward and discussed, especially that furnished by cases in which occlusion of the urinary passages had occurred during fœtal life. In these cases considerable quantities of urine have been found behind the occlusion, the secretion of which, according to FEHLING, is pathological. This opinion of FEHLING is, in our opinion, successfully controverted by WIENER. It cannot be questioned after the evidence brought forward, that both the maternal vessels of the uterus and the secreting organs of the fœtus contribute to the production of the amniotic fluid, but the proportion the contributions of each bear to one another cannot be regarded as finally settled. The evidence adduced by WIENER in favour of the fœtal kidneys being the chief source, although indirect in its character, goes far to prove his view; but until further and more conclusive evidence is adduced we cannot go beyond the statement that the liquor amnii is the joint produce of the vessels of the uterus and of the fœtal kidneys.

AT a meeting held at Chelmsford for the purpose of promoting the establishment of a cottage hospital in the town, Dr. Vipan stated that out of 260 cottage hospitals which had been founded in Great Britain, only eight had failed, and those not from want of funds, but on account of theological disputes between members of rival sects.

Annotations.

"Ne quid nimis."

DEATHS FROM CHLOROFORM.

TWO instances of death from chloroform have been recorded during the past week. One occurred at Swansea. The wife of a commercial traveller, aged nineteen, was undergoing an operation for a uterine tumour. Death occurred after the influence of the anæsthesia had been maintained for an hour and three-quarters. It is very desirable that the details of the case should be published, since it is unusual for chloroform to be fatal so long after the commencement of its administration. The other case, which occurred at the Bradford Eye and Ear Hospital, was of a more ordinary character, inasmuch as death occurred just as the patient was getting under the full influence of the anæsthetic. The patient was a man, aged sixty, who was about to be operated on for cataract, and he had been run over and slightly injured about a fortnight before—a fact which was not known to the surgeons until after his death. Mr. Denby appears, from the account of the inquest, to have administered the chloroform on a towel, a small quantity of brandy having been previously given. Apparently a drachm of chloroform was first administered: the patient was still for two minutes, and then struggled for two minutes more, and then again became quiet. Another drachm of chloroform was poured upon the towel, but part of it was spilt. After the second dose had been administered for about a minute and a half, it was noticed that the face became pale. Mr. Denby asked Dr. Bell, who was holding the pulse, how the pulse was, and he said that it had suddenly ceased. The heart was found to have ceased beating, and all efforts to restore animation were fruitless. The circumstances of the case were thus of the usual character. The accident was ascribed to heart disease by the verdict of the coroner's jury, but the fact does not appear to have been established by post-mortem examination. With regard to these and all other deaths from chloroform, unavoidable under the circumstances as they doubtless are, the question arises, Were they altogether unavoidable? Would the patients have died had ether been used instead of chloroform? This is a question to which a positive answer cannot be given; but since it is certain that the proportion of deaths from ether is far fewer than from chloroform, it is probable, in the same degree, that any given death from chloroform would not have occurred had ether been given instead. No surgeon, who sanctions the administration of chloroform instead of ether, can acquit himself of some measure of responsibility for the death of his patient, unless he can prove that the special circumstances of the case rendered it, for the patient's sake, desirable that the increased risk, if small, yet measurable, should be run, and no other consideration should be held to justify the employment of chloroform.

FILTHY FOOD.

THE Birmingham sausage case, to which attention is drawn by one of our correspondents in another column, opens up a very wide and important question, and one which we have frequently discussed before. The population of this country being ahead of its powers of production, the people are driven, to a very considerable extent, to the consumption of preserved and tinned viands of various kinds. We have often pointed out the necessity of *every* tin or packet of preserved provisions bearing a label setting forth the exact nature of its contents, and until this is done it can hardly be possible that persons can be convicted of cheating and adulteration, or that the many opportunities of dishonesty which now exist will not be taken full advantage of. The Birmingham sausage-monger was convicted of putting in his sausages material which was not fit for human consumption owing to its putridity. This is a statutable offence, and we are glad that the offender was sent to prison without the option of paying a fine. It is doubtful, however, whether he could have been punished for putting horseflesh into his sausages. A "sausage" is a thing of acknowledged variability of constitution, and possibly a beef sausage might still be regarded as such, even though the beef bore but an infinitesimal proportion to the "flavouring." The same remarks apply to the various "potted meats," "preserved milks," "patent foods," &c. The public ought to be protected, and it is certainly proper that the percentage compositions of manufactured articles of consumption should be affixed to their containing vessels and papers. Of potted meats we need say nothing, except that respectable firms ought to be glad to protect themselves voluntarily by a percentage composition label. We think the exact amount of sugar, or other preservative, in every tin of condensed milk, should be stated; and we think it is high time, to take only one example, that the State should cease to help in the gulling of the public by allowing a pennyworth of lentil-meal to be sold for three-and-sixpence. It is becoming a question also whether manufacturers and importers of preserved and cured foods should not be placed under the Excise laws. At all events, it seems absolutely necessary that inspectors, similar to excisemen, should have right of entry into the premises of manufacturers of sausages and potted meats, for it was only by a happy accident that the Birmingham fraud was discovered. Inspectors of imported foods, whether tinned or preserved, seem also a crying necessity, in the face of what we may call the trichinosis scare and the Welbeck bacilli.

CINCHONA CULTIVATION IN CEYLON AND JAMAICA.

THE estimate of the cinchona cultivation in Ceylon, which we quoted in our issue of Jan. 29th in a review of Mr. Markham's recent work, is fully confirmed by a writer in the *Colombo Observer*, who states that the number of cinchona trees planted in the island in 1880 was not less than twenty millions. It is computed that, allowing for failures, these trees, together with those planted in previous years, will yield by 1885 not less than ten million pounds of dry bark a year, and, assuming other sources to be equally productive, the supply will then exceed that at present available by at least the above amount. The question is asked, "Will the demand equal the supply, or will the bark become unsaleable except at unremunerative prices?" That the price of cinchona bark will fall seems highly probable, and, in the interest of humanity, it is greatly to be desired that it should fall; but it cannot be doubted that the consumption will vastly increase with reduced prices, and it is not likely that the supply will exceed the demand to such an extent as to render the culture unremunerative.

It is not alone from the East that the plant is being successfully cultivated. A very encouraging account has been received from Jamaica, where the Government is wisely taking every means for extending the cultivation. We have before us a number of the *Jamaica Gazette* containing an advertisement offering the supply, from the public gardens, of cinchona seed—of crown bark at 5*s.* per oz., and of red bark at 3*s.* per oz. An ounce of seed will, it is estimated, produce 20,000 seedlings, which, if carefully raised, will plant five acres of land. Or young plants are offered, ready for transplanting into nurseries, at 21*s.* per box of from three to four thousand. Mr. D. Morris, Director of Public Gardens and Plantations in Jamaica, has also issued a broadsheet containing hints and suggestions for raising the plants from seed, and establishing cinchona plantations. He points out the various elevations at which the cultivation of the different species of bark may be most advantageously carried on, and the kind of soil which suits them best. It is very probable that vast tracts of land hitherto lying uncultivated on the northern slopes of the Blue Mountain range will prove suitable for the plants. The Government plantations already furnish bark to the London market, which fetches a good price. The sale of one consignment in August last, amounting to about 6000 lb., realised £1300. During the year 1879–80 no less than 27,399 lb. have been shipped. It is interesting to observe that the average price of both Jamaica and Ceylon bark was higher than that of the South American specimens, showing that the valuable properties of the trees are much improved under cultivation. The highest price of the Jamaica bark is a little in advance of the highest price of the same kind of bark grown in Ceylon. The similarity of climate in the two islands is shown by their long rivalry in the production of coffee, and it seems likely that a similar rivalry will occur in the growth of cinchona. Ceylon at present has the start, but it is hoped that as large tracts of land and the necessary labour are now available in Jamaica, the requisite capital and energy to overcome the initial difficulties of the enterprise will not be wanting.

The competition of the East and West Indies is stimulating the South American exporters to renewed action. "The result is," says Messrs. Rucker and Bencraft in their last monthly circular, "that hitherto untouched forests have been attacked, new ranges of mountains have been explored and tapped, and we are threatened with supplies of considerable magnitude from new sources." About 4000 packages of a new bark have already been placed in the market. It comes from the United States of Columbia, and is described as being of a somewhat peculiar character, although of fair quality. It yields about 2 per cent. of quinine. It is said by a well-known authority not to be the product of any species of cinchona tree. Very strong evidence will be required to prove the startling fact that any other than cinchona bark will yield quinine.

NEUROPATHIC EMPHYSEMA.

DR. BROWN-SÉQUARD exhibited at a recent meeting of the Société de Biologie the lungs and heart of a dog which he had killed a few hours before by suddenly crushing its head. Extreme emphysema of the lungs had been instantly produced. During the last ten years he has repeatedly observed that the mechanical stimulation of the base of the brain is much more energetic than is galvanic excitation as a means of producing certain inhibitory phenomena and effects on the vaso-motor nervous system. He has shown that faradisation of the pneumogastrics always causes emphysema of the lungs in the dog, the cat, the rabbit, and the guinea-pig, evidently by causing contraction of the smaller bronchial tubes, which drives the air with sufficient force into the pulmonary vesicles to rupture them. He has also shown that this emphysema may be produced equally well when the thorax is open if the trachea is ligatured. But in these experiments the emphysema produced is slight compared with that which is caused by mechanical excitation of the medulla when it is suddenly crushed. A guinea-pig was also exhibited in which there was no emphysema, although the medulla had been crushed, because the pneumogastrics had been previously divided. In other experiments, in animals of different species, the spinal cord was first divided at the level of the third or fourth pairs of cervical nerves, and the destruction of the brain caused emphysema just as if the spinal cord had been intact. Dr. Brown-Séquard took the opportunity of pointing out that the mechanical stimulation of the brain, when it is suddenly crushed, produces effects which are not only more considerable than those caused by galvanisation of the medulla and other parts of the brain, but also effects which differ from those which can be caused by electricity. One of these is the inhibition of the heart, which is in general such that it is not followed by any return of activity. Another result is the production of abundant pulmonary and bronchial hæmorrhages. There is also an almost complete inhibition of spinal reflex action in the cervico-dorsal region, and an extreme augmentation of this action in the dorso-lumbar region.

REDUCTIO AD ABSURDUM.

AN inquest held on the 4th instant at Stamshaw, near Portsmouth, illustrates the occasional inutility of a coroner's inquest for determining the cause of death. It seems that a dairyman named Stallard, aged fifty-six, who had sometimes suffered from cough, after doing his daily work went to bed well, and died in the night with symptoms of asphyxia. Mr. Ford of Portsmouth, who was called to the deceased, gave evidence at the inquest, and in answer to questions from the coroner as to the probable cause of death, replied: "I am unable to say; the man was well up to the day of his death, and the winter cough was not enough to account for his death." The coroner: "I don't ask you what was the actual cause of death, but the probable cause." Mr. Ford: "I am unable to say." After some altercation between Mr. Ford and the coroner, the former was permitted to withdraw. The coroner, in summing up, said that if the jury wished it he would order a post-mortem examination. A juryman asked "if the coroner, with his fifteen years' experience, would not give the probable cause of death," and the coroner replied that, although he might, he did not think it was his duty to do so. The jury then returned a verdict of "Death from natural causes." One of the jury suggested that "Mr. Ford should be censured," and this sentiment was echoed by several. Another juror asked the coroner if Mr. Ford would receive the fee. The coroner said that that was a question which would remain for his future consideration.

There is no doubt that in this case Mr. Ford was wholly in the right, and the coroner wholly in the wrong, for there was not a particle of evidence as to the cause of the deceased's sudden asphyxia. Popular opinion is always ignorantly opposed to a post-mortem examination, but that it was really necessary in this case there can be no doubt. If a post-mortem were not necessary no inquest was necessary, and we could almost wish that the coroner would withhold Mr. Ford's fee for evidence in order that the matter might be brought before a higher tribunal.

INFLUENCE OF HEREDITY ON THE TRANSMISSION OF LESIONS.

M. MASOIN has lately been investigating the heredity of certain lesions, and has published his results in the *Bulletin de l'Académie Royale de Belgique*. He has excised the spleen in several generations of rabbits, and made them couple. He then compares the relative weight of the spleen to the body at large. In healthy rabbits the average proportion of the spleen to the body is 0·1028 to 100, and never descends lower than to 0·0645 to 100. Now he finds that in the rabbits of the first generation the spleen has not disappeared, but that it has become atrophied, the proportion being 0·0549 to 100, the latter number being taken as representing the total weight of the body. It is obvious, then, that it has undergone considerable diminution in size. It might be expected that the members of the second generation of rabbits in which the ablation of the spleen had been effected would present a still smaller and more atrophied organ, but this is not so, for the diminution, though well marked, remains the same as in the first generation. M. Masoin has also investigated the influence of digestion on the turgescence of the spleen. He has satisfied himself that a moderate meal does not occasion swelling of the organ, whilst, if a large supply of food be taken, as in a famished animal, it undergoes considerable enlargement. In common with various other observers, he finds that it attains its maximum volume about five hours after the ingestion of food. When the spleen is completely removed it does not undergo reproduction, nor has he noticed the enlargement of the lymphatic glands observed by so many authors to occur consecutively to the operation.

DR. PIROGOW.

AT a recent meeting of the Society of Medical Practitioners of St. Petersburg, M. Berthenson, in view of the approaching jubilee of Dr. Pirogow, gave an account of that distinguished surgeon's life. It would appear that in 1828 M. Pirogow, having passed through the course of medicine at Moscow, went to Dorpat to complete his studies. Five years after he graduated there as Doctor in Medicine. It was then proposed to him to take the chair of Surgery in the University of Moscow; but he was prevented from accepting this offer by a long and painful illness. After his recovery, the Moscow chair having been filled up, he was placed in the chair of Surgery of the University of Dorpat, which was regarded as a great distinction. The beginning of his special celebrity dates, however, from the year 1840, when he was requested to organise the clinical teaching in the hospitals of St. Petersburg. He accepted the task, entered upon it with much enthusiasm, and carried it to a successful issue. When the war in the Crimea broke out he was placed at the head of the Russian military medical service in the field, and rendered inestimable services to his country. After the war Dr. Pirogow became curator of the Academic Circonscription of Odessa, and subsequently of Kiew. In his new position he proved himself an ardent partisan of university autonomy, and sought to cultivate closer relations between the professors and students. In 1870 Dr. Pirogow laid the foundations for the services rendered by the Russian Red Cross Society in the Franco-German war; and during the late Russo-Turkish war he acted as guide and counsellor of the sanitary service of the war.

UNQUALIFIED PRACTITIONERS AND PRIVATE DISPENSARIES.

THE death of another person attended by an unqualified medical practitioner, attached to a dispensary in Church-street, Edgware-road, belonging to Mr. Kisch, has been the subject of a coroner's inquiry. Dr. Hardwicke very strongly expressed himself on the subject, but not, we think, too strongly. The death of a young girl of nineteen, without the benefit of regular medical advice, though that advice had been sought for in the regular way, is a public scandal. Mr. Kisch explained that he generally attended cases himself, but had failed here in consequence of illness. He would, however, have cleared himself much more effectually from his great responsibility if he had explained why, in his absence, he could not get a medically qualified friend to see a patient so ill. Further, it would have been satisfactory if he had stated the relation of his residence to the dispensary, and the distance between the two places. Practically the impression is left that patients at this dispensary are under the care of an unqualified practitioner, and the public will be apt to agree with Dr. Hardwicke that "the system of private dispensaries with unqualified medical men is vicious, and ought to be discountenanced in every way."

A CASE OF MOVABLE LIVER.

IN the *Wiener Med. Blätt.* is recorded an observation accidentally made on a physician by Dr. Chvostek. There were no symptoms whatever of anything wrong in the abdomen, and there was no history of violence or of any occurrence that threw light upon the condition. When the man stood up, the upper and posterior border of the liver was felt to come forward from under the margin of the thorax, and to be six centimetres and a half below the tip of the xiphoid cartilage in the right parasternal line, and one centimetre below that point in the left parasternal line. The left end of the liver was plainly felt through the abdominal wall, and from it the anterior, or rather the lower edge of the liver could be traced arching down to the right, being in the middle line fifteen centimetres below the xiphoid process, and in the right nipple and axillary lines respectively seven and one-and-a-half to two centimetres below the edge of the thorax. The liver did not markedly descend on taking a deep inspiration. In the horizontal posture it could be replaced under the ribs to a considerable extent. In lying on one side the organ fell to some extent towards the dependent side. The lower edge of the suspensory ligament could be felt tightly stretched, but this produced no pain, and so completely absent were all symptoms that the condition was only discovered accidentally.

MEDICAL SOCIETY OF LONDON.

THE dinner to commemorate the 108th anniversary of the Medical Society of London was held at the Criterion, on Tuesday, March 8th, the President, Mr. Gant, presided. He was supported by the Presidents of the Royal College of Physicians, the Royal College of Surgeons, the Obstetrical and Hunterian Societies, Major Duncan, and about eighty Fellows of the Society. In responding to the toast of the learned Societies, Dr. Matthews Duncan pointed out the danger of the formal debates now so popular overshadowing the more valuable original papers read at the ordinary meetings of the Societies, one page of which was often of more worth than a whole volume of discussion. The two silver medals of the Society were presented, one to Sir Joseph Fayrer for his paper on Hepatic Abscess, the other to the Senior Honorary Secretary, Mr. D. H. Goodsall. Instrumental and vocal music was excellently rendered by Drs. Althaus and P. Boulton.

ABUSE OF MEDICAL CHARITY IN BELFAST.

A REPORT of a Committee of the Ulster Medical Society is before us on the Abuse of Medical Charities, from which it would appear that many persons for whom the medical charities of Belfast are not intended avail themselves of the advantages of the various institutions, to the injury of the persons themselves and of the medical profession. This evil, the Committee reports, exists to the greatest extent in the out-door department of the several hospitals. No facts are given in illustration of these views, but supervision and investigation are recommended. We would strongly support the recommendation. The evil is an undoubted one, but the examination of it should be so careful as to carry conviction to those even who believe in nothing but old and free kinds of charity. The eighth proposition of the Ulster Medical Society's Committee will rather surprise by its very obviousness, "That we disapprove of any member of the hospital staff receiving fees for services rendered to any patient whilst under hospital treatment." If the abuse of hospitals be such as the Committee states it to be, it may seem hard on the medical staff not to exact fees from patients who can afford to pay; but clearly they should raise objections to them as hospital patients, and refer them back to their own medical advisers.

UNQUALIFIED MEDICAL PRACTITIONERS.

WE have before us a very excellent paper on the great evil of practice by unqualified persons in this country. The author, Mr. David Edgar Flinn, treats the subject both ably and gravely. He thinks the evil not only great but increasing. As medical officer of health for the Brownhills Urban Sanitary Authority, he testifies that over one-fourth of the individuals whose deaths are registered are attended by unqualified persons. His great complaint is that regularly qualified medical men are associated with these unqualified persons; that sometimes a partnership is entered into; sometimes the use of the name of the qualified man is allowed; and sometimes, even, a medical practitioner sells his practice to an unqualified man. These are facts within the knowledge of Mr. Flinn, and they call for very serious consideration. He alleges that medical men act so often with a view to the annoyance or injury of a brother practitioner. He advocates the establishment of Medico-Ethical Societies for holding up and holding high those principles of honour and dignity which have always been dear to the profession, and which no medical man can violate without injury to both himself and his profession. We entirely agree with him when he says "it is the duty of all medical men to study the ethical and moral laws regulating their profession."

"THE MEDICAL DIGEST."

WE are glad to learn that Dr. Neale is preparing a new edition of his valuable "Medical Digest," published originally by the New Sydenham Society five years ago. It is intended to bring the work up to the end of the present year, and it will then contain over one hundred thousand references to original and editorial articles that have appeared in THE LANCET, and other medical journals, during the past thirty years. In its new form we should hope that the work will be more generally appreciated. Hitherto its value has been recognised by comparatively few persons; and when issued without the restrictions necessarily imposed upon publication by a Society, it will no doubt appeal to a large, and perhaps more discriminating circle of readers.

WESTMINSTER HOSPITAL.

THE lectures on Systematic Surgery and Practical Surgery, at Westminster Hospital, have up to the present been delivered on alternate years and conjointly by Mr. Cowell and Mr. R. Davy. For the future the two courses are to be given each year, and Mr. R. Davy is appointed sole lecturer on Practical Surgery and Minor Surgery, while Mr. C. Macnamara is to be Mr. Cowell's colleague in the chair of Systematic Surgery.

AT the distribution of prizes to the students of the Punjab Medical College on Nov. 20th, two or three matters of interest were mentioned by Surgeon-Major E. Burton Brown, the Principal. In memory of the late Dr. Neil, 1200 rupees have, it appears, been collected by his pupils, the interest of which is to be devoted to the purchase of two silver medals, to be called the Neil Memorial Medals, to be awarded to the students who pass the best examination in anatomy and surgery respectively. Dr. Brown also announced that the Nawab of Bahawulpur had presented to the medical school the liberal sum of 10,000 rupees to form a fund to provide scholarships to be called the "Grey-Bahawulpur," in honour of Major Grey, the late political agent of that district. It is satisfactory to note the interest taken in the school by the Lieutenant-Governor of the Punjab, Sir R. Egerton, who presided at the distribution, and whose remarks on the occasion were warmly appreciative of the value of medical studies.

A LARGE and influential meeting, presided over by Mr. Cæsar Hawkins, was held in the board-room of St. George's Hospital last week, at which many of the medical and surgical staff of the hospital and the old pupils and friends of Mr. G. D. Pollock were present, and at which it was resolved —"That a scholarship be endowed in connexion with the Medical School of St. George's Hospital as a testimonial of respect and regard of the associates, pupils, and friends of the Mr. Pollock, on his retirement from the position of surgeon to the hospital, and that the said testimonial be called 'the George Pollock Scholarship,' the professional and other friends of Mr. Pollock being invited to subscribe."

WE are informed by Mr. Pearson Hill, the prime mover in the proceedings against the Metropolitan Asylums Board *in re* the Hampstead Small-pox Hospital, that his costs will amount to between four and five thousand pounds. The costs on the other side cannot be much less than double that sum. As no provision was made in the Act of Parliament, under which the Asylums Board was constituted, for the defraying of expenses incurred in litigation, it is a pressing question whether the costs in the proceedings just concluded can be charged to the ratepayers.

A RUMOUR has been widely circulated of late to the effect that Professor W. T. Gairdner intends standing as a candidate for the Chair of Pathology in Edinburgh University. We are glad to be able to state, on excellent authority, that there is not the slightest foundation for this rumour—fortunately for Glasgow.

THE President and Council of the Faculty of Physicians and Surgeons of Glasgow have appointed Mr. David McVail, M.B., Lecturer on Medicine in the Glasgow Western Medical School, to be the next Faculty Lecturer. His subject will be "The Physiology and Pathology of Respiration."

AN investigation by the guardians into what appears to have been a frivolous charge against Mr. Henry Grace, medical officer of the Bristol Workhouse, has resulted in the passing of a vote of confidence in their medical officer by the board, who "desire to express their full confidence in his skill, attention, and ability."

THE Secretary of State for War has appointed Onslow Robert Richmond, Esq., M.R.C.S.E., L.R.C.P.L., to be Assistant Visiting Surgeon for Gravesend, under the Contagious Diseases Acts, 1866 to 1869.

THE *London Gazette* of Tuesday announces the nomination of Dr. Alfred Henry McClintock of Dublin to be, for five years, a Member of the General Council of Medical Education and Registration, in place of Dr. Alfred Hudson.

ROYAL LONDON OPHTHALMIC HOSPITAL. — The annual meeting of the governors of this hospital was held on Tuesday, when the report read represented the financial condition of the institution as satisfactory. The subscriptions of the past year had nearly equalled those of the preceding year; whilst the donations, on the contrary, exhibited a falling off. Various additions to the internal arrangements of the hospital had been made, and the medical tuition had been rendered more complete by the establishment of classes for the special study of the anatomy of eye diseases.

AN election for a physician to the Hospital for Incurables, Dublin, in the vacancy caused by the decease of Dr. Peele, will be held on the 17th inst. There are a good many applicants for the post, the emolument of which is sixty guineas per annum.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bristol (*City and County*).—Mr. Davies reports a death-rate of 20·0 per 1000 population during the year 1880, and expresses the opinion that the sanitary condition of the city, as indicated by the returns of mortality, had not been unsatisfactory, either in comparison with the returns of former years, or with those of other large centres of population. The returns, however, show "a very wasteful destruction of infant life," of which a great part, Mr. Davies thinks, is "clearly attributable to ignorance and neglect." Scarlet fever is the chief subject of comment both in Mr. Davies' annual summary and his report for the fourth quarter of 1880. He confesses his inability to deal effectually with the disease armed only with the powers sanitary authorities at present possess, and he considers that we ought to make some sacrifice of our ideas of personal liberty to arrest its ravages. He suggests that—1st. It should be made compulsory on the landlord of every house with a case of scarlet fever in it to send notice of the case to the sanitary authority. 2nd. That the sanitary authority should, on receipt of such notice, offer hospital accommodation for the patient or patients at a reasonable rate of payment, at a hospital provided by the sanitary authority. 3rd. That in case of refusal of removal of such patient by the parents, guardians, or friends, notice in the form of a caution to the public should be attached to a prominent part of such house or premises, showing that the house is infected with scarlet fever. 4th. That all ingress and egress to and from such houses should be regulated by rules made by the sanitary authority, and approved by the Secretary of State. 5th. That in case of the removal of a patient into hospital for isolation, the parents or guardians of the patient should have the power to appoint the medical attendant of the patient, if they do not wish to avail themselves of the services of the ordinary medical attendant.

Bradford (*Yorks*).—Mr. Butterfield, in his report for the fourth quarter of 1880, returns an average annual birth-rate equal to 33·1 per 1000 population, and an average annual death-rate equal to 20·5. The most prevalent zymotic disease during the quarter was scarlet fever, and it appears that the number of cases sent into the fever hospital was greater than during any previous epidemic. Mr. Butterfield has the following observations on the hospital:—"The large district in which the hospital is situated, and in which are included the deaths which occurred in that institution, shows a lower mortality from this disease than Bowling. It is a fact well known to all who have had experience of fever hospitals that the removal of scarlet fever patients from the close and confined air of an ordinary bedroom to the airy and well-ventilated wards of a hospital is in itself a very powerful remedy. There are few diseases which require for their proper management more copious supplies of fresh air than scarlet fever, and yet it is not at all uncommon to find cases of this disease boxed up in rooms from which fresh air is excluded as if it were something pernicious and deadly. While the patient is made to breathe and rebreathe a poisoned atmosphere, slightly flavoured with carbolic acid or chloride of lime, reliance is placed on drugs, which are rarely useful and often mischievous, rather than on perfect cleanliness and abundant ventilation."

Peterborough (*Rural*).—Mr. Sinclair Thomson estimates the population of the district at 22,300, and gives the death-rate for 1880 at 15·2 per 1000 inhabitants. Outbreaks of scarlet fever and of measles seem to have been the principal sickness events of the year, nevertheless the "wooden hospital" of the rural sanitary authority does not seem to have been used. A local outbreak of enteric fever in one village shows the existence in connexion with the disease of states of insufficient drainage and neglect of privies too common in rural districts, but which were here amended *after* the outbreak. Mr. Thomson has the following observations on excrement nuisances:—"The prevention of excrement nuisances in our villages and rural districts, where there is no regular system, is a subject demanding serious consideration. I believe the water-carriage system is rarely suitable for country districts, because the sewage can only be properly dealt with where there exists a good supply of water, a good sewer, and some arrangements for rendering the sewage harmless at its outfall. Where the water for flushing has to be brought by hand I have frequently found the pan very foul, the seat wet, and the syphon pipe blocked. It is desirable that houses in the country should be provided with dry earth or ash-closets."

Tamworth.—Dr. Herbert J. Fausset reports for the year 1880 a death-rate of 22·0 per 1000 inhabitants in this borough. It is obvious from his report that the Sanitary Authority is by no means as careful in the performance of its duties as it should be, and that indications of sanitary negligence abound in the municipal district. A curious instance of the perverse administration of the authority is afforded by the fact that, in 1876, with the view of diminishing the nuisance from midden-privies in the town, 227 pail-privies were introduced on the Rochdale system, and that these are so mismanaged as to have become as great nuisances as the midden-privies. Dr. Fausset writes of "the continuous cropping up of cases of typhoid fever," and of "the present alarming outbreak" of that disease, and states that the outbreak must be ascribed to impure water, defective drains, and inefficient and careless removal of excremental filth.

Brentford.—Mr. J. Williams reports for 1880 a birth-rate of 38·9 per 1000 inhabitants, and a death-rate of 17·47 per 1000.

Coventry.—Dr. Mark A. Fenton reports a death-rate in this urban district of 21·1 per 1000 inhabitants, and a birth-rate of 32·3. The death-rates for the decade ending 1870, and for the decade ending 1880, were stationary (21·0), and upon this Dr. Fenton observes it "would appear to prove that the application of the Public Health Act has been followed by no beneficial results." But it must first be shown that a stationary death-rate in the particular circumstances is not equivalent to an improvement, and this is not done. The morbid event calling for chief consideration during the year was infantile diarrhœa. An epidemic of that malady in the months of August and September is described as disastrous. Dr. Fenton made an inquiry into every fatal case, and his results may be summed up in the statement of improper feeding concurring with high temperature, and in half the cases an atmosphere polluted with accumulations of filth.

Hereford (*City and County*).—Dr. Vavasour Sandford is able to write of progressive improvement throughout his district in 1880, a marked decrease in the rate of mortality in each of his sanitary districts, "proving the benefit derived by all classes in this county from the Public Health Act being enforced." Dr. Sandford holds that "public schools are the *hotbeds* [of infectious diseases], and ever will remain so, until the Legislature enforces the timely information to the medical officers of health that infection exists in a house or family."

Sittingbourne (*Urban*).—Mr. H. G. Sutton reports scarlet fever as exceedingly prevalent in 1880, and expresses the opinion that until we have compulsory registration of infectious diseases our efforts to deal with this disease and measles must be foiled. He writes of a "spacious" infectious disease hospital for the district being in progress of erection. Infantile diarrhœa was very fatal during the high temperature of the month of August. The temperature facilitated the fermentation and decomposition of the food, often unsuitable, given to infants, and Mr. Sutton thinks that ladies might do much good in instructing the mothers among the labouring classes in preparing infants' food properly. The death-rate for the year was 16·3 per 1000 inhabitants.

Sittingbourne (*Rural*).—Mr. H. G. Sutton reports the death-rate of this district for 1880 as 15·3 per 1000 estimated population, and the birth-rate as 34·5. The district suffered in common with the urban district from scarlet fever and measles. The infectious disease hospital referred to in the urban report is for the use of the rural district also.

Scarborough.—Dr. Taylor reports for the quarter ending the 31st of December, 1880, a death-rate in this town of 18·81 per 1000 inhabitants.

THE MORTALITY OF ASHTON-UNDER-LYNE.

The high death-rate which obtains in Ashton-under-Lyne was recently made a subject of question in the House of Commons; and it is proposed by the Local Government Board to direct a medical inquiry concerning the matter. Portions of the annual report of the medical officer of health of the town have been published in the local journals, and on reading them it is quite apparent why the death-rate of Ashton-under-Lyne should be high, but not equally apparent why it should have been held necessary to bring this swollen mortality before the House of Commons, or set in motion the medical investigation machinery of the Local Government Board. It is evident, indeed, that the local sanitary authority of the town is kept fully and ably informed of those sanitary defects in it which must prove conducive to a high rate of mortality; and whatever be the cause of the sanitary evils of the place, it is not a lack of knowledge of their existence. Ashton-under-Lyne has many of the structural defects of old Lancashire towns, still retains the filthy and immeasurably unwholesome midden-privy system, has imperfect drainage and a not impeccable water-supply, and contains localities in which both the houses and the individuals living within them are overcrowded. The usual concomitants of these conditions are measles, diphtheria, whooping-cough, scarlatina, and fever; and although neither of these diseases has taken on any very exceptional prevalence in the town, each of them, as well as fatal diseases in general, contributes so steadily to the general mortality as to contribute very markedly to a serious total. Bad trade has also lately contributed to the mischievous effects of the unwholesome local conditions. It is the old story, we apprehend, of a sanitary authority too busy in prosperous times to carry out the intimate sanitary administration of its district systematically, and in bad times too depressed and too anxious to spare itself expenses. Publicity, particularly in Parliament, may serve to supply a stimulus to a better action on the part of the sanitary authority; but any way it seems that it is the local administration that is in fault, not the knowledge of what is required to be done.

NOTIFICATION OF INFECTIOUS DISEASES ETC. IN THE METROPOLIS.

The Vestry of Kensington have issued a circular inviting the Metropolitan Vestries and District Boards of Works to appoint delegates to consider at a Conference the advisability of concerting measures to obtain by legislation: "(1) The compulsory disclosure to nuisance authorities of all cases of such dangerous infectious diseases as small-pox, scarlet fever, &c.; (2) an amendment of Section 26 of the Sanitary Act, 1866, so as to provide increased facilities for the removal to hospitals of persons suffering from dangerous infectious diseases, and being without proper lodging or accommodation enabling them to be properly isolated at home; and (3) an enactment for depauperising the relief afforded by way of maintenance, medical treatment, &c., to persons removed for the purpose of isolation to infectious disease hospitals; and for making the support of all such hospitals in the metropolis a charge on the Metropolitan Common Poor Fund." At the request of the vestry, Dr. Dudfield has prepared a special report on these subjects, setting forth their views, and designed to facilitate the discussion of them. Should not the provision of hospital accommodation have preceded the discussion of "notification," &c.? And is there not something inconsistent, at the least, in this movement for "notification of infectious diseases," when the vestries and district boards of the metropolis have so egregiously neglected to make provisions for the isolation of these diseases, without which the "notification" is mainly a sham?

ABERYSTWYTH: A FASHIONABLE WATERING-PLACE.

Aberystwyth is to be congratulated. It is fond of claiming position as "a fashionable watering-place." According to the *Cambrian News*, it may also claim position as one of the filthiest of watering-places. The two positions are by no means irreconcilable; fashion and filth constituting a charming alliteration, which it is evident the Town Council of Aberystwyth think must add to the attractions of the place. Guide-books have much to say about the "pleasantly clean" aspect of the town; but the *Cambrian News* shows it to be a whited sepulchre—in fact, exhibits it as a more or less promiscuous accumulation of houses, filth-heaps, and cesspools, cheek-by-jowl, in which the filth-heaps predominate. Our contemporary is severe upon the local sanitary authority, the Town Council; but, after all, the Town Council may have more in view than it has been credited with locally. If we are preparing here in the metropolis an exhibition of sanitary appliances for the International Sanitary Congress of this year, may not the Aberystwyth Corporation be contemplating for the same Congress an exhibition of insanitary conditions to relieve which the appliances have been devised? Anyway visitors will have the chance of studying them there under the most charming circumstances of surrounding scenery. Medical men, however, will act wisely in erasing the name of Aberystwyth from the list of "health-resorts" for some little time to come.

The Metropolitan Asylums Board, in their formal answer to the deputation regarding Fulham hospital which recently had an interview with them, deny that the statements submitted to them show that the hospital had been a source of dissemination of the disease in the houses in the vicinity. "The percentage of disease admitted (from the whole borough)," the Board says, "to the hospitals of the managers in the epidemics of 1870–72, six years before the building of the hospital, was in excess of the epidemic during which the hospital was in actual operation." As if the "whole borough" were in question! We hesitate to characterise in terms such as it deserves this contemptible prevarication on the part of a public body.

A curious event has happened at the Colchester Workhouse. An old man there, very ill, had a period of somewhat prolonged unconsciousness, during which the attendants believing him to be dead, made the necessary arrangement for "laying out" the body, and notice of the death was sent to his friends. The man, however, revived during the preparations for laying him out, and did not die until the next day. Instructions have been given by the guardians that in future bodies shall not be laid out until death has been certified by the medical officer.

Bristol, following in the wake of other big towns, is beginning to give attention to the sanitary requirements of the class of houses which do not usually occupy the attention of the local sanitary officials, the responsibility for their sanitary condition being held (and properly so) with the owners. Mr. Henry Masters, architect, has been lecturing in the city on the subject, and he expressed the opinion that in Bristol, as in London, there were but a small proportion of houses fit to live in, from a sanitary point of view.

At a recent meeting of the Metropolitan Board of Works a request was preferred by the Fulham District Board for permission to erect a temporary hospital for small-pox at Wormwood Scrubs. The request was refused by twenty-two votes to one. Wormwood Scrubs has been set apart by Act of Parliament as a place of public recreation for ever, and it seems doubtful whether the Metropolitan Board have the power, even if they were willing, to grant the request.

Instructions have been given by the Registrar-General to the registrars throughout England and Wales which will greatly facilitate the discrimination of the births and deaths in the several urban and rural sanitary districts within the registration districts.

A cow-keeper has been fined £5 with costs by the Reigate County Bench for having suffered a man who had, at the time, cases of diphtheria in his family to milk his cows.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality was somewhat higher last week, but was still considerably below its average for the season. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5275 births and 3355 deaths were registered last week. The births exceeded by 89 and the deaths by 98 the average weekly numbers during 1880. The deaths showed an increase of 160 upon the low number returned in the previous week, and were equal to an annual rate of 23·0 per 1000, whereas in the five preceding weeks the rate had steadily declined from 31·0 to 21·9. The lowest death-rates in the twenty towns last week were 17·2 in Brighton, 18·6 in Leicester, 19·5 in Bristol, and 21·1 in Birmingham. The rates in the other towns ranged upwards to 25·2 in Manchester, 25·3 in Salford, 25·8 in Wolverhampton, and 26·5 in Liverpool. During the past nine weeks of the current quarter the death-rate in the twenty towns averaged 24·8 per 1000, against 25·8, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had steadily declined from 390 to 290 in the six preceding weeks, were 296 last week; these included 82 from whooping-cough, 57 from scarlet fever, 53 from small-pox, and only 26 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged only 2·0 per 1000 in the twenty towns, and ranged from 0·3 in Hull and 1·0 in Brighton and Newcastle-upon-Tyne, to 3·0 in Norwich and 4·3 in Portsmouth. Whooping-cough showed excessive fatality in Leeds. The 16 deaths referred to diphtheria in the twenty towns included 9 in London, 3 in Portsmouth, and 2 in Salford. The death-rate from fever was unusually low, but showed a proportional excess both in Norwich and Portsmouth. Small-pox caused 54 more deaths in London and its suburban districts, and one in Birmingham, but none in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the eighteen preceding weeks from 77 to 752, further rose to 779 on Saturday last, a higher number than has been under treatment in these hospitals since the spring of 1878. The number of new cases admitted to these hospitals, which had been 176, 183, and 187 in the three previous weeks, further rose to 195 last week. The Highgate Small-pox Hospital contained 56 patients on Saturday last, against 46, 53 and 43 at the end of the three preceding weeks, 24 new cases being admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 364 and 367 in the two preceding weeks, further rose to 419 last week, which were, however, 44 below the corrected average number in the corresponding week of the last ten years; 283 resulted from bronchitis, and 75 from pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·9 per 1000 in London; the rate from the same diseases was 9·1 in Liverpool.

The causes of 93, or 2·8 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths was equal to 1·8 per cent. in London, while it averaged 3·6 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Bristol, or Newcastle-upon-Tyne, whereas their proportion was largest in Oldham, Bradford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 22·9 per 1000 last week, against rates declining steadily from 34·7 to 22·5 in the five preceding weeks; this rate was almost identical with the average rate (23·0) in the twenty large English towns. The rates in the eight Scotch towns ranged from 17·8 and 18·8 in Greenock and Aberdeen, to 25·3 and 29·7 in Perth and Dundee. The deaths referred to the principal zymotic diseases in the eight towns, which had steadily declined from 125 to 70 in the five previous weeks, were 83 last week, and included 28 from whooping-cough, 18 from diphtheria, 15 from scarlet fever, 11 from diarrhœa, 6 from "fever," and 5 from measles. The annual death-rate from these zymotic diseases were equal to 3·3 per 1000, and was 1·3 above the average rate from the same diseases in the twenty English towns; this rate in the eight Scotch towns ranged last week from 1·9 both in Greenock and Perth, to 4·5 and 5·2 in Edinburgh and Leith. The fatal cases of whooping-cough in the eight towns, which had steadily declined from 34 to 17 in the five previous weeks, rose again to 28 last week, and included 11 in Glasgow, 10 in Edinburgh, and 5 in Dundee; the main increase of whooping-cough fatality occurred in Edinburgh. The 18 deaths from diphtheria were also more numerous than those in recent weeks; 7 were returned in Glasgow, 4 in Edinburgh, 2 in Aberdeen, and 2 in Paisley. The fatal cases of scarlet fever also showed a considerable increase, and included 5 in Edinburgh, 4 in Glasgow, 3 in Leith, and 2 in Dundee. The 11 deaths from diarrhœa included 6 in Glasgow and 3 in Aberdeen. The deaths referred to fever, which had been 8, 10, and 14 in the three previous weeks, declined to 6 last week, and included 2 in Glasgow and 2 in Leith; the annual death-rate from fever, however, was again considerably higher than the average rate in the twenty English towns. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had declined from 348 to 150 in the five preceding weeks, were 179 last week, and were equal to an annual rate of 7·1 per 1000; the death-rate from the same diseases in London did not exceed 5·1 per 1000. The largest excess in the fatality of lung diseases in the Scotch towns occurred last week in Glasgow and Dundee.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, although continuing to decrease, still shows a marked excess. The annual death-rate in the city, which had steadily declined from 47·4 to 38·1 in the five preceding weeks, further fell to 36·0 last week. During the past nine weeks of the current quarter the death-rate in the city has averaged no less than 40·1 per 1000, against 21·7 in London and 22·9 in Edinburgh. The 230 deaths in Dublin last week showed a further decline of 15 from recent weekly numbers, and included 21, or rather more than 9 per cent., which were referred to the principal zymotic diseases, against 31 and 24 in the two previous weeks. These 21 zymotic diseases included 8 from fever (including typhus, enteric or typhoid, and simple continued), 6 from scarlet fever, 5 from whooping-cough, 1 from measles, 1 from diarrhœa, and not one either from small-pox or diphtheria. The annual death-rate from these zymotic diseases was equal to 3·3 per 1000 in Dublin last week; it was only 2·3 in London and was 4·5 in Edinburgh. The deaths referred to fever, which had been 17 and 10 in the two preceding weeks, were 8 last week; these, however, were equal to an annual death-rate seven times as high as the average rate from the same causes last week in the twenty large English towns. The fatal cases of scarlet fever in Dublin, which had been 3 and 4 in the two previous weeks, further rose to 6 last week; those of whooping-cough also showed a slight increase. The deaths of elderly persons showed a further decline from the high numbers returned in recent weeks; whereas those of infants were more numerous than in either of the two previous weeks.

INFANT MORTALITY IN TOWNS.

The Portsmouth Literary and Scientific Society recently devoted an evening to a paper on Infant Mortality, which was read by Dr. Harris. The paper was well calculated to direct public attention to a subject which is generally regarded with far too much apathy. It is to be regretted, however, that the paper was not read in Leicester, Liverpool, or Leeds, in which infant mortality is habitually excessive, instead of in Portsmouth, the comparatively low rate of infant mortality in which town has long been an interesting problem to the students of mortality statistics. Dr. Harris reminded his hearers that in the healthy districts of England the rate of infant mortality did not exceed 103 per 1000, and that if the rate in England and Wales did not exceed this rate there would be an annual saving of about 44,000 infant lives. Such facts as these cannot be too often or too strongly insisted upon, although it would scarcely be reasonable to expect at present that the infantile death-rate in large towns should be comparable with that prevailing in the most healthy of our rural districts. We could have wished that Dr. Harris had illustrated his paper with more recent figures, and we certainly think that scant justice was done to Portsmouth for the favourable comparison which that town affords with most other large towns in the matter of infant mortality. In twenty of the largest English towns the rate of infant mortality during the ten years 1870–9, measured by the proportion of deaths under one year to births registered, averaged 171 per 1000. The lowest rate among these twenty towns was 141 in Portsmouth, the nearest approach to this rate being 158 both in London and Brighton; the rates ranged upwards in the other towns to 187 in Bradford, 188 in Norwich and Manchester, 192 in Leeds, 216 in Liverpool, and 216 in Leicester. It is impossible to doubt that in Portsmouth there is much preventable infant mortality which a well-organised ladies' sanitary organisation, such as was suggested by Dr. Harris, might do much to reduce the rate below the 141 per 1000 which prevailed during the ten years 1870–9. With still greater force, however, should this paper appeal to such towns as Liverpool and Leicester, in which, during the same ten years, the rate of infant mortality exceeded by 75 per 1000 that which was recorded in Portsmouth. During 1880 infant mortality in the twenty towns, although considerably affected by exceptional diarrhœa fatality, averaged 169 per 1000, and was slightly below the average rate in the preceding ten years; it ranged from 146 and 148 in Bristol and Portsmouth, to 202 in Nottingham, 214 in Norwich, and 219 in Leicester. As a means of throwing light upon the real causes of excessive infant mortality, we would suggest to Dr. Harris a careful analysis of the causes of death among infants in Portsmouth and Bristol, compared with those in Norwich and Leicester. We hope that the interest which Dr. Harris's paper deservedly attracted in Portsmouth may be accepted as a sign of increasing public interest in the subject of infant mortality, without which any important reduction cannot be looked for.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

NOTIFICATION OF INFECTIOUS DISEASES IN IRELAND.

The introduction to the House of a Bill to provide for the better notification of infectious diseases in Ireland, improbable as it is to become law, may be accepted as satisfactory evidence that this important subject is beginning to force itself upon public attention. This Bill provides that upon the application of any sanitary authority the Local Government Board of Ireland may issue an order declaring this Act to be in force within the district, or any part of the district, of any sanitary authority; the Local Government Board having power, at their discretion, by a subsequent order to revoke such order. The effect of an order declaring this Act to be in operation would be to oblige any medical practitioner, under penalty of five pounds, to report to the local sanitary authority every case of certain infectious disease he may be called upon to attend. The specified infectious diseases are small-pox, cholera, scarlet fever, typhus, typhoid, puerperal or relapsing fever, diphtheria, measles, or erysipelas, and the Local Government Board has power to add to the list, from time to time, the name of any other acute infectious disease on the application of a sanitary authority. In cases of infectious disease not attended by any medical practitioner the obligation to report to the sanitary authority is imposed upon the occupier of the house, or person having charge of the patient. Within a declared district, within the meaning of this Act, it is enacted that the sanitary authority shall supply gratuitously to every registered practitioner residing within the district forms for certificates, stamped for transmission through the post. The element of failure in this, as in most other proposals for securing the notification of infectious diseases, is the proposed rate of pay to reporting medical practitioners. It is provided that sanitary authorities shall pay a fee of *one shilling* (!) to every medical practitioner for each certificate duly given; but that not more than one fee shall become payable, under this Act, within an interval of thirty days to the same medical practitioner, given by him in respect of the same disease, occurring in the same building. There can be little doubt that the prompt notification of infectious diseases lies at the very root of successful sanitation; but desirable as this is, we shall be surprised if any general Act of this nature become law which throws this unpleasant responsibility upon the medical practitioner, and proposes to award him the paltry sum of one shilling for each such certificate furnished to the sanitary authority.

AN APOLOGY FOR "DRAUGHTS."

The *Builder* has a sort of good word to say for draughts. Of course, ventilation accompanied with draughts is too terrific a conception to enter into a properly-balanced mind (leaving the influence of draughts on the body out of the account). But as existing dwellings are and the average Britisher is constituted, the person who conceives that it is possible in the present and near future to establish typical ventilation in the majority of English houses must have that enviable state of intellect which accepts the history of Jack the Giant-killer as not the least carefully verified and important portion of the history of Great Britain. If the Britisher prefers draughts, we "must allow," as the *Builder* judiciously phrases it, the preference; and he should be advised to adopt Mrs. Lirriper's opinions as to smoke—that is to take it plain, and not as presented in all sorts of mysterious and wonderful modes by the ingenuity of patentees.

ARTIFICIAL VACCINE LYMPH.

Mr. J. Lawrence-Hamilton proposes to introduce an abundant supply of pure artificial lymph, produced outside the body of living man or living animal, by isolating and then breeding the vaccine organisms in suitable germ nutritive solutions which have been previously deprived of all septic and other noxious germs. The publication of the special precautions and physical conditions which Mr. J. Lawrence-Hamilton considers necessary to secure safety and success in breeding, and then in employing the artificial vaccine lymph, as well as the results of therewith inoculating men, cattle, and other animals, will be postponed till a subsequent date.

RUSSIAN MEDICO-SANITARY NEWS.

Under the will of the late Empress Marie Alexandrovna, 150,000 roubles have been handed over to the Russian Red-cross Society, the balance of a sum collected after the Crimean war for the education of the orphans of soldiers killed or who died of their wounds during the war.—The subject of diphtheria is still causing much anxiety in Russia. A congress of the zemstvos of Kharkov, Poltava, Catherinoslaw, Tcheringow, Koursk, and Voronege, has been held in the city of Kharkov, to consider a general plan for dealing with the epidemic. This is stated to be the first example of a conference of delegates of various local governments.

THE PLAGUE.

The most recent news received on the reported outbreak of plague in Mesopotamia leave little doubt that the report is correct, and that the scene of the outbreak is on the Lower Euphrates—the scene, in fact, of the outbreak of the disease in 1873-74. In view of this reappearance of the disease the map of this district, and the particulars relating to it, given in the Parliamentary Paper on Plague, published during the session of 1879, have great interest.

It is reported that the landlord of a house at Dorking sued his tenant at the County Court on Wednesday for the cost of disinfecting his house, an outbreak of scarlatina having taken place, which it was shown had been brought into the neighbourhood by the defendant. Judgment was given for the plaintiff.

The subject of Sanitary Protection Associations seems to be exciting considerable attention in Yorkshire. Among other advocates, Mr. Dolan of Halifax sets forth their advantages *à propos* of the recent serious outbreak of scarlet fever in that town.

Our contemporary, *The Globe*, has the following:—"As was to be expected, small-pox has broken out in Leicester. Mr. P. A. Taylor's constituents will now have an opportunity of estimating the worth of the anti-vaccination movement, with which their representative has identified himself."

Professor Fleeming Jenkin has been lecturing at Bradford, in Yorkshire, on the desirability of forming a Sanitary Protection Association there, and his suggestions will be acted upon.

Small-pox is stated to be raging in the Sandwich Islands. A *cordon* has been placed around several houses in Honolulu, and free communication between the islands has been suspended.

At the annual meeting of the Bolton Infirmary and Dispensary, after the reading of the report, which was in every respect satisfactory, the chairman said he had received a letter from Mr. Turner of Camden-road, London, enclosing a cheque for £50 in acknowledgment of the care and attention bestowed upon his son whilst in the institution. The lad, it appears, had sustained a fracture of the base of the skull and other severe injuries from having fallen between the platform and railway carriages on the Lancashire and Yorkshire line, but had, under the skilful attendance of the medical officers of the infirmary, quite recovered.

The concert given this year by the staff of the South-Western Railway at Guildford, in aid of the funds of the Royal Surrey County Hospital, realised over £20.

THE SERVICES.

THE TRANSVAAL WAR.

Further reinforcements in men and *matériel* for the medical service in South Africa have been ordered by the War Office authorities during the past week. Four surgery and four pharmacy waggons, with a number of ambulances, have been despatched from Woolwich Arsenal and stored on board the transport *Thames*, which also takes out a large quantity of medicines, medical and surgical stores, medical comforts, &c. The complete equipment for two movable field hospitals, which give accommodation for 400 beds, will also be sent out without delay. A detachment of thirty-seven rank and file of the Army Hospital Corps, under the command of Lieutenant of Orderlies, J. Mullins, sailed in the mail steamer *Roman* from Southampton on Thursday last for Durban, and a further detachment of sixty-three, under Lieutenant J. Thompson, is held in readiness for immediate embarkation. Deputy Surgeon-General J. Sinclair and Surgeon-Major St. John Stanley were also provided with passages in the *Roman*. Surgeon-Major F. B. Scott, M.D., sailed in the *Balmoral Castle* on the 5th inst. for Natal.

VOLUNTEER AMBULANCE DEPARTMENT.

A parade of the Volunteers who have completed a course of instruction in ambulance and stretcher drill took place at the Guildhall, by the kind permission of the Right Hon. the Lord Mayor, on Wednesday, the 2nd instant, when the certificates of proficiency in this very useful work were presented to over one hundred members of the Volunteer Ambulance Department by Mr. Sheriff Fowler, in the unavoidable absence of Sir Thomas Truscott. Prior to the Sheriff's arrival an inspection of the men was made by Surgeon-General Shelton, President of the Society, who was accompanied by a staff of Army Medical Officers. The classes of instruction were three in number, and were in charge of Surgeon Ellis, 10th Kent Rifles, Surgeon Hicks, 1st Bedford, and Surgeon Andrew Clarke, Middlesex Volunteers. The men were put through the usual evolutions of stretcher drill, including the application of bandages, splints, and tourniquets—proceedings which were witnessed by the Sheriff and a large number of spectators with much interest. After handing the certificates to the class, Mr. Fowler addressed the parade at some length, complimenting the men on their steadiness and proficiency, and expressing his pleasure at the interesting manœuvres he had witnessed. Surgeon-General Shelton announced that the Secretary of State for War had authorised a badge similar to that worn by the Army Hospital Corps, but with silver instead of worsted lace, to be worn on the right arm by two men in each company of volunteers, who are to be enrolled as the recognised stretcher-bearers of the regiment. Dr. Shelton computed that in time they will number no less than 4000, a corps or department therefore of much importance. The Surgeon-General also announced that sanction had been received for the formation of a Volunteer-Bearer Company, to take part in the anticipated review at Windsor before H.M. the Queen.

Brigade-Surgeon C. G. Irwin, M.D., and Surgeon J. Wilson, Army Medical Department, are ordered to Cape Coast Castle for service on the West Coast of Africa.

Brigade-Surgeon Adam G. Young has arrived in England on six months' leave of absence.

Surgeon-Major Atkins has been appointed to the medical charge of the Convalescent Depôt at Dalhousie, and Surgeon-Major Ambrose to the Convalescent Depôt at Kasauli.

Surgeon-Major Alfred Sanderson, M.D., Madras Medical Service, has, we hear, been offered by telegram a Deputy Surgeon General's appointment in that Presidency—vice Oswald, proceeding home on furlough.

ADMIRALTY.—The following appointments have been made: Surgeon John K. Conway, to the *Liffey*; Surgeon Henry D. Collins, to the *Duke of Wellington*, additional, for temporary service at Haslar Hospital.

DR. THOMAS (says the "Colonies and India") has been dismissed summarily from the Melbourne Hospital for declining to give a death certificate.

THE HAMPSTEAD SMALL-POX HOSPITAL CASE.

THE MANAGERS OF THE METROPOLITAN ASYLUM DISTRICT *v.* HILL AND OTHERS.

THE appeal to the House of Lords from a decision of the Court of Appeal, reversing a judgment of the Queen's Bench Division, which made a rule absolute for a new trial in this case, and dissolved an injunction restraining the defendants, the present appellants, from using the Hampstead Small-pox Hospital as a hospital for patients suffering from small-pox or other infectious diseases, was decided on March 7th. The noble and learned lords present were the Lord Chancellor, Lord Blackburn, and Lord Watson. The action was brought by the plaintiffs, the present respondents, to recover damages for a nuisance arising from the use by the defendants of their hospital at Hampstead for small-pox and other infectious and contagious diseases, and for causing the assemblage in the neighbourhood of the plaintiffs' property of large numbers of persons suffering from such diseases and from offensive smells and noises arising from the use of the hospital, and also asking for an injunction to restrain the defendants from so using the hospital. The case came on for trial before Mr. Baron Pollock, when the jury found that the hospital was so carried on as to be a nuisance to the neighbourhood. The Queen's Bench Division made absolute a rule for a new trial and dissolved the injunction, which decision was set aside by the Court of Appeal. The case was argued on appeal before their Lordships some time ago, when judgment was reversed. Their Lordships delivered judgment in favour of the respondents.

The LORD CHANCELLOR.—It must be assumed, for the present purpose, that the small-pox hospital which the appellants have established at Hampstead is, in its actual position, and independently of the particular way in which it is conducted, necessarily a nuisance to the neighbours; and the injunction which has been granted by the order appealed against is against "using the plot of land mentioned in the statement of claim and buildings thereon as a hospital for small-pox or any other infectious or contagious disorder in such manner as to create a nuisance to the plaintiffs or either of them." The appellants are, therefore, obliged, in order to succeed in this appeal, to prove that they have statutory authority to create a nuisance for the purpose of and as incidental to the maintenance of a small-pox hospital in this place. The appellants say that such authority has been given to them by the 5th, 7th, and 15th sections of the Metropolitan Poor Act, 1867, and by orders of the Poor Law Board made pursuant thereto. As far as the orders of the Poor Law Board are concerned, they did, undoubtedly, direct the appellants to purchase the land in question at a specified price, and to build upon it an asylum for the reception of poor persons infected with or suffering from fever or small-pox; and I assume that the building as erected and fitted up on that land is in strict accordance with plans which the Poor Law Board has prescribed or approved. The statute, when examined, is found to confer, in general terms, powers extending over a rather wide range of subjects. So far as relates to a hospital or asylum of this particular kind, there is nothing in it mandatory or imperative. Everything which it necessarily requires may be done, though no such hospital should ever or anywhere be established. The 5th section says that "asylums, to be supported and managed according to this Act, may be provided under this Act for reception or relief of the sick, insane, or infirm, or other class or classes of the poor chargeable in unions or parishes in the metropolis." The 6th section authorises the formation of districts; and the 7th requires that in each district so formed "there shall be an asylum or asylums, as the Poor Law Board from time to time by order direct"; leaving the class of poor persons, for whom any such asylum may be provided, entirely open. The 15th section enables the Poor Law Board from time to time, by order, to direct the managers "to purchase or hire, or to build and (in either case) to fit up a building or buildings for the asylum of such nature and size, and according to such plan, and in such manner as the Poor Law Board think fit"; and the managers are required to carry such directions into execution. Subsequent clauses put the arrangements and conduct of any such asylum under the superintendence of the Poor Law Board. No compulsory power is given to acquire land or any interest in land for any asylum purposes. The Lands Clauses Acts are, indeed, incorporated by Section 52; but Section 53 expressly provides that so much of those Acts as relates to the purchase of land otherwise than by agreement shall not be put in force except for certain purposes, not including these asylums. It appears incidentally from Section 69 (which provides for the repayment of certain expenses therein specified out of the common poor fund) that asylums might be "specially provided under this Act for patients suffering from fever or small-pox"; but, except in that way, and from the fact that the general category of "sick" necessarily includes patients suffering from any kind of disease, there is no provision in the Act as to contagious or infectious disorders. If express words or necessary implication and intendment must be shown in order to authorise the Poor Law Board, or any managers of an asylum, to create a nuisance in the exercise of the discretionary powers given to them, I can find none in this statute.

The result is (1) that this Act does not necessarily require anything to be done under it which might not be done without causing a nuisance.

(2) That, as to those things which may or may not be done under it, there is no evidence on the face of the Act that the Legislature supposed it to be impossible for any of them to be done (if they were done at all) somewhere and under some circumstances without creating a nuisance; and

(3) That the Legislature has manifested no intention that any of these optional powers should be exercised at the expense of or so as to interfere with any man's private rights.

The only sense in which the Legislature can be properly said to have authorised these things to be done is that it has enabled the Poor Law Board to order and the managers to do them if, and when, and where, they can obtain, by free bargain and contract, the means of doing so.

If the Legislature had authorised some compulsory interference with private rights of property, within local limits which it might have thought fit to define, for the purpose of establishing this asylum to be used for the reception of patients suffering from small-pox or other infectious disorders, and had provided for compensation to those who might be thereby injuriously affected (in such case and under such conditions as it might have prescribed), the present case might have been like "Rex *v.* Pease" and "Brand *v.* Hammersmith Railway Company." No person outside the statutory line of compensation, even if the use of the asylum in the manner authorised by the statute had been productive of serious damage to him, could then have obtained any relief or remedy upon the footing that what the statute authorised was a legal nuisance to himself or an actionable wrong. But the case is different when (as here) no interference at all with any private rights is authorised, and no place, or limit of space, is defined, within which the establishment of such an asylum is made lawful. Neither the Poor Law Board nor the managers could for this purpose have taken a single foot of ground or have interfered with any the most insignificant easement against the will of the plaintiffs, or of any other person to whom such land or easement might belong. No line is here drawn by the Legislature between interests which are and interests which are not proper subjects for compensation. Under these circumstances, I am clearly of opinion that the Poor Law Board and the managers had no statutory authority to do anything which might be a nuisance to the plaintiffs without their consent. I therefore move your Lordships to affirm the judgment of the Court below, and dismiss this appeal.

Lord BLACKBURN delivered a lengthened judgment to the same effect.

Lord WATSON also concurred.

The judgment of the Queen's Bench Division was reversed accordingly, and the appeal was dismissed with costs.

SICK CHILDREN'S HOSPITAL, BRIGHTON.—At the twelfth annual meeting of the supporters of this hospital the committee reported that at the recent bazaar held on behalf of the funds of the institution the sum of £2230 was raised towards the completion of the new building, which will be opened by a member of the Royal Family in April next, and the total cost of which is estimated at £11,000.

THE FULHAM SMALL-POX HOSPITAL.

MR. FIRTH, M.P., presided over a meeting held on Monday evening, at the Vestry-hall, King's-road, Chelsea, to protest against the extension of the Small-pox and Fever Hospital at Fulham, and to take such steps as might be deemed advisable. The chairman remarked that the question upon which they had met to take counsel had been considered by several meetings in the borough, and was one of very great importance. Hospitals of a special character had been established at Hampstead, Homerton, and Stockwell, and subsequently land for a similar purpose had been purchased at West Brompton, though at the time the land was purchased nobody knew what was the purpose for which it was acquired. The people of Chelsea objected to have a disease like small-pox distributed throughout their district. In the Hampstead case it had been contended that it was no disadvantage to have such an establishment. But a great many people accepted the "germ" theory. The district of Fulham had been considered the most salubrious in the metropolis, but here they found that houses in a direct line with the hospital, between which no tree or house intervened, were places where the disease was apt to break out. If the wind blew in a particular direction the germs might be conveyed to persons looking out of a window. The appeal to the House of Lords in the case of the Hampstead Hospital had been decided that day, and that might render their position somewhat different. He referred to a letter from Dr. Francis Godrich, medical officer for Brompton, in which he stated that during the last three years, ending December 31st, 1880, 213 parochial cases were sent into the hospital, of which number 124 came from within about a quarter of a mile's distance of it, which includes an area not at all densely populated, quite two-thirds being open ground, 55 from an area situated between a quarter and a half mile of the hospital, and the remaining 34 were scattered over the rest of the district, extending about two miles from the hospital. A resolution was passed unanimously that the use of the Small-pox and Fever Hospital at Fulham should be confined to the four parishes constituted by the borough of Chelsea. A further resolution was submitted, declaring that, inasmuch as the Metropolitan Asylums Board had declined to limit the Small-pox and Fever Hospital at Fulham to the inhabitants of the borough of Chelsea, and as the Local Government Board had declined to receive a deputation from the inhabitants of that borough on the subject the meeting would support the committee in the prosecution of such legal proceedings as might be necessary to vindicate the rights of the district, and that a subscription and guarantee fund be formed.

On Tuesday evening a largely-attended meeting of the committee formed to take action with respect to the spread of small-pox through the cases brought to the Fulham Small-pox Hospital was held at Messrs. Tattersall's, Knightsbridge—Mr. Firth, M.P., in the chair. Amongst others present was Mr. Pearson Hill, son of the late Sir Rowland Hill, who was the plaintiff in the protracted litigation with the Metropolitan Asylums Board with respect to the Hampstead Hospital. Mr. Hill attended at the request of the committee to explain what had been done in the Hampstead case. In the discussion which took place it was understood that immediate steps would be taken to apply for an injunction to prevent any further small-pox patients being received into the Fulham Hospital; and that there should be no attempt at interference with the patients at present under treatment. Several members of the committee put down their names for £25 towards a guarantee fund, and other gentlemen present also subscribed to it. The following resolutions were passed:—1. "That this committee do now resolve to take immediate action as they may be advised to prevent further small-pox patients being sent to Fulham Hospital, due regard being had to the safety of patients now under treatment there." 2. "That an executive committee be formed to arrange as to matters of finance, and in that respect carry out the above resolution." 3. "That a sub-committee be appointed for each district to make a house-to-house canvas for subscriptions towards the preliminary expenses and the guarantee fund." The other business consisted of the appointment of various committees, which were to meet every day during the next fortnight.

MEDICAL NOTES IN PARLIAMENT.

Alkali Works.

THE House of Lords on Tuesday having gone into Committee on the Alkali Works Regulation Bill, several of the clauses were agreed to after unopposed amendments had been inserted on the motion of Lord Huntly, who had charge of the measure. On Clause 7, Lord Midleton moved an amendment having for its object to bring coke ovens within the operation of the Bill. The amendment was opposed by Lord Huntly, and rejected by a majority of 18. Ultimately the Bill was reported to the House with only the amendments introduced, or agreed to without discussion, by Lord Huntly, on behalf of the Government.

In the House of Commons on Thursday, March 3rd, further petitions for inquiry into the East India Army Medical Department were presented from Messrs. T. Ringer and G. Bainbridge.

On Friday a petition was presented from the parish of St. Martin-in-the-Fields praying for an alteration of the law with regard to infectious diseases. Mr. Healy moved the second reading of the Coroners (Ireland) Bill, which was at first opposed by the Attorney-General for Ireland, but subsequently by arrangement the second reading was agreed to, and the Bill was referred to a Select Committee.

The Drug Trade.

Mr. Gabbett asked the Secretary of State for War whether medicines are provided for the army in England by inviting tenders from the drug trade, and if not thus, in what manner; whether the practice that exists in England is applied in Ireland, and whether the Irish drug trade receive invitations to tender for supplies. Mr. Childers replied that in England quarterly requisitions were received from about a hundred stations, and drugs were supplied direct, either by the Apothecaries' Company or by Savory and Moore, according to the prices at which they tendered. In Ireland the drugs were supplied by the Apothecaries' Company in Dublin, and the prices were always checked by returns from the department.

Fulham Small-pox Hospital.

Mr. Firth asked the President of the Local Government Board whether the decision in the case of Hill *v.* The Metropolitan Asylums Board would modify the action of the Local Government Board in reference to Fulham Hospital. Mr. Dodson said, in view of the small-pox epidemic, this was a serious question, not to be hastily answered. He knew nothing of the nature of the judgment except by general report, and desired to have an opportunity of considering it before he came to a conclusion as to what steps ought to be taken.

Wanted, a Specific for Small-pox.

The following notice was given for this Thursday:—Mr. Daniel Grant, to ask the President of the Local Government Board whether, considering how constantly epidemics of small-pox recur, the large number of deaths which are annually returned, the wide differences of opinion that exist among fully qualified medical men as to the limits of the protective power of vaccination, and with respect to the genesis, distribution, and limitations of contagion, he will take into his consideration the advisability of offering a series of substantial premiums, open to all the world, for obtaining concise, accurate, and fully tested information as to the origin, growth, and development of the disease; also such other practical knowledge as will tend to minimise its power of infection and indicate the means for its extinction; and whether it may with propriety be assumed that, if any person can discover an absolute specific for the disease itself, a full pecuniary recognition would be awarded.

On Thursday, in reply to Mr. Grant's question, Mr. Dodson declined to enter into the various points raised in the preamble, but asked the hon. member to accept "as a practical and conclusive answer" an assurance that he (Mr. Dodson) had no funds whatever applicable to such a purpose.

On Monday petitions for inquiry into the East India Army Medical Department were presented from Messrs. J. Murray, F. H. Blinkinsop, E. Selens, J. B. Eaton, A. E. Stephens, W. Watson, G. Henderson, A. J. Dale, J. Cruickshank, A. Adey, and R. Murray.

Animal Vaccine.

The following notice was given for Thursday:—Dr. Cameron, to ask the President of the Local Government Board whether any steps have been taken to give effect to his promise, made on the 11th of June last, that the Vaccination Department should supply calf lymph as "stock" for vaccination to such medical practitioners as preferred it to ordinary humanised lymph; and whether, in view of the alarming spread of small-pox in London, the department would consider the propriety of taking measures to secure a sufficient supply of vaccine lymph for the purpose of re-vaccination.

Trichinosis.

On Tuesday, in reply to Dr. Farquharson, Mr. Dodson said, no case of trichinosis had been reported in this country, and he stated that there was no cause for alarm. But looking at reports from other countries of the existence of trichinosis, and at the report of Dr. Ballard, with regard to the recent outbreak of diarrhœal disease at Welbeck, he had thought it advisable to issue a circular to local authorities, pointing out certain precautions, and recommending vigilance on the part of medical officers of health in regard to the proper inspection of pork and hams. Mr. Talbot gave notice of a question for Thursday, with regard to the provision of fever and small-pox hospitals for the metropolis.

On Wednesday petitions for an alteration in the Scotch law and medical relief were presented from Stirling, Thurso, and Rendall.

The Contagious Diseases Acts in Bombay.

Mr. Hopwood gave notice of his intention on Tuesday next to ask the Secretary of State for India whether he is aware that the Contagious Diseases Act was reapplied to Bombay early in 1880, in spite of strong objection expressed by a large number of influential natives and Europeans, including the Bishop of Bombay; whether the native justices and Municipal Council of Bombay have not declined throughout to vote money towards the expenses of the working of the Act; whether the Government of Bombay have deducted the sum of 15,000 rupees from the grant of 90,000 rupees usually paid by the Government towards the expenses of the Bombay city police, although the grant was long previously agreed upon, after full discussion between the Municipality and the Supreme and Local Governments; and whether the Home Government approve of the forcing of the Acts in question upon a population so sensitive and peculiar as that of India in regard to the treatment of women.

Vaccination in Prisons.

Mr. Yorke asked the Secretary of State for the Home Department whether the medical officers of Her Majesty's prisons are required by the regulations to vaccinate all children born in the prisons before they are allowed to go out; and, if so, whether such regulations are strictly enforced, especially in the case of the female prison at Westminster. Sir W. Harcourt said he had not had time to inquire into the facts, but would do so.

Correspondence.

"Audi alteram partem."

FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

To the Editor of THE LANCET.

SIR,—Referring to Sir Trevor Lawrence's question in the House last night, and to the letters which have recently appeared in your columns, one would really suppose that the Scotch medical corporations were the *only* bodies who exacted payment for the Fellowship, and who granted it without examination.

I do not seek to defend the Edinburgh College of Surgeons, which has, I know, admitted many men to its Fellowship whose right to that honour was, at least, doubtful; but why such a virtuous outcry about "payment" and the absence of any examination? Does not the English College of Surgeons admit a large number of Fellows by election and without examination, and are not all the Fellows of the English and Irish Colleges of Physicians admitted by election and without examination? And do not all these bodies exact fees in return for the honour conferred?

There can be no objection to the Fellowship of any learned body being conferred on worthy subjects by the votes of the existing Fellows, but I fully admit that the candidates should first have proved themselves to be deserving of the honour. I remain, Sir, yours obediently,

March 1st, 1881. F.R.C.S. EDIN.

*** Though the mode of election of Fellows of the R.C.P. London may not be perfectly satisfactory, our correspondent must be aware that the process and the results are very different from those of the Scotch Corporations. A Fellowship cannot be *bought* at the London College as in Edinburgh, but it is conferred as a mark of distinction by the suffrages of the Fellows of the College. The system of election in the King and Queen's College of Ireland is, we fear, too like that of the Scotch Corporations. But neither in the English nor the Irish College of Surgeons is the Fellowship to be had now without examination, except as regards the latter in certain rare and well-defined cases. The only instances in which the Fellowship of the Royal College of Surgeons of England can be obtained without examination are (1) in the case of persons who were Members before Sept. 14th, 1843, on the recommendation of six Fellows; (2) the Council of the College has the power to elect annually two Members of twenty years' standing, but there are only three Fellows who have been elected in this way; (3) by an *ad eundem* admission of Fellows of the Irish College of Surgeons, of which there are *two*. It is satisfactory to know that all these questions are to be investigated by a Royal Commission.—ED. L.

THE POTTED MEAT TRADE.

To the Editor of THE LANCET.

SIR,—If there is one trade that requires supervision it is the potted meat trade. For several years past I have from time to time had very clear cases of poisoning from the use of potted meats as sold in the country. In one instance a lady had some potted salmon for luncheon; in less than an hour she was taken violently ill with sickness, pain in the region of the stomach, and a feeling of faintness. One of her daughters was similarly, though in a less degree, affected; neither of the ladies had the smallest doubt that the potted salmon was the cause of the illness. Another time several boys were affected with sickness and great gastric disturbance; that was also attributed to potted fish, lobster, if I remember rightly. Again, a pot of so-called potted shrimps that had disagreed with two boys was sent to me. I found that it mainly consisted of a pultaceous substance, coloured with venetian red. Under a low-power microscope fragments of small crab shells were found to be abundant. The mass seemed to be composed of pounded crabs, possibly some herring roe, grease of some kind, and venetian red. In another instance a tin of potted food was brought to me. It looked fresh, and from the cover it seemed to be just out of the manufactory. There was a small tear in the cover, and on enlarging the hole another cover was seen underneath entirely defaced by ironmould, so that it is possible for the potted contents of the tin to have been years old and to have been fraudulently made to look new by placing a clean and new label upon it. It will be in the recollection of many how a large quantity of the tinned meat that was supplied by a respectable firm for use in the Crimea was discovered at Devonport, fortunately before shipment, to be in a putrid and utterly unusable condition. I have been led to make these statements and remarks from having had the following extract from the *Huddersfield Examiner* given to me:—

"*A Potted Meat Manufactory: Disgusting Discovery.*

"On Saturday a disgusting discovery was made on the premises of a potted meat manufacturer. Entering the premises Superintendent Buckley and Inspector Latham found in the manufactory a steam machine in operation, and about 1300 lb. of diseased horseflesh, mutton, &c., in various stages, from the 'raw material' to the 'finished' potted meat, sausages, saveloys, savoury ducks, German polonies, &c. There were nearly 200 lb. weight of sausages recently made, and coloured with red ochre to give them a fresh appearance. Two diseased sheep, dressed but uncut, were in the manufactory, besides quarters, breasts, legs, and shoulders of diseased mutton, besides 200 lb. weight of diseased horseflesh, cut into small pieces, cans of recently made potted meat, the meat being mostly horseflesh, horribly diseased and coloured with red ochre, large German polonies of equally unwholesome, if not poisonous, material, and a large number of tins ready to receive as potted meat the strange compounds. The borough and county medical officers immediately condemned the meat, remarking that they had never seen such a disgusting collection. A tin of red ochre was also found in the loathsome manufactory. Magisterial proceedings will necessarily follow."

I understand that the magistrates inflicted three months' imprisonment, remarking that it was the utmost penalty that they could enforce. It is impossible to use too strong terms against such nefarious proceedings, and while the alarm of trichinæ is occupying the public mind the abomination to which the potted meat trade can descend ought not to be lost sight of.—Yours very truly,

WALTER FERGUS, M.D.

Marlborough College, March 7th, 1881.

CYSTICERCUS IN THE BRAIN.

To the Editor of THE LANCET.

SIR,—The occurrence of pork measles in the human brain is so rare that perhaps you will allow me to mention that Dr. Flint of Scarborough has just sent me a specimen of Cysticercus cellulosæ which, apart from its unusual habitat and the clinical interest attaching to it, exhibits some strange peculiarities. In the uninjured state the bladder-worm was fully as large as a cherry, having the width of a shilling piece. When unrolled and gently extended on a slide it reached a length of two inches. On dissecting out the head I was not a little surprised to find that it was furnished with six suckers. This reminds one of Zenker's example of a monstrous Tænia solium recently figured and described by Heller ("Die Schmarotzer," s. 41). It is to be hoped that Dr. Flint will publish his case. The specimen will be shown at the next meeting of the Quekett Club.

I am, Sir, yours truly,

London, March 7th, 1881. T. SPENCER COBBOLD.

EMPYEMA AND ITS TREATMENT BY FREE INCISION, IRRIGATION, AND ASPIRATION.

To the Editor of THE LANCET.

SIR,—Mr. Lowe is a little severe upon me in his criticism of my case.

Firstly, he thinks I claim priority in performing the above operation by free incision, irrigation, and aspiration, with Listerian precautions. I assure him I do not. All that I say in my little paper is, that this case (the one reported) may be the first done according to the directions of Professor Fraentzel, as given in Ziemssen's Cyclopædia; and I may add, by the way, that Fraentzel in this article says he himself derived the plan of proceeding from Traube. This, my "claim," however, is sufficiently disposed of by a report in the last number of THE LANCET, by Dr. Ferguson of Cheltenham, of two cases, one of which, at any rate, was treated in 1879, and I am pleased to acknowledge his priority, as also to find he appreciates the operation as he does. As I only followed implicitly Fraentzel's directions, I will leave him to fight out with Mr. Lowe, if he thinks proper, the science and common sense of the arrangements, just adding that if Mr. Lowe would read his beautiful article on Pleurisy, he would not, I am sure, think him deficient in either the one or the other.

The distilled water was only used for the first forty-eight hours, and was heated to from 100° to 103° F. I am in hopes it washed away all disease germs then existing, and that the subsequent antiseptic washings destroyed any, if introduced by it. As to the other Listerian precautions, all were carried out—instruments, tubes, hands, funnel, syringe, and even clothes, were freely carbolised. The spray was used during all manipulations, and carbolised gauze applied after.

I believe that the temperature of the water rendered harmless, though it might not have destroyed, these mischievous little entities. At any rate, there was no evidence in our case that any harm resulted from their (according to Mr. Lowe) unopposed sojourn in the pleural cavity.

The free incision and emptying of the cavity require a word. If Mr. Lowe had seen the immense masses of pus-sodden fibrine belched out, as it were, from the aperture, some of them requiring even forceps for their complete ejection, I think perhaps he would not have regretted the freeness of the opening, but would rather have wished he had made it a little more free. But let him observe what I now tell him: that two carbolised fingers were introduced now and then into the wound, to stay the flow of the fluid when judged to be too rapid, according to Fraentzel's minute directions. All authorities, I think, agree that when the fluid contained in the pleural cavity is proved to be pus (as it was in our case by a preliminary exploring aspiration) the outlet should be free; but I do not think this has been so precisely laid down by anyone as it has been by Fraentzel.

Now, as to the patient's case before operation. I may state the boy had been ill, a month before I saw him, with dyspnœa, pain, emaciation, and sweatings. The left side was enlarged, smooth, and motionless; the upper and lateral parts were perfectly œdematous; there was complete dulness, and complete absence of respiratory murmur, except at the apex anteriorly, and here and for some short distance below posteriorly. The vocal fremitus was absent, though easily felt on the other side, and measurement round just below the nipple line showed half an inch more on this side than on the other, which, as it was the left side in a right-handed person, made a difference of one inch in the relative size. The case was, in fact, one of empyema proper, not one of circumscribed suppuration.

One advantage of the method I will just mention. The whole proceeding enables one to judge, by smell, sight, and touch, much of what is taking place in the pleural cavity. For instance, in our case masses of soaked fibrine came away at the time of the incision, and for a day or two after. For a week or two our two tubes would only pass in one direction, and then came a gush of greenish pus, all that had been previously washed away having been nearly white. At the same time there was a rise of temperature, and a small spot of dulness, with tubular breathing behind. This enabled me to say to a medical friend, "You may depend upon it there is a piece of the old lymph, which has not come away, which has kept open a sinus between the two pleural surfaces, and has caused a local abscess." In the second or third washing after, this piece of lymph blocked the exit tube and was removed. It had evidently lodged between the two lobes of the lung.

I find I have omitted alluding to one point mentioned by Mr. Lowe—viz., the weakness of the carbolic acid solution. Our great ovarian operators have, it seems, come to use their solutions much more diluted than Lister's; for reasons which certainly apply to the pleural cavity—the avoidance of local irritation and general absorption. I doubt not similar reasoning influenced Fraentzel and Traube, and would certainly influence me, in treating any similar case, to use the same strength as I did with confidence in its antiseptic influence. I am, Sir, yours, &c.,

WM. W. MOXHAY,
Surgeon Royal Berks Hospital.

Reading, March 7th, 1881.

"CASE OF PROBABLE POISONING BY COLCHICUM."

To the Editor of THE LANCET.

SIR,—My attention has been directed to the above case in last week's LANCET, sent to you by my neighbour, Dr. C. Budd of North Tawton. As I am the medical man alluded to who attended the case during the first seven days, I shall feel obliged if you will allow me to correct a mistake and an omission of Dr. Budd's respecting the patient's illness during the time he was under my care.

I saw the patient for the first time on Tuesday, Sept. 7th, and was told by him he had been shooting in Scotland, where he had taken a great amount of walking exercise, and had suffered occasionally from gouty pains in the knee. He informed me—which Dr. Budd's account does not mention—that on the morning he was leaving Scotland for Devonshire he was standing on the railway line talking to a friend, when an empty truck, which was being shunted and unperceived by him, struck him with such violence as to make him think he was being run over, and, as he expressed it, he was terribly frightened as well as shaken. On his arrival at Exeter, late on Saturday night, he drank iced water with a quantity of lemon-juice. Two days after he came home I saw him for the first time, and found him suffering from diarrhœa, vomiting, and hiccough, as described by Dr. Budd. Being fully aware of the patient's gouty diathesis and the irregular mode of living a visit to Scotland for grouse shooting entails, the great nervous shock he experienced on being violently knocked down by the empty truck, besides a long fatiguing journey, and at the end of which drinking a quantity of iced water with lemon-juice, did, in my opinion, account for the symptoms he then suffered from. My treatment may be described as essentially soothing and corrective, and it was so far successful that on the Monday following (the sixth day of my attendance) the diarrhœa, vomiting, and hiccough had completely subsided. (Dr. Budd says he obtained no relief.) He was free from pain, with a clean, moist tongue; pulse natural and secretions healthy, but suffering greatly from weakness, although not more than might be expected. At his own request I allowed some champagne and a few oysters to be taken on the following day.

I considered him so much improved that I suggested passing over one day without seeing him, to which he readily assented. My attendance, however, now ceased, as on the following day he sent for another medical man without informing me of his desire to have a second opinion. In my annoyance I refused to visit him again.

What caused a return of all the previous symptoms and the fatal termination I would not venture to say, but I cannot for a moment agree with Dr. Budd that it was a case of poisoning by colchicum; had it been so the case could not possibly have improved to so great an extent as it had when I left him, and then returned with double violence about forty-eight hours after I last saw him.

The final issue, as described by Dr. Budd, points, I think, to a rapid cerebro-spinal effusion, caused possibly by a gouty poison, instead of colchicum.

I am, Sir, your obedient servant,
JOHN GOULD, M.R.C.S. & L.A.C.

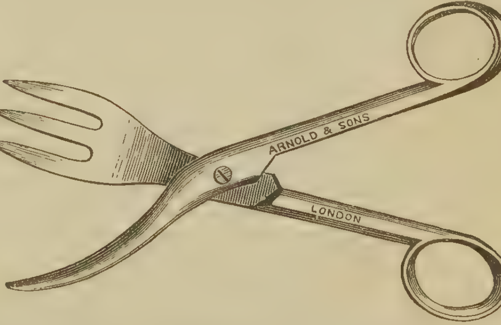
Hatherleigh, March 7th, 1881.

"THE DESIDERATUM."

To the Editor of THE LANCET.

SIR,—The instrument of which the enclosed is an illustration (and which I have named "The Desideratum" for the purpose of registration) was invented by me to obviate as far as possible the awkwardness and inconvenience attendant on the eating of their meals by persons deprived of the use of either arm.

You will perceive that it is on the principle of the shears, being formed of a fork and cutting-blade, which enables the person using it to divide at will and raise his or her food.



It can be had to suit either the right or left hand, and with or without an indentation (which acts as a tooth) on the fork edge.

Messrs. Arnold and Sons, of West Smithfield, have most intelligently carried out my design.

Your kindly allowing this instrument to become known to the profession and the public through the medium of THE LANCET will much oblige—Yours faithfully,

JOHN C. HOGAN, M.B.

Sister's-avenue, Lavender-hill, S.W., 21st Jan. 1881.

THE TESTIMONIAL SYSTEM.

To the Editor of THE LANCET.

SIR,—When will the University of Edinburgh reform the method by which the majority of its professorial elections are brought about? I ask this question because it is doubtless owing to some defect in the manner in which vacancies are filled up that candidates for its chairs feel it necessary to procure and subsequently publish a whole book of so-called "testimonials." No sooner is a vacancy announced or thought of than intending candidates begin to write to all sorts of people within the United Kingdom and outside, with the view of extracting, often very unwillingly given, the miscellaneous items of which this said book of testimonials is to be composed. Surely the process is troublesome, unnecessary, and not a little humiliating to those who have to take part in it. In most other places half a dozen testimonials from those who really know the candidates are usually deemed sufficient. Why is this not so in Edinburgh? Your obedient servant,

March 7th, 1881. M.D.

GLASGOW.

(*From our own Correspondent.*)

I AM glad to notice that the managers of the Glasgow Royal Infirmary have commenced the practice of making honorary appointments to the hospital staff. The first to be so honoured is, very appropriately, Dr. Andrew Buchanan, ex-President of the Faculty of Physicians and Surgeons, who has just been elected Honorary Consulting Surgeon to the infirmary. This compliment is well deserved, and reflects credit equally on Dr. Buchanan and on the infirmary authorities.

Death has recently been busy in medical circles both in the east and west of Scotland. Edinburgh has lost Sanders, Wood, and Handyside within a comparatively short time; while Glasgow was startled by the very sudden death of Dr. J. G. Wilson on Friday last. Dr. Wilson enjoyed the confidence of his professional brethren in a high degree, and had a large practice as a consultant in obstetrics. For the chair of Midwifery in Anderson's College, rendered vacant by his death, there will doubtless be the usual scramble. It is hinted, however, that the trustees of Anderson's College may possibly leave the vacant office unfilled, in view of the talked-of amalgamation with the Infirmary School of Medicine; but as this scheme, in the present temper of the various lecturers and professors more immediately concerned, is somewhat utopian, it may be left out of consideration, and the election to the chair will therefore probably go on. This matter will be finally decided at an early meeting of College trustees.

The movement for the erection of a Southern hospital in Glasgow is making unexpectedly rapid progress. The recently appointed Executive Committee, in approaching the Town Council with the request for a free grant of land or for an offer of ground at a greatly reduced price, met with a very gratifying reception. The Council, indeed, showed a disposition to deal with the question in an extremely liberal spirit. There appears to be some objection to the site originally proposed, Coplaw-hill; but I understand that the Council have under consideration a proposal to make a grant of twenty acres or thereby of that part of Queen's-park facing Langside, for hospital purposes. Generosity such as this would give a great impetus to the scheme. The site referred to is a perfect one in most respects; it has only this drawback, that it is too far from the city proper, from the factories, and the class of people it is intended to benefit. There has been some talk also of providing Fever Hospital accommodation for the south side of the city, near or in connexion with the proposed Southern hospital; but it is to be hoped that these hospitals will be kept distinct from each other and widely separate.

Some curious facts regarding the financial position of our two existing infirmaries are set forth in a letter prepared for publication by the Executive Committee of the Southern Hospital scheme. This letter, which is designed to combat the notion that these institutions are in straitened circumstances and that Glasgow has, therefore, difficulty enough in supporting the two infirmaries she has, has been carefully gone over, and its statements and figures have been verified by the Committee; it is printed, is now in the hands of most of the influential men connected with the south side of the city, and will soon be published. It shows that during the last ten years, in a time of general commercial depression, the Royal Infirmary has not only been able to pay its way and to spend large sums on extensions and improvements, but has also saved over £50,000, and that its total accumulated stock now amounts to over £100,000. The Western Infirmary, also, during the six years it has been in existence has not only met every claim made on it, but has also saved over £16,000. This will be news to many who do not wade carefully through annual reports, and seems to prove clearly that Glasgow is perfectly able to support a third infirmary. It is much to be regretted, however, that the Committee should have thought it necessary to their case to drag the Infirmary School of Medicine into the discussion, as this is a matter which is apt to be misunderstood by the public.

Obituary.

SURGEON-MAJOR HENRY CORNISH.

SURGEON-MAJOR CORNISH, whose death from wounds received in action at Majuba Hill we recorded last week, was born at Taunton, Somerset, in 1844. He received his professional education at Edinburgh, where in 1865 he obtained the licences of the Royal College of Physicians and the Royal College of Surgeons. After passing through the course of instruction at the Army Medical School, Netley, he was appointed an assistant-surgeon on the staff of the army, his commission being dated October 1st, 1866. In January, 1867, he proceeded to Mauritius, where he served till August, 1868, when he was transferred to the Cape of Good Hope. He returned to England in 1872, and in January, 1873, was appointed to the 10th Hussars, with which he proceeded to India. He became surgeon under the Warrant of March, 1873, and was promoted to be surgeon-major in October, 1878. He continued to serve in India till the recent embarkation of troops for service in the Transvaal, where he accompanied his old regiment. He appears to have been severely wounded in the fight at Majuba Hill, and died the following day at Prospect Camp. Surgeon-Major Cornish was specially commended for his services in Afghanistan. He was deservedly much esteemed in his regiment, and in him the medical department has lost an able, zealous, and in every respect trustworthy officer.

JOHN DAY, M.D.

WE regret to announce the death of Dr. John Day, which took place at his residence, Yarra-street, Geelong, Australia, on Jan. 10th last, in his sixty-fifth year. The deceased gentleman's career was one of steady devotion to his profession. He had no brilliant qualities, but he brought to his work great earnestness, plodding perseverance, which never failed under almost overwhelming difficulties, and a fixed determination to succeed in the long run, let the time be what it might. Chemistry in its application to medicine was his favourite study. He did good service to medical jurisprudence by his discovery of the guaiacum blood-test, the value of which was at once recognised by the profession. He was an ardent believer in the therapeutic value of ozone, and contributed valuable papers on the results of his investigations to the Medical Society in Victoria.

It may interest some of our readers to know that Dr. John Day was brother to the late George Edward Day, M.D., F.R.S., formerly Chandos Professor of Medicine in the University of St. Andrews.

A GRATIFYING feature in the report read at the annual meeting of the Hull General Infirmary, held last week, was the announcement that the subscriptions during the past year received through the Working Men's Committee amounted to £609 12*s.* 6*d.*, being an increase of £72 on the sum coming from the same source in 1879. The total amount paid to the funds of the institution by this committee was £7021 3*s.* What has been done in Hull by the industrial classes may, proportionally, be done elsewhere.

Medical News.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on March 3rd:—

Guillim, Richard Davis Hoyle, Marlborough.
Jennings, Charles Egerton, Malmesbury.
Palmer, Edward Talbot, Southsea.

The following gentleman also on the same day passed the Primary Professional Examination:—

Collins, Edward Treacher, Middlesex Hospital.

University of Dublin.—The following degrees were conferred last week by the Vice-Chancellor of the University:—

Bachelor in Surgery.—Austin J. Cockle, John Robert Fraser, Thomas Charles Moore, George de Joncourt Patterson, Godfrey E. Reid, John Rynne, George Scriven, Richard C. Studdert.

Bachelor in Medicine.—John Robt. Fraser, Thomas Chas. Moore, Godfrey E. Reid, John Rynne, James Johnston Robinson.

Doctor in Medicine.—William Butler Walsh, John Fitzhenry Woodroffe.

Royal College of Surgeons in Ireland.—At a meeting of the Court of Examiners on the 23rd ult. and following day the under-mentioned gentleman was admitted a Fellow of the College:—

Henry Fitzgibbon, M.D.

The Prince of Wales has consented to preside at the forthcoming festival of the Royal Hospital for Children and Women, Waterloo-bridge-road, S.E.

John Tudor, M.R.C.S. Eng., and Alfred Emson, M.R.C.S. Eng., have been appointed Justices of the Peace for the Borough of Dorchester.

St. Mark's Ophthalmic Hospital, Dublin.—At an election last week for a resident surgeon, Mr. Stuart Davis, M.B., was appointed.

Mr. G. Dennis of Chelmsford, a short time before his decease, sent a donation of £50 each to the Infirmary and the Dispensary of the town.

The late Dr. Peele.—At a meeting of the Medical Society of the College of Physicians in Ireland, held last week, a vote of condolence with the bereaved relatives of the late Dr. Peele was adopted.

At Marlborough-street Police Court recently, two tradesmen were fined £20 and costs for selling as "butter" a kind of fat which, according to the evidence of the analyst, contained 50 per cent. of foreign ingredients.

The London Temperance Hospital, situated in the Hampstead-road, was opened for the admission of patients on the 4th inst. The Lord Mayor presided at the ceremony, and a large and influential company assembled on the occasion.

The Buckingham Board of Guardians have appointed a committee to investigate the mode in which medical relief is administered in the union. The committee is to make special inquiry as to the number and working of village clubs in relation to the medical aid distributed in the parishes.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* The Lancet *before 9 o'clock on Thursday Morning, at the latest*

Beamish, W., M.D., L.R.C.S.Ed., has been reappointed Senior Physician to the Cork Fever Hospital.

Boulton, P., M.D., L.R.C.S.Ed., M.R.C.P.L., has been appointed Physician to Out-patients, Queen Charlotte's Lying-in Hospital.

Budds, W. T., L.K.Q.C.P.I., L.R.C.S.I., has been reappointed Physician to Out-patients of the Cork Fever Hospital.

Campbell, W., L.R.C.S.Ed., L.S.A.L., has been appointed one of the Medical Officers of the Hastings Free Dispensary.

Colborne, H., M.R.C.S.E., has been appointed one of the Medical Officers of the Hastings Free Dispensary.

Crowe, J. W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Honorary Physician to the Hartlepool Hospital.

Field, J. W., M.R.C.S.E., L.R.C.P.Ed., has been appointed Assistant-Surgeon to the Tewkesbury Hospital, vice C. Penruddock, resigned.

Hoskyn, D. T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Presteigne District of the Knighton Union.

Houghton, W. B., M.D., M.R.C.P., has been appointed Lecturer on Forensic Medicine at Charing-cross Hospital, vice Irvine, deceased.

Jenkins, J. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Sixth District of the Liskeard Union.

Jenkins, T. G., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Second District and the Workhouse of the Ruthin Union, vice Dr. J. R. Jenkins.

Jones, H. M., M.D., F.R.C.S.E., has been reappointed Physician to the Cork Fever Hospital.

Kirby, T. C., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Consulting Physician to the North-West London Free Dispensary for Sick Children, Bell-street, Edgware-road, W.

Macdonald, C. R., M.B., C.M., has been appointed Medical Officer for Barkip Coal and Iron Works, Barr Thread Mills, and Barr Colliery, Ayrshire, vice Morison, deceased.

Morison, J. R., M.B., F.R.C.S., L.R.C.P.Ed., has been appointed Honorary Physician to the Hartlepool Hospital.

Searle, G. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Brixham District of the Totnes Union.

Shorter, H. G., M.R.C.S.E., L.S.A.L., has been appointed one of the Medical Officers of the Hastings Free Dispensary.

Soper, R. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Borough of Dartmouth.

Thompson, A. H., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Great Ouseburn District and the Workhouse of the Great Ouseburn Union.

Wigmore, J., M.D., has been appointed Medical Officer for the Sixth (Tiverton-on-Avon) District of the Bath Union, vice Barrett.

Births, Marriages, and Deaths.

BIRTHS.

Alabone.—On the 27th ult., at Lynton House, Highbury New-park, the wife of Edwin W. Alabone, M.D., of a son.

Bate.—On the 4th inst., at Northumberland Houses, Hackney, the wife of George Paddock Bate, M.D., of a daughter.

Butler.—On the 6th inst., at Cromwell-road, South Kensington, the wife of E. R. Butler, M.D., of a daughter.

Farr.—On the 1st inst., at Earl's Court-road, Kensington, the wife of F. Arthur Farr, L.R.C.P.Ed., of a daughter.

Giffard.—On the 4th inst., the wife of H. E. Giffard, Esq., M.R.C.S.E., L.S.A.L., of Denham House, Egham, of a son.

Jackson.—On the 7th inst., at Park-lane, Tottenham, the wife of G. Henry Jackson, Surgeon, of a son.

McDonald.—On the 7th inst., at Southall, Middlesex, the wife of George Bruce McDonald, M.D., of a daughter.

Milne.—On the 2nd inst., at Accrington, the wife of Thomas Milne, M.A., M.D., of a daughter.

MARRIAGES.

Bishop—Bird.—On the 8th inst., at St. Lawrence Church, Barton-on-the-Heath, Warwickshire, by the Hon. and Rev. Walter R. Verney, assisted by the Rev. Arthur Nettleship, Rector of the Parish, John Bishop, M.D., F.R.C.S.E., of Edinburgh, to Isabella Lucy, daughter of the late Rev. Edward Bird, Rector of Wyton, Huntingdonshire.

Gardner—Atherton.—On the 1st inst., at St. James's Church, Suffolk-square, Cheltenham, Robert H. Gardner, M.D., Army Medical Staff, to Sophia Philippa, eldest daughter of C. B. Atherton, Esq., of Taynton, Gloucestershire.

Reynolds—Crespigny.—On the 8th inst., at St. Margaret's Church, Westminster, by the Very Rev. the Dean of Westminster and the Rector, the Rev. Canon Farrar, D.D., J. Russell Reynolds, M.D., F.R.S., of Grosvenor-street, to Frances, widow of the late Charles John Champion Crespigny, Esq., and eldest daughter of the late William Plunkett, Esq., Barrister-at-law.

Truman—Herring.—On the 8th inst., at St. James's, Piccadilly, Charles Edwin Truman, Esq., M.R.C.S.E., M.A., to Charlotte Fanny, only child of the late William Herring, Esq., of Putney.

Van Geyzel—Palmer.—On the 1st inst., at St. Andrew's Episcopal Church, Aberdeen, John Lawrence Van Geyzel, M.B., C.M., Surgeon in Her Majesty's Indian Medical Service, eldest son of J. A. Van Geyzel, of Colombo, Ceylon, to Catherine Alice, eldest daughter of W. J. Palmer, of Albury-road, Aberdeen.

DEATHS.

Dempster.—On the 27th ult., at Duncannon, near Waterford, James Carroll Dempster, M.D., Deputy Surgeon-General.

Earle.—On the 28th ult., at Warbeck-road, Shepherd's-bush, Frederic J. Earle, M.D., Surgeon-Major Her Majesty's Bengal Army, aged 53.

Foster.—On the 26th ult., at Park-place, Leeds, Edwin Foster, L.R.C.P.L., aged 73.

Godrich.—On the 7th inst., at Fulham-road, of apoplexy, Francis Godrich, M.R.C.S.E., aged 85.

Landon.—On the 27th ult., killed in the action on the Majuba Hill, South Africa, Arthur Jermyn Landon, Surgeon, Army Medical Department, second son of the late Francis Newcombe Landon, Esq., of Brentwood, Essex, aged 29.

Richards.—On the 7th inst., Samuel Richards, M.D., of Bedford-square, in his 73rd year.

Thornton.—On the 4th inst., suddenly, at his residence, Bank Lodge, Scarborough, William Henry Thornton, M.D., F.R.C.S.E., J.P., deeply regretted, aged 55. Friends will kindly accept this intimation.

Truman.—On the 2nd inst., suddenly, at New Basford, Notts, Samuel John Truman, M.R.C.S.E., son of the late Beckit Truman, of Nottingham, aged 35.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

MEDICAL SOCIETY OF LONDON.—8.30 P.M. The President's (Dr. Broadbent) Opening Address.—Dr. T. Stretch Dowse will show a Case of Pseudo-Hypertrophic Paralysis.—Mr. W. Spencer Watson, Two Cases of Unusual Affection of the Nose.—Mr. T. Gilbart Smith will exhibit a Specimen of Embolism in the Kidney in a Case of Heart Disease.

Tuesday, March 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

LONDON INSTITUTION.—8 P.M. Professor De Chaumont, "On Sanitary Assurance."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Relations of Disease of Nipple and Areolar Cancer of the Breast; Cystic Degeneration of Breast; Cystic Disease of Kidneys and Liver; Cystic Disease of Ovary from a Fœtus; Aneurisms of Aortic Valve (card); Cancer of Mediastinal Glands and Pleura; Localised Pneumothorax; Thrombus in Pulmonary Artery; Cranium and Brain of Hydrocephalic Adult; Villous Polyp of Bladder; Arrested Development of Upper Limb (card).

Wednesday, March 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Gulstonian Lectures: Dr. Coupland, "On Anæmia."

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—7.45 P.M. Communications from Mr. Edward Bartlett, &c.—Council Meeting.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. T. P. Bruce Warren, "On the Manufacture of Aërated Waters."

Thursday, March 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On Ornament."

HARVEIAN SOCIETY.—8½ P.M. Mr. Bryant, "On a Case of Gastrostomy for Cicatricial Stricture of the Œsophagus."—Dr. Gowers, "On the so-called Tendon-reflex Contractions."

Friday, March 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1¼ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor W. H. Flower, "On the Anatomy, Physiology, and Zoology of the Cetacea."

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Gulstonian Lectures: Dr. Coupland, "On Anæmia."

ROYAL INSTITUTION.—8 P.M. Dr. W. H. Stone, "On Musical Pitch."

Saturday, March 19.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. H. R. Haweis, "On American Humorists."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 10th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 4	29·56	S.E.	39	38	..	49	35	0·15	Raining
„ 5	29·34	S.	48	47	..	58	36	0·62	Overcast
„ 6	29·33	S.W.	50	49	..	58	45	0·50	Cloudy
„ 7	29·31	S.W.	55	53	..	60	47	0·04	Cloudy
„ 8	29·63	W.	47	46	..	52	45	0·08	Overcast
„ 9	29·95	W.	49	48	..	54	40	0·10	Raining
„ 10	30·01	W.	33	50	..	60	46	..	Fine

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE INDEX MEDICUS.

THIS is a monthly classified record of the current medical literature, in all languages, of the world. It is published in New York, by F. Leypoldt, who, in his announcement, states that whether it shall be continued after the completion of this, its second year, rests with the medical profession to decide. As a classified universal work of reference for medicine and its allied sciences, this is by far the most complete and exhaustive index ever issued. It has not alone the merit of giving the titles of all books by all authors, but, further, it gives the titles of the more important contributions to periodical medical literature in all languages. Many a busy provincial or colonial practitioner would find a copy of it useful to enable him to select suitable books for any special subject which might interest him.

Delta.—A certificate under the Vaccination Acts must be signed by a duly registered medical practitioner. Complaint should be made to the Local Government Board.

"OPENING OF MUSEUMS AND PICTURE GALLERIES ON SUNDAYS."

To the Editor of THE LANCET.

SIR,—In your issue of this date you notice with approval the signature by medical men of an address to the Premier in favour of opening the British Museum on Sundays. If you can spare space, will you allow me to point out the great boon to students that the opening of such institutions would be? Few will doubt that the better the general education a medical student gets, the more successful as a general practitioner and the more useful as a member of our faculty is he likely to prove subsequently. I need only mention how a student who fairly attends to his work has his time taken up to show that he has not time on week days—during the sessions at least—to visit museums, picture galleries, &c. In the first part of his course, lectures, demonstrations, and dissections are sufficient to occupy most of his daylight hours, leaving him his "studying" to do during the evenings. During the subsequent stages of his studentship ample occupation for working days will be found in ward work with the house officers in the morning, attendance in the out-patient rooms and sundry special departments at mid-day, and "going round" with the visiting officers in the afternoon, together with lectures, &c., at odd times as they can be made to fit in, and private study at night.

May I suggest, then, that an address to the Premier in favour of a "Rational Sabbath" from students at the London hospitals would not be inappropriate. Having but lately arrived in England, I am scarcely suited for organising this, but trust that some energetic friend of an unpopular, but not wholly undeserving, section of the community may be induced to act. I am, Sir, yours obediently,

St. Thomas's Hospital, March 5th, 1881. A STUDENT.

"THE RIGHT HON. LYON PLAYFAIR."

THE following choice *morceau*, from the February number of *Gaillard's Medical Journal*, will be interesting to cis-Atlantic medical readers:—

"Such is the manner in which the London *Times* alludes to Dr. Playfair, the distinguished obstetrician, who in the existing debates, recently occurring in the British House of Commons, was made deputy speaker of that body. The author of Playfair's midwifery is as remarkable for his humour as he is for his medical erudition. It seems that in the debate Mr. Millbank (a member) termed Mr. Biggar (also a member) 'a scoundrel.' The speaker, Dr. Playfair, being appealed to to preserve order, ruled that 'it was the duty of Mr. Millbank to apologise to the House for calling Mr. Biggar a scoundrel, but not to Mr. Biggar.' Mr. Millbank then made his apology 'in accordance with the mode prescribed by the speaker.' It was a delivery in three stages."

Dr. W. Alexander.—The paper will appear in an early number.

Obstet.—We think such services should be freely rendered by one medical man to another, whether he be principal or assistant. We are all more or less dependent on each other's good offices.

An Old Subscriber.—There can be no doubt as to the character of the handbill being most unprofessional, but we must decline to be the medium of further publicity of such an announcement.

Mr. Baber (Brighton).—As early as possible.

Dr. A. V. Ford will find the matter commented on in another column.

Dr. Wynn Williams' letter will appear in our next.

A Disgusted One complains strongly, but not too strongly, of unlicensed practitioners. He will see that we elsewhere direct attention to the subject.

INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—As a constant reader of THE LANCET for the past year, I have felt very much distressed by the hostile tone adopted towards the Indian Medical Service in their struggle for the redress of some of their grievances. I had confidently expected sympathy and assistance from the leading professional organ. May I ask you to publish "a round unvarnished tale" of the first two years' experience of a young surgeon, and leave it to be decided by any impartial reader, acquainted with the promises made to us before entering the service, whether we are not most unjustly treated.

On arriving in India I was at once sent to Afghanistan, where I served for about five months in cholera and field hospitals on "unemployed pay," 286 rupees per month. I then got medical charge of a regiment whose surgeon was sent sick to England, and got—not full pay, 450 rupees—but 386 rupees per month, though about 70 per cent. of the men were on the sick-list when I took charge. I remained in charge of this regiment while it was on service and near the frontier (about a year), but when it was sent down to a comfortable cantonment, and the cold weather came on, I was relieved from the charge and ordered to "do duty" with the regiment on unemployed pay. I have been thus engaged for the past two months, and will probably continue so till the stifling heat of the plains obliges some of the less robust of my brother surgeons to take refuge in the hills or in England. Though "unemployed," I have, in addition to regimental duty, garrison inspection work, and in my turn have to attend brigade parades and field exercises mounted.

There is not a single combatant officer in the Indian army serving with native troops whose pay is anything near so small as mine. A subaltern in the regiment of eighteen months' total service in England and India gets 325 rupees, and most of them considerably more. It is, therefore, idle to think that we can be satisfied by the useless grant of captain's relative rank when we get considerably less pay than the youngest subaltern serving with us as probationer for the staff corps. Government takes advantage of our powerlessness, and it is "the most unkindest cut of all" when THE LANCET exerts its influence against us, and hints that we are querulous grumblers.

When I apply some of the principles laid down in the article on "The Commercial Aspects of Medicine," which appeared in THE LANCET of Jan. 1st, to my case, my professional pride is not flattered by the reflection that Government values the services of a subaltern of eighteen months' service at a higher rate than it does those of an

India, Feb. 6th, 1881. M.B., B.A.

⁂ Our correspondent must have read THE LANCET for the past year to little purpose if he has come to the conclusion that it has adopted a hostile tone towards the Indian Service. We have endeavoured to bring clearly before the authorities and the profession the grievances under which it labours, and have urged the adoption of measures for their removal. Some of these have already been brought into operation, and we trust the rest will soon follow. But we have steadily refused to recognise the claim put forward by some of the advocates of the Indian Service, that they should retain half of the military administrative appointments, and receive also all those civil ones which were created to compensate them for the loss of the others. We have, in fact, objected to a great addition being made to the prizes of the Indian at the expense of the British Medical Service. If our correspondent is still "very much distressed" by his view of our conduct, we recommend him to re-peruse our leader of October 2nd.—ED. L.

B. H. H.—1. It would be the medical officer of health's duty to advise the managers and master or mistress of the school of the course they should take under the circumstances.—2. No; itch is not included under "dangerous infectious diseases."—3. No.

Mr. J. Lockhart Gibson.—We must decline to comply with our correspondent's request.

THE FULHAM SMALL-POX HOSPITAL.

To the Editor of THE LANCET.

SIR,—Mr. Edmund Tattersall sends the general press particulars inculpating the Fulham Small-pox Hospital as a focus for the dissemination of small-pox over the immediate neighbourhood. Kindly allow me to add the following corroborative statistics drawn from my own district (Brompton), which does not form quite half the "entourage" of the hospital.

During the last three years ending Dec. 31st, 1880, 213 pauper cases were sent into the hospital from my district, of which 124 came from within the quarter-mile radius directly adjoining the hospital (which, be it remarked, is not entirely covered with dwellings, quite two-thirds being open ground), 55 from between the quarter and half-mile radius, and the remaining 34 being scattered over the remainder of the district, which extends to a distance of two miles from the hospital.

During one of the outbreaks in my district cases were removed within a period of three days from fifteen different thoroughly well built and respectable streets. This remarkable simultaneity of outbreak undoubtedly implies a simultaneity of action from some great infecting centre, which cannot be explained otherwise than by the action of the Fulham Small-pox Hospital.—I am, Sir, your obedient servant, FRANCIS GODRICH,

Medical Officer, Brompton District, South Kensington, S.W.

Fulham-road, March 4th, 1881.

⁂ We regret to announce the death of the writer of the above letter, the oldest medical practitioner in Chelsea and officer of health for the parish. He attended the meeting at the Vestry Hall on Monday last, the 7th inst., against the Fulham Small-pox Hospital. He made a short speech, detailing statistics extending over many years, and showing that the hospital was a centre of contagion. A medical speaker having in the course of his reply impugned the statistics adduced by Dr. Godrich, the deceased gentleman became very excited, and was attacked with apoplexy. He did not recover consciousness, and died the following day, Tuesday, March 8th, at 5 P.M.—ED. L.

TREATMENT OF PLEURISY AND EMPYEMA.

To the Editor of THE LANCET.

SIR,—I have read with pleasure in THE LANCET of Feb. 26th and March 5th the excellent article of Dr. Morgan on the "Treatment of Pleurisy and Empyema," not only on account of the scientific manner in which he treats his cases, but I have personally had an opportunity of observing some of his successful results. Yet it has always struck me that the method of re-expanding the lung by directing the patient to inhale compressed air from "Seigel's pneumatic apparatus" must constitute an important factor in the etiology of vesicular emphysema, when we remember that there is already a tendency to the production of what has been termed by some writers "vicarious emphysema." When the lung being bound down by pleuritic adhesions, and therefore rendered partially or entirely incapable of expansion, the air which ought to enter these unused portions passes into other parts and unduly stretches their vesicles.

I am, Sir, yours respectfully,

Wigan, March 6th, 1881. W. MITCHELL ROOCROFT, M.R.C.S.

Subscriber.—It may be obtained through Trübner and Co., Ludgate-hill.

Adviser.—We do not prescribe.

Spes.—Replies to our correspondent's numerous and elaborate inquiries would occupy more space than we have at our disposal for such a purpose.

SUPRA-PUBIC CYSTOTOMY.

To the Editor of THE LANCET.

SIR,—When THE LANCET gives the high authority of its commendation to the consideration of an operation, it is sufficient evidence of its value, and necessarily commands the respectful attention and notice of the profession which it represents and whose opinions it guides.

I will make a reference, with your kind permission, to only one of the conditions you mention under which the "high operation" has been recommended—namely, when the stone is large and a hard one. Surely, Sir, when the stone is a large one, the opening required for its removal must, from its extent, prove a very serious obstacle, and I should like to know what means could be adopted to overcome this difficulty, at the same time that a speedy operation could be ensured.

Physiologists give us examples to show that nature will make bodies pass through openings smaller than themselves to accomplish her purposes without injurious results. But this is an accomplishment that modern surgery, with all its brilliant triumphs, has never effected, nor of course is likely to effect, at least not as regards the removal of a large hard calculus from the upper part of the bladder, and where indeed every line of space is important, and every degree of movement may mean disappointment and destruction.

I am, Sir, your obedient servant,

Feb. 24th, 1881. MEDICUS.

"THE WELBECK POISONINGS."

To the Editor of THE LANCET.

SIR,—Since reading the account of Dr. Ballard's investigations into the cause of the epidemic in connexion with the Welbeck sale, in which he says that the investigation "showed the existence of a species of bacillus, experiments with which, made upon animals, produced pneumonia," it has occurred to me to suggest, through the medium of your valuable journal, that the morbid matter mentioned is the blood poison belonging to whooping-cough.

On September 2nd, 1879, a very intelligent man called upon me, and, in the course of conversation, told me his pig had died two or three days before. I asked him the cause of death, as my attention has been given to investigating whooping-cough for the last ten years. He ascribed it to typhoid fever, and, on my asking for symptoms, said it began with diarrhœa, refusal of food, and slight fever; then head symptoms appeared, the animal when lying down rolling its head from side to side, and dashing it on the ground. I asked him if there was any cough. He said "Yes," its cough was so violent that it seemed to fall down with it; there was also dyspnœa, and finally it died in convulsions. I was sorry that I had not seen the pig both before and after death, as the symptoms plainly indicated congestion of brain and lungs (pneumonia), both due, in my opinion, to the poison of whooping-cough, and were such as I had seen in several patients. Had the pig belonged to a drove the others would most likely have suffered in the same way, or, if stronger, the poison might have remained dormant until some change of air, place, or other circumstances had developed it, and persons eating their flesh might have suffered.

On August 30th, 1880, a gentleman came to the house of a patient to consult me. He had been at the Welbeck sale, had eaten some of the ham, and suffered for some days after from diarrhœa and stomach irritation, but, to use his own words, "he had not felt well since that time." I examined him carefully, and found the following symptoms:—A feeling of general malaise, increasing towards night; sleeplessness, giddiness on looking either up or down; a tendency in walking suddenly to run off to one side; slight pulmonary irritation, which he described as being rather asthmatical. All these symptoms are found in persons who have been exposed to the whooping-cough poison. I prescribed for him with that opinion, and did not see him again till Jan. 2nd, when he told me that the treatment had quite removed his symptoms, and that he had been quite well.

From these and many other cases I have come to the conclusion that whooping-cough is a disease depending upon a peculiar blood poison, which is exhaled and absorbed by the bronchial and pulmonary mucous membrane, and not a mere spasmodic cough belonging to infancy and childhood, or that it may be taken into the system by eating the flesh of any animal infected with it. That it may lie dormant in the system even for months, and that, when developed, assumes many forms—viz., pneumonia, often called congestion of lungs; meningitis, cerebro-spinal meningitis, or typhoid pneumonia, as it has been called; low remittent fever, with exacerbations every night; inflammation of joints, very much resembling rheumatic fever, and moving quickly from one joint to another; congestion of uterus and ovaries, the ovaries particularly; also what is generally called winter-cough, and a peculiarly rapid form of consumption. In animals I believe that the disease generally called pleuro-pneumonia is due to the same blood poison, which explains its being so contagious, and also it may cause what has been called typhoid fever in pigs. These facts can be supported with cases.

I have not Dr. Ballard's address, or would have written to ask him what form of pneumonia was produced in the animals experimented upon, the pneumonia of whooping-cough being catarrhal or inflammation of the pulmonary mucous membrane, and not of the substance of the lung.

With an apology for trespassing so much on your valuable space, I remain, yours very truly,
JOHN COLSTON.

New Whittington, March 7th, 1881.

X. Z.—In reply to our correspondent's complaint, it may fairly be said that the preliminary examination hitherto conducted by the Royal College of Surgeons was instituted for candidates for its own diplomas, and not for the convenience of persons seeking to obtain qualifications from other examining bodies.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Alfred Hill, Birmingham; Dr. Fairweather, Pocklington; Mr. Cookson, Teignmouth; Dr. Fergus, Marlboro' College; Mr. Graveley, Chailey; Mr. Gould, Hatherleigh; Mr. Moxhay, Reading; Dr. Chauncy Puzey, Liverpool; Dr. Liveing, London; Dr. Kebbell, Brighton; Mr. Goslin, London; Dr. Ramskill, London; Dr. Matthews Duncan, London; Mr. E. L. Jacob, London; Dr. Yarrow, London; Dr. O. Sturges, London; Mr. D. H. Cullimore, London; Mr. Young, Hounslow; Mr. R. T. Cæsar, Shirley; Mr. Bland, London; Mr. W. E. Rendle; Dr. Armstrong, Newcastle-on-Tyne; Dr. Kilner, Bury St. Edmunds; Mr. Patullo; Dr. Creighton, Cambridge; Mr. Ashmead, Brierley-hill; Dr. Morris, Maryland; Mr. Pratt, Newtowns; Mr. Dawson Burns; Mr. Shirtliff, Kingston-on-Thames; Dr. Fisher, Chelsea; Mr. Flinn, Brownhills; Messrs. Arnold and Sons; Dr. Kirkman, St. Leonards; Mr. MacCormac, Lindley; Mr. Jenner, Baldock; Mr. Roecroft, Wigan; Mr. Godrich, Fulham; Mr. Lewers, London; Mr. Lawton, Poole; Dr. C. R. Drysdale, London; Dr. Meredith; Mr. Rolandson; Dr. Neale, Hampstead; Dr. Yeld, Sunderland; Mr. Dolan, Halifax; Mr. Knight, Whitehaven; Dr. Taylor, Woodstock; Mr. Wheeler, Manchester; Mr. Baker, New York; Messrs. Richardson and Co., Leicester; Mr. Atkey, Chichester; Mr. Wyer, Kimberley; Mr. Brown, Alexandria; Mr. Bridgman, Parnstaple; Messrs. Leader and Son, Sheffield; Mr. J. L. Milton; Mr. Coleman, Cardiff; Mr. A. V. Ford, Portsmouth; Dr. F. C. Turner; Mr. H. Finch; Dr. J. L. Gibson, Edinburgh; Dr. Low, Helmsley; Mr. W. P. Thornton; Mr. S. Gamgee, Birmingham; Mr. Stathers, Burton-on-Trent; Mr. Daniel Grant, London; Mr. G. M. Evans, Bridport; Mr. Roberts, Liverpool; Dr. Fenten, Bakewell; Surgeon-General Gordon; R. W. E.; Spes; Editor of the *Gardeners' Magazine;* Obstet; Delta; D. M.; X.; F.R.C.S. Ed., M.R.C.S. Eng.; R. M. O.; A. B., Portsdown; A Total Abstainer; W. T.; Surgeon, Llanelly; F. P. F.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Gent, Clevedon; Mr. Glisson, St. George's; Mr. Price, London; Mr. Lowe, Lichfield; Mr. Warren, Castle Gresley; Mr. Jeffries, Chesterfield; Dr. Moinet, Edinburgh; Mr. Cresswell, Wolverhampton; Dr. Lush, Salisbury; Mr. Coulston, New Whittington; Mr. Fox, Corby; Messrs. Stocks and Crossman, Wandsworth; Dr. Milne, Accrington; Mr. Tacey, Bradford; Mr. Field, Taunton; Mrs. Ludlow; Dr. Jones, Newbury, U.S.A.; Dr. Waddle; Mr. Iles, Sheepscombe; Mr. Finch, Colchester; Messrs. Beet and Atkinson, Ashford; Mr. Giffard, Egham; Mr. Willey, Birmingham; Mrs. Erson; Dr. Stewart, Nottingham; Mr. Thornton, Scarborough; Dr. Cook, Manningtree; Dr. Foote, Rotherham; Mr. Banks, Cheltenham; Miss Woodward, Cole Orton; Mr. Patel, Brixton; Dr. Smith, Dumfries; Messrs. Ryott and Co., Newbury; Dr. Moore, Middleton; Mr. Macpherson, Middlesboro'; N., Runcorn; Alpha R.; Delta, Longsight; M. D. Y., Stoke Newington; Medicus, Birchington-on-Sea; A., Sheffield; Yeldon, Birkenhead; K. C., Whitstable; M. E.; Medicus, St. Albans; F. M.; A. B. C.; Medicus, Stepney; M.D., London; Registrar, Bath; Alpha, Cubitt-town; Beta, Windermere; Apothecary; X. Y. Z., Basingstoke; M.R.C.S.; W.; A. G., Walthamstow; X. Y. Z.; J. T., Grimsby; X. Y. Z., London; W. R. B.; T. M.; Immediate; A. B., London; W. B., Selby; M. B., Horncastle; M. O. H.; Veritas, London; &c., &c.

Education, Wimbledon Courier, Ocean Passengers' Gazette, Marylebone Mercury, Portsmouth Times, Exeter and Plymouth Gazette, Food and Health, Pocklington Weekly News, Pontefract Telegraph, Cape Times, Cambridgeshire Times, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Gulstonian Lectures
ON
ANÆMIA.

Delivered before the Royal College of Physicians,

By SIDNEY COUPLAND, M.D., F.R.C.P.,
PHYSICIAN TO THE MIDDLESEX HOSPITAL.

LECTURE I.—Part I.

Impoverishment of Blood with regard to Hæmoglobin the essential fact in Anæmia—This may be Quantitative or Qualitative—Analysis of Blood in Chlorosis—Methods of Estimation of Hæmoglobin—Malassez, Hayem, Gowers, Quinquad—The Red Corpuscles: Variations in number, size, and form; their development, destruction, and renewal—Share taken by Lymphatic Glands, Spleen, Bone-marrow, and Liver (?) in the work of Blood Formation—The Hæmatoblasts of Hayem.

Mr. President and Gentlemen,—In selecting as the subject of these lectures which I have the honour of delivering before you a condition so commonly and widely prevalent as Anæmia, I fear that I have undertaken a task which is not easy of fulfilment. For around this subject there clings much obscurity, owing to our lack of knowledge; and it would require far more profound analysis than I can hope to give to illumine its dark places. I do not bring you any original researches, and I cannot discuss the question in all its bearings; but if by a simple exposition of what I conceive to be the directions in which the solution of its problems lie I can fulfil a useful purpose, I shall be satisfied. For the subject is one worthy of attention; and in this College where the memory of Harvey, the student of the circulatory mechanism, is ever kept green, it is surely fitting that we should now and again review our knowledge of those conditions in which the blood plays so prominent a part. It is a truism to say that the integrity of the blood is essential to the performance of healthy function; and as disease is in great measure only disordered function, it is plain that such disorder may be determined by, as it must determine, changes in the circulating medium itself. There are some diseases in which defects in the blood stand out in sharp relief, but the more deeply the nature of disease is inquired into, the more clearly is it manifest that the blood—the mobile tissue pervading every part of the organism, and essential for its proper working—must be modified by any departure from the normal. The modification thus induced may be almost infinitesimal—it may be, in a sense, simply necessary to maintain the life of the individual when placed under abnormal conditions; or it may be so profound as seriously to interfere with the vital processes, and be the ultimate if not the proximate cause of death. Thus in anæmia we pass insensibly over the margin of health to disease—to the very confines of the latter's territory—the limit placed by death.

Naturally the greatest interest—for here lies the deepest obscurity—centres in the etiology of this condition, and my object to-day will be to consider facts concerning the blood and the part it plays in the economy with the view of illustrating the varied manner in which the anæmic state may be brought about. Without attempting to give a definition of anæmia other than that it is a condition of the blood in which its composition is so defective that it cannot sufficiently fulfil its respiratory and nutritive functions—implying, that is, a lowering of its standard composition in those elements which are destined to promote oxidation, to accelerate tissue-change, and repair tissue-waste—I must in the first place say a little concerning the blood itself, and in doing so must crave indulgence for venturing to repeat facts so well known.

The blood consists of the fluid part or plasma and the formed elements or corpuscles, the latter constituting rather more than one-third of the whole by weight. The corpuscles contain about 50 per cent. of water, their main solid constituent being the albuminoid crystallisable substance hæmoglobin associated in the coloured corpuscles with a minute quantity of iron, between 0·4 and 0·5 per cent. The serum, on the other hand, is composed of 90 per cent. of water, 8 to 9 per cent. of proteids, and 2 to 1 per cent. of fats, extractives, and saline matters (Foster). Then there is the curious circumstance in the inorganic constituents—viz., the preponderance of potash salts and phosphates in the corpuscles as compared with a parallel excess of soda salts and chlorides in the serum. (See Tables I. and II.)

Table I.—*Mean Chemical Composition of Blood.*
(Becquerel and Rodier.)

	In Health.		In Chlorosis.
	Adult Male.	Adult Female.	
Water	780	791	828·2
Solids	220	209	171·8
Fibrin	2·2	2·2	3·4
Albumen ...	69·4	70·5	72·1
Corpuscles ...	140·0	127·2	86·0
Extractives & Salts	6·8	7·2	8·8
Fatty matters	1·6	1·9	1·5

Table II.—*Plasma.* (Schmidt.)

1000 parts contain :

Water	901·51				
Solids	98·49	Fibrin	8·06		
		Album. & extr.	81·92		
		Salts	8·51—viz.,		
				Pot. chlorid.	0·559
				Sod. chlorid.	5·546
				Sod. sulph...	0·281
				Sod. phosp...	0·271
				Sod. carb. ...	1·532
				Calc. phosph.	0·298
				Mag. phosph.	0·218

Corpuscles. (Schmidt.)

1000 parts contain :

Water	618·63				
Solids	318·37	Hæmatin	15·02		
		Globulin	296·07		
		Salts	7·28—viz.,		
				Pot. chlorid.	3·679
				Pot. phosph.	2·343
				Pot. sulph...	0·132
				Sod. phosph.	0·693
				Sod. carb. ...	0·134
				Calc. phosph.	0·094
				Mag. phosph.	0·160

Analyses show, therefore, that the corpuscular elements form the greater part of the solids of the blood, and it thus follows that the hæmoglobin is by far the most abundant of its albuminoid constituents.

True anæmia of course implies a diminution in all these blood constituents—a condition only obtaining, and that in a transitory manner, after profuse and sudden hæmorrhage, the quantity of fluid lost being made up by a rapid osmosis of water from the tissues. The blood in that case becomes hydræmic, as it may do in the later stages of a chronic anæmia where there has been loss or destruction of the albuminoids of the serum. The consideration of such rapid and extreme forms of anæmia as those produced by sudden and severe hæmorrhage does not enter into my programme, except as serving to illustrate the various phases of anæmia, whether primary or secondary. The most marked fact in such anæmia is the impoverishment of the blood in its albuminous constituents, especially in the hæmoglobin—an impoverishment which may be owing to an actual diminution in the quantity of this substance, but which is also very probably due to a qualitative change in it, whereby it is rendered unable to subserve its chief office, that of conveying oxygen to the tissues. At present there is but little known concerning this latter modification.[1] Attention has been mainly directed to the alterations in *amount* of hæmoglobin and of the albuminoids, and it is found that the diminution in these constituents is accompanied to a definite, but a comparatively small, extent by an increase in the saline matters, and generally also by an increase in the water of the blood. I have placed before you (Tables III. and IV.) certain analysis of blood in *chlorosis*, which show that in that form of anæmia, at any rate, the reduction of solids is mainly in the corpuscular part of the blood, and *not* in the serum; and there are abundant analyses made in more recent days which show that the reduction is almost entirely that of the hæmoglobin. The contrast between this deficiency and the normal, or even excessive, amount of serum-albumen in this disease has been adduced as evidence of the essential difference between this form of anæmia and other forms. It seems doubtful, however, whether it is wise to base the distinction upon such a narrow ground as this, seeing that in the all-important feature of anæmia—that of deficiency of hæmoglobin,—chlorosis takes the chief place.

---

[1] It has been lately argued with much force by Drs. M. P. Jacobi and White (Archives of Medicine, 1880) that in anæmia the organised albuminoids of the body, including the corpuscular hæmoglobin, are all functionally inactive, and are rendered unable to condense oxygen and to store albumen in sufficient quantity for the needs of the organism. This is the most explicit statement, I know of, of the view that the change in the hæmoglobin may be not simply a quantitative, but a *qualitative*, one.

TABLE III.—*Mean Composition of Blood* (*1000 parts*).

	IN HEALTH. (LECANU.)	IN CHLOROSIS. (ANDRAL & GAVARRET.)	
		Incipient.	Fully developed.
Water ...	790·0	801·0	853·2
Solids ...	210·0	199·0	146·8
Fibrin	3·0	3·5	2·9
Corpuscles	127·0	106·8	56·7
Solid resid. of serum	80·0	88·0	88·0

TABLE IV.—*Anæmia with Amenorrhœa.* (BEALE.)
(Treated by Citrate of iron.)

	Fifth Day.	Thirty-fifth Day.	Sixty-fifth Day.
Water ...	865·28	836·46	829·49
Solids ...	134·72	163·54	170·51
Fibrin	2·52	1·28	2·69
Corpuscles ...	49·29	78·73	85·79
Solids of serum	82·91	83·53	82·03
	(Salts, 7·54.)		(Salts, 8·203.)

So important is this constituent that in endeavouring to analyse the etiological side of anæmia, and to explain the effects of the condition, inquiry may be almost concentrated upon the variations of hæmoglobin to the exclusion of the other blood elements. Consequently many methods have been devised for determining as accurately as possible the absolute and relative quantities of hæmoglobin in the blood. These methods severally consist in (1) the determination of the amount of iron in the corpuscles, it being found to be in constant proportion to the amount of hæmoglobin; (2) in the spectroscopic appearances given by solutions of hæmoglobin of various degrees of concentration; (3) in the absorptive capacity of a given quantity of blood for oxygen; and (4) in the comparative determination of the amount of colouring matter by contrasting a solution of blood of known strength with certain standard colours or coloured substances corresponding to the tint of a solution of normal blood. This last is the simplest and readiest of all the methods, although not quite as accurate as some of the others where larger quantities of blood are dealt with. It is to Messrs. Hayem and Malassez that we owe the introduction of these methods, and the simple apparatus devised by Dr. Gowers modifying the latter's method is before you. I have placed on the table specimens of blood of different degrees of anæmia, illustrating this method, where the standard of comparison represents the colour of 20 c.mm. of normal blood diluted 100 times. In that way the percentage amount of hæmoglobin may be estimated, but the absolute quantity has been determined by some of the other methods. Of these I may especially mention that carried out by Quinquad, who, availing himself of the reducing properties of sodic hydrosulphite was enabled to calculate the maximum quantity of oxygen capable of being absorbed by a given sample of blood. The mean capacity in health, he found, was 240 cubic centimetres of oxygen to every 1000 grammes of blood, and as estimations by iron show that hæmoglobin contains 0·43 per cent. of that metal, and that 1000 grammes of blood contained 0·53 grammes of iron, it follows that the quantity of hæmoglobin capable of absorbing the above amount of oxygen must be 128 grammes. (See Table V.) M. Quinquad has therefore assumed that hæmoglobin invariably has this absorptive capacity for oxygen, and has applied this method of determination to estimate the hæmoglobin in various diseases. In the main his results accord with the older and more elaborate analyses, as well as with those obtained by the colour-methods. For example, he found that in chlorosis the hæmogoblin suffers absolute diminution to a greater extent than in any other disease, except pernicious anæmia and cancer, but that the solid matters of the serum were very slightly if at all reduced—a result similar to that I have recently quoted.. The obvious objection to the method is that it does not allow for alterations in the quality of the hæmoglobin of a given specimen of blood, which would alter its capacity for absorbing oxygen. Another difficulty arising in regard to most of the methods of absolute determination lies in the discrepancies liable to creep in in the minute calculations they involve, a criticism which applies with equal force to all methods of blood-numeration and analyses of small quantities of blood. Thirdly, all these methods are imperfect in that they, of necessity, tell nothing of the total amount of the blood, which may be much impoverished as a whole, but which, owing to alterations in density may apparently yield a normal or even excessive amount of colouring matter and corpuscles. These points were well illustrated in a recent paper by Drs. Baxter and Willcocks,[2] and enforce the lesson that the results of these methods of estimation can only be dealt with in a relative sense; and that a very slight deviation may lead to great error in the total result.

TABLE V.—*Estimation of Hæmoglobin and its capacity for Oxygen. Mean of four observations.*
(QUINQUAD.)

	Amount of Hæmoglobin in 1000 cc. of Blood.	Amount of Oxygen absorbed by 1000 cc. of Blood.
Adult male ...	130 grms.	250 cc.
Adult female ...	114·2 grms.	225 cc.
Old man	105·8 grms.	205 cc.

It is impossible, however, to deal with alterations in hæmoglobin without inquiring into the natural history of the red corpuscles themselves, which are so largely composed of this substance. This we may now proceed briefly to consider. We may expect to find variations in the number, size, form, and evolution of those elements to be associated with the anæmic state; for in general terms this state depends either on a numerical deficiency in these corpuscles, or a deficiency in their hæmoglobin, or on both these conditions.

The number of coloured corpuscles in a cubic millimetre of blood is on an average 5,000,000 for the adult male, and 4,500,000 for the female. These figures, originally calculated by Vierordt and Welcker, have been confirmed of late years by the process of numeration by means of the hæmocytometer invented by Hayem and introduced into this country in a modified form by Dr. Gowers. Their precise accuracy has been questioned, some asserting that they are too high, others that they are too low—discrepancies depending partly, perhaps, on instrumental errors and partly upon the variations which occur in the healthy subject in relation to food, to the greater or less concentration of the plasma, to the region from which the blood is taken, or the state of contraction of the vessel yielding it. At the same time these figures represent sufficiently well the average of health, and serve well enough as standards of comparison. Mere numeration, however, is misleading as an indication of the blood value; the hæmoglobin also must be taken into account, and we can hardly have a better example than in chlorosis, where, with a much diminished quantity of hæmoglobin, the number of corpuscles is often but slightly, if at all, below the normal. It has, therefore, been an object to determine the actual quantity of hæmoglobin falling to each corpuscle. Malassez especially has attempted this, so as to express the corpuscular richness in terms of hæmoglobin, and the hæmoglobin in terms of corpuscular richness (Table VI.), and he has quite lately further perfected his method, whereby it can be clearly shown the corpuscles in pathological conditions may contain a greater proportionate

TABLE VI.—*Hæmoglobin and Corpuscles.* (MALASSEZ.)

	No. of Corp. per cub. mm.	Qty. of Hgbn. per cub. mm.	Qty. of Hgbn. per Corpuscle.
Chlorosis	3,600,000	0·038	10·53 μμgr.[3]
Chlorosis	2,800,000	0·048	17·14 ,,
Ditto 1 month after treatment... ...	3,300,000	0·062	18·78 ,,
Anæmia	4,000,000	0·086	21·56 ,,
Essential anæmia	1,830,000	0·033	16·66 ,,

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[2] THE LANCET, vol. i., 1880, pp. 361, 397, and 439.

[3] The sign μμ gr. = $\frac{1}{1000000}$ of $\frac{1}{1000000}$ of a gramme, and is employed to obviate the inconvenience of dealing with a large number of zeros in decimals.

amount of hæmoglobin than in health, and the converse. He has shown also that the size of the corpuscle does not determine the amount of the hæmoglobin either in the animal series or in disease in man (see Tables VII. and VIII.)

TABLE VII.—*Hæmoglobin and Size of Corpuscles.* (MALASSEZ.)

	Amt. of Hæmoglob. per Corpuscles.	Size of Corpuscles.	Amt. of Hæmoglob. per 1 μ cub. of Corp. Subst.
Man	30 μμ gr.	72	0·416 μμ gr.
Pigeon	52 ,,	125	0·416 ,,
Lizard	70 ,,	201	0·348 ,,
Frog	216 ,,	629	0·343 ,,
Proteus	1066 ,,	9200	0·115 ,,

TABLE VIII.—*Hæmoglobin and Size of Corpuscles.* (MALASSEZ.)

	Richness in Hæmoglobin.		Diameter of Corpuscles.	
	Absolute.	Relative.	Absolute.	Relative.
Cancer	13 μμ gr.	0·43	6·64	0·87
Chlorosis	22·7 ,,	0·75	8·29	1·09
Normal	30 ,,	1·0	7·60	1·0

Changes in corpuscular value are seen whenever one calculates the number of corpuscles and estimates the quantity of hæmoglobin; but although in one specimen 4,000,000 corpuscles with a percentage of 30 of hæmoglobin will be equivalent to 2,000,000 with 60 per cent., as regards the total quantity of colouring matter; it must be borne in mind that the respiratory or nutritive value—in other words, the functional value—of the one may be greater than the other owing to the difference in the number of the elements, or to difference in their size.

The size of the coloured corpuscles (diameter of $\frac{1}{3500}$ to $\frac{1}{3200}$ of an inch or 7·7 μ.) is a tolerably constant quantity in health, but in anæmic conditions it is common to find very many corpuscles much below the averages. The smaller spherical coloured elements, which have received the name of microcytes, are often abundant in anæmic blood. They may represent immature forms of the red corpuscle; and I shall have to mention yet smaller elements, upon the presence of which great stress is laid by M. Hayem in speaking of the development of the blood. More than one authority has declared that the corpuscles in chlorosis are larger than those in health, and that in cancer they are plainly smaller—changes which, if occurring, might be related to the nature of the intimate substance of the corpuscle, where also may be found explanations for changes in form as well as size.

For the characteristic discoid shape is (except in the case of the microcytes just mentioned) very little altered in the living state, although after removal from the body, under the influence of reagents, &c., they undergo many changes of shape. Considerable, and perhaps undue, stress has been laid upon the form-changes in corpuscles in the severe cases of idiopathic anæmia, of which they have been made almost a pathognomonic feature. In so far as they indicate a certain degree of instability, fragility, and proneness to decay of the corpuscles, or some altered relations between the plasmic fluid and the viscous globule, such curious alterations in shape may be suggestive of a profound blood-change. But more than this we are not warranted in saying.

Great interest attaches to these corpuscles in respect to their development in the embryo, their subsequent formation, destruction, and renewal; and it cannot be said that our knowledge is yet complete with respect to these matters. Their bearings upon the subject of anæmia are manifestly so important that I must not leave this part of my subject without alluding to them. The primitive blood-cells arise directly from the mesoblastic elements within the developing bloodvessels. These embryonic coloured corpuscles are nucleated, and in early fœtal life the blood is largely composed of such nucleated corpuscles, which gradually disappear with the further development of the body. As soon as the liver and spleen are differentiated the formation of these corpuscles takes place within these organs, although it is not confined to them, the connective tissue cells giving rise to red corpuscles formed out of their protoplasm (Schäfer). There seems no reason why this latter process should not go on in the growing organism after birth, together with the new formation of bloodvessels. In adult life it is generally believed that the coloured corpuscles are developed from the colourless cells of the lymph, the transformation taking place partly in the general circulation, but largely in those organs which are specially devoted to the formation of the corpuscles of the blood—the spleen, lymphatic glands, bone-marrow, and liver. The splenic pulp contains cell elements of different kinds, lymphoid corpuscles of various sizes, red corpuscles, intermediate forms and certain peculiar blood-corpuscle-holding cells, which may represent a stage in the final involution of the red discs, or indicate their evolution from lymphoid cells. As to the lymphatic glands, their *rôle* is evident. The hæmatogenous function of the bone-marrow first described by Neumann twelve years ago is now generally admitted. It was founded on the resemblance of this tissue (especially in young subjects, where it is more vascular, redder, and less fatty than in later life) and its vascular supply to the splenic pulp, containing, as it does, lymphoid cells, cells with coloured nuclei, forming transitional elements between the lymphoid and red corpuscles. The relative abundance of this tissue in youth accords with a like degree of development of cytogenic tissue elsewhere in the body, and affords a contrast in the reparative power, often bloodless at that period as compared with later ages. Hence an explanation for alterations in the corpuscular richness of the blood has been sought in changes in the bone-marrow when the other organs of sanguification have appeared to be unaffected. The liver, which in the embryo undoubtedly is a source of the coloured corpuscles, is by many considered to play a part in blood-formation throughout life, but there does not appear to be yet sufficient proof of this.

One other point of interest concerning the formation of the blood-corpuscles must be mentioned. M. Hayem, who has paid much attention to the subject, and whose observations include not only human blood, but the blood in all classes of vertebrata, has described "hæmatoblasts" of a somewhat different kind from those which are recognised in the marrow or spleen. These are small, rudimentary blood discs furnished by the lymph together with the leucocytes, but so transparent and fragile as to escape observation unless the blood be promptly examined at a freezing temperature or "fixed" by reagents. They are faintly coloured, and in size vary from one-sixth to two-thirds that of the fully formed corpuscles, to which they bear a tolerably constant proportion—viz., one to twenty, being thus considerably in excess of the leucocytes. The existence of small granular masses in the blood has long been noticed, and I have already mentioned the occurrence of smaller forms of red corpuscles, which are regarded by Hayem as intermediary between the very immature hæmatoblast and the completely developed corpuscle; but it is at least singular that these hæmatoblasts, so numerous as they are, should have been so long overlooked by histologists. I may add that their discoverer not only attributes great importance to them in the development of the blood, and regards their presence in undue amount as evidence of incomplete evolution of the blood, as in chlorosis, but asserts that they play a leading part in the formation of fibrin.

Incomplete as our knowledge is as to the precise manner in which the coloured corpuscles are renewed in the blood, it is even less certain as regards the manner of their destruction, and as to their duration as independent, functionally-active elements. For their function is not simply that of carriers of oxygen to the tissues; they also furnish products to secreting glands, and in so doing must be considered to suffer destruction, just as in certain glands—e.g., the mammary,—the cells perish in giving rise to their peculiar product. Indeed, from analogy there would seem to be nothing peculiar in the continued destruction and re-formation of blood-corpuscles; for, although it may be true that a secreting cell often has a certain stability, and after yielding up its product is once more enabled to draw fresh material and convert it to its peculiar secretion, yet there must be a limit to cell life and a renewal of cells in place of those rendered effete by repeated acts of secretion. In the case of the blood there is evidence of the rapidity of renewal of its elements in the increase in corpuscles following ingestion of food, in the diminution during fasting, in the repair of the blood after menstrual loss, or after profuse hæmorrhage, and, indeed, in recovery from anæmia of any kind. M. Hayem, finding the immature corpuscles, or hæmatoblasts, to stand in a constant numerical proportion to the fully formed corpuscles, sees in this evidence of continual change to maintain this ratio, whilst, on the other hand, Quincke, in some recent researches upon artificially induced plethora, has estimated the duration of a red corpuscle to be almost two weeks. There are not, however, sufficient data to remove this interesting point from the region of speculation. We know that the material of the corpuscles is constantly being excreted from the body or deposited in the tissues, and we infer that this implies a destruction of the corpuscle. The actual seat of this destruction is not founded on much surer ground. The spleen has been long regarded as the place where such a regressive change takes place; its richness in iron, its peculiar nucleated cells containing colouring matter, suggest this; and yet the blood of the splenic vein is richer in corpuscles than its artery; so that if the spleen is the seat of their destruction it must also be the seat of their renewal—possibly building up new corpuscles from the relics of the old; besides sending forth also abundance of leucocytes, to undergo further transformation into the coloured elements. However this may be, there is less uncertainty as regards the liver, which seems to be the chief seat of the destruction of red corpuscles; for not only does the blood passing out of this organ contain comparatively fewer corpuscles than that entering it, but its cells are laden with pigment derived from the blood, which they excrete with but little modification in the bile, of which one pigment, the bilirubin, is identical with the iron-free hæmatoidin. Lastly, the urinary pigment must also be derived from the blood; but I do not know whether its precise seat of separation has been determined. [Under certain conditions, probably concerned as much with derangements in the circulation of the kidney as with any actual change in the blood itself, the hæmoglobin will transude into the urine unaltered. Such are the cases of so-called intermittent hæmatinuria, apparently sometimes associated with malarial influences. The appearance of indican, especially abundant in diseases of the alimentary tract, in the urine has relations probably to imperfect changes in assimilation; but its occurrence in anæmia has also been declared, and is suggested to point to some relation with the deficiency of blood in colouring matter.] Lastly, in conditions of artificially induced plethora, and in pernicious anæmia, Quinquad has found a great excess of iron taken up by leucocytes and gland cells in the liver, kidney, and other organs.

Having dwelt at such length upon the red corpuscles, it will not, I hope, be concluded that I wish to ignore the other blood constituents, or the part which their diminution plays in the production of anæmia. But it is because the essence of anæmia lies in the impoverishment of the blood in colouring matter that I have said so little about the other constituents, nor do they need much exposition. The white corpuscles may have other functions than that of giving rise to the coloured corpuscles; they may take part in the renewal of other tissues and cells, but of this we have no concern to-day. In so far as they give rise to the coloured elements, any hindrance to their transformation or arrest of it must deprive the blood of its chief constituent. Dr. Cavafy's interesting research, which points to the leucocytes in leukhæmia being incapable of further transformation, is suggestive of the link between this blood condition and that of pure anæmia.

Then as to the albuminates of the serum and the salts, I have before intimated that they suffer change in anæmic conditions; but I must reiterate my conviction that, as compared with the hæmoglobin, they play but a minor part in the symptoms or effects of anæmia. It is impossible to dissociate them from the condition, for their changes are certainly factors of importance in its etiology; and yet there may be, as in chlorosis, all the evidence of anæmia, with no diminution, but even an excess, of those constituents of the blood.

Scotch Medical Relief Grants.—A deputation from Edinburgh, Glasgow, and other Scotch towns, have had an interview with the Lord Advocate recently at the Home Office on the subject of the grant from the Imperial Exchequer in aid of medical relief for the poor of Scotland, and to urge that the grant should be increased so as to equalise it with the same grants for England and Ireland. The allowance at present made was £10,000 per annum to Scotland, while England received £210,500, and Ireland £71,500, being a half of their actual expenditure; whereas the grant to Scotland was less than one-fourth of its total expenditure. The Lord Advocate promised to arrange with Lord Frederick Cavendish for an interview, by deputation, with the Premier on the subject.

Mr. Alexander Jones, late of Walbrook, bequeathed £200 to the Jews Hospital, Norwood.

THE PATHOGENY AND TREATMENT OF BRONCHOCELE OR GOITRE.[1]

By EDWARD WOAKES, M.D. Lond.

The following observations are mainly based upon the experience of goitrous patients who have attended my out-patient department at the Throat Hospital during the last four or five years. The cases in which the treatment by fluoric acid was adopted and continued to the end are twenty in number. Of these seventeen recovered and three failed to receive benefit from the drug. There are besides preliminary notes of seventeen other patients who attended from one to three times only. These form no part of the series, though they furnish information of an etiological kind, to which allusion will be subsequently made. My notes of about fifteen other cases were destroyed by the carelessness of a porter in charge of the hospital out-patient letters; these, therefore, are not included in the report, as, owing to this misadventure, I have no reliable data to quote from. With regard to the cases themselves, they were not selected for the purposes of treatment, every case of the disease that presented itself being similarly dealt with. This was done with the view of testing the influence, if any, of fluoric acid upon this particular disease. With this object before me, all accessory methods of treatment have been avoided, though it has happened that such accessory treatment has been in one or two instances temporarily added, as when during my absence the patients have been seen by some one unacquainted with my design. Such additions have been speedily eliminated, and were so slight as scarcely to affect the result, except perhaps in Case 10. Speediness of cure has, therefore, been sacrificed to the sole aim of ascertaining first of all whether fluoric acid exercised any remedial influence over the disease.

Before proceeding to further details it may be desirable to discuss the reasons which induced me to select this particular remedy for the purposes in view. As the decision of this point involves principles of fundamental importance, applicable alike to every new attempt to expand the domain of therapeutic resource, I feel the less reluctance in stating briefly in what these principles consist. The first has reference to the pathogeny of bronchocele. The more we consider this subject the more clearly will it appear that the point of departure in the morbid process consists in a paresis of the vaso-motor nerves which mediate the vessel area constituted by the thyroid gland. We shall further localise this paresis, as regards its source, in the sympathetic ganglia from which these vessel nerves issue, and accept as the outcome of such paresis a chronic state of vessel dilatation as regards the area in question. Such a passive augmentation of the blood-supply of the organ expresses itself first in the form of a simple expansion of the normal dimensions of the gland, which then presents a somewhat undefined spongy mass, very compressible, and variable as regards its proportions. Such passive hyperæmias of the thyroid body are not unfrequently seen in the course of certain disorders which complicate that part of the vascular system with which the vessels proper to it are in intimate anatomical relationship. Thus it seems to act as a diverticulum or reservoir for storing away a certain amount of blood, which, if not thus disposed of, would, in the conditions referred to, prove embarrassing to organs of more vital import. It appears to me impossible to recognise any *raison d'être* for the existence of this elastic body at the root of the neck, and in immediate relationship with the great arterial highways to the brain, unless it be viewed in connexion with its vaso-motor associations. The nature of this correlationship will be illustrated by reference to one of them—viz., that by which the vertebral artery, contributing so largely to the intercranial circulation, is located as regards its origin close to the inferior thyroid artery; and, which appears of more importance, that both these trunks derive their vaso-motor nerves from the same sympathetic subcentre, the inferior cervical ganglion. The arrangement is such that a vaso-motor impression proceeding from the ganglion would be likely to influence both these arteries at the same time; that is to say, supposing a dilator wave to be projected upon the vertebral artery, that going to the thyroid gland would participate in it. Under these circumstances, a portion of the blood propelled by the heart into the now dilatable vessels would be immediately drafted off by one of them, and received into a distensible receptacle, the thyroid body, and by so much will the pressure on the vertebral artery be diminished, and the additional amount of blood which would otherwise have been forwarded to the brain will be withheld.

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[1] A paper read before the Medical Society of London, Feb. 21st, 1881.

It seems therefore highly probable that, owing to this distribution of vaso-motor nerves, the thyroid body is designed to subserve such a mechanical and protective function with regard to the intercranial circulation as I have above indicated, quite irrespective of its physiological purpose in the economy. Obviously such an accretion of blood cannot be indefinitely prolonged without entailing the consequences of hyper-nutrition upon the tissues of the organ in which it takes place. Hence the commonest or rather earliest phase of the disease is a soft and compressible tumour caused by exudative accessions to the unorganised constituents of the gland. It is now called "simple goitre." Later on the connective tissue constituting the stroma of the gland participates in the process, and undergoes changes of a hypertrophic character, causing the tumour to become denser and more resistant on palpation. In this stage it is called "fibrous goitre"; but it is common to see these two forms in different parts of the gland in the same subject, suggesting that the earlier phase is passing on to the later one. Frequently, when the patient is first seen, the disease has become pronouncedly "fibrous."

I need not dwell upon the simple cystic and the fibrocystic aspects of bronchocele; neither need I discuss certain anomalous and rare forms of the disease, which, notwithstanding their extreme interest, are not concerned with my present purpose, which is to show a theory of the inception of the ordinary phases of the disease, and which theory led up to the treatment.

The adoption of a vaso-motor origin of the disease disposes of the views which refer it to some peculiar taint introduced into the system through the agency of drinking-water &c. from the soil—a theory which long held sway. The following considerations oppose themselves to this latter view. An examination of the localities in which my patients lived and acquired their goitrous proclivities shows that out of forty cases in which this point is recorded thirty resided in London or its suburbs, the remainder being contributed by the counties of Hertford, Oxford, Berks, Beds, Bucks, Hants, Essex, and Surrey. In fact, it would be difficult to name any district where the disease is unknown. Locality would seem, therefore, to exercise but a subsidiary share in its pathogenesis. H. Larrey (quoted by Cohen) affirms that infantry stationed in goitrous districts (so considered) acquired the disease, while other branches of the service did not do so—a fact he considers due to the wearing of knapsacks, and the great constriction of the vessels of the neck by the stock and collar consequent thereon, and to which other arms of the service were not subjected. Cohen remarks that the custom of carrying enormous loads on their backs by the Swiss peasantry favours a like result. Bronchocele is often hereditary—a fact which corresponds with observations recorded with regard to other correlated tracts than that of the thyroid gland, in which the tendency to vaso-motor paresis is transmitted by parents to their offspring.

It will be understood that this insistance upon vaso-motor paresis as the starting-point of the disease is not made with any idea of promulgating a new theory, as there has long been a tendency to its acceptance, though in a vague and general way. The remarks already made on this subject aim rather at defining and localising the centre and source of the vessel dilating impetus, and to show how the former is correlated anatomically with the affected area. The so doing removes attention from the nerves, which are the paths of impressions merely, to a more cognisable and potential region—the ganglia of the cervical sympathetic. Its recognition is fraught with important therapeutic meaning.

The phenomena of exophthalmic goitre point distinctly in the same direction—viz., to vaso-motor paresis; but emanating from a wider range of ganglia than in the preceding forms. Portions of the superior cervical ganglion, innervating the internal carotid artery as well as the middle and inferior ganglia, are now implicated in the paretic condition. As these fresh centres are involved new areas of tissue, supplied by vessels innervated from them, become the scenes in which the effects of the consequent dilatation are manifested. These are most evident where tissue is softest, notably the inter-orbital cushion; also in organs whose functions are readily disturbed by such additions to the normal blood-supply, especially, as might be expected, the cerebral centres. On this explanation the nervousness, headache, and mental deterioration of such patients become intelligible; while the functional disturbance of the heart's action, which is one of the most prominent symptoms in exophthalmic goitre, receives a rational interpretation when it is recognised that the cardiac nerves furnished by each of these ganglia to the heart must share, to a greater or less extent, in the depreciation of their centres. Perhaps the most striking commentary on these vaso-motor relations of the thyroid body and the brain is that which is offered by the phenomena of cretinism, witnessed concurrently with goitre in some mountainous districts. For, looked at from this point of view, the monstrously deformed thyroid does not stand to the accompanying idiocy in the relation of cause and effect. The "large heads, wide vacant features, and goggle-eyes" of the cretin point to perverted nutrition in the region of the head during development as much as the fleshy mass which in these subjects represents the thyroid body does in regard of this tissue tract. Both conditions are the outcome of another physiological factor—viz., an inherent defect in the vaso-motor centres regulating the blood-supply of the two regions, and which defect has acquired the maximum of intensity by long ages of breeding in, added to hygienic surroundings of the worst conceivable description.

It is no part of my present purpose to enlarge on this explanation of the association of goitre with cretinism. Its mention will suffice to emphasise the prolific field for the appropriate explanation of many hitherto quite unintelligible phenomena which the recognition of the fact of the correlation of distant regions by their vaso-motor connexions affords to the physiologist.

Compared with other forms of bronchocele, exophthalmic goitre is a rare disease; before dismissing it, it may be desirable to state that in two cases of the kind which had previously undergone a long course of ordinary treatment, and in which I was induced to give hydrobromic acid, a cure was accomplished in what to me appeared an astonishingly brief period. In a third very complicated case of long standing the patient derived only slight benefit. This number of cases is quite insufficient to generalise upon, and I only venture to record the above facts, because in a disease usually so intractable as this a suggestion of proved utility, although insufficiently supported, may be acceptable in some quarters, and also because this drug was given in accordance with a line of argument analogous to that which led to the adoption of fluoric acid in the treatment of ordinary goitre.

It remains to determine what is the condition of the ganglionic subcentres which expresses itself as loss of contractile power in the vessels whose nervi-vasorum are derived from these ganglia. I have already alluded to heredity as a predisposing cause. The nature of this influence I believe to be that, by its means, a certain ganglion, or set of ganglia, are inherently weak—that is, they develop less nerve force, or part with it more readily, or respond more quickly to reflex impressions, which, if strong, they are slow to recover from, than do other ganglia of the same system. Thus the areas over which these inherently weak ganglia exercise vessel control represent, as regards the system at large, the parts of least resistance. There can, I think, be no doubt about this fact that goitre prevails in a mild form amongst all classes to a largely increased degree over that which has hitherto obtained. The same may be said of other diseases of a vaso-motor origin, presided over by the sympathetic centres of the cervical region, amongst which I may mention diphtheria, and laryngeal and nasal affections generally. I am bound to confess it, though I do so with reluctance, as the result of long study of the physiological effects of tobacco, that smoking is largely responsible for this result. Its effects are constantly manifested in the smoker himself in the form of weakened inhibitory force in the centres primarily influenced by the drug; and, secondarily, the offspring of great smokers exhibit a like impairment of the same centres. Probably the most inordinate smokers are young men prior to marriage. Other influences, the outcome of our over-wrought civilisation, doubtless co-operate in the same direction.

Thus much may be said as regards predisposing causes. The immediate cause is in most cases reflex in its nature. In studying the phenomena which attest the existence of correlated vaso-motor tracts throughout the economy, the evidence is very strong that such a correlation exists between the genital organs and others situated in the region of the neck. Though not as yet absolutely demonstrated, there is evidence to show that fibres from the cervical ganglia are in direct continuous communication with the ganglia which preside over the circulation of the genito-urinary organs—thus constituting these regions correlated areas. Stags, Professor Haughton states, which have been injured in one testis, do not grow another fighting horn on the side of the injury, but only a soft velvety projection. Defective innervations and congestions of the larynx, so frequently associated with the growth of this organ at puberty and producing the phenomena of "voice breaking," point in this direction. What is called "functional aphonia" in girls of the same age is of a like kind. Lastly, enlargements of the thyroid gland in youths as well as girls commence very frequently at puberty. I am acquainted with at least one case where the disease in a female commenced synchronously with the development of uterine trouble. Case 4 of the following series illustrates the effects of general shock becoming permanent in the part of least resistance. This girl at the age of eleven years experienced two accidents by which she was greatly prostrated, and immediately thereafter noticed the commencement of thyroid enlargement, which continued till the age of sixteen, when she came under my care, and recovered under the fluoric acid treatment.

The second principle which guided me to select fluoric acid for the treatment of bronchocele is to some extent the outcome of the preceding views on the genesis of the disease. Recognising the existence of those correlated vaso-motor tracts to which reference has been made, it proceeds to acknowledge a physiological relationship between drugs belonging to natural groups, whether in the domain of botany or chemistry, and these vaso-motor areas—that is to say, if a member of a natural order of plants shows a tendency to exert vaso-motor influences upon one of these anatomically defined regions, other plants of the same group will be found to exert similar affinities. And so with chemical groups. Time and prolonged observation can alone affirm the general applicability of this view, or show its incorrectness. Allowing it to be only a scientific projection of the imagination, it comes not the less within the range of principles recognised by the scientific method as justifying the initiation of experiments. It was from this standpoint that I made use of it for my present purpose. Finding that experience had already, though empirically, proved that some members of the group of metalloids, including iodine and bromine, exerted a curative influence upon goitrous disease, the inference that other members of the same group might act similarly, or even act more potently, was strictly within the lines of the therapeutic principle just indicated. The fluorine compounds were, so far as I know, untried. An appeal to them seemed legitimate.

To avoid complication, fluoric acid, or hydrofluoric acid as it is also termed, was selected as the nearest attainable approach to the element fluorine. The unmanageable nature of the acid, and its reputed violent action upon organised tissues, presented obstacles to its use. The unstable strength of the commercial acid was a further hindrance. All these difficulties were overcome mainly through the skill of Mr. Bullock, who readily devoted his energies to provide for the requirements of the case. A pure acid of fairly constant strength is obtained by redistilling the commercial acid; it then contains about 30 per cent. of the gaseous acid. By diluting this acid with 200 per cent. of water, a solution is produced capable of being tolerated by the stomach, and also of being preserved and dispensed in glass vessels. Both preparations should be kept in small quantities, as they undergo deterioration by the lapse of time. The strong redistilled acid must be preserved in gutta-percha bottles, which should be closed with a cork, as the gutta-percha plug usually fitted to such vessels admits air, and spoils the efficacy of the drug. Attention to these details, the importance of which I have learned in a four years' experience, will prevent disappointment in its therapeutic use.

In commencing its administration great caution was exercised. I began with fifteen-minim doses of the half per cent. solution in an ounce of water. As it happened, the first patient for whom it was thus prescribed, having been duly cautioned to discontinue the medicine if inconvenienced by it, presented at her next visit symptoms which somewhat alarmed me. She complained of headache and thirst, had a hot dry skin, a glazed tongue, and abdominal pains. She was at once taken into the hospital as an in-patient, when it became clear she was suffering from typhoid fever, and it transpired that other members of her family were similarly affected. This discovery was a relief, for I confess to entertaining the fear that the new remedy was responsible for the patient's condition. The details of this case will be given in the continuation of this article. It is sufficient to say here that she got well of the fever, and after an interval resumed the acid, and ultimately lost her goitre, which was very firm, and had resisted every other treatment continued over many months.

Although I usually commence with a small dose, half a drachm of the half per cent. solution, it is necessary to increase it gradually, which may be carried out to the extent of two drachms, and this appears to be the limit of toleration for the drug. In smaller doses it occasionally produces slight headache and nausea, for which reasons it may require to be temporarily intermitted.

(To be concluded.)

OBSERVATIONS IN URINARY PATHOLOGY AND THERAPEUTICS.

By C. H. Ralfe, M.D. Cantab., F.R.C.P. Lond.,
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III. CASES OF DIABETES INSIPIDUS CHARACTERISED BY AN EXCESSIVE ELIMINATION OF PHOSPHORIC ACID (THE SO-CALLED PHOSPHATIC DIABETES).

(Concluded from p. 407.)

Case 6. *Polyuria; excessive elimination of phosphoric acid and urea.*—J. G——, aged twenty, was admitted into the Seamen's Hospital on Nov. 13th, 1877, suffering from extreme debility and prostration, and complaining of pain in all his limbs, and especially across the loins. His face was somewhat flushed and the eyes bright, but the temperature was normal; the pulse weak and feeble; chest sounds natural, with the exception of some coarse râles in the large bronchial tubes. Urine clear, acid; no albumen; no sugar. He says the present illness commenced three weeks previous to admission, but he had otherwise always enjoyed good health. During this attack he had lost eighteen pounds in weight. He has a spinal curvature, the seventh and eighth dorsal vertebræ being the bones affected, and he has also a strumous appearance generally.—On Nov. 19th, seven days after admission, the mucous râles in the chest had cleared up, and he was not so prostrate. The pulse was stronger, and the temperature had remained normal during the time he had been in the hospital. Still the patient, in the absence of any definite symptoms, was extremely feeble and weak. Although no sugar had been found in the urine, it was thought advisable to collect the urine for twenty-four hours, and then test for that substance in the whole quantity. —Nov. 20th: The urine collected during the last twenty-four hours measured 4600 cc., and had a specific gravity of 1010, but gave no reaction with Fehling's solution.—Nov. 21st: The quantity of urine collected in twenty-four hours measured 1400 cc., a nearly normal quantity, but the specific gravity had risen to 1029, so that the relationship between the solids excreted on each day was tolerably constant, and exceeded by a third the normal excretion. The urine was collected, measured, and the specific gravity taken subsequently each day during the patient's stay in the hospital; but it will be sufficient here to state that the average quantity passed by the patient each day for a month was 3263 cc., with a specific gravity of 1017. Taking the healthy excretion of an adult to be at the outside 1500 cc., with a specific gravity of 1020, the patient was passing more than twice the normal quantity of urine, and excreting one-third more than the ordinary quantity of urinary solids.

The urea and phosphoric acid were determined quantitatively on several occasions by the house-physician, Dr. Murphy, with the following result :—

Date	Quantity of Urine. Cc.	Sp. gr.	Urea. Grms.	Phosp. Acid. Grms.
Dec. 3rd	4476	1011	67	5·3
,, 4th	4800	1016	116	9·6
,, 5th	4100	1018	103	9·0
,, 7th	3050	1017	61	4·28

On the 13th of December I made a quantitative estimation of the urea and the earthy and alkaline phosphates, with standard solutions distinct from those used by Dr. Murphy, and my results closely corresponded with his—viz., quantity 2700 cc., total urinary solids 108 grms., urea 89 grms. Phosphoric acid in combination with lime and magnesia 1·8 grms.; phosphoric acid in combination with the alkaline oxides 3·7 grms.; total phosphoric acid 5·5 grms. Diet: 4 oz. wine, milk 2 pints, strong beef-tea 1 pint, bread 12 oz. The patient remained in hospital till the 20th December, when he was removed by his friends. His condition was materially improved, and he had regained 15 lb. of his lost weight, but the urinary secretion was not diminished. During his stay in hospital the patient suffered greatly from boils. The patient had no dimness of sight, nor any appearance of cataract. At no time could even minute traces of sugar be discovered in the urine. This may be considered as a typical case of diabetes insipidus, accompanied with increased metamorphosis of tissue. It resembles Willis and Prout's cases of azoturia, and also corresponds to Tessier's fourth group.

The particulars of the six foregoing cases may thus be briefly summarised :—

—	Age.	Approximate weight.	Quantity.	Sp. gr.	Phosp. Acid.	Urea.
Case 1	16	8 st. 7 lb.	2900 cc.	1010	5·2 grms.	51·0 grms.
,, 2	24	9 st.	9500 ,,	1004	6·0 ,,	—
,, 3	25	9 st.	2300 ,,	1015	5·8 ,,	33·5 grms.
,, 4	27	8 st. 7 lb.	1520 ,,	1022	5·2 ,,	41·2 ,,
,, 5	37	12 st. 7 lb.	2020 ,,	1018	7·6 ,,	—
,, 6[1]	20	9 st.	3825 ,,	1016	6·7 ,,	87·2 grms.

In all the increase of phosphoric acid over the normal excretion was considerable. If we except Case 2, they differ from the ordinary hydruric forms of diabetes insipidus, in that the discharge of urine, though considerably more than normal, in no way approached the enormous superflux met with in that form of the disease.[2] On the other hand, the cases in many respects resemble those related by Prout and Willis, and to which those authors gave the title azoturia. As, however, these observers did not estimate the phosphoric acid excreted as well as the urea, it is impossible to say in their cases whether it was increased or not. Dr. Parkes,[3] however, quotes a case of Vogel's, which seems closely to correspond with the instances I have given, and in which the following amounts were passed in two periods of twenty-four hours respectively: Quantity 2800 cc. and 3600 cc.; urea 40·6 grms. and 47 grms.; phosphoric acid 4·1 grms. and 8·3 grms. In this case the urea as well as the phosphoric acid was increased, though the proportionate increase of the latter over the former in the second analysis is prodigious. This is what Dr. Tessier contends for when he gives the distinctive title "phosphatic diabetes" to this form of diuresis accompanied with increased elimination of phosphoric acid; for though urea in some of his cases was in excess, it was not so in all; and this, he says, is the point that distinguishes between azoturia and phosphaturia. Of my cases, in Case 1 and Case 4 the urea was about one-third in excess, whilst the phosphoric acid was more than double the normal excretion. In Case 6 the urea was more than double, and the phosphoric acid treble the normal. In Case 3 the amount of urea was normal, whilst more than double the usual amount of phosphoric acid was excreted.[4] In these cases, therefore, the excess in the elimination of phosphoric acid was proportionately larger than that of the urea.

The question may now be asked, Whether increase of phosphoric acid is not a constant phenomenon in all cases of diuresis, and whether it may not be accounted for by the increased ingestion of food and by the washing out of the tissues by the drain of water through them? Analytical evidence on this point is meagre, but what evidence we have shows that the increase in the quantity of food ingested, or the drain of water through the system, does not necessarily increase the elimination of phosphoric acid. Dickinson[5] and other observers[6] have remarked an increased elimination of phosphoric acid, especially in combination with the earths, in certain cases of diabetes mellitus, but this increase is very far from being universal, as other analyses prove (Parkes).[7] Again, in the cases of diabetes insipidus given by Dickinson, though an increase is noted in some, it is not in all; and in two cases, which I reported in THE LANCET,[8] the phosphoric acid was if anything decreased. For example, in one case in a man weighing 11½ st., the daily average secretion of urine was over 3000 cc., whilst the phosphoric acid estimated on three occasions never exceeded 2·4 grammes. In the second case the patient weighed 8½ st., the urine passed was 2400 cc., and the phosphoric acid was only 1·6 grammes. But if the exaggerated excretion of phosphoric acid is not a constant phenomenon of diabetes insipidus, to what are we to attribute its appearance in the exceptional cases? And here we pass from the consideration of facts to the region of conjecture. There is no question in scientific medicine on which we have fewer facts to generalise from than that concerning the elimination of "phosphates in disease," and consequently there are few subjects which have yielded a richer harvest to the quack. Physiology[9] can only tell us that the element phosphorus is absolutely essential for the growth and nutrition of the tissues, but cannot explain its *rôle*. Whilst, therefore, our information with regard to the physiological action of phosphorus within the body is still so scanty, it is obvious we are not yet in a position to indulge in speculations concerning the part played by it in the production of certain pathological phenomena with which it has been associated. It is satisfactory, however, to know that the attention of scientific workers[10] has been called to this subject, and we may hope that shortly a sufficient number of trustworthy facts may be collected which will enable us to gain a clearer insight into the part played by this important element with respect to the nutritive changes with which it is concerned within the body. Nor is clinical observation in this instance much in advance of our physiological and pathological knowledge. Excessive elimination of phosphoric acid has been noticed in acute inflammation of the membranes of the brain (Bence Jones). In the acute paroxysms of certain forms of mania (Sutherland and Beale), and after injuries to the head (George Harley). But whether in these conditions it is due to increased metamorphosis of the nervous matter or to the irritation of a still hypothetical "coördinating chemical centre," or to the influence of a disturbed condition of the nervous system upon nutrition generally, it is at present impossible to decide. Increased elimination of phosphoric acid, again, Beneke[11] has considered in some cases to be due to excessive formation of acid in the tissues, dissolving out the earthy phosphates; in these cases oxalates and phosphates of lime will both be found in excess in the urine. Similarly in certain cases of dyspepsia associated with excessive formation of lactic acid in the stomach and intestines, more phosphate of lime may be rendered soluble and absorbed into the system, and thus pass out by the urine instead of by the bowel. Marcet[12] has shown from analyses of pulmonary tissue in consumption that a considerable reduction of phosphoric acid and potash takes place both in the insoluble tissue and nutritive material, as compared with healthy lung tissue. And Edlessen[13] has shown that the excretion of phosphoric acid is increased in cases of anæmia, especially pernicious anæmia. The observations of the authors I have quoted are, however, too limited to draw definite conclusions from as yet. All that we are warranted in assuming from them is, that increased excretion of phosphoric acid is met with in those states of the system which we characterise as "nervous," and that it is often met with accompanying or preceding diseases in which disorder of nutrition is usually well marked.[14]

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[1] Average of five observations.

[2] It may be as well to mention that, though reference is only made to the quantity of urine and the specific gravity on those days when an estimation of phosphoric acid was made, yet observations on this point were frequently made in each individual case, and the relationship was found to be pretty constant.

[3] Op. cit., pp. 10, 367.

[4] Throughout I have assumed the 2·5 grammes represent the normal excretion of an adult weighing from 8 to 9 stone, and 3· grammes for an adult weighing 11 to 12 stone.

[5] W. Howship Dickinson, M.D., Diseases of the Kidney, &c., Part 1, Diabetes, pp. 173 and 208. London, 1875.

[6] Neubauer, Boecker, Beneke, Vogel, Gaethgens, quoted in Ziemssen's Cyclopædia; article, Diabetes.

[7] Op. cit., p. 344.

[8] THE LANCET, Feb. 26th, 1876.

[9] Text-book of Physiology: Michael Foster, M.D., F.R.S., p. 366. London, 1878.

[10] W. Zulzer: Ueber das Verhältniss der Phosphorsäure zum Stickstoff in Urin, Centralblatt fur die Med. Wissenschaft, 1876, p. 474. Von Prof. Dr. Edlessen in Kiel; Ueber das Verhältniss der Phosphorsäure zum Stickstoff in Urin, Centralblatt f. d. Med. Wissenschaft, 20 Julii, 1878. Emilie Lehmus: Ueber der Relativen Wert der Phosphorsäure in Urin bei Kindern. Cbl. f. Kinderheilk., No. 19, 1878.

[11] Dr. F. W. Beneke: Archiv des Vereins, p. 450. 1854.

[12] W. Marcet, M.D., F.R.S. Experimental Inquiry into the Nutrition of Animal Tissues, p. 47. London, 1874.

With regard to the treatment of the form of disease under consideration, the main indications are rest and an endeavour to promote nutrition generally. To attain this end opium or codeia should be given in full doses, when the patient first comes under observation. As soon, however, as the nervous system is quieted, and the rheumatic and neuralgic pains are less severe, it should be discontinued, lest it interfere with digestion. General tonics, such as iron, quinine, nux vomica, hydrochloric acid, and cod-liver oil should be persevered with. When there is a history of syphilis iodide of potassium should be combined with these remedies. Warm baths, followed by tepid douches, give great relief to the neuralgic pains, and also soothe the nervous system. The soluble phosphates may be administered; but their utility in these cases is questionable. There appears to be no lack of these constituents in the system; the difficulty seems rather to lie in the want of power of the tissues to retain them. The food should be light and nutritious, and milk one of the chief constituents. Alcohol should be avoided; it invariably, even in small quantities, increases the diuresis. The same may be said of coffee. Change to dry, bracing air should be obtained, if possible. The clothing should be warm, and the patient carefully guarded against cold, since in these cases a reduction of bodily temperature is always noted. When, in spite of the pursuance of these therapeutic and hygienic conditions, the diuresis and excretion of phosphoric acid continues, though the general condition of the patient may temporarily improve, there is reason to fear that phthisis will supervene, or that the disease may assume the features of saccharine diabetes.

ELEVEN CASES OF STONE IN THE BLADDER

TREATED BY LITHOTRITY AND RAPID EVACUATION OF THE FRAGMENTS (BIGELOW'S METHOD).

BY WALTER J. COULSON, F.R.C.S. ENG.

CASE 1. — Mr. M——, aged sixty-nine, seen in consultation with Mr. Spencer Watson. Symptoms of bladder irritation began to show themselves during the winter of 1879–80, and became more severe early in May. Retention of urine was a prominent symptom on one occasion, a catheter being required; and hæmaturia was once observed after a rather severe jolting in an omnibus. A calculus was detected on sounding, and on June 22nd Bigelow's operation was performed in presence of Mr. Watson, Mr. Heycock, and Mr. Eastes (who administered ether). The calculus was found to be very loose in texture, and was easily broken up and removed in about ten minutes by means of a fenestrated lithotrite and No. 16 tube. The fragments, composed of oxalate of lime, weighed twenty-nine grains. All symptoms of calculus disappeared in less than twenty-four hours. The urine, however, for some weeks after the operation contained a deposit of pus and amorphous phosphates. This symptom was relieved by warm injections (first plain and afterwards acidulated) into the bladder; the pus disappeared and the phosphates diminished. Four months afterwards the patient was reported to be in excellent health, quite free from pain or discomfort, and able to take repeated railway journeys without ill effects.

CASE 2.—Charles C——, aged sixty, had suffered from symptoms of stone for about twelve years, and had passed small fragments occasionally. The symptoms were much aggravated during the last two years, hæmaturia and severe paroxysms of pain being especially frequent; urine pale, with a thick yellow deposit; alkaline; sp. gr. 1010, slightly albuminous.—Aug. 20th: The patient being under ether, Bigelow's operation was performed, a fenestrated and plain lithotrite being used in succession. Sixty grains of débris were removed in fourteen minutes, through a No. 16 curved tube. Two hours afterwards the patient had a sharp rigor which, however, soon passed off. All the symptoms referable to the calculus speedily subsided, and eight days after the operation the patient was able to walk about in comfort. A fortnight afterwards he reported himself as free from all symptoms of calculus, and much improved in health.

CASE 3.—This case cannot fairly be classified among those treated by Bigelow's method, inasmuch as the completion of the operation was impossible, owing to the cause specified in the notes. The case, however, is a good example of a very important obstacle sometimes met with in lithotrity, and it is therefore inserted in the present series. H. B——, aged sixty-six, had suffered from symptoms of calculus for five or six years, and had passed gravel from time to time. Urine normal in appearance and reaction; no albumen; sp. gr. 1020.—Sept. 3rd: The patient being under ether, I passed a fenestrated lithotrite, and crushed with much difficulty a very hard stone, measuring about an inch and a half in diameter. The fragments were crushed five times, but owing to the rigidity and contracted state of the bladder, it was impossible to continue the manipulations. A small quantity of detritus was removed through a No. 16 tube. In the evening patient had a slight rigor lasting a few minutes; temperature 102°. On the following day patient had somewhat recovered; he had passed several large fragments during the night. Bladder very irritable; urine passed every half-hour. On the 7th patient had another rigor, and the temperature rose to 104°. Urine ammoniacal, and sometimes passed unconsciously. During the next few days there was a little improvement in the local symptoms, but the patient became drowsy at intervals, and diarrhœa set in. On the 17th the temperature was normal, but the drowsiness continued. On the following day the patient was unconscious at intervals, and very little urine was passed. A vapour bath was constructed in the patient's bed, and poultices were constantly applied over the kidneys. Copious perspiration was produced, but the symptoms of uræmia became more and more marked, and the patient died at 10 P.M. on the 19th, sixteen days after the operation. Leave to examine the body could not be obtained.

CASE 4.—C. E——, aged sixty-nine, had suffered from symptoms of calculus for about six months, frequency of micturition and pain after the act being chiefly complained of. Hæmaturia not observed. Urine clear, sp. gr. 1022; acid reaction; slightly albuminous; hyaline casts.—Sept. 3rd: The patient being under ether, a small but very hard stone was crushed with a fenestrated lithotrite. A No. 16 curved tube, a plain lithotrite, and the same tube were introduced in succession, the operation being completed in fifteen minutes, and débris weighing fifty grains being removed. On the following day the condition of the patient was quite satisfactory.—Sept. 5th: A rigor occurred, and the temperature rose to 104°. During the next three days the condition varied; there was some improvement on the 8th, but marked drowsiness was noted on the 9th. This symptom increased, and but little urine was passed. The patient became unconscious during the afternoon of the 10th, and he died at 10 P.M.

Post-mortem examination.—Bladder hypertrophied, but quite free from calculus. The ureters much dilated. The kidneys of normal size, but exhibiting on section numerous disseminated abscesses.

CASE 5.—Mr. M——, aged seventy-four, seen in consultation with Mr. Maurice of Reading. Had suffered from symptoms of bladder irritation for about ten years, and from more decided symptoms of calculus for about four years. On Sept. 4th, the patient being under ether, Bigelow's operation was performed, a fenestrated and plain lithotrite, and No. 16 tube, being used in succession. Eighty grains of débris, composed of oxalate of lime, were removed in thirty minutes. The patient was at once freed from all symptoms of calculus, and his recovery was uninterrupted by any complication. Three months afterwards the patient reported himself as being perfectly free from all trace of his previous symptoms. Mr. Maurice, Mr. Heycock, and Mr. Royds (who administered ether), were present during the operation.

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[13] Op. cit.

[14] It will be observed that I have not included rickets among the diseases in which an increased elimination of phosphoric acid is noticed. The truth is that the fact of there being an increase is by no means established. Professor Gamgee, in his recent work on Physiological Chemistry, states that no reliable analysis has yet been made to prove it. Whilst Dr. Seeman, who has analysed the urine of sixteen rachitic children, has actually found a diminution, which was most marked when the disease was at its height. Dr. Seeman regards the bone changes in rickets to be due to lime starvation, the salts of that base not being introduced in sufficient quantity into the system, owing to the catarrhal condition of the mucous membrane of the intestines hindering their absorption. ("Zur Pathogenese und Etiologie der Rachitis," von Dr. Seeman, Virchow's *Archiv.*, lxxvii., 1879.)

CASE 6.—Mr. B——, aged fifty-five, seen in consultation with Mr. Maurice of Reading. During the last five years he had frequently passed reddish sand and small particles of gravel, and suffered from bladder irritation. More marked symptoms of calculus showed themselves about five months ago; severe pain in the perineum, aggravated by walking and carriage exercise, being especially complained of.—Oct. 19th: Ether having been administered by Mr. Royds, the stone was crushed with a fenestrated lithotrite, and fragments weighing 116½ grains were removed through a No. 16 tube, the operation being completed in twenty minutes. The relief afforded was immediate and perfect. No bad symptom of any kind appeared, and the patient was quite well, and able to leave his house and walk about with comfort five days after the operation. Messrs. Maurice and Royds of Reading, and Mr. Heycock, were present.

CASE 7.—J. H——, aged fifty-four, had suffered from calculus for some years, and lithotrity had been performed several times. The symptoms had recurred during the last few months. Urine alkaline; sp. gr. 1008; no albumen.—Oct. 22nd: The patient being under ether, the stone was crushed with a fenestrated lithotrite. A No. 16 tube was then introduced, and the operation, which lasted ten minutes, was completed by means of a plain lithotrite and the same tube. Fragments weighing sixty grains were removed. The patient made a rapid recovery, and on the sixth day after the operation he expressed himself as feeling quite well, and free from all his former symptoms.

CASE 8.—Particular interest is attached to this case from the fact that an accident, of a kind hitherto unrecorded, happened to the lithotrite. The instrument in question (one of English manufacture, after Dr. Bigelow's model) was shown at a meeting of the Medical Society (THE LANCET, Nov. 27th, 1880). Mr. F——, aged sixty-eight, a medical man from Northamptonshire, had suffered from symptoms of calculus for about six years.—Nov. 11th: The patient being under ether, and the meatus urethræ having been incised, a large stone, measuring about two inches in diameter, was caught and crushed with a Bigelow's lithotrite. The stone offered much resistance to the instrument, and broke with a loud crack. Three or four fragments had been crushed in succession, when an accident happened to the lithotrite, and it was found that the screw-power no longer acted on the male blade. On examination it appeared that a small screw and two pins, by which the handle of the lithotrite is fastened to the shaft, had given way, so that these two portions of the instrument became separated. It was found impossible to keep them together while the screw-power was applied, and no substitute for the broken screw and pins could be extemporised. By percussion, however, upon the handle, the blades were freed as much as possible from débris, and the instrument was removed. In doing this some amount of injury was inflicted upon the neck of the bladder and urethra, as fragments protruded from between the blades. It was absolutely necessary that the operation should be completed, and this was done by means of a fenestrated instrument, the fragments (composed of lithic acid and weighing when dry 500 grains) being withdrawn through a No. 16 tube. The operation occupied two hours and five minutes, including twenty minutes delay caused by the accident. The patient's son (also a medical man), Mr. Teevan, Mr. Heycock, and Mr. Bailey (who administered ether) were present. No bad symptom followed this prolonged and formidable operation. The urine contained blood for a few hours only, and on the following day there was a slight rigor with vomiting. These symptoms, however, passed off and did not recur. On the eleventh day after the operation the patient was able to retain his urine for three hours at a time, and all symptoms of bladder irritation had disappeared.

CASE 9.—Mr. B——, aged seventy-seven, had suffered from symptoms of irritation of the bladder for rather more than two years, and had noticed blood in his urine during the last year. These two symptoms are now frequent, especially after exercise. He passed a small concretion about a fortnight ago. On Nov. 23rd, ether having been administered by Mr. Knott, and the meatus urethræ incised, the stone was crushed with a fenestrated lithotrite. A No. 16 tube was then introduced, and débris weighing 198 grains, and consisting of fragments and small calculi, was removed. The time occupied was thirty-five minutes. No bad symptoms followed the operation. On the 24th and 25th the patient's condition was quite satisfactory. On the 26th he became feverish, and complained of pain along the urethra, and the urine was high-coloured and offensive. The introduction of a catheter and the removal of four ounces of residual urine gave great relief. The feverish symptoms subsided, and on the 28th the patient was able to leave his bed for about three hours. By the following day all symptoms of irritation of the bladder had entirely subsided.

CASE 10.—A. P——, aged thirty-two, stated that he had seen blood in his urine from time to time during the last two years, but that pain in the bladder and penis (especially after micturition) had troubled him for twelve months only. Micturition now very frequent, the flow of urine sometimes stopping suddenly. Urine: specific gravity 1015; alkaline reaction; slightly albuminous; hyaline casts.—Nov. 24th: The patient being under the influence of ether, and the meatus urethræ having been incised, a fenestrated lithotrite was introduced and attempts made to crush the stone, which was found to measure three inches and a quarter in diameter. The calculus, however, resisted all the force that could be applied to it, and Bigelow's lithotrite was then substituted. After several attempts the stone gave way, and some large fragments were then caught and crushed. The débris was removed through a curved tube. The stone was again seized with a strong fenestrated instrument, which, however, gave way when the screw-power was forcibly applied, the handle separating from the shaft. This being withdrawn, several instruments were used in succession, and after repeated crushings and removals of débris the operation was completed; it occupied three hours and a quarter. The weight of the débris removed was 1890 grs. At 9 P.M. the patient's condition was satisfactory; no sickness or rigor, and but litle pain. On the following day there was some amount of febrile reaction, but this gradually passed off. On the 27th the temperature was 99·4° and the pulse 96. No rigor had occurred, and there was no pain over the bladder. On the 30th the patient complained of pain at the end of the penis, and on the following day the bladder was examined with a lithotrite, but no fragment could be detected. On Dec. 2nd the patient reported himself as feeling comfortable, and able to retain his urine for two hours.

CASE 11.—J. W——, aged fifty-six, had suffered from symptoms of irritation of the bladder for several years, and frequently noticed hæmaturia. The symptoms had been more marked during the last twelve months. Urine: sp. gr. 1016; alkaline; no albumen. The patient on coming under observation (Nov. 22nd) complained of thirst and feverishness. Evening temperature 103·4°.—Nov. 24th: Ether having been administered, and the meatus urethræ incised, a calculus about an inch in diameter was crushed with a fenestrated lithotrite. A No. 16 curved tube was then introduced, and the fragments removed. The operation was completed by means of a plain lithotrite and the same tube. It occupied twenty minutes, and débris weighing 150 grains was removed. In the evening after the operation the temperature was 98·4°; the patient complained of a little pain over the bladder. This, however, subsided on the following day, when the condition was in all respects satisfactory. On the 28th the patient was allowed to leave his bed, and on the 30th to take a short walk. On Dec. 3rd, nine days after the operation, the patient reported himself as quite well, free from all symptoms of calculus, and able to retain his urine for several hours.

Remarks.—There are several points of interest connected with these cases. The calculus in the first case was of a somewhat rare kind, for owing to the absence of any binding material the particles of oxalate of lime were very loosely attached to each other. Mr. Poland has reported the removal by lithotomy of a similar calculus ("Holmes's System of Surgery," vol. iv. p. 1024). With regard to Case 3, it is not to be taken as an example of Bigelow's method, for the success of which the removal of the calculus at one operation is a necessary condition. In this case, owing to the state of the bladder, that condition could not be fulfilled. Symptoms due to suppression of urine rapidly supervened, and although the patient survived more than a fortnight, his state was such that no further operations were deemed expedient. The fourth patient was known to be suffering from chronic nephritis, but as the stone was small, and the operation speedily completed, there was every reason to hope that the renal complication would not become seriously aggravated. For forty-eight hours all went on well, but symptoms of uræmia supervened, and the condition soon became hopeless. The nine successful cases illustrate in various ways the advantages of Dr. Bigelow's method, the relief afforded in the majority of these instances being rapid and complete. Cases 1, 2, 5, 6, 7, 9, and 11 are particularly noticeable in this latter respect. In Cases 8 and 10 the accidents which occurred to the lithotrites complicated the proceedings and caused some delay in completing the operations. In the latter of these cases the stone was a very large one (4 oz. 140 grs.), indeed it would appear to be the largest hitherto removed by lithotrity. In a case mentioned in Dr. Bigelow's work the fragments weighed 4 oz. 52 grains, and the removal required three sittings occupying eight hours and a quarter. In the present case, in spite of the delays caused by the giving way of the instrument, the operation was completed in three hours and a quarter. The successful result in both of these cases justifies the belief that calculi four ounces in weight may be dealt with by Bigelow's operation provided that the condition of the bladder is favourable to lithotrity, and that instruments can be constructed capable of bearing the enormous strain involved in crushing. On examining Bigelow's lithotrite one is struck by the enormous power of the blades as contrasted with the imperfect manner in which the handle is connected with the shaft and the consequent inadequate resistance to the force applied by the screw. This imperfection, however, can doubtless be remedied. Care has been taken to point it out to the makers of the instrument. The remaining mechanical portions of Bigelow's instrument leave little to be desired. The ball by which the screw-power is applied, and the revolving cylinder-handle for opening and closing the lock, are decided improvements upon the wheel and button of former instruments when large stones have to be dealt with, while the power of the blades has been sufficiently tested in the cases just referred to. With regard to the time occupied in the operation, Dr. Keyes states that he removed from nineteen patients 4241 grains of stone in 938 minutes, or on an average 4½ grains of stone for each minute of work. The total weight of débris removed in the ten cases of this series was 3133 grains, the time occupied in the operations being 454 minutes. This gives an average of nearly seven grains per minute of work. With instruments improved as suggested it is probable that this average might be much increased.

Harley-street, W.

AN OUTBREAK OF TRICHINOSIS (?) FROM EATING THE FLESH OF A WILD BOAR.

By JOHN WORTABET, M.D.,
PHYSICIAN TO ST. JOHN'S HOSPITAL, BEYROUT.

The village of Khiam, where this disease has recently broken out, lies not far from the principal sources of the Jordan, which, losing themselves in the plains of El-Huleh, form a large marsh. From the thick jungles of papyrus which occupy that marsh a large wild boar was shot and brought to Khiam on the 25th of November. This was a great treat to the poor villagers, who can rarely afford to indulge in butcher's-meat, and many of them ate the flesh, partly raw and partly half-cooked. The meat was observed at that time to be perfectly fresh and good, and no one noticed that it was in any way diseased; but during the course of the second week all the persons who had eaten became ill, and if any escaped at that date they suffered a short time later. Of those who had abstained not one fell ill. The nature and symptoms of the disease were the same in all the victims; but those who ate the flesh raw suffered most severely, and the children generally suffered less than adults. The head of the boar was sent as a present to a family in Hasbeya, some miles north of Khiam, who boiled it very thoroughly before eating it, and though a good number joined in the repast no one of them suffered in the least.

These facts I verified by visiting the place of the disaster, which is a two days' journey from Beyrout, and where I spent Jan. 1st and 2nd in studying on the spot all the circumstances of the case. I found 257 persons more or less ill—viz., men, 121; women, 101; children, 35. Five others—three men and two women—had died before my arrival. I carefully examined the symptoms and the course of the disease in a large number of those cases, about which there was a remarkable and almost wearisome identity. The main points were as follows:—From ten to twenty days after eating of the meat the face and extremities became œdematous, the swelling extending over the whole body. This was accompanied by severe pain in all the muscles, with more or less fever. These phenomena did not generally continue more than two or three weeks, and were followed by a slow convalescence with much weakness and lingering muscular pains, and occasionally by slight relapses. I shall now proceed to state the matter in a somewhat more detailed manner.

As I entered the village I was at once surrounded by some twenty men, women, and children, all of whom had been among the victims. Their faces were still puffy and pale, and they looked very weak, but convalescent. They all had one story to tell: "We ate of the flesh, but did not feel unwell till some days after, when we had much pain all over the body, swelling, and fever. We are now much better, but very weak, and not free from pain yet." In examining carefully a few of the cases I found nothing more than they had stated. The tongue was clean, the appetite good, and the functions of the alimentary canal normal. In almost every case, however, there was a peculiar appearance of the floor of the mouth, the inferior surface of the tongue, and the gums. Situated on the mucous membrane there were small white conical projections, a few of which I clipped and subsequently examined with the microscope, but with negative results as to the existence of any parasite within them. The gum often presented the appearance of congested patches, while at its border, where it dips into the alveoli, it was sometimes red, and bled easily on pressure.

The period of incubation does not seem to have ever been under ten days, though it was prolonged in some cases to twenty. In one individual, who had eaten the meat fairly cooked, the disease did not appear before the end of the fourth week, and then it was so slight that he was not laid up by it. I asked particularly whether they, or any of them, felt unwell during that time, and they were all unanimous in saying that up to the date of the actual invasion of the disease they felt as well as usual. I heard, however, of one man who had vomiting and diarrhœa soon after eating, probably the effect of an overloaded stomach, and that he was one of those who had suffered the least. The instances in which the disease appeared later than the second week were very few.

The order of the symptoms, after the disease was fully declared, appears to have been, as far as I could find out, a swelling of the face and extremities, accompanied or soon followed by severe pain in all the muscles of the body, and more or less fever, with headache, thirst, perspiration, and much itching of the skin. These symptoms continued about two weeks, and it was during this period that five persons died, apparently from the effects of the fever. The majority of the sick became then slowly convalescent and left their beds. Having learned this much from these people I next visited the sick who were still confined to their beds. This number could not have been far from 100, but most of them were evidently beginning to recover, and with the exception of an œdematous state of the face and extremities, and lingering pains in the muscles, with, perhaps, a slight febrile reaction towards the evening, there was nothing particular to observe. The severer cases, which were not more than five or six, presented still the typical features of the disease. The fever was of an asthenic form, in one case with a dry typhoid-looking tongue, and appeared to be of a secondary character in the chain of morbid phenomena, and probably produced by a general irritation of the whole system. The pain, which seemed to invade all the voluntary muscles, was very severe, but appeared most in the muscles of the extremities and at the different points of their attachments to the bones. Both flexion and extension were very painful, and the patient lay generally on his back, with his limbs in a state of semi-flexion. In one instance I found the calf of the leg hard and very tender on pressure. Every movement gave pain, and the muscles of mastication, swallowing, and breathing seemed to be all equally implicated. The voice was somewhat husky, and there was pain in the region of the larynx. At one time during the march of the disease they complained of a swelling in the tongue, and some had suffered from conjunctivitis, of which I saw two instances. The bowels seemed to have been regular throughout, and I was struck by the normal state of the alimentary canal and digestive functions where there was so much suffering and constitutional disturbance. Some of those who were still sick in bed had been better, but had relapses, which they attributed to imprudence on leaving their room too soon.

I asked the older men of the village whether they had ever observed such a disease among them from eating the flesh of wild boars, which are frequently hunted during winter from the neighbouring jungles. They said they never had anything of the kind, but that some ten years ago there was a similar outbreak from the same cause in the village of Kiniat, a few miles to the east, and when about twenty persons lost their lives. I had a confirmation of this from other quarters, and I have no doubt that it was true. I was told, also, that the wild boar lives chiefly on the roots of the canes which are so abundant in the marshes, and as he burrows the ground with his snout he snaps up small animals, such as worms, snakes, and wild rats—the latter of which are said, I believe, to be sometimes infested with the trichina spiralis.

Was this outbreak, then, in Khiam one of trichinosis? I am sorry to say that the one incontestable proof—the microscopic demonstration of the parasite—is up to this date still wanting. No case of death took place while I was there, and to open a grave would have been perhaps impossible. All traces of the boar had disappeared. One brave man offered his arm for examination, but I did not like to inflict pain and injury on the poor fellow who was still suffering severely from the disease. I heard of a cat which had eaten of the meat and died, but it could not be found. I heard of another in regard to which the statements were very contradictory as to whether it had eaten or not. It appeared well and quite lively. On killing it, however, and examining different pieces of muscle with the microscope, I found them quite healthy and free from the parasite.

I still hope to obtain a piece of muscle for examination from one of the bodies of those who died from the disease, and to communicate the result. In the meantime it is quite rational to believe, judging from the history of the outbreak, and from the symptoms of the disease, that we had here probably another instance of a trichinatous infection on a larger scale than has hitherto been recorded. If it were not that, what else could it have been?

Subsequently I received a letter from the pastor of the Protestant community in that village, in which he says: "No more deaths after you left us. The patients are gradually improving, and those who are still in bed are few; but some are still swollen, and complain of pain in the hands and feet. They are all very weak and incapable of work, while a few have intermittent fevers, for which they are taking quinine."

P.S.—Since writing the above one of the victims mentioned—a somewhat aged woman—whom I had seen quite ill when I was there, has died, and I have succeeded in obtaining from the body a piece of muscle (biceps brachialis), which reveals under the microscope a good number of trichinæ, and sets at rest any question as to the nature of the disease. The parasite lies coiled across the primitive fibres, and apparently within the sarcolemma of the fasciculi, and appears to be free—not enclosed in a cyst. The stage of calcification of the capsule may not have been reached, or the sac may have been too transparent to allow of detection. The trichinæ may be obtained free of the muscular tissue by a moderate pressure of the covering glass, but they are apt to get thus uncoiled, and to lose their characteristic spiral form. I have had a few specimens mounted, and will try to send a piece of the muscle itself by this mail. To the naked eye the tissue has a perfectly healthy appearance. I have also received another letter from the village, which states that they were having a good number of relapses, and mentions particularly a return of the swelling, of muscular pain, chiefly at the bend of the elbows and knees, and of much itching over the whole body. The patients complain of a sense of sudden failing if they cannot get at food as soon as there is a craving for it. Many are still in bed, and those who are able to be out feel very weak, and continue to feel pain. I fear there will be some more fatal cases.

Beyrout.

[NOTE.—We received from Dr. Wortabet a specimen of muscle referred to in the postscript, and on submitting it to microscopical examination, we found it to contain a large number of non-encysted embryo nematoids. An examination of the isolated worms showed them to possess the general shape, with terminal anus, met with in the embryos of trichinæ spiralis. They were too immature to admit of any details of organisation being made out. They were found to be $\frac{1}{30}''$ long by $\frac{1}{900}''$ broad. For the most part they were situated in the midst of small connective tissue overgrowths between the muscular fibres, and the fact that they were non-encysted is in accordance with the other fact that they had not yet attained the usual size of encysted trichinæ.—ED. L.]

ON THE

ANTIPYRETIC TREATMENT OF TYPHOID FEVER BY MEANS OF SODIUM SALICYLATE.

By HENRY TOMKINS, M.D.,
MEDICAL OFFICER TO THE MONSALL FEVER HOSPITAL, MANCHESTER.

(Concluded from page 410.)

OF the total number of patients treated, 14 (6 male and 8 female) proved fatal, and at first sight this may not appear to present a very favourable case for the employment of the salicylate. Forty-six cases show a mortality of 14, or something like 30 per cent., but the fallacy of mere figures is proverbial, and before hastily coming to an adverse conclusion several qualifying conditions are to be taken into account. Firstly, the whole of these are selected cases—selected on account of their marked severity,—those cases in which the ordinary resources of medicine and therapeutics offered at best but a faint hope of success; they were, in fact, chiefly that 15 or 20 per cent. which up to the present all our efforts have been unavailing to save. Again, in addition to the well known fact that the cases brought for treatment to hospital are, as a rule, more severe than those treated elsewhere, there is this to be borne in mind, that during the time over which these extend the patients admitted here include a large proportion of pauper cases, the mortality among whom is always higher than in those of a better social status, as is well shown by the statistics of the London Fever Hospital, where, after the exclusion of pauper cases, the death-rate at once was considerably lowered. But further, on examining these 46 cases, it is found that 5 of them were almost hopeless on admission, and in 4 death was the result of intestinal hæmorrhage and lung complication.

A point deserving of some attention is that in a large proportion of the fatal cases the temperature resisted the antipyretic action of the soda, even when pushed to extreme doses; and from my experience I would submit that whenever the poison appears to have got so firm a hold of the system that the salicylate in full doses, after twelve' hours administration, has failed sensibly to reduce the temperature, the prognosis is most unfavourable, and its further use is not to be persisted in.

Would space permit, more complete details of the above would furnish abundant proof of the power the salicylate has in rapidly reducing the pyrexia, and influencing beneficially the course of the disease, but one case only must here suffice.

Sarah H——, a fairly well-nourished child, aged seven, admitted April 9th, 1879, with indistinct history of vomiting, headache, and purging; ailing about a week. Complains now only of headache and feeling tired. Face flushed, much hebetude, intellect confused, rambling when left alone. Abdomen distended; pain and gurgling in iliac fossa. Area of splenic dulness enlarged. Temperature on evening of admission 103° F.; pulse 136.—April 10th: Next morning the temperature had fallen half a degree; pulse 128; respiration 30. Lungs normal; urine free from albumen; purged twice in the night, "pea-soup" stools. Tongue covered with thick moist fur; very delirious in night; quieter now.—11th: But little change; more lethargic; purging increased; little subsultus tendinum. Morning temperature 102°; evening 102·8°.—12th: All symptoms increased in severity; one or two spots visible on abdomen; very prostrate and delirious, and much purged; temperature at eight A.M. 103·8°. From ten A.M. until eight P.M. five grains of salicylate were given every two hours with the following result:—At ten A.M. the temperature was 104°; at twelve, 104·2°; at two P.M. 104·4°; at four 104°; at six 103·6°; at eight 102·2°; at eleven 101·4°. After eight P.M. the same quantity every three hours. At two A.M. the temperature was 99°; at five 99°; at eight 99·4°. On the 13th at eleven A.M. 99°; at two P.M. 98·6°; at five 99·6°; at eight 100·6°; at eleven 98·4°. After six doses had been given the restlessness was somewhat increased, patient was very deaf, and urine contained a small quantity of albumen, but after increasing the interval between the doses from two to three hours these effects were abated, and she passed a fairly quiet night. The same dose was continued every three hours until eight P.M. on the 17th, when it was discontinued, the patient being quite calm and quiet, free from all delirium. The purging had diminished, the stools being semi-solid. She took milk and beef-tea willingly, and asked for more solid food. From this time the temperature never rose above 100°, and only reached this twice—i. e., on the evenings of the 23rd and 24th. She appeared fairly convalescent on the 20th, and was discharged on May 3rd thoroughly recovered.

In this case, as could be shown in others, it is scarcely to be denied that the action of the soda was most prompt in reducing the temperature, and in so doing modifying and checking the course of the disease. And in the use of any remedy for any ailment one's own individual experience as to the direct effect obtained, together with the ultimate result, is not to be set aside in favour of mere statistics, notwithstanding the importance of these when properly estimated.

To sum up as far as my own individual experience goes, I would say that in all those cases where the temperature *plus* the symptoms appear to demand the speedy reduction of the former, we have in sodium salicylate a means of reducing it as certain in its effects and far more easy of administration than the immense labour involved in the repeated application of the cold bath. Especially is it applicable to that large number of cases treated in ordinary private practice, if but a moderate and necessary attention be given to the effects and action of the drug. In all cases where there is a continued temperature in the axilla above 102°, there may be given to an adult bi-hourly doses of fifteen to twenty grains for the first twelve hours, half that quantity the next twelve hours, and continue this for two or three days, regulating the amount simply by rising or falling of the temperature; if it be kept below 100° not giving it oftener than every three or four hours. Where possible it is satisfactory to register it every two or three hours, but night and morning will suffice to show what effect the soda is having. Where the heart's action is already weakened it is of importance to administer alcohol in fair quantity with each dose. Perhaps the two conditions, where it is chiefly contra-indicated, are: where pre-existing renal disease is present, and in those cases where we have to deal with much lung complication. The use of alcohol in conjunction with the salicylate is frequently of marked benefit, for without doubt when pushed to extreme doses it has a depressing effect upon the heart's action; but certainly not more so than is often seen after the cold bath, which not unfrequently, in severe cases, is followed by a condition bordering on collapse. If well diluted it is but seldom that nausea, vomiting, or derangement of the stomach is produced, comparing favourably with quinine in this respect. The diarrhœa was usually lessened after its exhibition, though Dr. Greenhow, in some cases of rheumatism treated by him, thought that diarrhœa was induced by its use (*Brit. Med. Journal*, May 29th, 1880); and as Dr. Rutherford has shown it to be one of the most powerful biliary stimulants in the dog we might have expected to meet with increased purging from its use, but such is not borne out by the above cases. As to the excessive anæmia noticed by Dr. Greenhow as following its administration I have never seen it, although given in larger doses than he appears to have used. The only anæmic case was the 45th of the series, and this patient was apparently in an anæmic condition when attacked by the disease, and for some weeks after convalescence from the typhoid was the subject of pelvic cellulitis.

I hope hereafter to give the results of further use of this remedy, and trust that in the meantime others may be induced to make trial of it, and to record their experience of this, our most powerful antipyretic.

Manchester.

ON THE CONTROL OF DIARRHŒA IN ENTERIC FEVER.

By JAMES W. ALLAN, M.B.,
SUPERINTENDENT AND PHYSICIAN, CITY OF GLASGOW FEVER HOSPITAL, BELVIDERE.

It is, perhaps, better not to attempt to check the diarrhœa of enteric fever so long as it is mild—that is to say, as long as the motions do not exceed three or four in the twenty-four hours. But when the stools are very loose and copious, as well as frequent, it becomes a very desirable thing to control, if not to stop, the diarrhœa. Severe purging rapidly exhausts a patient. In the case of children the following measures may be tried:—(1) Boiling the milk which constitutes patient's diet; (2) boiling cinnamon in the milk, and straining it; (3) adding lime-water to the milk in varying proportions, say from one in four to half-and-half.

The above simple remedies are well worthy of trial. They have the great advantage, in the case of children, of not being "bad to take," and further, while the patient is taking the medicine, he is taking his diet (i. e., milk) at the same time.

In the case of adults the means just mentioned should first of all have a trial. If they fail we may then try (1) that excellent pill—lead pill with opium,—say one every three or four hours till the diarrhœa is restrained. This pill is very valuable in the treatment of purging, and it has the additional advantage of tending to relieve pain and check flatulent distension of the intestines. Should the purging continue, and especially if the desire to go to stool be urgent and persistent, we should at once resort (2) to the use of the starch and laudanum injection—say ten, fifteen, or twenty drops of laudanum in two tablespoonfuls of thick starch injected into the rectum. This is a capital remedy; it checks the diarrhœa, allays the irritation, and probably at the same time disposes the patient to sleep. It is perhaps unnecessary to add that no beef-tea should be given while there is diarrhœa.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

GUY'S HOSPITAL.

OLD-STANDING STRICTURE OF THE URETHRA; CYSTITIS; FOREIGN BODY IN BLADDER; EXTERNAL URETHROTOMY; SUPPURATIVE PERITONITIS; PERFORATION OF BLADDER; BEDSORE; DEATH.

(Under the care of Mr. Bryant.)

For the notes of the following case we are indebted to Mr. Adeney.

Robert W——, aged thirty-nine, was admitted into Job ward on Dec. 8th, 1879. When eighteen years old he had gonorrhœa for three weeks. No injections were used. Three years after the gonorrhœa he noticed the stream began to grow smaller. Eleven years later internal urethrotomy was performed at the London Hospital. Relief only lasted a week, and then perineal abscess followed, leaving a urinary fistula. During the last four years he had passed a catheter himself. A few weeks before admission he began to pass catgut bougies, and on the 6th he passed one, but the next morning the stop had come off and the bougie had disappeared. A medical man whom he consulted passed a No. 2 silver catheter, and the next morning he passed it again with great difficulty, and obtained about half a pint of urine.

On admission he suffered from acute attacks of violent straining and intense pain round the root of the penis. The bladder reached halfway to the umbilicus, but was not tense. A No. 2 elastic catheter was passed, and only a few drops of bloody fluid came away. On the 9th, under chloroform, an attempt was to be made to withdraw the catgut by a lithotrite; but, although the meatus was slit, the instrument would not pass. A bougie was next passed, and the urethra was found to be as rough as a rasp. Efforts were made to dilate the urethra, but failed. The patient was then put into the lithotomy position and a Syme's shoulder-staff was passed into the urethra; but, as it could not be determined whether the staff had entered the bladder, a careful incision was made in the middle line. The staff could not be felt at the bottom of the wound, so the incision was extended into the dilated urethra. A finger was introduced and the coiled catgut was removed. A No. 9 catheter was passed through the wound into the bladder, and about a pint of very offensive urine came away. A small sponge was placed in the wound and a large sponge threaded on to the catheter, and the whole bandaged up. After the dressing was completed, considerable hæmorrhage being apparent, the dressing was removed, and an artery, apparently the artery to the bulb, was found to be the cause of the bleeding. The patient had constant severe pains for days, for which subcutaneous injection of morphia was given each night. On the 18th, the buttocks were œdematous, and the skin was rubbed off with only very slight irritation. The patient was very restless, and complained that his feet were cold, but they were not apparently so. He swallowed milk and medicine with difficulty. The edges of the wound were sloughing, and pus could be squeezed out from beneath the dartos of the scrotum. In the afternoon an incision was made into the left buttock, and a considerable quantity of pus escaped. On the 22nd a considerable discharge had taken place from opening on buttock; a quantity of sloughing fascia was removed. On the 24th the vitality of the skin was very slight. There was superficial gangrene above the right iliac crest, and there was fluctuation just above this point. Redness over the left great trochanter. The tongue was very dry and red, with brown fur down the middle. On the 29th a slough was removed from above the right iliac crest. There was dry gangrene over the left trochanter. Next day the patient was getting weaker; he had no control over the sphincter ani, and liquid fæces constantly passed. Where the slough had been removed from above the right iliac crest was now a deep ulcer. The posterior border of the external oblique was seen in front. No pus discharged. There was a large amount of sloughing tissue about the abscess in the buttock. There was great pain on pressing on the spine of the sacrum and lower lumbar vertebræ.

The patient died on Jan. 3rd, 1880.

Temperature.—Dec. 10th: Morning, 99·3° F.; evening, 100·6°, 11th: Morning, 100°; evening, 100·4°. 12th: Morning, 100·2°; evening, 102.° 13th: Morning, 101·1°; evening, 96·6°. 14th: Morning, 98·6°; evening, 99°. 15th: 98°. 16th: 98°. 17th: Morning, 99·2°; evening, 98·5°. 18th: 96·8°; evening, 99·2°. 19th: Morning, 99·2°; evening, 98°. 20th: Morning, 98·4°; evening, 99·3°. 21st: 99·4°. 22nd: 98·2°. 23rd: 98°. 24th: 97·4. 25th: Morning, 100·1°; evening, 99°. 26th: 98·7°. 27th: 98·7°. 28th: 98·8°. 29th: Morning, 99·6°; evening, 99·4°. 30th: Morning, 98·4; evening, 99·3°.

Necropsy.—There was a dry slough over the left trochanter and superior iliac spine. A superficial slough on sacrum, and a large intermuscular abscess all over the left innominata bone. This could not be traced to any source, but it probably came from the perineum. Its tract was very small, and had previously closed. There was recent lymph on the pleura of the right upper lobe of the lung, as well as near the base, and over a patch of pneumonia. There were areas of pneumonia in both lungs, red and granular. The bronchi were dilated, and the smaller bronchial tubes were full of thick pus, constituting a formidable amount of papillary bronchitis. The larynx and the heart were both healthy. The small intestines gave a slight reaction with iodine. The liver weighed 48 oz.; slightly lardaceous throughout. The spleen weighed 4½ oz.; not lardaceous. The kidneys weighed 10 oz. Capsules adherent on both sides, and the surfaces minutely granular. The capsules on the right side were much thickened at one spot, as if there had been at some former time a perinephritis. The corresponding part of the cortex was not depressed. The right kidney contained one rather conical area of suppuration extending from the medulla to the cortex. The pelvis on this side was dilated and ragged, ecchymosed all over, and studded with irregular shields of lymph, and the apices of the pyramids were all sloughing; it contained offensive ammoniacal urine. On the other side there was some dilatation, but not much in the way of inflammation. The pelvis was pale, and at most had a few ecchymoses upon it. The right ureter was intensely inflamed all down to the bladder, dark and port-wine coloured. The left was healthy, except that its mucous membrane was slightly injected near its orifice in the bladder. Neither tube was dilated. The bladder was thick, but it was closely contracted. Its mucous membrane was much injected, and at the hinder part of the base in the median line, and at what was now the fundus, but was probably not so in the fully distended bladder, there was a sloughing hole, surrounded by swollen rugæ, covered with phosphates, &c. This hole led straight into the peritoneum, and was filled with a partially detached slough. This led into a localised abscess in the perineum. The urethra was very contracted from the meatus to the posterior part, so that it could not admit a No. 2 sized probe. It was slit up with difficulty. The prostatic part was dilated, and covered by a shreddy membrane and slough, and phosphates. One testicle was converted into a fibrous mass, with adherent tunica vaginalis, and a chalky mass in the centre. The other was much wasted, if not fibrous. The coats of the ileum were firmly adherent round the fundus of the bladder, forming a cavity two or three inches in diameter, lined by large granulations, and containing pus and fæcal matter. The latter proceeded from two or three apertures in the ileum, which had formed by extension of ulceration of the wall of the abscess. There was a quantity of pus in the peritoneum and various places, all shut off and localised; it was also thick and creamy; in Douglas's pouch there was a large quantity, in the left iliac region in front of the kidney; there was also much behind the right lobe of the liver. The omentum was firmly adherent over all. The suppuration must have been of some date longer than a month. On the other hand, it is difficult to suppose that the patient was going about with the bladder perforated, and the peritoneum suppurating. If it was after his admission, then was the early lardaceous disease of more than twenty-six days' date, or was it in part due to some old cystitis?

STRATFORD-ON-AVON INFIRMARY.

SMASHED ELBOW; AMPUTATION; ANTISEPTIC ABSORBENT PADS; RAPID HEALING.

(Under the care of Mr. LUPTON.)

GEO. G——, aged eighteen, was brought to the infirmary on June 17th, 1880, by Mr. Millican of Kineton. The patient worked at a clay-puddling mill, and getting his arm caught by the machinery, it was drawn in and "puddled" with the clay. The joint was disintegrated, and the brachialis anticus and triceps were stripped up from the humerus; the brachial artery was severed, and the skin was much torn and lacerated. Amputation in the middle third of the upper arm was immediately performed by Mr. Lupton by skin flaps and circular division of muscles. The vessels were tied with carbolised catgut, prepared by Krohne and Sesemann, and the ends were cut short. The stump was cleansed with carbolic lotion (1 in 40), and covered with the "antiseptic absorbent pads," as recommended by Mr. Sampson Gamgee, and prepared by Southall Brothers and Barclay. The wound was first dressed on the 20th under carbolic spray, and was only exposed to an antiseptic atmosphere at each subsequent dressing. Gamgee's pads were used next the wound, and covered with a large layer of cotton-wadding.

The progress of the case was all that could be desired. At the second dressing, June 22nd, the discharge was only just sufficient to soak through one pad. At no subsequent dressing was a pad soaked fairly through. Healing proceeded very rapidly, and on the seventeenth day after the operation the wound was quite sound, and the patient sitting up to dinner in the ward. Nothing more was seen of the ligatures.

SMASHED HAND; ATTEMPTED "CONSERVATIVE SURGERY"; GANGRENE OF FLAPS, WITH INFILTRATION ABOUT WRIST; RE-AMPUTATION IN FOREARM.

(Under the care of Mr. Lupton.)

William C——, aged forty-seven, an army pensioner, twenty-one years' service, including the Mutiny and much arduous service, was admitted on November 8th, 1880, suffering from a smash, caused by a trolly-wheel passing over his hand. The thumb and second, third, and fourth fingers were completely smashed, and their integuments destroyed. The index finger had escaped. There seemed a chance of saving this; accordingly the thumb, with its metacarpal bone, and the remaining three fingers, were removed. The flaps formed, however, were too seriously injured, and sloughed, the whole assuming an unhealthy and gangrenous appearance, while the integuments about the wrist were infiltrated and "boggy," and the patient suffered constitutionally. Consequently, on Nov. 16th Mr. Lupton re-amputated in the lower third of the forearm, cutting skin-flaps clear of the infiltrated area, and dividing the deeper parts by circular incision. The remaining treatment was precisely that of the former case; and the subsequent progress of this case was also satisfactory, the patient leaving the infirmary with a sound stump on February 1st, 1881.

KASHMIR HOSPITAL.

A PULSATING BRONCHOCELE; LIGATURE OF THE VESSELS; RELIEF.

(Under the care of Dr. Downes.)

In August, 1877, a boy aged about ten, having a large bronchocele, applied at the hospital. His appearance was altogether peculiar; he was rather deaf and slightly idiotic. The goitre was enormous, quite as big as the boy's head, and on both sides of the neck at the upper part of the tumour were arteries which pulsated forcibly. The vessels stood out on the surface of the tumour and pulsated with such force as to make the whole tumour move; the artery on the right side was much more distinct than the one on the left. It was resolved to tie these two arteries. The operation was much more difficult than had been anticipated, but was facilitated by the assistance of Drs. Williams and Ross of the Indian Medical Service. The patient was put under chloroform, and an incision was made about two inches and a half long through the skin over the pulsating artery on the right side from a point near the angle of the jaw, directly downwards, and the fascia divided carefully with a director. Here the difficulty began. The lobules of the hypertrophied gland were soon encountered, then with a director and the handle of the scalpel progress was very slowly made till the artery, which was accompanied by a large vein, was seen. The artery, notwithstanding its superficial appearance, was really at a great depth. An aneurism needle was placed under it, and the vessel tied with a stout silk ligature, leaving one end hanging out of the wound. The wound was closed with a couple of sutures, and then a similar operation was done on the other side. Next day the patient was feeling pretty comfortable, and there was no pulsation; after about three days severe fever set in suddenly; his temperature rose to 105° F. This high temperature was brought down to normal by a few doses of ten grains of salicylic acid. For two or three days the temperature rose again, but was always brought down in the same way. Every day the tumour was reduced in size; on about the eighth day it was only half its original dimensions. He then asked permission to leave the hospital, but he was urged not to go, at any rate until the ligatures had separated. However, on about the tenth day he ran away at night, carrying the ligatures with him. Two years afterwards this boy was said to be still alive, and the goitre to have quite disappeared.

Remarks by Dr. Downes.—Whether the above information be true or not, the fact that on about the tenth day the tumour was only half its original size, encourages one to think that wherever a very large goitre exists with pulsating arteries, a cure may be obtained by tying the arteries in the way above described. The operation is, however, somewhat troublesome, and not without danger. Such a high temperature is uncommon here after even very severe operations.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Eczema of the Nipple and Cancer of the Mamma.—Cystic Degeneration of Breast.—Cystic Disease of Kidneys and Liver.—Cystic Disease of Fœtal Ovary.—Cancer of Mediastinal Glands.—Localised Pneumothorax.—Aortic Disease.—Pulmonary Thrombosis.—Uterine Polypus.—Malformation of Hand.

The ordinary meeting of the Pathological Society of London was held on Tuesday, March 15th, Samuel Wilks, M.D., F.R.S., in the chair.

Dr. Thin showed specimens from and gave an account of two cases in which long-standing Disease of the Nipple and Areola was followed by the development of tumours in the breast. The first case was that of a single woman, aged forty-nine, whose breast was removed by Mr. Henry Morris. The nipple had been irritated for some weeks by a needle in the woman's stays six years previously to the tumour being observed. The irritation set up had never healed, and at the time of operation the position of the areola was marked by a bright red, moist surface two inches in diameter, a depression in the centre indicating where the nipple had been. The margin of this surface was sharply marked off from the healthy skin. On microscopical examination it was found that the centre of this area was denuded of epithelium, the cancerous growth forming the surface of a superficial ulcer. On the outer part of the area the epithelium was entire, but thickened, with elongated papillæ. The papillary layer of connective tissue was here destroyed, and the space it should have occupied was filled with exudation cells. The distinguishing features of the breast tumour were an excessive development of fibrous tissue and rounded clusters of cells, with a columnar epithelium lining the cavities in which they lay. On the edge of the growth the new epithelium was seen as small round columns with a central lumen, the condition termed by some pathologists adeno-fibroma. In the second case the breast was removed by Mr. George Lawson. The patient, an unmarried woman, aged fifty-seven, had suffered from the nipple affection for upwards of a year. There was no pain in the breast, no perceptible tumour, and no enlargement of the axillary glands. In the diseased skin in this case the epidermis was entire, but thickened, with long papillæ. The papillary layer of connective tissue had disappeared, and a stratum of exudation cells had taken its place. The breast consisted of a large mass of fat, permeated with narrow streaks of fibrous tissue. In these streaks a new epithelial growth was found in the form of tubes and round cell-clusters, with small cells and a distinct border of columnar epithelium. The narrow strips of fibrous tissue always separated the epithelial growth from direct contact with the fat lobules of which the large breast was almost entirely composed. The tumour would probably be called an adeno-lipoma. These two cases completed six which Dr. Thin had examined. Although these six cases all differ from each other in some respects, they agree in some essential points, and on these points of agreement Dr. Thin concludes that the affection of the nipple is neither eczema nor psoriasis, nor any known specific skin disease. It is a destructive papillary dermatitis, and he proposes that it should be called malignant papillary dermatitis. The breast tumours take their origin from the epithelium of the lactiferous ducts, and retain the specific characters of that epithelium. A complete account of an instance of the scirrhus, or parenchymatous type of cancer in connexion with this affection, has not yet been published. A local affection of the points on the surface of the nipple, which correspond to the mouths of the lactiferous ducts, has preceded in cases which have been well observed the extension of the disease over the surface of the nipple and over the areola. The hypothesis that best explains the fact that a malignant papillary dermatitis spreads superficially from the mouths of the ducts, and that an epithelial growth spreads downwards from them into the breast, is that the duct epithelium at the surface undergoes changes that are in their early stages already cancerous in their essential nature.—Dr. WILKS asked if Dr. Thin considered the skin affection the first development of the cancer.—Dr. THIN explained that the first change was found at the mouths of the lactiferous ducts, from whence it very slowly spread out, and later on formed a cancerous tumour deeply in the mamma; the change in the skin must therefore be cancerous in its nature.—Mr. H. MORRIS wished Dr. Thin could have obtained some cases in the earlier stage. From clinical observation he had found the affection of the skin indistinguishable from eczema, and it was only from the duration and intractability of the cases that the diagnosis of these cancerous cases could be made. In one case he had seen, three years before the appearance of a cancerous tumour, there was no evidence of any cancerous disease. In the same way cases of dilatation of acini and ducts may go on for a long time, and then either get well or inflame or become cancerous, the primary disease not having been malignant.

Mr. MOULLIN showed drawings of a case of Cystic Degeneration of the Breast. The patient was a single woman, forty years old. In eight months the tumour had become three times the size of the normal mamma. The tumour was removed; no trace of normal gland tissue was found, but the mass consisted of a number of cysts from the size of a pea upwards, lined by a smooth membrane, and containing gelatinous fluid; no intra-cystic growths. The cysts were shown to be derived from normal acini, which were separated from each other by circular growths of fibrous tissue, the epithelium increased in quantity, and became ultimately a single layer of squamous cells. On the outside of the acini delicate nuclei were seen, which developed into stellate cells, and, later on, spindle cells, parallel rows of which surrounded the cysts. A delicate structureless membrane was found between these cells, which had no connexion with the fibrous tissue of the mamma. The change had evidently taken place in all parts of the gland concurrently. The specimen was referred to the Morbid Growths Committee.—Dr. THIN stated that he had shown some specimens of the same change of the membrana propria of the acini of the mamma at the Medico-Chirurgical Society, and he thought Gross had described it too.

Dr. PYE-SMITH showed the Liver and Kidneys of a man, aged fifty-three, who had died of chronic interstitial pneumonia; of intemperate habits, he had suffered from cough for years; his arterial tension was increased, his urine abundant, pale, and occasionally albuminous. He died worn out by his pulmonary disease. Post-mortem: The kidneys weighed 64 oz., and were a perfect specimen of complete cystic degeneration of the whole gland with hardly any renal tissue left. The liver also contained several cysts, and was in addition lardaceous. The remarkable combination of cysts in liver and kidneys is still very rare, and was first described by Virchow as a fœtal and more rarely an adult change; and he remarked that in young children death took place from dyspnœa, the large cysts pushing up the diaphragm. Dr. Bristowe and Dr. Wilks showed two cases at this Society in 1855. The most remarkable point of this case is the man's age, and the fact that, although he had drunk heavily for thirty years, he had no symptoms of uræmia. The evidence is in favour of the cystic change being congenital in all cases; such cysts, we know, are present in new born children. Under the microscope all that is not cyst is kidney, and there is really a good deal of functionally active tissue; there is no adventitious growth.—Dr. N. MOORE thought the large quantity of liver and kidney tissue always found explains the fact of these patients living. The cases he showed last year evidenced this. Occasionally kidneys contain only a single cyst, he recently found one very large cyst close to the hilus in each kidney, the kidney structure being healthy; this was the minimum condition of the same affection.—Dr. WILKS asked if the disease of the liver was to be considered congenital.—Dr. GOODHART had examined the specimen shown very carefully, and had come to the conclusion that it was not congenital. The changes in the liver are in the portal canals, in which there is some cirrhotic material, which, however, is peculiar, being more varied than usual. The fibrous tissue is more embryonic, and the nuclei varied in size and shape, suggesting that it is a large overgrowth of muscular fibre, which, compressing the ducts, may cause cysts. There is also an increase in size of the peripheral lobular cells, with proliferation of their nuclei, which can be traced developing into the long muscular cells. There are very numerous cysts, some of which are probably formed by vacuolation of the cells. The fibrous tissue of the kidney is also peculiar, and like that in the liver. There is also a large overgrowth of the epithelium of the large tubes, which are then dilated into cysts. Thus in both kidneys similar processes are at work, but the tendency of the disease is shown by its different course in the two organs. The great majority of cases show no symptoms during life, and if it is really an overgrowth of renal tubes such might be expected. The Malpighian tufts seem to be considerably diminished.—Dr. PYE-SMITH would examine the specimens again, and make fresh observations from Dr. Goodhart's point of view. He had not noticed any increase of fibrous tissue in the kidney. Virchow has figured a great increase of fibrous tissue in the fœtal cystic kidneys. He had considered the cysts in the liver also congenital.

Mr. ALBAN DORAN showed a case of Cystic Disease of the Ovary of a Fœtus of seven months. The other ovary was perfectly healthy. The cysts were from one-twelfth to one-sixteenth of an inch in diameter, lined with ciliated epithelium, and containing dendritic growths; between them were smaller morbid cysts, also lined by ciliated epithelium. He had never heard of proliferating cysts in the fœtus, the only cystic disease of the fœtal ovary being described as developed from the Graafian follicles. There are no Graafian follicles in this ovary. A part of the Wolffian body normally remains in the normal ovary as epithelioid bodies; but the Wolffian tubes, of which these are the atrophied remains, would seem in this case to have enlarged into these proliferating cysts, at the expense of the development of the Graafian follicles. Micro-photographs of the specimens were shown.

Dr. S. WEST showed a case of Cancer of the Mediastinal Glands. A woman, aged forty, had had a tumour in the left breast seven years before death. Four years afterwards it became very painful and was removed two years and a half later. Six months before admission to Victoria Park Hospital she had pain on the right side, and was admitted with the signs of right pleurisy and mediastinal tumour, and some small lumps were found in the right breast. Post-mortem: The small nodules were found to be continuous with a great cancerous mass filling up the anterior and posterior mediastina and involving the whole right pleura. The lower lobe of the right lung had almost disappeared. The cancer was also widely disseminated over the peritoneum and into the liver. The connexion between the cancer of the left breast and the mediastinal cancer is interesting. The patient was tapped twice without success, although two pints of fluid were found after death. This was probably due to want of contractile power in the walls of the cyst.

Dr. S. WEST showed a specimen of Pneumothorax. A man aged twenty-two, ill for five months with cough, pain in left side and wasting, very extensive disease of left lung, with a large cavity in apex and base. He was suddenly seized with severe pain, expectorated a large quantity of pus, and the breathing became intensely amphoric, due to a localised pneumothorax with an opening in the lung 3 in. by 2 in. This case illustrated also the insidious origin of large pulmonary cavities.

Dr. MORRISON showed a Thrombus in the Pulmonary Artery. The patient had phthisis, gangrene of lung, and slow death; no embolic symptoms. At the post-mortem extensive pleural adhesions in right pleura: excavation and caseation of lung; a thrombus—partly recent, partly purely fibrinous—was found extending from the orifice to the extremest ramifications of the pulmonary artery, no clotting in veins.

The following card specimens were shown:—1. Disease of Aortic Valves, by Dr. S. West; there were only two cusps, in one of which was a large rupture. 2. Large Polypus growing from the Cervix Uteri, by Mr. G. H. Morgan. 3. Arrested Development of Upper Limb, by Mr. S. G. Shattock. There was webbing of the fingers, and on dissection the flexor longus pollicis muscle was found to send a tendon to the index finger to take the place of the tendon of the flexor profundus digitorum; this is a normal condition in the highest apes.

CLINICAL SOCIETY OF LONDON.

Fracture of the Spine treated with Sayre's Jacket.—Excision of the whole Tongue.—Round-celled Sarcoma of the Thigh treated by Amputation at the Hip-joint.—Bronzed Skin without Constitutional Symptoms.

The ordinary meeting of the Clinical Society was held on Friday, March 11th, J. Lister, Esq., F.R.S., in the chair.

Mr. Berkeley Hill showed a young man who had had a fracture of the Lower Dorsal and Upper Lumbar Vertebræ treated with Sayre's jacket, and who had recovered with only slight deformity of the spinal column. The patient fell twenty feet, and sustained fracture of the laminæ of the tenth dorsal vertebra and others, as far as the second lumbar. There was angular projection of these spines, and mobility of two of them. On admission to University College Hospital he suffered from severe concussion of the brain and spinal cord; next day he was in severe pain. Twenty-four hours after the injury he was placed on a table swinging at the middle, and on it raised and suspended by his head and shoulders, and a plaster jacket applied. There was immediate relief to the patient's sufferings, and no bad symptom followed, except loss of control of the left lower extremity for about thirty-six hours, and temporary extreme hyperæsthesia of a patch of skin on the dorsum of the same foot. The jacket was removed seven weeks after the injury. Now, 101 days after the accident, he can walk; his spine is strong, and the only sign of the serious injury is a moderate projection of the lower dorsal and upper lumbar spines and displacement of the laminæ of the eleventh dorsal and first lumbar backwards on the right side.—Dr. Buzzard observed that the patellar tendon reflex was much exaggerated on the left side, and that he had ankle or foot clonus on that side too, which is like that found in Pott's disease, where the paralysis is due to inflammation of the cellular tissue under the dura mater leading to a slight spinal myelitis. This lad has therefore some interference with the transmission of motor impulses up the lateral columns of the cord, probably from callus under the dura mater at the seat of injury.—Mr. Lister thought the mobility of the spinous processes very interesting; traumatic acute spinal curvature, which is most often without paralysis, is produced by fracture of the bodies of the vertebra, but here in addition to this there was injury to the spinous processes. It is impossible to say how this was produced; the curve must have been produced by a fall on the breech or head. He had never seen the spines injured from this cause. The result of the treatment in this case was most satisfactory; in ordinary cases the recumbent posture is sufficient.—Mr. H. Baker asked if Mr. Hill found the jacket useful when the man was up and about.—Mr. B. Hill considered that the youth had struck his spine in falling. He was kept in bed for three weeks, but the jacket was worn altogether seven weeks.

Mr. Barwell showed a case on which he had performed Excision of the whole Tongue by means of a small suprahyoid wound, and remarked on the best material for the loop of écraseurs. James A——, aged sixty, without parental history of cancer, had enjoyed good health till a year ago, when a small lump appeared at the side of his tongue. This was twice removed by ligature, probably inadequately, since on each occasion it quickly recurred. Admitted into Charing-cross Hospital on Feb. 11th, 1881, the whole tongue almost to the foramen cæcum was covered by an ulcerated, very dendritic growth, interspersed with deep ulceration. Saliva was constantly flowing from his mouth, and wetting his clothes. He was feeble from difficulty in eating, and had lost flesh; pulse 108, small and weak; no enlarged glands. The growth is the result of less than seven months. Two days later the tongue was excised. An incision about one-third of an inch long just in front of the hyoid bone exposed the raphé of the mylohyoid, which, being divided, bared the edge of the genio-hyoglossus. These muscles, separated with the handle of the scalpel, enabled the operator to feel the base of the tongue and the deep surface of the buccal mucous membrane. A Liston's needle passed into the wound entered the mouth just behind the left last molar tooth, the thread being left. The same was done on the right side, the loop of the cord being in the mouth. To the first cord the end of an écraseur wire was tied and so drawn into the mouth, its end being freed from the first thread was hooked into the loop of the second and drawn round the back of the tongue, out of the wound, and fastened to the écraseur. A Liston's needle was then passed into the wound through the middle of the tongue, and, guided by the operator's finger, was made to emerge well behind the disease. This needle guided the wire as it was tightened along the required line. As soon as the back of the tongue was thus severed, another écraseur was placed behind the incisor teeth, and its loop passed well down in the previous section. Thus the tongue was freed from the floor of the mouth and taken out from between the lips. If the écraseur be slowly used the operation is almost bloodless, and leaves no external scar or mutilation, and the tongue can be removed from immediately in front of the epiglottis with as much ease as the tip. As the sensory nerves are divided close to the jaw, the patient suffers hardly any pain afterwards. The wires supplied by instrument-makers are of steel, and tempered; they are too stiff, and the twisted wire-cords are not reliable. The soft iron wire used for park fencing, and supplied by Messrs. Newall, makes a very strong écraseur loop, and is so flexible as to be very manageable. Mr. Barwell also recommended the use of an écraseur which tightened the loop from both ends. The patient was shown. The stump of the tongue was in very good condition, cut off clean at the back. His general health had improved since the operation. He got up on the tenth day, and was ready for discharge two days later, but was kept in a few days longer.—Mr. Heath thought the great objection to Mr. Nunneley's operation was the very oblique section of the tongue. Mr. Barwell's operation got over this difficulty no doubt, but he thought it better to divide the sublingual tissues first with the knife or scissors. The tongue can then be drawn well forward, and its section far back easily made. Mr. Barwell's wire was good. It is very remarkable how the stump of a tongue grows. He had lately seen a case in which he had operated ten years ago, removing all the tongue. The appearance was as if none of the organ had ever been removed.—Mr. M. Baker thought that in all the operations like Mr. Barwell's it was impossible to prevent an oblique, and therefore unsatisfactory section of the tongue, especially in a diseased tongue, through which the needles placed in any position are readily pressed forwards. Where the disease has spread from the tongue it is better to strip up the mucous membrane from the floor of the mouth very freely. He was at a loss to see how the nerve could be divided so as not to leave its central end sensitive.—Dr. Poore said the man talked uncommonly well; he could say "theatre" and "tittle-tattle," which require tongue movement.—Mr. Barker asked why this operation is regarded as painless. Did Mr. Barwell consider this different from Cloquet's operation proposed fifty years ago. He also asked if this form of papilloma is often met with; he himself had only seen it once in a case under Mr. Marshall, at University College Hospital.—Dr. Gilbart Smith stated that he had recently had a patient with large papillary growths on the back of the tongue, one or two of which had entangled the epiglottis and caused difficulty in swallowing. He had seen other similar cases.—Mr. Lister thought the wire more satisfactory than others at present used. It combined pliability with sufficient strength. If the whole tongue was removed, the amount at present seen in the mouth was most striking; perhaps Mr. Baker's suggestion of the oblique section explained it; at any rate, the man had now a good two-thirds of the tongue. This was certainly a great improvement on Mr. Nunneley's operation. In cases of the removal of the whole or one-half of the tongue, he had found division of the jaw in the middle line most satisfactory; it is easy then to control the artery and to limit the excision. With other plans he had found it difficult to be certain of taking away enough without removing too much.—Mr. Barwell replied that he had never performed Syme's operation. The period of recovery after it was very long, and the proceeding was altogether very severe. Much blood may be lost by severing the base of the tongue in Paget's operation. This man lost one to one ounce and a half of blood, which was more than usually happens in his own operation. The operation is painless, because the nerve is cut close to the gustatory groove, and retracts away from irritation. If a large Liston's needle is used to fix the écraseur and firmly held it does not slip; the specimen showed the section to be quite straight. When the man left the hospital there was no appearance of the mass of tongue seen now, but a square gap reaching far back. He had no distinct recollection of Cloquet's operation, but he thought that in it a twine ligature was passed through the middle of the tongue.

Mr. BERKELEY HILL related the sequel of a case of Round-celled Sarcoma of the Thigh, treated by amputation at the hip-joint, in which the whole of the anterior flap sloughed, which he recorded in the Clin. Soc. Trans. The woman died six years after the operation from tuberculous pyelitis, which, during the last three months of her life, caused an abdominal tumour, which was mistaken for a new formation of the original growth. There were no growths of sarcoma found in any of the organs or tissues.—Mr. LISTER remarked on the great interest of the case, inasmuch as round-celled sarcoma is regarded as the most malignant form of sarcoma, but this was an example of its complete cure by local removal. It showed that our knowledge does not warrant us in speaking with certainty about the clinical history of any tumour from its histological characters; we are only warranted in stating the probability and the average course of such tumours; even a fibroma may prove malignant.

Dr. RADCLIFFE CROCKER read a case of general Bronzing of the Skin without constitutional symptoms, which had been shown at a previous meeting. The patient was a sailor, a native of North Sweden, aged twenty-two, of stout build, and in good health. The pigmentation came on after exposure to severe weather eight years ago, attained its full development in a few days, and has not extended or diminished since the first week, though he thinks he is paler sometimes than at others. The skin of the hands, backs of forearm, legs below the knee, and the mucous membrane are unaffected, but all the rest of the body is darker. The pigmentation has no sharp line of demarcation on the limbs and face, but shades off to the normal. The general hue was a yellowish-brown; but the neck, axilla, nipples, umbilicus, penis, and scrotum were brown or black. The abdomen and interscapular scapulæ were darker than the general hue; while the man who is on duty at night is supposed to be ready at a moment's notice. On the neck and axillæ were closely developed papillary growths about one-eighth of an inch long, and the natural lines of the skin were everywhere developed. Repeated alkaline baths and friction had no effect upon the discolouration. Microscopical examination of the skin of the abdomen showed the pigment to be deposited in the deeper cells of the rete, though pigment granules were to be seen both in the layers above close and to the papillary vessels of the corium. The corneous layer encroached upon the interpapillary part of the rete mucosum, so that that part formed a narrow layer of uniform thickness moulded upon the frillæ, which were elongated apparently by protrusion downwards of the interpapillary processes. The papillary growths upon the neck consisted of an oval growth of the papillary layer of corium, involving several elongated papillæ. The pigment was in the same position as elsewhere, but there was no alteration in the arrangement of the epidermic layers. Dr. Crocker was unable to offer any satisfactory explanation of the pathology of this condition, but negatived the idea of its being due to phtheiriasis, as was suggested when the case was shown to the Soctety.

Dr. CARRINGTON showed a case of Bronzed Skin without Constitutional Symptoms. J. B——, aged twenty-five, a native of Dantzic, was admitted into the Seamen's Hospital on February 16th, 1881. He did not become a patient on account of the condition of his skin, but for an attack of acute bronchitis. The patient left India during July, 1880. He had a very rough and lengthened voyage, and was continually wet through. About the eighth or ninth week out he began to suffer from severe pruritus, the parts affected being the back and arms. At this time he changed his clothes, and he maintains that his skin was then white as usual. On the second day he again changed his clothes, and he then found that his skin had turned brown. It was also dry and stiff, and on attempting to nip it between the fingers it cracked. His gums and teeth at the same time were perfectly normal. About a fortnight after he noticed an eruption of small pimples on his arms and legs; these became little blisters, and exuded fluid on their rupture. These latter ran together. His limbs assumed the appearance of being scalded. The weather was very wet and cold at the time of the attack, and there was no sunshine. The patient remained much the same up to the 15th week, when swelling of the legs supervened. In October, 1880, he landed at Rotterdam, and was there treated for three weeks by arsenic. He again took ship, and in October, 1880, he became a patient in the Newcastle Infirmary. He was there told that he was suffering from scurvy; but none of his shipmates had contracted that disease. Whilst in the infirmary he was treated with sulphur baths twice a day for a month, and was made to lie in bed between blankets. The colour of his skin did not alter during his stay. On Feb. 16th, 1881, he was admitted into the Seamen's Hospital for an attack of acute bronchitis. There is no history of syphilis. A year ago he had an attack of ague lasting three days. On admission he presented the appearance of a well-nourished muscular man, with black hair and blue eyes. His skin was dry and harsh, but fairly pliable. It was, with the exception of the face, hands, and feet, stained of a medium walnut-brown colour. There was a diffused uniform tint, mottled with a darker shade of brown. The colouration was more uniform on the trunk than on the extremities, where it became somewhat patchy. The areolæ of the nipples were very dark, and the axillæ and genitalia were also somewhat more deeply stained, but certainly not to a marked extent. He had also a well-marked attack of scabies affecting his feet and hands and buttocks. There was no pigmentation of the mucous membrane of the mouth and pharynx. The heart sounds were well marked and distinct. He had the physical signs of bronchitis. The liver dulness reached two inches below the costal margin. The spleen was not enlarged. The above description applies to him now equally as well as on admission, except that his scabies has been cured by treatment with sulphur ointment and baths. He feels perfectly strong and well—as indeed he has all along, except for his pulmonary trouble. A thin section of the superficial part of the skin showed abundance of pigment in the epithelial cells, but no fungus. A patch on each side of the chest has been well treated with a saturated solution of hyposulphite of soda, but without effect. With regard to a possible suggestion that the colouration was due to scratching from the irritation of the scabies, Dr. Carrington did not think this probable, both because the limits of the pigmentation far exceeded those of the supposed cause, and also because it was almost certain that he could not have been suffering from this affection all the time, the baths at Newcastle would then have cured it. This was the more probable, as he had rapidly recovered from this part of his trouble whilst under treatment at the Seamen's Hospital. The scabies had most probably been contracted at a later date. On his admission at Greenwich he was certainly not scorbutic; his gums were perhaps a little pale, but there was no hæmorrhage. Neither was it possible that the pigmentation was due to the slight attack of intermittent fever, for it is only found in the severe chronic cases.—Mr. LISTER said both the cases were very remarkable, from the sudden advent of the bronzing without any constitutional disturbance.

The meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

Annual Meeting.—Diarrhœa in Phthisis.—Defects of Vision from Railway Collision.

THE annual meeting was held on the 7th inst., F. J. Gant, Esq., President, in the chair. The report of the Council was read and adopted, and the ballot for the election of officers and Council for the ensuing year was taken, when the following were declared elected:—President: Dr. Broadbent. Vice-presidents: Dr. Wiltshire, Mr. J. W. Barnes, Dr. Quain, Mr. Brudenell Carter. Treasurer: Mr. Francis Mason. Librarian: Mr. Royes Bell. Secretaries in ordinary: Dr. Gilbert Smith, Mr. Edmund Owen. Secretary for foreign correspondence: Dr. Berkhart. Council: Mr. H. F. Baker, Dr. Percy Boulton, Dr. Bucknill, Dr. Sidney Coupland, Mr. Hamilton Craigie, Mr. Cumberbatch, Dr. W. H. Day, Dr. T. S. Dowse, Sir Joseph Fayrer, Mr. F. J. Gant, Dr. Clement Godson, Mr. D. H. Goodsall, Mr. Alfred Pearce Gould, Dr. W. R. Gowers, Dr. F. de Havilland Hall, Mr. Malcolm Morris, Dr. Heywood Smith, Mr. W. F. Teevan, Dr. J. C. Thorowgood, Dr. C. Theodore Williams. The subject for the Fothergillian Essay for 1883 was announced—viz., "The Treatment of Thoracic Effusion." The ordinary business was then proceeded with.

Dr. C. THEODORE then read a paper "On the Pathological Treatment of Diarrhœa in Phthisis." He enumerated three different varieties met with in that disease—1st. Disease from the primæ viæ. 2nd. Diarrhœa from ulceration of the intestines. 3rd. Diarrhœa from lardaceous disease of the intestines. The first was due to over-feeding, an error often committed in the treatment of phthisis, but easily remedied. The second was the most serious form, often proving fatal. Intestinal ulceration was detected after death in five-sixths of Louis' cases, in sixty-seven per cent. of Lebert's, and 81 per cent. of the Brompton Hospital cases, the amount of mucous membrane involved varying in different cases. The small intestine appeared to be the first attacked, and especially the neighbourhood of the ileo-cæcal valve. The stages of the disease consisted of—(1) Inflammatory hyperplasia of the solitary and agminate glands; (2) their conversion into small abscesses, or their caseation; (3) the discharge of their contents, leaving behind ulcers with smooth floors and sharp edges; (4) formation of grey tubercle in floor of ulcer, and its subsequent caseation, leading to extension of the ulcer, and its junction with neighbouring ulcers, until the whole intestine becomes a mass of ulceration. Thickening of the peritoneal coat generally takes place in the vicinity of the ulcer, and thus perforation was not common. Sometimes, however, it takes place and sets up local or general peritonitis, ending in death. Occasionally ulceration into a small vessel causes alarming hæmorrhage, and is known to heal, leaving a thickened scar, which causes a constriction of the intestine. The clinical symptoms of ulceration were, persistent diarrhœa, tongue characteristic of great irritation, pain in the abdomen, tenderness over the ulcerative process, and rapid wasting. Tenderness was in the author's experience more common in the left iliac region than in the right. The disease appeared in the small intestine, but created greater ravages in the large one, and advanced rapidly, and this was to be accounted for by the traction on the ulcers from the changes in the size of the colon during digestion, by the slow progress of the fæces and the disengagement of foul gases in this region, giving rise to conditions unfavourable to the healing of ulcers. Pyrexia depended upon the amount of ulceration. If only a limited surface was attacked it was absent, but if large tracts were involved the chart showed great extremes and marked fitfulness. Ulceration might exist without causing diarrhœa, but such cases were rare. The forms of diarrhœa in phthisis arising from lardaceous disease corresponded with colliquative diarrhœa. It prevailed, in the latter stages of the disease, and often alternated with the profuse night sweats. It differed clinically from the ulceration in the state of the tongue and nature of the stools, and was not necessarily attended with pain. The chief feature was the infiltration of the tissues, and especially of the villi and their vessels, with lardaceous material. The treatment of the first form was by alterative and antacid medicines and careful regulation of diet; treatment of the second form must be directed towards treating the ulcers, and consisted of rest in bed; the use of bland non-irritating food, counter-irritation to abdomen by poultice or blister; opium and sulphate of copper by mouth, or, if large intestine be involved, by opiate enemata combined with astringents and sometimes antiseptics. Morphia suppositories or injections containing opium were useful. Treatment of third form chiefly by astringents.—Dr. DE H. HALL thought in some of these cases diarrhœa was caused by swallowing fetid expectoration; he preferred the use of gallic acid rather than tannic.—Dr. JAGIELSKI referred to the necessity of treating these cases with due regard to the totality of the symptoms. He advocated restricted diet.—Dr. GILBART SMITH asked Dr. Williams if there was any relation between largyngeal phthisis and tubercular ulceration of the intestines.—Dr. HERON had seen marked benefit derived from use of the liquid extracts of bael in two drachm doses every four hours. He referred to the influence of locality in intestinal ulceration in phthisis.—Dr. WILLIAMS replied that in his hands tannic acid had proved more useful than gallic. He had not noticed any connexion between laryngeal phthisis and intestinal ulceration.

Mr. WORDSWORTH then read a paper "On the Defects of Vision attributed to Railway Collisions," speaking only of those cases in which no structural lesions can be discovered, of which he had seen about twelve who complained of dimness of vision, &c., and inability to apply themselves continuously to any occupation requiring the use of their eyes. On examination no signs of injury beyond slight hyperæmia of the fundus oculi were discovered. Yet in all the cases they received considerable pecuniary compensation for the injuries, on account of the unfavourable prognosis that had been given. He had ventured to give a more cheerful opinion as to the ultimate recovery, and, so far as he had been able to trace the cases since, he believed they all recovered on the settlement of their claims, and had resumed their wonted occupation. He remarked on the fact that medical men are seldom consulted in these cases except with a view to their assisting to obtain compensation; stated that in a long experience in hospital and private practice he had never seen any of these cases simply as patient either before or after the settlement of their claim for compensation. These are circumstances which give rise to a doubt whether they are really *bonâ fide* cases, and are entitled to the importance that has hitherto been attached to them.—Mr. MCHARDY asked what time elapsed after the accident before these ocular changes became visible.—Mr. BENTON mentioned a case of a lady having fallen on the side of her head; suffered from concussion. The right side twitches; sight affected three weeks after with hyperæmia of the left disc, which disappeared with complete recovery.—Mr. WORDSWORTH, in reply, stated the cases referred to by him manifested no retinal changes.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THE ordinary meeting of this Society was held on Thursday, March 10th, W. Bowman, Esq., F.R.S., in the chair. There was a large attendance of visitors in view of a discussion on the relation between optic neuritis and intracranial disease, which was opened by Dr. Hughlings Jackson, F.R.S. As this paper occupied nearly the whole evening, the discussion was adjourned to a special meeting, to be held on Thursday, March 31st. A second special meeting to receive and discuss the report of the Committee on Colour Blindness is to be held on April 7th.

In the first section of his paper Dr. HUGHLINGS JACKSON enumerated the various conditions under which optic neuritis was found. He believed that there was but one kind of optic neuritis from intracranial disease, but enlarged on the difficulty there was occasionally in deciding, during life, whether or not certain appearances in the fundus were owing to such disease or to Bright's disease. On this difficulty he submitted questions to the Society. Urging that optic neuritis might pass off under treatment leaving sight good, he asked what were the best signs by which past neuritis might be inferred when there was no obvious atrophy. He believed the changes were, in some cases, so slight that it would be scarcely possible from these alone to say there had been neuritis or any sort of swelling of the discs. In illustration of this he instanced a case he had recorded in THE LANCET, June 12th, 1880. He also asked if changes so slight as were left in that case were distinguishable from relics of slight changes in the discs induced in some hypermetropes by over-work of the eyes. In the next place he spoke of the rarity of uniocular neuritis in physicians' practice, especially in cases of tumour of the brain, proved post-mortem. Speaking of optic neuritis with good vision, he asked if, as some asserted, the neuritis here differed in kind from that found when sight was defective. He believed the difference was in the stage of changes; that in most, if not in all, cases of neuritis there was a pre-amaurotic stage, and that sight failed in the much later stage when the changes were clearing up. He drew particular attention to sudden temporary failures of sight in those cases of neuritis in which vision was usually good, asking what was the significance of those phenomena. Later in the paper he adduced them as evidence in favour of the vaso-motor hypothesis as to the production of optic neuritis by intracranial tumour. He spoke next of rapid permanent failure of sight in those cases of neuritis where heretofore sight had been good, one point of importance in regard to them being that the rapid failure might be erroneously attributed by the patients to remedies used or to atropine, or to ophthalmoscopical examinations. The next section was on the association of symptoms, excluding cases of tubercular meningitis. The first remark was that good general health goes practically for little in our estimation of the gravity of the situation in many cases of optic neuritis, even when sight is good. We all see, he said, healthy-looking, robust children, and adults, who are sometimes supposed by those who do not use the ophthalmoscope to have no intracranial disease at all, and who, nevertheless, have intracranial tumour; sometimes death occurs rapidly. Symptoms, in the usual sense of the word, might almost be said to divide themselves into two groups—localising and non-localising. He first spoke of the non-localising, or, as they might for other purposes be called, signs, the best signs at least, of local gross organic disease within the cranium. In most cases optic neuritis goes with headache, and often with vomiting. Sometimes the headache precedes the neuritis, and what is a very different statement, it very often indeed precedes failure of vision. The three symptoms point to local gross organic disease within the cranium, but are no further localising; they do not help us to determine in what particular part that disease is. The headache is usually intense; often it is paroxysmal, the patient being in the intervals apparently quite well. The vomiting is purposeless, and bile is often brought up. Hence the very frequent, almost invariable, diagnosis in the early stages of chronic cases of cerebral tumour (when sight is good or only slightly defective) from liver derangement, and in acute cases the diagnosis of "bilious or gastric fever." Or the patient, if a woman, is sometimes supposed to be only hysterical, until some unmistakable intracranial symptom, such as convulsion, suddenly alters the diagnosis; not unfrequently the patient, supposed to have a slight ailment, dies rapidly, or even suddenly. The routine use of the ophthalmoscope would save us from most of these errors in diagnosis. There is sometimes an acute illness as our first evidence of tumour. But there are degrees from such an illness to great chronicity. It is very important to bear in mind that optic neuritis occasionally occurs without any headache and without vomiting, and that the headache may be slight and the vomiting little. Another way of putting what had been said was to say that there were all grades of severity of the ailment, of which optic neuritis forms one part, from a condition which (when sight is good, as it often is) is mistaken for digestive derangement, or for hypochondriasis, or for hysteria, up to a condition like that of tubercular meningitis. At this juncture cases after neuritis has passed off, leaving or not leaving optic atrophy were spoken of. Suppose that there had been an acute illness from which the patient had recovered, except, perhaps, for defective sight, with some atrophy of his optic discs, there comes the question, Was the acute illness meningitis? For his (Dr. Hughlings Jackson's) part he believed it to be very much more probable that it was and remained a case of local gross organic disease. It is of no avail to say that the patient had "all the symptoms of a meningitis," for there are no symptoms known to be characteristic of meningitis only. Admitting that during the illness we might be unable to decide, he would take the mere fact of recovery as strong evidence against meningitis—not that he denied that recovery from meningitis occasionally happens. Autopsies alone could decide. So far as autopsies showed (held some time after recovery on return of head symptoms, or after death by some other cause) the evidence was strongly in favour of local gross organic disease rather than of meningitis, in the kind of cases referred to. From any or the whole of the three symptoms occurring acutely or chronically we cannot be certain of tumour, but in a chronic case we are in most cases right in predicting it. Suppose we were to feel certain of the existence of tumour, we should have, from the symptoms mentioned, so far as he knew, not a particle of evidence as to the locality of the tumour beyond that it was intracranial. Of course, if the pain be persistently one-sided, it is then a localising symptom. He then spoke of symptomatic conditions under which optic neuritis was rarely or never found. It was scarcely ever, if ever, found with ordinary epilepsy—the epilepsy of nosologists. It was very common with epileptiform seizures—convulsions beginning deliberately in some part of one side of the body. There were, however, a few cases of gross organic cerebral disease in which there are paroxysms like those of epilepsy proper, and occurring as in cases of epilepsy proper at intervals, health being good betwixt. If double optic neuritis be found in a case which symptomatically is like epilepsy proper, he would surmise that there was gross local organic disease. He had never seen optic neuritis in chorea. It was particularly to be remarked that optic neuritis was rare with complete persistent aphasia; not very uncommon with slight aphasia, nor with temporary complete aphasia, nor after right-side-beginning epileptiform seizures. The reason he supposed was that complete persistent aphasia often depends on clot or softening. On the other hand, tumour, the common cause of optic neuritis, was a very rare cause of complete aphasia. It was rare to see optic neuritis associated with extreme positive mental symptoms. In two cases he had seen the patients so affected became maniacal; in neither was there any local gross organic disease discovered post-mortem. Optic neuritis, although so often found with disease of the cerebrum or cerebellum, did not occur from mere destruction of any particular part of the encephalon. We are, the author said, not now concerned with defect of sight, but with the process of production of optic neuritis, with which there may or may not be defect of sight. Optic neuritis mostly occurs with intracranial tumour or some other adventitious product. The tumour may be in any part of the encephalon, anterior, middle or posterior lobe of cerebrum, pons Varolii, cerebellum (middle lobe, or right or left lobe); it may be at the base. Next, optic neuritis may not be found with tumours of different parts of the cerebrum, It may not be found with adventitious products in the cerebellum. A further fact in accordance is that optic neuritis may occur late in cases of cerebral tumour, this is, of course, in one way an important qualification of the last-made remark, but does not invalidate it; on the contrary, enforces the general statement that optic neuritis is not caused by mere local destruction of any part of the nervous centres. Optic neuritis exceedingly rarely occurs in cases of extensive destruction of brain by softening or clot (hence it is rare with complete aphasia and ordinary hemiplegia). Softening and clot affect a particular locality; and it might be said that in this is one reason for there being no optic neuritis. But it is sometimes found with tumour in this region. So then, because optic neuritis occurs with tumour of any part, and may not occur with tumour of many parts, because it comes on late in some cases, and because it is very rarely found with such widely destructive processes as softening and clot, it was inferred that it does not depend on local destruction of any part of the nervous centres. Optic neuritis points to the general nature of the local disease, but not to its particular nature. It is mostly produced in cases of gross local organic disease, but that disease may be not only tumour ordinarily so called or syphiloma, but cyst or abscess —may be an adventitious product of almost any fluid. We may safely make the generalisation that it points, most often, to a "foreign body" of some kind—of almost any kind. If a magician were to introduce a lump of wood into any part of a man's encephalon, it might, the author believes, produce double optic neuritis like that produced by a "foreign body" of pathological origin. There is no difference in the optic neuritis produced by tumour of any kind, by abscess or cyst. Tumour, or any other adventitious product, does not produce optic neuritis in its particular character as this or that kind of pathological product, but in its general character as "a foreign body;" and then, not because it destroys, but by some indirect action. Further evidence in support of this doctrine is that optic neuritis may exist when sight is good. And with or without defect of sight optic neuritis may pass off when the central disease remains. The several different lines of evidence agree in converging to the conclusion that optic neuritis results secondarily from a "foreign body." The hypothesis of Von Græfe, Schmidt, and the vasomotor hypothesis commonly attributed to Benedict, as to the mode of production of optic neuritis by internal disease, were then considered. Dr. Hughlings-Jackson thought the last mentioned hypothesis was the one least open to objection. The importance of microscopical evidence was urged, but was not spoken of by the author, as he had no work of his own of the kind to bring forward, and because, he said, others present were more competent to speak on that part of the subject than he was. He concluded by speaking of treatment. He urged prompt treatment of optic neuritis, with obvious exceptions, by iodide of potassium and mercury. He spoke strongly of the importance of the routine use of the ophthalmoscope in nervous diseases, since in that way the pre-amaurotic stage, the stage most amenable to treatment, would often be discovered. He believed there would be fewer blind people if the ophthalmoscope were used more frequently by routine in nervous affections, and treatment were begun before sight began to fail.

Reviews and Notices of Books.

The Brain as an Organ of Mind. By H. CHARLTON BASTIAN, M.D., F.R.S. London: C. Kegan Paul and Co. 1880. (International Scientific Series, Vol. XXIX.)

THE importance of comparative physiology in the study of the functions of the brain needs no vindication. Most modern discoveries regarding cerebral action depend upon it for their evidence or confirmation. The present time is opportune for the appearance of a work which has for its object the elucidation of the functions of the brain by the study of those functions throughout the animal kingdom. The past work of Dr. Bastian qualifies him well for the task. Besides his contributions to cerebral pathology, he has done good work at comparative anatomy, having won his scientific spurs over the nematoid worms before he undertook the researches on the "beginnings of life" with which his name is chiefly associated.

The book opens with a chapter on the "uses and origin of a nervous system" in the lowest animals, in which vital irritability precedes those differentiated manifestations of action which are immediately succeeded, in the progressive scale of organisms, by the presence of recognisable nerve elements. Here, of necessity, the speculations of Herbert Spencer and the observations of Romanes are chiefly followed. A description of the elements of a nervous system, fibres, cells, and ganglia, and of the nature and use of sense organs, follows. The nervous systems of molluscs, vermes, arthropods, fishes, amphibia, reptiles, and birds are then successively described, clearly and well, but with the subject of these chapters all students of comparative anatomy are familiar.

Probably some wonder has been excited by the introduction of the indefinite article in the title of Dr. Bastian's book. Why speak of the brain as *an* organ of mind? The answer to this will in part be found in the tenth chapter on the "scope of mind." Rejecting as absurd the old idea of a "metaphysical entity" using the brain as its organ, he finds the common notion of what should be included under the term "mind" altogether erroneous, and to be at once given up. Mind is not to be limited to the domain of consciousness, but should include "the functional results of all nerve actions on the side of ingoing currents and in the nerve-centres—whether these nerve actions are accompanied by a recognisable conscious phasis or whether they form what appear to be mere physical links between other nerve actions which are unquestionably in relation with definite conscious states." In the title, then, the word organ is used "merely in the sense that it is a part whose molecular changes and activities constitute the essential correlatives of those phases of consciousness known as sensations, emotions, thoughts, and volitions, as well as of a considerable part of the sum total of those other nerve actions which are unattended by consciousness." Thus mind, in the sense in which the word is often used, has to Dr. Bastian no existence; and the subject of the book, "The Brain as an Organ of Mind," is in effect the study of mind as the product of the action of nerve tissue.

Reflex action and unconscious cognition, sensation, ideation, and perception are next discussed, chiefly on the basis of the writings of Hartley, Sir William Hamilton, and Herbert Spencer, and the way is thus cleared for chapters on consciousness in the lower animals, on the nature and origin of instinct, on nascent reason, emotion, imagination, and volition, which are full of interesting facts, carefully culled from the writings of Buffon, Darwin, Spalding, Lubbock, and others, as well as from that repertorium of anecdotes—the pages of *Nature.* The anatomy of the brain of quadrupeds and the quadrumana is then described with much clearness and conciseness, rendered the more intelligible by many excellent illustrations.

The study of the human brain is introduced by a description of its development, followed by an account of the chief facts known regarding its size and weight, those collected by Thurnam being given with some important additions, especially relating to the connexion between brain-weight and mental power. The general relation between the two is subject to many exceptions. The heaviest human brain (67 oz.) as yet on record belonged to a man who could neither read nor write, but of twenty-three brain-weights of distinguished men all but six are above the average. That of Cuvier, as is well known, heads the list, although no less than four ounces less than the brain just mentioned. The brain of Professor De Morgan was only slightly above the average, those of Grote and Whewell were merely average weights, while that of Hughes Bennett, as well as of Tiedemann, were below the average. But, on the other hand, of eleven adult male Chinese coolies, whose brains were weighed by Dr. Clapham, in only two was the brain-weight below the average, and the mean weight of the whole was two ounces above the average—a remarkable fact, which Dr. Bastian explains as the result of a very long-continued antecedent civilisation, even of a low order.

The external configuration and internal structure of the human brain are then lucidly described, no less than one hundred pages being devoted to the description. In the latter the researches of Broadbent are chiefly followed. An outline is then given of the functional relations of the principal parts of the brain, according to the teaching of anatomy, experiment, and pathology. An attempt is made to explain the cross relation between the cerebral hemispheres and the opposite half of the body, which is not, however, very successful, the conclusion being that the cross relation was initiated in fishes in some "quasi-accidental manner, and that, in the first stage of its existence, it was, and still is, represented only by the decussation of the optic tracts; that in higher animals possessed of well-formed limbs, reflex and volitional movements of those of one side are often evoked in response to unilateral stimulation, so that in such creatures there would be a distinct advantage if other sensory channels, by decussating, were to be brought into relation at their central termini with those of the visual sense, and, finally, the same influences, whatever they may be, which determine this additional sensory decussation would lead to the establishment of the equally necessary sequential decussation of the motor channels for the limbs." In reference to this statement it should be pointed out that Dr. Bastian holds the view, which we thought had been effectually disproved, that the decussation of the optic nerves in man is complete. The difficult question of the functional relations of the cerebral hemisphere with one another, the duality of body, and the unity of mind, is then discussed. An interesting case is quoted from Dr. Strumpell in which there was general anæsthesia, loss of taste and smell, of the sight of the left eye, and deafness of the right ear, and in which the patient could at any time be sent to sleep by bandaging the right eye and closing the left ear. This is regarded as constituting proof of the activity of the sensorial regions of the hemispheres "for the production of what we know as consciousness." The fact that mental operations are unimpaired, and consciousness unaffected, although there is complete hemianæsthesia of the general and special sensations, is explained by the commissural function of the corpus callosum, by which both hemispheres are brought into relation with the sensorial stimuli from one half of the body, although it is admitted that the effect is "difficult to understand." The evidence of the possibility of a separate or dissimilar, but simultaneous, activity of the two hemispheres is of a very doubtful nature. It is held, however, that the intellectual powers are very much lessened by extensive disease of one hemisphere, although to this there are some striking exceptions. While "will," like "intellect," is single, we are, in its exercise, brought to the turning point where mental gradually give place to non-mental phenomena. The "out-going currents," which are thus set up have, it is held, no conscious side whatever, and "lie as much outside the sphere of mind as the molecular changes in the muscle which these out-going currents" evoke. It should be remembered, however, that this view, strongly held by Dr. Bastian, is opposed by some facts which have led very acute thinkers to entertain a different view. The cerebellum is regarded as a supreme motor centre for reinforcing and for helping to regulate the distribution of outgoing currents in voluntary and automatic actions. This view is based upon *à priori* reasoning from anatomical facts, and is not very easy to reconcile with many of the facts of experiment and pathology.

An interesting chapter deals with "Phrenology, old and new," and in this the modern discoveries in cerebral localisation are contrasted with the earlier views, of which a good historical sketch is given from Prochaska. The will and voluntary movements are next discussed. The mental processes concerned in volition are analysed, and their relation to the different parts of the nervous system, and the mutual relations of voluntary and automatic movements, are considered. One of the least satisfactory sections of the book is that in which an attempt is made to interpret the well-known experiments of Ferrier and Hitzig by the untenable hypothesis that the fronto-parietal centres are "rather sensory than motor." Dr. Bastian's views on this, and on the subject of the "cerebral mental substrata," appear to have been largely determined by his theories on the cerebral relations of thought and speech which are developed in the last chapters. He differs from most authorities on the subject in associating these almost exclusively with auditory processes, and this appears to have led him to assign to the sensory process the predominant, and indeed sole, part in the mechanism of thought—a view which is altogether opposed to the theories of such authorities as Wundt, Bain, and Hughlings Jackson.

The final chapter deals with certain further problems in regard to the localisation of the higher cerebral functions, especially in relation to the function of speech; and in an appendix is summed up the evidence in regard to the non-existence of any "muscular sense."

Dr. Bastian deserves much praise for the industry with which he has collected from various sources the materials which he has employed throughout the work. It bears the stamp of his own strong convictions. Although his views on some of the vexed questions of cerebral physiology will probably not receive general assent, the problems are everywhere discussed with conspicuous ability and untiring energy. The illustrations are throughout abundant and good.

Atlas of Histology. By E. KLEIN and E. NOBLE SMITH.
Part XIII. 1880.

THIS part concludes the volume. It contains drawings illustrating the outer and middle ear, the internal ear, the nasal mucous membrane, the spleen, and the ductless glands, including the hypophysis cerebri, the thyroid gland, the supra-renal body, and the glandulæ coccygea and carotica. The last chapter is devoted to the indirect division of the nucleus of the epithelial cell, and gives a detailed account of the process of cell division as observed in epithelial cells—a subject on which many essays have been recently written, and to which Dr. Klein has himself devoted much attention. The illustrations of this part are good.

When the first part of this work was published the need of a good Atlas of Histology was very great, and now that it is completed we think it fulfils the anticipations that were formed of it. The absolute number of plates is forty-eight, each plate having from eight to ten figures; and the text runs to 448 pages. No part of the body is omitted. A large portion of the illustrations and nearly the whole of the text are original, though some of the former are borrowed, with acknowledgment, from the best and most recent sources. Some appear to have been drawn by Dr. Klein's pupils from sections made under his supervision; and all may be regarded, from his known skill as a teacher, as representing the tissues as seen with the best microscopes, and with the most recent improvements in staining or injection.

The chief, perhaps the only fault of the work is in the somewhat loose and careless style of the letterpress. Dr. Klein both speaks and writes English well, indeed excellently for a foreigner; nor does he ever fail to make himself understood; but many of the sentences might with advantage have been revised or rewritten—a duty that might naturally have been expected to fall on his coadjutor.

The weakly illustrated parts of the work are those of the nervous and muscular systems, the latter in particular being in no way so far in advance of the drawings given by Mr. Bowman forty years ago as might have been anticipated from the recent technical improvements that have been made. The mucous and serous membranes, lymphatics, hair, and many other organs, are, on the contrary, very well drawn. With this book and the introduction to Quain's Anatomy by his side, the student or practitioner will learn all that has been recently done and all that he needs to know, unless he is himself making original observations on histology.

The Medical Register, 1881. London: For the General Medical Council, at Her Majesty's Printing Office, and published and sold for the Council by Spottiswoode and Co., 30, Parliament-street, S.W.

Proceedings of the General Medical Council and of the Executive and Dental Committees in regard to the Registration of Dentists from January 8th, 1879, to February 3rd, 1881. London: Spottiswoode & Co.

THE Medical Register of 1881 has been brought out much more promptly than its predecessors. It contains the register of 22,936 practitioners holding qualifications from the bodies named in Schedule A of the Act of 1858. This number exceeds that of the preceding year by 420. But it would be unsafe to assume that there was this difference in the number of persons practising. The number in the Register varies a good deal from year to year, according to the numbers removed under Section 14 of the Medical Act, which empowers the Registrar to send a letter to any medical man inquiring whether he has changed his address, and in the event of receiving no reply within six months to erase the name. Other names are removed on the score of death or by ceasing to practise. But it will readily be seen that under these heads great vagueness and variety of results may appear from year to year, giving only an approximation to the facts. Thus in 1876 there were 517 removed from the Register; in 1877 837; in 1878 1310; in 1879 1109; in 1880 841. A variable number of persons are restored annually to the Register under the same section. Evidence of death was ascertained in 1879 in 548 cases; in 1880 only in 526. The volume contains all the various Medical Acts of Parliament, with an index or page of contents, under which useful abstracts of the different Acts are given; the accounts of the General Medical Council presented to Parliament, the Dentists Act, and the accounts connected with its administration, &c., with various tables of great interest.

The volume bears evidence of careful editing, and, though not absolutely free from errors, is probably more so than any of its predecessors.

Another of the publications of the General Medical Council is before us—a small volume containing a Record of the Proceedings of the General Medical Council and of the Executive and Dental Committees in regard to the Registration of Dentists, down to those of the recent meeting. To those interested in this most unsatisfactory part of the Council's work this volume will be found useful.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons, held on the 10th inst., the Committee on Preliminary Examinations presented its final report, dated January 31st, 1881, on the series of inquiries contained in Dr. Haldane's communication of November 11th, 1880, with respect to the desirability of candidates for the medical profession being required, before they enter on the purely medical curriculum, to have been instructed and examined in the rudiments of Natural Science—Physical, Chemical, and Biological.

The Committee have considered seriatim the five questions proposed in Dr. Haldane's letter—viz., (1) What amount of knowledge of the rudiments of Natural Science might be fairly required from intending candidates for the medical profession? (2) Should candidates, before being admitted to examination, be required to adduce evidence of having been specially instructed in Natural Science; or should proficiency as ascertained by examination be considered sufficient? (3) At what period should the Preliminary Scientific Examination be passed? Should it take place before the commencement of the purely medical curriculum, or before the end of the first year thereof? (4) If a candidate have taken up a department of Natural Science as an optional subject at the Preliminary General Examination, should the fact of his having passed in it satisfactorily exempt him from appearing for examination in the same subject at the Preliminary Scientific Examination? (5) In the case of candidates who have passed the Preliminary Scientific Examination, what modifications could be made in the present medical curriculum and present Professional Examinations?

They recommend to the Council that the following answer should be returned to Questions 1, 3, 4, and 5—viz., That, in the opinion of the Council, it is desirable that intending medical students should be encouraged to study in one or more of the branches of natural science which are not included in the compulsory subjects of the Preliminary Examination required by the General Medical Council, and that a student who shall have passed an examination in one or more of such subjects should be exempted from any attendance on lectures [on the subject or subjects in which he shall have passed] and from similar examinations on those subjects during his professional education, but that such exemption should not include the practical instruction and examinations now required by any of the several medical authorities. And that to Question 2 the following answer should be returned—viz., That in the opinion of the Council, proficiency as ascertained by examination should be deemed sufficient.

The report was approved, adopted, and entered on the Minutes.

Mr. Gay moved, That in the opinion of this Council it is desirable that lectures delivered in the theatre of the College should conform, as far as may be practicable, to the terms and conditions of the trust in relation to the strictly Hunterian Lectures on Comparative Anatomy and other subjects as defined in that trust; and that they should, therefore, relate for the most part to such subjects as admit of illustration by the preparations in the museum. And that the President and Vice-Presidents, in regulating (as provided by the standing rule) the details of the proceedings relating to the lectures, be requested to communicate to the several professors and lecturers from time to time appointed the foregoing resolution of the Council. This motion was, for some unaccountable reason, not seconded, and fell through.

It was further resolved that a conversazione should be given by the College to the members of the International Medical Congress, to be held in London next August.

Analytical Records.

MEDICATED THROAT PASTILES.

(ALLEN & HANBURYS, PLOUGH-COURT.)

THESE pastiles contain convenient doses of well-known remedies, such as morphia, ipecacuanha, aconite, chlorate of potash, and citrate of iron, in a soluble gelatinous basis. They are well adapted for sensitive patients, and, indeed, as "elegant preparations" leave nothing to be desired.

SYRUPUS TONICUS (GALE'S).

(GALE & CO., BOUVERIE-STREET.)

A pleasant and convenient syrup, with but little inky taste. Each drachm is said to contain 1 grain of amorphous quinine, 1 grain of iron, and 1-32nd of a grain of strychnine. It has, therefore, the composition usually assigned to Easton's syrup, and has the advantage of being very much cheaper.

PREPARATIONS OF "THE PURE FOOD COMPANY."

(THE FOOD LABORATORY, 4, PRINCES-STREET, RED LION-SQUARE, LONDON.)

The following samples from the above Company have been sent to us:—

1. Milk food for infants.
2. Essence of beef, or pure beef-tea.
3. Solidified albuminous beef-tea.
4. Extract of coffee.

All the samples are of good quality, but they do not appear to possess any particular novelty.

TRIPOLITH.

(KROHNE & SESEMANN, DUKE-STREET, MANCHESTER-SQUARE.)

A slate-coloured powder, recently introduced from Germany as a substitute for plaster-of-Paris for fixative dressings. Gauze bandages filled with the powder are immersed in water and applied in the usual manner to the limb, which has previously been wrapped in a flannel bandage. A thin mixture of the powder with water is then applied to the gauze, and in five minutes the whole is hard. The powder is very light, does not appear to change much in the air, and sets very quickly. It seems, therefore, to be in all respects an improvement on common plaster, and it is said to be quite as cheap.

AESCULAP BITTER WATER OF HUNGARY.

(AESCULAP BITTER WATER COMPANY, SNOW HILL.)

The activity of this powerful mineral water depends mainly on the large quantity of the sulphates of sodium and magnesium it contains. It has been found to be a very efficacious aperient, and appears to act more rapidly than some others with which it has been compared.

THE SEAMEN'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—Is there any truth in the rumour that the Committee of the Seamen's Hospital have elected as their visiting surgeon a gentleman who is a local practitioner, in preference to other candidates who are connected with various London Hospitals, and that this gentleman is over forty years of age; notwithstanding that the committee in their advertisement fixed that limit to the age of applicants? Can there be any special reason for this peculiar action, when there is a resident surgeon, a Fellow of the Royal College of Surgeons of many years' standing, at the hospital, and the chief duty of the visiting surgeon is to aid and consult with that gentleman in cases of operative interference and severe emergency? If true, it would be a curious proceeding, as the "non-local character of the charity" is always laid particular stress on when appealing to the notice and pockets of the charitable public.—Yours &c.,

March 12th, 1881. A SURGEON.

THE LANCET.

LONDON: SATURDAY, MARCH 19, 1881.

MR. DODSON was not prepared to answer the question put to him by Mr. J. TALBOT in the House of Commons on the 14th inst., to the effect whether he was in a position to secure to the inhabitants of the metropolis the advantages which were intended to be conferred by the establishment of hospitals for fever and small-pox, under the provisions of the Metropolis Poor Act, 1867. Indeed, it would have been wonderful if he had been, having regard to the complicated nature of the subject as it now stands, at least in regard to small-pox. It would appear, moreover, from Mr. DODSON'S reply to Mr. TALBOT, that another appeal, touching, as we infer, the essence of the matter in relation to the Hampstead Hospital—namely, that it was necessarily a nuisance as assumed in the appeal on the legal question just determined by the House of Lords—is still open to the Managers of the Asylums Board. It is scarcely conceivable that the Asylums Board will avail themselves of this opportunity for further legal contention, but they have a month for consideration as to the course they will take, and it is possible that within the time they may persuade themselves that it is due to their public position, and the law under which they act, to leave no legal stone unturned. A deputation of the Asylums Board had an interview with Mr. DODSON on Saturday last, but reporters were not present. This interview was the first, we believe, after the decision on the appeal to the House of Lords, and it must be admitted that even in public offices there may be griefs too sacred to be bared to the public eye.

Although the decision on the first appeal to the House of Lords in the Hampstead Hospital case more immediately affects the metropolis in respect to hospital accommodation for the sick of small-pox, in reality it must be regarded as touching the subject throughout the kingdom. Every phase in the history of the Asylums Board and of the Local Government Board in its relations with it since the former Board had thrust upon it quasi-sanitary functions in its hospital administration has, as we now see, tended to make more and more clear the disadvantages arising from the administration of the metropolis in sanitary matters being dissevered from the laws governing the general sanitary administration of the kingdom. It has equally illustrated cardinal defects in the law as regards the provision of sanitary hospitals, whether as concerns the metropolis particularly or the kingdom at large. It is obvious that a law which gives authorities the power of erecting and maintaining hospitals for infectious diseases, whether for Poor-law or sanitary purposes, should also provide for the acquisition of land for sites for such hospitals after due public inquiry. It is, perhaps, correct to say that the want of such provision has been the greatest obstacle to the proper provision of hospital accommodation throughout the kingdom, and that it underlies much of the difficulty which the Metropolitan Asylums Board had to encounter, and contributed greatly to the disasters now befalling its hospital administration. But much as this defect in the fundamental law may have aided to bring about the present crisis in public hospital matters, it must probably be reckoned second in place to the fact that in the metropolis the execution of one of the most important public duties, in face of spreading epidemic diseases, should have been transferred from the sanitary authorities, who alone have the powers necessary to deal fully with these diseases, to a poor-law authority without any corresponding powers of combating them. This is the more remarkable as the Local Government Board, with whom the responsibility for this course rests, have been devoting themselves to a directly opposite policy of hospital administration in the provinces. There they have set their face against extensions of poor-law infectious disease hospitals, and have adopted the policy of urging sanitary authorities to provide such hospitals, as well for the reception of pauper as of non-pauper patients. Of the justness of this policy there can be no question. It regards the *disease* in its public health relations as the subject to be dealt with primarily and essentially, not the social status of the patient. A policy of this sort, joined with the requirements that the sanitary authorities *shall* (not *may*) provide hospitals and have the power to acquire compulsorily land for them, would best meet the public health necessities of the case; and the history of the Hampstead case taken in connexion with what is now occurring in relation to the Fulham and Homerton Hospitals, must make it abundantly clear that the metropolis will not get out of the hospital bog in which it is now floundering unless a similar policy is applied to it.

Great as the financial and administrative difficulties may be in the metropolis in dealing with this hospital question—difficulties before which both Mr. STANSFELD and Mr. SCLATER-BOOTH quailed, and in so quailing have left a crown of statesmanship within reach of Mr. DODSON, if he is disposed to seize upon it,—we do not believe that these difficulties are insuperable, and it ought to be possible to assimilate the management of sanitary hospitals in the metropolis to that which is being introduced generally in the country.

It is an important consideration that the present excitement against the Metropolitan Asylums Board hospitals is not against hospitals of this sort *per se*. It is rather against *big* hospitals as against *smaller* hospitals. This has been shown remarkably in recent letters to the public press from the pens of gentlemen who have been most forward in attacking the existing hospitals. This question must be considered separately, but it must be confessed that it opens out a line of thought which promises escape from present difficulties. It has been too hastily assumed that if what is asserted of the big hospitals be true it must be true also of smaller hospitals; but this by no means follows. For example, in the matter of incidental transmission of infection alone, from the visits of people from infected neighbourhoods to the hospital to inquire as to friends or relatives and patients therein, the chances of such transmission would be much greater in the vicinity of a big hospital than a smaller one. Nothing has yet occurred to make us doubt the wisdom of the Legislature in giving powers for the provision of hospitals by sanitary authorities in the Sanitary

Act of 1866, and that the policy of that Act in regard to hospital provision should not be maintained. It cannot be denied, however, that in regard to small-pox, the public excitement with respect to the provision of small-pox hospitals is getting perilously near a point which will make the establishment of such hospitals, whether large or small, impossible. However much this is to be regretted, it would be folly to deny the fact, and that there are not wanting good grounds for belief that the present small-pox hospitals are a danger to their immediate neighbourhoods. The possibility, then, of such a state of popular feeling as would render the establishment of such hospitals practically impossible, must be looked frankly in the face. It is a possibility which might for the moment be regarded with feelings of dismay by those who know best the habits of small-pox when retained in private houses, particularly among the poor. But in the end (and this may be said without the slightest degree of cynicism), it could not but prove advantageous to the public at large. After all, hospitals for small-pox are provisions against a contingency which should never occur among the inhabitants of these islands. With vaccination and revaccination at our command, *without cost*, if needs be, everyone may secure an almost absolute security against the disease. This security is practically now given to young children by the working of our public vaccination arrangements, and such children are being rapidly eliminated from the victims of small-pox. In the case of older children and young people who have come to years of discretion the choice of revaccination rests with themselves. Our small-pox hospital provision, for the most part, represents an expenditure out of the rates for saving these people from the results of their own carelessness or apathy. It may be a Christian policy to do this, but is it an economical or a prescient one? We commend the consideration to Mr. DODSON and the present Government.

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ALBUMINURIA without structural disease of the kidneys—a symptom of considerable interest and of much practical importance—was the subject of a recent communication by Professor BAMBERGER to the Vienna Gesellschaft der Aerzte. "Temporary albuminuria" it is often termed, but he suggests that "hæmatogenic" would be a more accurate term as contrasted with "nephrogenic," due to organic renal disease. This functional albuminuria is often trifling in amount, causing merely opalescence of the urine under the ordinary reagents, but the amount of albumen is sometimes considerable. It may occur in individuals apparently in perfect health, as ULTZMANN and LEUBE showed, and their observations have since been amply corroborated. It occurs also in febrile conditions, apparently as a result of the blood state, although standing in no direct relation to the pyrexia. Passive congestion and epileptic attacks also cause it. It is found in the convulsions from strychnine poisoning, but never in the abundant watery urine of hysterical states.

What is the origin of this albuminuria? An answer can be best given to this question by asking another. Why is not albumen always present in the urine, since all capillary vessels allow albumen to pass through their walls, and it would be remarkable if those of the kidney were any exception to the rule. WITTICH put forward the theory that the urine which passes through the capillaries of the Malpighian bodies is always albuminous, but that its albumen only serves to nourish the epithelial cells of the urinary tubules, and that the albumen which is not thus used passes back into the circulation. This theory presents the difficulty that it assumes that the epithelium of the kidney is nourished in a different way from all other epithelium, but it has the support of the pathological fact that when the epithelium is removed from the kidney, albuminuria occurs. And yet, on the other hand, intense fatty degeneration of these cells may exist, as, for instance, in phosphorous poisoning, and no albumen may appear in the urine; while in cases of transient albuminuria, in which, for instance, albumen appears in the urine after an epileptic fit, it is not conceivable that this explanation will suffice. ROSNER has brought forward an experimental objection to WITTICH'S theory. He placed small fragments of fresh kidney in boiling water, and thus fixed the albumen in the position in which it was produced. In diseased kidneys he found coagulated albumen in the urinary tubules, but he never found it there in healthy organs.

Physiologists assert that albumen is retained in the kidneys on account of the pressure-conditions of the circulation; the pressure is sufficient to lead to the transudation of water and saline substances, but not of albumen. It may be asked, however, How does the pressure here differ from that in other capillary vessels? The size of the renal arteries in proportion to the organ, the structure and arrangement of the capillaries, all point to a high blood-pressure in the kidneys, a condition in which substances only slightly filtrable should readily pass through, albumen among them. HEIDENHAIN goes further, and asserts that nothing of the nature of filtration occurs in the kidney, basing his assertion on the relation which the amount of urea bears to the quantity of urine.

Another explanation which has been given is that the epithelial covering of the smallest renal capillaries keeps back the albumen. Mucous membranes only allow the escape of an albuminous fluid when they are denuded of their epithelium. This theory, however, holds good only for the living kidney; albumen passes out of the kidney after death in spite of the epithelium. Moreover, the epithelium is not equally retentive of all varieties of albumen; egg-albumen, for instance, injected into the vessels rapidly passes out in the urine; serum-albumen does not, while the albumen of red-blood corpuscles, the hæmoglobin, rapidly passes out in the urine if the corpuscles are destroyed.

RUNEBERG has asserted that the amount of albumen which passes through animal membranes varies inversely as the pressure; the lower the pressure the greater the amount of albumen. Hence he believes that when albuminuria is not dependent on structural alterations in the kidneys, it is to be ascribed to the diminution of pressure in the Malpighian glomeruli. He thus accounts for the albuminuria of mechanical congestion of the kidney, in which the blood-pressure in the aortic system is commonly much lowered. The diminished quantity of urine in this condition supports this theory, and also the beneficial influence of digitalis as a remedy for the condition. Febrile albuminuria he ascribes to the same mechanism, the lowered blood-pressure from the enfeebled state of the heart. He has not, however, sufficiently distinguished the influence of the two important factors in the circulation, the pressure and the rapidity of the movement of the blood. In order to ascertain afresh the influence of the first of these factors, Bamberger has performed the experiment of stretching two similar membranes (amnion or pericardium) over cylinders, and allowing equal quantities of albuminous fluid to filter through them, with and without the pressure of a layer of oil poured upon the top. In the first experiment he took some pleuritic fluid, which contained 1·174 albumen. He found that in the cylinder in which the pressure was the greater, the absolute quantity filtered and the absolute amount of albumen were greater, but that in both instances the percentage of albumen in the total filtrate was the same. A second experiment with ascitic fluid, containing a large amount of albumen gave similar results. Quite recently Gottschall and Hoppe-Seyler have performed similar experiments, and have obtained the same results. Runeberg's theory thus also becomes untenable, and there are other experimental objections to it. When the renal arteries are tied the blood-pressure falls considerably, but the kidneys become congested, and blood and albumen at once appear in the urine. Moreover, in febrile states, the albumen often appears a few days after the commencement of the pyrexia, and while the pulse is still full and bounding. Neither an increase nor a diminution of the blood-pressure will alone account for the transudation of albumen. The only other condition to which it can be referred is the retardation of the blood-current. Albumen is slowly filtrable, and may only pass through when it remains for a comparatively long time in contact with the wall of the vessel. The same relation is seen in inflammation, in which first there is a retardation of the blood current, and then the exudation of an albuminous fluid. This, however, is probably not the only factor. The epithelial cells of the Malpighian glomeruli may lose their function without presenting any anatomical alterations—a hypothesis which can be neither established nor disproved. Another factor is the vaso-motor action, consisting in either paralysis of the vaso-constrictors or irritation of the vaso-dilators. By dilatation of the vessels a retardation of the blood current can readily be produced. In this way the origin of the febrile albuminuria can be readily understood, since vaso-motor disturbances are frequent in that condition, apart from any direct relation to the amount of pyrexia. If the whole nervous system, and therefore also the vaso-motor system of the kidneys, is deranged by an epileptic attack, albuminuria may readily arise in the same way. The same explanation—the hypothesis of a slight vaso-motor disturbance—affords also the most ready explanation of the occasional albuminuria of apparently healthy individuals. At the same time, the possibility of chemical changes in the circulating albumen must not be forgotten. Under some conditions albumen is probably formed which behaves in the same manner as egg-albumen or paraglobulin, and, unlike serum-albumen, filters easily, and may thus appear in the urine. This fact, indeed, renders it doubtful whether the phenomena are to be explained at all by the mere physical conditions. We know nothing of the reason why the different kinds of albumen are excreted with various degrees of readiness, and whatever condition is the cause of this difference may also, when deranged, be the source of the temporary albuminuria which still constitutes so great an enigma.

It seldom happens that the plain truth can be—or is—spoken about any subject of warm controversy until long after the heat has subsided. When the dispute issues in legislation on the lines laid down by the dominant party, there is almost sure to follow a period of more or less sententious reserve on the side of the defeated. It may be bad taste to show elation in times of success, but dominant parties habitually triumph over their vanquished opponents, and if they have been fired with anything like enthusiasm in their enterprise, and have felt that the work in hand was a worthy and useful undertaking, it is difficult to call in question their full right to take credit for the achievement. When the success gained has been less complete than the substantially victorious party reasonably expected it to be, it is natural that there should be considerable disappointment and some bitterness. Nor can there well fail to be an attempt to carry the conquest to a fuller conclusion. All this is perfectly intelligible, and in many respects as it should be. If no strong and deep feeling existed, there could be no earnestness, and in the presence of strong and deep feeling there must always be something of animosity in any contention. We are not, therefore, in the least degree surprised to find that the promoters of the attempt to arrest scientific inquiry by vivisection have formally renewed the onslaught. They took up arms in what they conceived to be the cause of humanity against inhumanity, and they succeeded in passing an Act which virtually affirmed the principle for which they contended—namely, that it was wrong to inflict suffering on the lower animals in the search for relief and remedy for the sufferings of mankind. The provisions of the new statute could not, however, at the moment be made sufficiently repressive to crush out the practice of vivisection finally and instantly. It is only natural, we concede, that the "anti-vivisectionists" should return to the charge. Since the measure of triumph achieved they have, indeed, stooped somewhat low to conquer more completely. Their mode of carrying on the agitation has been, to say the least, unscrupulous and undignified; but let that pass. It has never been our *rôle* to offer a determined opposition to the movement. The sympathies of every heart must be stirred against wanton cruelty of any kind, and in so far as it may have been proved, or even reasonably suspected, that pain *was* inflicted on the lower animals without absolute scientific necessity, our sympathies have gone out with those who tried to stay the hand of the heedless or too persistent investigator. Meanwhile we have felt, as all concerned in the pursuit of physiological science and the art of healing must feel, that without vivisection, secrets, a knowledge of which is essential to the discovery of means and ways of cure for human maladies, could never be wrung from Nature. And this persuasion has held us in a position at once unsatisfactory to ourselves and open to the reproach of not being clearly defined. The appearance of a new Bill bearing on its back the names of Sir Eardley Wilmot, Mr. Samuel Morley, and Mr. Firth, and having for its specific object the *total* abolition of vivisection, supplies us with a not un-welcome opportunity of placing our views explicitly before the profession and the public. In short, an occasion has arisen for speaking the plain truth about vivisection, and we shall not shrink from uttering it.

Vivisection is a scientific necessity; and inasmuch as it is just as idle to try to stay the progress of science as it is to oppose the rising tide on the sea shore, the attempt to suppress this particular mode of investigation cannot be ultimately successful. Notwithstanding the assertions made by men with warm and feeling hearts, it is an incontrovertible fact that nearly all we *know* of the living organism in health and disease has been learnt by vivisection, either intentionally performed or, as the phrase goes, "accidentally" accomplished. Vivisection has been practised in all ages and countries, more or less extensively. It is the analytical method applied to the study of organic life, just as the demolition of the earth's crust by the geologist's hammer is the analytical method applied to inorganic nature. The fact that the living animal feels is an untoward contingency, but it cannot qualify the major consideration. The dissection of the dead organism is tributary or complementary, and may well be made preparatory, to the dissection of the living body; but in the long-run we must find ourselves face to face with the grim truth that it is the *living* body which science requires, and sternly demands, to explore, and which sooner or later she will explore in spite of all the hindrances which sentiment and humanity may throw in her way. If vivisection is totally abolished in this country practical physiologists will have to go elsewhere. This is what has, in fact, happened since the passing of the Act limiting vivisection. The most eminent explorers are working on the Continent and in the United States, and the only effect of persecuting them in one place is that they fly to another. It is a little vain-righteous of us to put away the evil—as we think it—with one hand while we eagerly grasp all the good that comes out of it with the other. The great bulk of the information which has enabled physicians to treat diseases with new precision in recent years, and which has already led to the lengthening of many useful lives, is the outcome of vivisection. The "anti-vivisectionist" does not stop to inquire whether the gift by which he is healed in the hour of sickness, or some one dear to him is snatched from the jaws of death, has been offered to idols! He is wise in his reticence. Now that the heat of the controversy has passed away, those members of our profession who spoke unadvisably in the interests of a crusade against cruelty must perceive that they overstated the case when they declared, or admitted, that vivisection was unnecessary. It is indispensable and irrepressible. The aim to minimise the recourse to it was humane, the attempt to abolish it altogether is absurd.

The Bill before us writes its own epitaph in the 7th clause:—"This Act shall not apply to intervertebrate animals." The promoters of the measure do not dare to push their initial—and, we must be excused for saying, pretended—proposition to its obvious and logical consequences. The feeling of the invertebrate animals is not less acute in relation to their own organisms—looking to their colder blood and comparatively less sensitive nervous systems—than the feeling of the vertebrates. If no pain is to be inflicted in the interests of science we must desist from vivisection of every kind. It is a contemptible affectation of pharisaic humanity to take credit for protecting the dog while we allow the frog to be dismembered for our information and advantage. It is mean to seek ease and remedy for our ills at the expense of suffering inflicted on the animal one remove farther—as we suppose—from community in the life we are so selfishly eager to prolong. Science tells us that *all* animals feel, and that the measure of feeling is in each case proportionate to the power of endurance, so that practically the *pain* is in all instances pretty nearly equal under corresponding conditions. Hereafter it may be demonstrated that plants, too, have feeling, and then the proposition on which the anti-vivisectionists base their movement will have been carried to the extreme. This new Bill is *not* a measure for "the total abolition of vivisection," and no such provision can ever be made. It was well to impose restrictions on the practice of operating on living animals for the purpose of scientific investigation. The Act embodied an expression of public opinion—on the subject of the use of anæsthetics, and the needless recourse to vivisection for mere purposes of demonstration,—which it was useful, and therefore right, to make; but the endeavour to abolish vivisection altogether is as shortsighted as it is impracticable. If a more stringent Act on this subject were passed to-morrow, the average number of vivisections now performed would not be reduced. The legislative exploit would simply be offering a little additional incense to our national vanity. The operations denounced here would be performed elsewhere; and then, as now, we should hug the comforting sense of superior humanity, while we bid eagerly for the increased information science might gain in her "cruel" quest.

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THE letters which we publish to-day on the Fellowship of the College of Surgeons of Edinburgh must, for the present, end a discussion which has been very useful, though we could wish that it had not been necessary. The subject of it has already been ventilated in Parliament, and it can scarcely now be disposed of without a great evil being remedied. One of our correspondents very naturally speaks in the tone of one aggrieved. He takes us back to a time when the Fellowship was only to be had on terms of examination, and when it was regarded as an honour and a distinction; and he is grateful for the exposure of a system by which it is virtually sold, and, so far from being an honour, is rather the reverse. The other correspondent also approves of our criticism, but thinks it ought to extend further, and to other corporations, and that it is scarcely fair to restrict our censure to the Scottish Corporations. He reminds us that the Fellows of the College of Surgeons of England without examination exceed, or in 1880 did exceed, in number those who gained their Fellowship by examination. This is, no doubt, true. But in saying so one is slaying what has been already killed. The system, so far as the English College of Surgeons is concerned, is virtually at an end. The Fellowship is practically only to be had by examination, and by an examination that is undoubtedly not easy. The exceptions to this rule are alone enough to prove it, as will be seen by anyone who will refer to an editorial note at the end of the letter of F.R.C.S. Edin. in last week's LANCET. The case of the Irish College of Surgeons is similar.

There remain the cases of the Royal College of Physicians of London and the King and Queen's College of Physicians in Ireland. In the case of the London College, Fellows, it is true, are elected and not examined. But they are elected on conditions very unlike those which obtain in the case of the Edinburgh College of Surgeons and the other Scottish Corporations. In the latter case Fellows are elected on showing that they possess a *minimum* qualification, medical or surgical, as may be the Fellowship to which they aspire, from any Corporation, and producing ordinary testimonials. In the case of the College of Physicians in London, on the other hand, a Fellow must be not merely a licentiate of the College, but a member, and to become either of these he must pass a corresponding examination. Not only so: the election is by the whole body of Fellows, and is a process of selection of men, already *members by examination*, who most commend themselves to the general body of Fellows by their scientific or professional position. No one could maintain that there is any comparison between such a system and that of the Scotch Corporations.

The case of the King and Queen's College of Physicians is more open to question. Those who were licentiates of the College before December 12th, 1878, may be admitted members without fee or examination, under certain conditions. In other cases there is an examination. Only members of the College are eligible to the Fellowship, and elections to the Fellowship are by ballot.

The Government has promised that the whole system of higher qualifications shall be inquired into by the Royal Commission which is to be appointed. That such an inquiry should be necessary, as it certainly is, after twenty-one years' operation of the Medical Act, is the most serious condemnation of both the Medical Council and the Medical Corporations. It is fully that time since the Medical Council expressed its condemnation of a system by which high sounding titles were granted without examination, and it was no care of the Medical Council to see that its opinions were accepted. It had an easy conscience, that could go on registering honourless honours without compunction and without complaint to the Privy Council.

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WE had hoped that the recommendation of Lord CRANBROOK'S Committee, that in the matter of honours and rewards "the Medical Department should be judged rather by the standard for combatants than by that for non-combatants," would have been carried out by the military authorities. But we regret to find that on one of the first opportunities for doing so—the distribution of honours for services during the late Afghan campaign—this principle has been ignored by the Horse Guards, and the recommendations for the appointment of medical officers to the Order of the Bath have been made in accordance with the long established practice, and bestowed, as of old, with a niggardly hand. It is too bad that when the principle recommended by a Committee appointed to inquire into the grievances of an important branch of the public service has been accepted and adopted by the Secretary of State for War it should be in the power of the authorities at the Horse Guards to disregard the decision, and to continue a system of injustice which has, in past days, tended greatly to bring the Medical Department into such disrepute that it was impossible to get candidates for it to come forward, and which contributed to bring about a state of affairs that rendered a liberal expenditure of money necessary to rehabilitate the department. To expect justice for medical officers from the Field Marshal Commanding-in-Chief appears, from his habitual action towards them, to be hopeless. We have received so many letters from correspondents complaining of this omission that we feel bound, in duty to the profession, to call the attention of Mr. CHILDERS to the injustice which has been done on the present occasion, in the hope that he, as the responsible head of the army, will intervene to obtain for the medical officers that recognition to which their services entitle them. The events of the wars in Afghanistan, Zululand, and the Transvaal have shown too clearly how unjust it is to class them as non-combatants, and on no other ground can we understand the niggardly distribution of honours to them. We trust that Mr. CHILDERS will show himself above such petty feelings as seem to have influenced the Horse Guards, and that, in addition to rectifying the present regrettable omission, he will take steps to prevent a repetition of it, either by laying down imperative rules for the conduct of the Horse Guards in such matters, or by removing from them the duty of recommending medical officers for honorary distinctions, and taking it into his own hands with the aid of his responsible and impartial advisers.

Annotations.

"Ne quid nimis."

THE ROYAL COMMISSION ON THE MEDICAL ACTS.

SO far the Government have made no change in their proposals for the constitution of a Royal Commission on Medical Acts *minus* medical men. We cannot alter our opinion that in this course the Government is altogether wrong. It would be difficult to select an instance in which a Commission to carry out an investigation affecting a large profession or body of men has been appointed without including representatives of that profession or body of men. What has the medical profession done that it should be treated so exceptionally? It would be an insult to the medical profession to argue that there is anything in medical men, or in the organisation of the profession, to justify the Government in treating them as they would not treat lawyers or ecclesiastics, railway and mining authorities, shipowners, &c. It is quite true that the public interests are the first to be consulted by a Royal Commission, but there are also professional interests, and there is no real antagonism between the two. But this exclusion of medical men, by whomsoever sanctioned or advised, cannot be real. It is impossible that a body of laymen can proceed for one day without consulting medical men. And their thoughts in the absence of medical commissioners will infallibly turn to members of the Medical Council, which has so fatally misled Governments for the last ten years, and whose administration is now challenged. It is strange for a Liberal Government so to treat the members of a liberal profession. It would be far better to put on the Commission two or three members of the General Medical Council itself, and two or three medical reformers, that the real questions at issue between them may be duly raised, sifted, and settled.

THE DEATH OF THE EMPEROR OF RUSSIA.

HER MAJESTY'S subjects of all classes are deeply impressed with the horror of the politico-social situation in Russia. Regret at the lamented death of the Emperor, sympathy with the Imperial Family in its bereavement, and indignation stirred by the hideous crime which has been committed, possess the public mind here as in every civilised community. If we of the medical profession are more particularly interested in the medical features of the sorrowful event, it must not be supposed that we are not keenly alive to its other aspects. The reports which have reached us from various sources as to the precise nature of the injuries sustained by the deceased Emperor are conflicting, but they agree in showing that the direct effects of the explosion on the lower limbs constituted the proximate cause of death. The bones of both legs below the knee were severely fractured, and the soft parts lacerated to an extent and in a manner which seem to have astonished the experienced surgeons in attendance. The fingers of the right hand were crushed, there were wounds on the face, but the stress of the injury fell on the lower extremities. The immediate cause of death was loss of blood. This is a most regrettable feature of the case. As soon as medical aid was procured, doubtless such measures as were practicable were taken to arrest the hæmorrhage; but a long interval elapsed before this assistance was available! There would seem to have been no medical men at hand, a wholly unaccountable circumstance, considering the perpetual peril to which the Emperor was exposed; and not one of those around His Majesty appears to have been acquainted with the ordinary measures for the temporary stoppage of the flow of blood. We must postpone, for the present, a critical summary of the medical aspects of this deplorable case; but it is a duty to give expression to the very painful feeling left on the mind of the medical profession in England by the imperfect reports which have been published.

SECONDARY SUTURE OF NERVES.

AMONG the advances in nerve pathology and therapeutics of the last few years, not the least interesting and important have been the practice and results of surgical interference. The operation of nerve-stretching has established itself as a recognised proceeding, and recent experience is rapidly extending its sphere of usefulness, although its *rationale* is involved in considerable obscurity. The primary suture of divided nerves has been practised for several years, and many recorded and unrecorded cases testify to its value. Quite lately, however, the secondary suture of nerves has been practised, and although not with uniform success, yet with most encouraging and, we may add, surprising results. The best test cases are those of union of severed motor nerves, for the return of sensation in parts supplied by a divided and then sutured nerve is open to another explanation than that the nerve trunk has again become capable of conducting sensory impressions. For this reason a case of Langenbeck's, of secondary suture of the musculo-spiral nerve, is very valuable. The patient, a labourer, thirty-one years of age, received a severe contusion of the outer side of the right arm below the middle, which was attended with paralysis of the extensor muscles of the forearm and hand. An abscess subsequently formed and was opened. Two-and-a-half months after the injury, as the paralysis continued, Langenbeck cut down upon the divided nerve, freed its ends, which he found lying two centimetres and a half apart, and united them by a catgut suture. Although there was considerable tension, healing took place by first intention, and nineteen days afterwards the extensors reacted to the induced current, and after a month and a half considerable active extension movements were possible. Mr. Hulke has brought forward at the Clinical Society a case in which he had united the cut ends of the median nerve nearly six weeks after the injury, and another case in which he practised a similar operation on the ulnar nerve fifteen weeks after division, and in each instance there was distinct evidence of restoration of function. Esmarch and Létiévants have each had a case of suture of the musculo-spiral nerve, the former successful. These and other like cases afford great encouragement not only to unite by suture the cut ends of nerves in recent wounds, but, where necessary, after cicatrisation is complete.

MEDICAL REFORM.

A CIRCULAR has been issued to members of the profession residing in Yorkshire inviting them to attend a meeting convened for Wednesday, April 6th, at 5 P.M., in the Philosophical Hall at Leeds, to consider the subject of medical reform. We concur in the opinion expressed in this circular that the success or otherwise of medical reform must depend on the opinions which the profession hold on the subject; and shall therefore watch with considerable interest the result of this meeting. Those who have been mainly instrumental in inciting this movement are anxious, as we are, to ascertain the feeling of the profession on this important subject, and we know of no more effective means of arriving at a correct conclusion on the subject than by observing the spirit evinced at a meeting of this kind. It is not so much by what is said on such occasions that the feeling of the profession is to be gauged; it is the tone and the number of men attending such an assembly which make it a valuable test of the earnestness of the professional mind in the matter of medical reform. Probably there is no more appropriate place than Leeds in which to hold a meeting such as we have referred to. Its flourishing medical school, association with the names of many distinguished members of the profession, together with the proverbial shrewdness and steady purpose of Yorkshiremen, must render the expression of opinion emanating from the meeting of the 6th of April a fair indication of professional opinion regarding medical reform, and will largely influence the action of other towns with reference to the inauguration of meetings for a similar purpose.

SUICIDE IN PRISON.

THE Appendix to the Third Report of the Commissioners of Prisons contains the results of an inquiry as to suicides committed in local prisons during the five and a half years ending March, 1879. It appears that during this period no less than 81 cases of suicide occurred in the various English prisons. The statistics now published point exclusively to one fact—that the tendency to suicide is greatest during the first few weeks of imprisonment; the 81 cases reported upon included 31 during the first week, 19 in the following three weeks, and 17 during the second month of residence in prison. Thus 67 of the 81 cases of suicide occurred during the first two months of imprisonment. No prisoner committed suicide who had been more than twelve months in confinement; and it is noticed that, relatively to number of prisoners, the proportion of suicides in local prisons was more than four times that occurring among convicts undergoing penal servitude. Of the 81 cases of suicide in prison, no less than 28 occurred among prisoners under remand or awaiting trial, the remaining 53 occurring among those undergoing sentence. As the average annual number of prisoners under remand or awaiting sentence was only 1270, against 18,530 undergoing sentence, it follows that the proportion of suicides in the five and a half years was equal to 22 per 1000 in the former, against 2·8 per 1000 in the latter class. These figures should serve as a warning to prison authorities as showing that it is eight times as necessary that those prisoners under remand or awaiting trial should be as closely watched with a view to the prevention of suicide, as those undergoing sentence. It appears, moreover, that among an average number of 1712 prisoners sentenced to penal servitude, and awaiting removal from the local prisons to the penal servitude or convict gaol, nine committed suicide in the period under notice, whereas only ten suicides occurred during the same period among an average population of 10,000 prisoners undergoing sentence in convict prisons. The Medical Inspector in his report appears justified in concluding that penal servitude inspires fear and dread, which is not found to be justified by actual experience. The last report shows that during the year ending March, 1880, the number of suicides in prisons declined from 18, which was the average annual number during the five and a half preceding years, to 12. Notwithstanding this reduction the proportion of suicides was just six times as large among the prison population during the year under notice as it was among the population of England and Wales, at the ages 15—55, during the year 1879. It is easy to understand that the tendency to suicide is greater among prisoners than among the general population, but that actual suicides are proportionally six times as frequent among them, as in the general population at similar ages, does not reflect credit upon the management of prison authorities, who cannot be unaware of this tendency to suicide, especially in those recently committed to prison, and who should secure the means for more effectual watching. It may be hoped that the proportion of suicides in gaol will be still further reduced under improved prison management.

BATTEY'S OPERATION.

THE operation of spaying women suggested many years ago for certain conditions by the late Dr. Blundell, and revived within the last ten years by Dr. Trenholme, Dr. Battey, and Dr. Hegar, is still *sub judice*. It has been proposed and practised for several conditions—as severe dysmenorrhœa; profuse menorrhagia, threatening life; certain cases of amenorrhœa, in which grave constitutional disturbance was, or was believed to be, dependent on the activity of the ovaries; certain mental or nervous states believed to be dependent upon the ovaries, as threatened insanity, epilepsy, and hystero-epilepsy. The operation is one, however, which has not as yet received the full acceptance, nor the entire condemnation of the profession. That the profession as a whole have suspended judgment upon it is right, because the data for the formation of a just and correct opinion of its value are as yet insufficient and inconclusive. It was at first proposed under the belief that removal of the ovaries would immediately bring on the menopause, and at once arrest the uterine functions; but the physiological theory of the dependence of the uterine upon the ovarian function has been called in question, and it cannot be denied, however strong the evidence may be for the old view, that there is a good deal of evidence in favour of the new. But the fact that the physiological basis of the operation is called in question would not be sufficient to condemn or even to suspend judgment upon it, were its results uniform and certain. It is, however, well known that these results are neither uniform nor certain. In some cases the menopause has been brought about, while in others such has not been the result. In some the nervous symptoms and suffering have been cured, in others relieved; in others, again, there has been no improvement. The best results appear to have been obtained where the operation was performed in cases of fibroid tumours of the uterus; but here, again, the results have not been uniform. Moreover, the mortality has hitherto been high. If the operation should prove in its results to be of great value, there can be little doubt that means will be found to reduce the present large mortality. But there are other difficulties to be overcome before it can be fully accepted as a legitimate proceeding. Just as there is a difference of opinion as to the part played by the ovaries in health, so there are great differences of view as to the part played by them in disease. The difficulties of diagnosis are at present enormous. Perhaps few observers would be found to agree as to what phenomena are to be considered as reflex, arising from disease of the sexual organs, and what not, and what could be referred to the ovary and what not. It is true that some specialists ascribe much to the uterus or to the ovaries; but we cannot help thinking that they ride their hobby somewhat hard, and that much of what is now called uterine or ovarian neuroses, is so called upon totally insufficient evidence. It is by no means impossible—nay, it is not improbable, that many of these are really dependent on general or central, and not on local pelvic conditions. Lastly, supposing that ovarian mischief is evident, and that the nervous, mental, and other phenomena are dependent upon it, a difficulty at present insuperable may be met with—viz., the ovaries may be so bound down by adhesions, so encased in tough membranes, that their removal is not practicable. Such cases have already been met with, and portions of the ovaries have been left behind by some of the most accomplished operators. This fact is of the greatest importance in the discussion of a proceeding of so grave a character. To render spaying a legitimate operation, it is necessary to prove: (1) the dependence of the symptoms, for the relief of which the operation is proposed, upon diseased ovaries; (2) the inefficiency of any other means for their relief or cure; (3) the feasibility of the removal of the diseased organs. We cannot help thinking that if these considerations have due weight, the number of cases in which the operation will be undertaken will be limited. For reckless operating in cases in which the above conditions are not fulfilled, we have no sufficiently strong words of condemnation.

A PIECE OF GOOD IRISH WORK.

WHEN so many painful circumstances in Ireland occupy public attention it is gratifying to give publicity to a most satisfactory and creditable experiment on the part of the Guardians of the Cork Union. This has reference to the boarding-out of pauper children. The Cork Union speaks with the authority of eighteen years' experience of this system, and they show that it contrasts favourably with the workhouse plan. It is cheaper, the children are remarkably healthy and happy, and in a large majority of cases are adopted by the foster parents. The foster parent is appointed on the recommendation of local clergymen, and is generally either a small farmer or a well-to-do labourer. From 1862 to the present there were 650 children removed from the workhouse and boarded out in several favourable districts, seaside or mountainous, in which the union abounds. Of this number 209 are at present boarded out, and 417 have been adopted by their foster parents and are going on well, twenty died, and four have returned to the workhouse and are now ready to go out to service. We have seldom recorded a social or sanitary experiment which gives us more pleasure. Here are 417 children at the age of thirteen, on the application of their foster parents, taken off the rates and off the roll of pauperism to start fair in the world. There must be much good in a race that can so deal with one of the saddest social problems. Much importance is attached by the committee to the supervision of relieving officers, assisted by clergymen and ladies, and to the periodical reports of the dispensary medical officers on the health of the children. This report, signed by the chairman of the Boarding-out Committee, Mr. Wm. D'Esterre Parker, is worthy of the serious attention of the Local Government Board and of all guardians. On the score of economy alone the experiment is entitled to attention. A child in the workhouse at Cork costs the union 3*s.* 6*d.* a week, or £9 a year; while outside, over two and under five, it costs 11*s.* 6*d.* a month, or £6 14*s.* a year; and over five and up to thirteen 12*s.* 2*d.* a month, or £7 6*s.* a year.

PNEUMOCONIOSIS.

IN a pamphlet, entitled "De Las Pneumoconiosis," by Rosalino Rovira y Oliver, the following conclusions are arrived at. The inhalation of pulverulent substances is not inoffensive, as maintained by Parent-Duchâtelet, but is, on the contrary, likely to occasion serious pathological processes, the gravity of which will be greater in proportion as the powders inhaled are harder and more rough. The pathological processes excited, which have received the name of pneumoconiosis, are distinct from pulmonary tuberculosis and from caseous pneumonia. In every point of view—etiological, pathogenic, pathological, syndromic, semeiotic and therapeutic — they deserve separate and special recognition and description in all works on medicine. In consequence of the different methods in which the pulverulent particles act, distinct states or kinds of pneumoconiosis are produced, and these may be grouped into the two following forms. First, those forms of disease which are produced by powders possessing but little hardness, and, secondly, those resulting from the action of powders the particles of which are very rough and hard. This mode of grouping proves of service in determining the treatment, for in those forms which result from the inhalation of soft powders the remedies employed should be those which augment the secretory activity of the respiratory tract, together with appropriate dietetic treatment. In the case of diseases produced by hard powders, on the other hand, no pharmacological substances are of service, but the patient should be at once withdrawn from further exposure to the dust, and placed under more favourable hygienic conditions.

SEATS FOR SHOP WOMEN.

WE wonder how many of the humane ladies who are just now rushing from shop to shop making their purchases for the season give a thought to the sufferings entailed on the young women serving behind counters and in show-rooms by the stout refusal of their employers to provide them with seats for use in the brief intervals of business. We have from time to time during the last year printed a list of firms which, in response to our appeal, have consented to provide their female *employées* with sitting accommodation, and—which is another and a greater matter—to allow them to make use of it. Ladies have this reform in their own hands. It is useless to form associations for promoting the movement, and it is weak to perpetually "petition" the shopkeepers. If customers would simply *see* that seats are provided and used, and patronise only those establishments where the necessary measures are carried into effect, the thing would be done. Unfortunately, however, when a lady visits a shop she is all engrossed with the wares offered for sale and her own wants, so that the "movement," to which she has perhaps given her name and money an hour or two ago, is forgotten. There is not the slightest necessity for any special organisation in the matter. If the feeling of sympathy for suffering, often expressed, were real, those who profess it would not fail to impress the fact on the shopkeepers to whom they give their custom. Nothing less than the commercial logic of business returns will bring this matter home to the consciences of retail shopkeepers. And the recourse to this convincing mode of reasoning is open to to every lady who is in earnest in the matter; but how few are!

THE NEW CROWN REPRESENTATIVE FOR IRELAND IN THE GENERAL COUNCIL.

THE Crown has appointed Dr. Alfred M'Clintock as its representative in the General Medical Council. We gladly express our approval of the appointment, which is in accordance with the wishes of a deputation from the Dublin Obstetrical Society. Dr. M'Clintock is worthy of this honour on personal grounds. He is an accomplished physician, an ex-Master of the Rotunda Hospital, the editor of the Sydenham Edition of Smellie's "Treatise on the Theory and Practice of Midwifery," and the author of many finished works on Obstetric and Gynæcological subjects.

The appointment of an obstetric physician is an innovation of some significance, and very creditable to the Government. The diseases of women and children make up a large share of medical practice, which has been too lightly regarded by the General Medical Council. All English attempts to get this branch of practice recognised have been unavailing. But better days are, we trust, coming, and the Medical Council will ere long, perhaps, represent all departments of medical practice.

FOOD OR DRUG?

WE are glad to see that the *Standard* has admitted to its columns letters which call attention to the nature of some of the dietetic drinks which are just now much in vogue in teetotal circles. It is so manifestly unadvisable to make an habitual use of articles which should be used only when wanted, and under medical advice, that it is only necessary to allude to the fact that many persons nowadays are drinking as table drinks what in reality are medicines, and we are sure that our readers will agree with us in strongly condemning the practice. One of the letters makes a suggestion in which we thoroughly agree, and have often taken occasion to urge—viz., that drinks which bear popular names should have their exact compositions affixed to the label. We do not think that this should be merely optional, but in justice to the public it ought to be enforced by law. A really good article would benefit if its composition were known, and if the sale of trashy substances were lessened in consequence, only the vendor would suffer, while the public would gain immensely. The Adulteration Act should be applicable to patent and secret articles of diet as well as to foods of recognised composition, and this will only be possible when the law requires every packet or bottle to bear a distinct and definite statement of its ingredients.

THE POLICE COURT *v.* THE SURGICAL AID SOCIETY.

THE Surgical Aid Society must be a society of considerable merit. Nothing less would explain its survival, in spite of the most injurious impressions produced on the public mind by its rules. Last week a poor woman appeared at the Guildhall Police Court, and applied to Sir Thomas S. Owden for assistance to procure a medical appliance for her husband, who was suffering from rheumatism. The poor woman was in the usual difficulty of applicants to the Society. The cost of the article she wanted from the Society was 50*s.*, and she required ten letters of 5*s.* each. By much labour she had managed to procure seven letters, but the last three were too much for her strength and leisure, and so she came to the police magistrate. It is a strange inversion of experience to be driven from a charitable society to seek help in a police court. The magistrate naturally said, that to require the full value in tickets of an applicant was not charity, but trade; and the public will agree with him. He gave the applicant 20*s.* The police magistrate is not supposed to be either an authority as to the therapeutic value of appliances for the treatment of rheumatism, or a charitable institution. But the public will easily forgive his good nature, and condone the gift of 20*s.* from the poor-box.

HOSPITALS FOR WOMEN.

"COUNCILLOR TAIT, in seconding the resolution, said the Women's Hospital had become of great importance, not only to the town of Birmingham, but to the country at large, for not only had the staff been able to do the work which they had undertaken to do better than it had been done anywhere else, but they had done work which had never been done anywhere else previously. Although he was bound to speak it with becoming modesty, still, as a member of the staff of a hospital doing altogether new and original work, he could not conceal from himself the pleasure he had in sharing in it, nor did he think that those who subscribed to the charity ought to be in ignorance of the fact that that hospital had become a pioneer in surgical work, the staff having performed in its wards operations which had never been attempted elsewhere."—*Birmingham Daily Gazette*, March 9th, 1881.

It is scarcely credible that the above paragraph was spoken by Mr. Lawson Tait, the surgeon to the Women's Hospital. We earnestly trust that the contributions made to medical literature by this sage councillor have more foundation in fact than the above mass of nonsense; for we can assure him that had he made himself acquainted with the literature of the diseases of women, he would have found that no legitimate operation is performed in the Birmingham Hospital for Women which is not done with at least equal success elsewhere.

MEDICINE IN RUSSIAN TURKESTAN.

THE official *Gazette of Turkestan* states that at the beginning of the year there were in Russian Turkestan 2 urban medical men, 18 district, and 24 midwives, and that during the year 1879 they had given their attention to 28,868 patients, of whom 6931 were Russians. The military medical men, moreover, had had under care 1260 patients. The patients attended among the indigenous population included 13,106 Sartes, 5144 Khirgises, 865 Tartars, 563 Kaschgarians, 165 Uzbecks, 146 Hindus, 144 Persians, 69 Chinese, 31 Afghans, 30 Bukharians, 24 Karakalpacks, 23 Turcomans, and others.

SEA-WATER BATHS.

WE have long advocated the organisation of a system by which sea-water baths might be placed within the reach of residents in London. A company, having for its object the promotion of this enterprise, is, we are glad to see, about to be established. There are to be tepid swimming sea-water baths for gentlemen, and a similar provision is to be made for ladies. Hot sea-water baths, and douche, and shower baths are included in the programme. The sea-water is to be brought to the baths in specially constructed steam vessels. This, it is said, can be accomplished in a few hours, and the sea-water is not expected to lose any of its qualities *en route.* The projected establishment is to be erected on the Thames Embankment. Without in any way committing ourselves to the details of the scheme, or offering an opinion as to the probabilities of practical success, we most cordially commend an effort which has the high guarantee of Mr. Brill's experienced management. The well-known proprietor of the Brighton Baths brings special knowledge to the enterprise. If it fulfils the purpose set forth it cannot fail to confer very substantial advantages on a large class of our fellow citizens.

A GOOD EXAMPLE FOR GUY'S.

A WISE and proper recognition of the medical staff has lately been shown in the government of St. Bartholomew's Hospital, at the instance, we believe, of Sir Sydney Waterlow. Sir Sydney proposed that Sir James Paget, Sir George Burrows, Dr. Farre, and Mr. Luther Holden should, in consideration of their services to the hospital, be made governors. The proposal was accepted. Such a course is creditable equally to both parties—to the governors and to the members of the medical staff.

IT is a remarkable circumstance that our "Obituary" this week contains notices of the decease of two gentlemen—Mr. Godrich and Dr. Richards—who were associated with the late Mr. Wakley in his successful effort to secure a due pecuniary recognition of the services of medical men as witnesses, and as examiners for Life Insurance Societies.

MR. GEORGE SMITH, of Coalville, in again calling attention in the newspaper press to the sad condition of the children on board canal boats, in spite of recent legislation, states that within the last three weeks seven deaths from small-pox have occurred on such craft between London and Birmingham.

BY the anti-liquor law of the State of Kansas, to come into force in May next, physicians are required to make affidavit that they will not prescribe intoxicants except in cases of actual illness, whilst druggists must file all prescriptions containing alcoholics in the same way as they do all kinds of poison.

WE are informed that Dr. Cory has been appointed Director of the Government Animal Vaccine Station in progress of establishment in London. On Tuesday last, accompanied by Dr. Cameron, M.P., he inspected Dr. Cook's Vaccine Farm at Manningtree, Essex.

THE death, on the 23rd ult., of Dr. G. A. Otis, surgeon of the United States Army, is announced. At the time of his death Dr. Otis was engaged in the preparation of the third volume of the surgical series of the Medical and Surgical History of the Rebellion.

PROFESSOR CHARCOT has been summoned to Russia professionally, and while there the medical profession have shown him much honour. A banquet, organised by alienist physicians, has been given him in St. Petersburg. Eighty guests sat down at table.

THE honorary degree of LL.D. has been conferred on David Ferrier, M.D., by the University of Aberdeen.

AT an ordinary meeting of the Birmingham and Midland Counties Branch of the British Medical Association, held on the 10th inst., the following resolution of the council of the branch was received and adopted:—"That in the opinion of this council the promoters of the Skin and Lock Hospital have acted irregularly and prejudicially to the public interest in the election of medical officers by mere nomination at a private meeting convened by circular. The public and the profession have a right to require that public medical offices shall be publicly filled, and that they shall be open to competition."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kendal.—Dr. Page's report for the borough of Kendal during the year 1880 gives the general mortality at the "high rate" of 23·2 per 1000 of the estimated population (14,300). The cause of the unusual mortality is assigned to the fatal prevalence of scarlet fever, a concurrent outbreak of measles contributing to the result. The birth-rate of the borough for the year was 33·8 per 1000. Dr. Page discusses the influence of "masked" attacks of scarlet fever upon the efficacy of precautionary measures and upon provisions for the notification of infectious diseases; and he is inclined to the opinion that insanitary circumstances exercise an influence upon the fatality of the malady. He is of opinion, moreover, that early hospital accommodation for the isolation of cases would have proved helpful in controlling the spread of the disease. The chief administrative event recorded is that the Sanitary Authority of the borough has determined to undertake the removal of house refuse. We do not quite understand whether this includes excremental refuse, but we trust it to be the case, for it seems particularly paradoxical that the authority should concern itself with the removal of the least harmful sort of refuse, while the most harmful is left to accumulate in the midst of the houses.

Dublin.—Dr. Cameron reports for the five weeks ended 29th January, 1881, a death-rate in the annual ratio of 42·1 per 1000 persons living, a higher rate than for the corresponding period of the last ten years. The greater mortality was chiefly due to diseases of the organs of respiration. The only zymotic diseases showing increase during the period were "fevers," and of these principally typhus. But Dr. Cameron states that the present epidemic of that disease is not extending, and he has "no apprehension of its assuming anything like the proportions of former outbreaks of this formidable disease." In his remarks upon the inspection of "tenemental dwellings" Dr. Cameron observes:—"The denizens of the kind of tenements which we are from time to time closing up are of the poorest classes of society. The great majority are labourers and their families; fruit, fish, and vegetable dealers; hawkers, vendors of small wares, and not a few street beggars. Such people, unfortunately, too often reduce to a filthy and dilapidated state houses at first tolerably clean and in good repair. When they are turned out of one house they go into another, and soon render it also 'unfit for habitation.' For the use of the great majority of these people cottages ought to be constructed by the municipality under the provisions of the Labouring Classes' Dwellings Act. These cottages being under proper supervision by the authorities, could be kept in a better sanitary condition, and their inmates under some kind of discipline (so far as keeping their rooms clean, &c.), than appears to be practicable in the case of the lowest class of dwellings owned by private landlords."

Ilfracombe.—Dr. Slade-King reports for 1880 a birth-rate of 24·8 per 1000 population, and a death-rate of 13·8. Increasing attention appears to be given to the sanitary arrangements of this favourite health-resort. Important sewerage works were carried out during the year, and the means for an earlier and completer removal of house-refuse were improved. The sanitary authority here, as sanitary authorities elsewhere, has its difficulties with builders who endeavour to evade the carrying out of plans of new buildings deposited with the sanitary authority and approved by them. But the authority seems determined not to have its by-laws set at nought.

Kingston-upon-Thames.—Mr. C. M. Shirtliff reports for this borough in 1880 a death-rate of 17·3 per 1000 population, and a birth-rate of 38·0. He writes favourably of the general sanitary condition of the district, but he thinks that the sanitary authority should, in view of satisfactorily meeting any epidemic, first seek provision for the compulsory notification of infectious diseases (this is spoken of as "the very step" they should take), and next ("next to which in importance") provide a disinfecting apparatus and a hospital for infectious diseases. This seems to us very like "putting the cart before the horse."

St. Marylebone.—Mr. Wynter Blyth has issued the first of a series of annual reports under the ingenious title of "The Sanitary Chronicles of St. Marylebone." The illness and death of Dr. Whitmore prevented his making a report for 1879, and Mr. Blyth, although only lately appointed to the medical officership of health of the parish, was unwilling that a gap of two years should exist in its sanitary annals. He has, therefore, prepared the report for 1880 now before us. Although he tells us that he has given "considerable labour" to the preparation, it appears to us to present in more than one place indications of haste. In an account of Dr. Robert Dundas Thomson, the first medical officer of health for St. Marylebone, which is couched in language that seems to imply the only work in which he had been employed in by Government was "to make some experiments relative to the feeding of animals;" no allusion is made to the important work Dr. Thomson did for the Committee of Scientific Inquiries of the General Board of Health during the Cholera epidemic of 1854; and the disproportion between the data given on p. 19 and the inferences sought to be drawn from them, detract from the reader's interest in the report.

ST. PANCRAS AND ITS "DUST."

The vestry of St. Pancras has deferred the question of "dusting" arrangements for the parish until October, which, as we take it, means that the inhabitants of the parish are once more to be exposed (or are likely to be exposed) to the terrible nuisance from which they suffered during the summer and autumn of last year, from the scandalous imperfection of the arrangements for removing the dust. At the meeting during which the motion for further delay was carried out, one member claimed that £1400 had been saved on the last year's dusting, and another set forth as subject for congratulation that, of 24,000 dustbins in the parish, requests for removal of the contents (complaints of non-removal said another) had only been received in respect to 18,000! Not a word appears to have been said about the sanitary discomfort of the parish during this reign of filth, or, if said, the subject elicited but small remark. It is high time that Section 43 of the Public Health Act, 1875, which enables householders in the provinces to deal more or less effectually with local authorities who undertake the removal of dust, should be made to apply also in the metropolis.

SANITARY HOSPITAL, NEWCASTLE-UPON-TYNE.

It is pleasing to receive from Newcastle-upon-Tyne a report of a Committee of the Corporation upon a proposed new sanitary hospital containing provision for small-pox as well as other infectious diseases, but which does not appear to be hampered with the difficulties of site we have to contend with in the metropolis.

It would appear from a statement of Mr. Henley, of the Local Government Board, at a recent meeting of the Reading Board of Guardians, that small-pox is beginning to extend from the metropolis into the neighbouring districts. Cases are recorded at Guildford, Staines, and Windsor, on the one side, and Aylesbury on the other.

The Jarrow Town Council appears to have got into some difficulty with the medical men in the town, in which its medical officer of health is concerned, respecting the carrying out of some of the provisions of its Local Act affecting infectious diseases.

The Aylesbury Local Board of Health have declined to act upon a suggestion of the Local Government Board that they should combine with the Rural Sanitary Authority in the election of a medical officer of health.

The Fulham Guardians have consented that the District Board shall have certain detached buildings under their control for use as temporary small-pox hospitals, if required

It would appear that certain of the London boards of guardians "contract" for their ambulances, and we hear of children playing about the parish ambulances in one of the mews in St. George's, Hanover-square!

The magistrate at Worship-street has imposed a fine of 10*s.* with 2*s.* costs upon a woman for removing from her house to another house, without previous disinfection, a bed on which a person had died from "fever."

The *Metropolitan* gives currency to a rumour that the Metropolitan Asylums Board will, in consequence of the recent decision in the House of Lords, resign in a body.

The loitering of ambulances in the streets on their return from the metropolitan infectious disease hospitals is occupying the attention of the Asylums Board.

A case is reported from Lambeth of a woman, a milk-dealer, continuing to attend to her business while in attendance upon a child suffering from small-pox.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality continues satisfactorily low compared with the average rate for the season. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5829 births and 3357 deaths were registered last week. The births exceeded by no less than 653 and the deaths by 100, the average weekly numbers during 1880. The deaths showed a further increase of but 2 upon the low numbers returned in the two previous weeks, and were equal to an annual rate of 23·0 per 1000; in the two previous weeks the rate was equal to 21·9 and 23·0. The lowest death-rates in the twenty towns last week were 15·8 in Brighton, 18·7 in Bradford, 19·3 in Sunderland, and 21·0 in Hull. The rates in the other towns ranged upwards to 26·6 in Oldham, 26·7 in Liverpool, 27·8 in Leeds, and 28·8 in Manchester. During the past ten weeks of the current quarter the death-rate in the twenty towns averaged 24·6 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 290 and 296 in the two previous weeks, further rose to 311 last week; these included 84 from whooping-cough, 63 from scarlet fever, 59 from small-pox, and 33 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·1 per 1000 in the twenty towns, and ranged from 0·5 and 1·2 in Brighton and Norwich, to 2·7 in Leicester and Newcastle-upon-Tyne, and 3·1 in Oldham. Whooping-cough showed the largest proportional fatality in Nottingham, Manchester, and Leeds; and scarlet fever in Oldham, Leicester, Bristol, and Norwich. Nine of the 12 deaths from diphtheria in the twenty towns occurred in London. The death-rate from fever was again generally low, but showed an excess in Salford, Newcastle-upon-Tyne, and Leeds. Small-pox caused 60 more deaths in London and its outer ring of suburban districts, one in Manchester, and not one in any of the nineteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the nineteen preceding weeks from 77 to 779, further rose to 792 on Saturday last. The new cases of small-pox admitted to these hospitals, which had increased from 176 to 195 in the four previous weeks, were 180 last week. The Highgate Small-pox Hospital contained 60 patients on Saturday last, showing a further increase upon the numbers at the end of recent weeks; 25 new cases were admitted to this hospital during last week.

The deaths referred to diseases of the respiratory organs in London, which had been 367 and 419 in the two preceding weeks, declined again to 384 last week, and were 70 below the corrected average number in the corresponding week of the last ten years; 242 resulted from bronchitis, and 91 from pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·4 per 1000 in London last week; the rate from the same diseases in Liverpool was 8·1.

The causes of 81, or 2·4 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·1 per cent. in London, while it averaged 3·6 per cent. in the nineteen provincial towns. No uncertified causes of deaths were registered last week in Portsmouth, Norwich, Plymouth, and Newcastle-upon-Tyne; while their proportion was largest in Salford, Hull, and Oldham.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 23·4 per 1000 last week, against 22·5 and 22·9 in the two preceding weeks; this rate was 0·4 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 17·2 and 20·2 in Leith and Edinburgh, to 27·5 and 31·2 in Paisley and Perth. The deaths referred to the principal zymotic diseases in the eight towns, which were 70 and 83 in the two previous weeks, were 82 last week, and included 31 from whooping-cough, 13 from diarrhœa, 13 from diphtheria, 11 from scarlet fever, 10 from "fever," 4 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 3·2 per 1000, and was 1·1 above the average rate from the same diseases in the twenty English towns; this zymotic rate in the eight Scotch towns last week ranged from 0·0 and 1·1 in Perth and Paisley, to 3·7 and 5·2 in Glasgow and Leith. The fatal cases of whooping-cough in the eight towns, which had been 17 and 28 in the two previous weeks, further rose to 31 last week, of which 15 occurred in Glasgow, 7 in Dundee, and 4 in Leith; the fatal cases in Edinburgh showed a considerable decline. The 13 deaths referred to diphtheria were fewer by 5 than the number in the previous week; 8 occurred in Glasgow and 2 in Leith. The 13 fatal cases of diarrhœa included 5 in Glasgow and 3 in Edinburgh. Of the 11 deaths from scarlet fever 7 were returned in Glasgow and 3 in Edinburgh. The deaths referred to "fever," which had been 14 and 6 in the two previous weeks, rose again to 10 last week, of which 5 occurred in Glasgow, 4 in Edinburgh, and 1 in Paisley; the annual death-rate from "fever" in the Scotch towns was last week nearly twice as high as the average rate from the same cause last week in the twenty English towns. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which were 150 and 179 in the two preceding weeks, declined again to 168 last week, and were equal to an annual rate of 6·7 per 1000; the rate from the same diseases in London did not exceed 4·5 per 1000. The largest excess in the fatality of lung diseases in the Scotch towns occurred last week in Glasgow, Dundee, and Paisley.

HEALTH OF DUBLIN.

Although slowly decreasing, the rate of mortality in Dublin continues excessive. The annual death-rate in the city, which had slowly but steadily declined from 47·4 to 36·0 in the six preceding weeks, further fell to 33·8 last week. During the past ten weeks of the current quarter the death-rate in the city has, however, averaged no less than 39·5 per 1000, against 24·1 in London and 22·7 in Edinburgh. The 216 deaths in Dublin last week showed a further decline of 14 from recent weekly numbers, and included 23, or rather more than 10 per cent., which were referred to the principal zymotic diseases, against 31, 24, and 21 in the three previous weeks. These 23 deaths from zymotic diseases included 10 from fever (including typhus, enteric or typhoid, and simple continued), 5 from diarrhœa, 3 from scarlet fever, 2 from diphtheria, 2 from whooping-cough, 1 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 3·6 per 1000 in Dublin last week; it was only 2·3 in London and was 2·9 in Edinburgh. The deaths referred to fever, which had been 17, 10, and 8 in the three preceding weeks, were again 10 last week; these were equal to an annual death-rate seven times as high as the average rate from the same causes last week in the twenty large English towns. The fatal cases of diarrhœa were more numerous, while those of scarlet fever and whooping-cough showed a decline from recent weekly numbers. The 2 deaths from diphtheria also exceeded the numbers returned in recent weeks. The deaths of infants were fewer than in any previous week of this year, and the deaths of elderly persons showed a further decline from recent weekly numbers.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

TRICHINIASIS.

The Local Government Board have held it advisable to issue a circular to sanitary authorities, together with a memorandum prepared by their medical officer, Dr. Buchanan, on the subject of trichiniasis (although the Board have no information of the present existence of the disease in Great Britain, and trust that its prevalence is not to be apprehended). The circular directs attention to this disease in connexion with the consumption of the imperfectly cooked flesh of pigs infested with trichinæ, and suggests increased vigilance on the part of medical officers of health and inspectors of nuisances in carrying out their instructions with regard to diseased, unsound, or unwholesome meat. The memorandum briefly sets forth the precautions requisite to be taken to obviate the danger which may be feared from any accidental use of pig's flesh which may chance to be infested with trichinæ. "Inasmuch," it says, "as the meat infested with these worms cannot be recognised by any popular test, and the worms themselves can only be detected by careful microscopic examination, it becomes important to take precautions against harm to man in the case of meat from all pigs. The only known means of avoiding disease in man from this dangerous quality of meat from pigs is by very thorough and efficient cooking. If there is reason for thinking a particular sample of meat to contain the parasites it ought not, on any account, to be eaten, no matter how it is cooked. Hams, sausages, and like articles, whether or not they have been smoked or salted, should never be eaten in the raw state. To be efficient for the required purpose the cooking of pork, of hams, of bacon and of other articles, should be prolonged for about half as much time again as is customary. The smallest joint should be cooked for not less than an hour; and whatever be the size of the joint, it should have not less than half an hour's cooking for each pound of meat. No part of a joint that is seen to have an underdone portion in it should be eaten. In boiling hams and pork, the meat should be put into cold or lukewarm water, and the period of cooking should be reckoned *from the time when the water boils.* In boiling several joints of pork or several hams (as required at institutions and elsewhere), they should not be put together in bulk at the same time into the same cooking vessel. Each joint should be put into a separate vessel, and boiled with a good quantity of water. Though the caution is not given for the avoidance of the particular diseases here in question, the present is a useful opportunity to mention that it is of much importance to health to see that larders, and places where cooked meat is stored, are kept always clean and free from the chance of foul air entering them. Serious outbreaks of disease are appearing with some probability to be related to neglect of this precaution."

THE REPORT OF THE NATIONAL BOARD OF HEALTH, U.S., FOR 1880.

The annual report of the National Board of Health, U.S., for 1880 shows a large amount of excellent work, scientific and other, done during that year, and gives good promise that the objects sought to be secured by the promoters of the Board will be fully secured. The United States of America form a big country, and it will require time before local jealousies can be wholly overcome and before the *national* aim of the Board, as distinguished from the *local* efforts of particular States, will be thoroughly apprehended. Nothing could well contribute better to smooth any friction arising from State jealousies and over-sensitiveness than the account of the work done by the Board in 1880. It is work in which the United States may well take a *national* pride, and which will presently place the National Board in the fore-front of those bodies which exercise the greatest influence in the hygienic progress of the human race. The mere list of work done by the Board in 1880 is too long to admit of a place here, and happily the United States is so generous in distribution of the bulletins of the Board that the recapitulation is unnecessary.

THE SERVICES.

THE BATTLE OF LAING'S NEK: GENERAL COLLEY'S DESPATCHES.

It is gratifying to record that in the despatch describing the action of Laing's Nek on the 28th of January, the late gallant Commander-in-Chief in the Transvaal does not forget the valuable services rendered by the Medical Department. The following extract from his report will be noted with much interest:—"Surgeon-Major Babington was in charge of the field hospital, and laboured zealously and untiringly to meet the heavy calls made upon him and his medical staff. (Surgeons E. King and J. McGann, A.M.D., and Surgeon E. E. Mahon, R.N., Her Majesty's ship *Flora*, distinguished themselves by their attention to the wounded under fire.) The ambulances were formed close in rear of the position taken up, and were soon crowded with wounded; but through the great exertions of Surgeon-Major Babington and his assistants, with ready help from the transport and the regiments, the wounded were all cared for and brought into camp before night."

The Right Hon. the Secretary of State for War has presented a silver medal to Surgeon J. M. Giles of the Indian Medical Service, the winner of the Herbert Memorial prize at the last session of the Army Medical School, Netley. Mr. Giles obtained the first place in the competitive examination for commissions in the Indian Medical Department.

Deputy Surgeon-General Thompson, Bombay Medical Service, has been appointed Principal Medical Officer, Southern Afghanistan Field Force, vice Deputy Surgeon-General Bruce.

Surgeon-Major R. Hare, Surgeons G. H. K. O'Callaghan and B. T. MacCreery embarked for India in H.M. troopship *Serapis* on the 17th inst.

Surgeon-Major G. White embarked on board the *Persian Monarch*, on Wednesday, for the Transvaal, in medical charge of troops.

Surgeon General Thomas Longmore, C.B., Professor of Military Surgery in the Royal Victoria Hospital, Netley, has been granted the vacant pension of £100 a year for distinguished and meritorious service.

India Office.—The Queen has approved the following retirements from the service of the undermentioned officers:—Surgeon-Majors William John Palmer, M.D., and Archibald Macdonald Garden, of the Bengal Army; Surgeon James Atkinson West Spence, of the Madras Army; and Surgeon Daniel Henry Cullimore, of the Madras Army.

It is announced from Calcutta that the Government has sanctioned the formation of a native army hospital corps, to be established on a footing similar to that on which the English army hospital corps is based.

Admiralty. — The following appointments have been made: Staff Surgeon James Robinson to the *Ranger*; Surgeon G. T. O'Grady to the *Egeria*, vice Cann; Staff Surgeon Robert Turner to the *Duke of Wellington*, in lieu of a surgeon; Staff Surgeon James Bradley to the *Asia*, in lieu of surgeon, vice M'Ivor; Staff Surgeon George B Murray to the *Swift*, when commissioned; Surgeon Richard J. Barry to the *Indus;* Surgeon John Wood to the *Audacious*, vice Robertson.

INTERNATIONAL MEDICAL CONGRESS, 1881.

Museum Section.

A temporary museum will be opened during the sittings of the Congress in the rooms of the Geological Society. All objects of novelty or rarity having reference to the processes of disease or the results of injury will be acceptable for exhibition. The committee in charge of it will be especially obliged by the loan of drawings, photographs, and models, for the efficient display of which careful arrangements will be made. They will be glad to receive and exhibit all preparations and drawings used for the illustration of papers in the various sections, or having reference to the subjects discussed. There will be an exhibition of living examples of certain rare diseases. Arrangements will also be made for the exhibition of a limited number of microscopic objects. In most instances it will perhaps be found convenient for the exhibition of special series to take place at fixed times, previously arranged and announced, at which the exhibitor will probably attend to give explanations. All communications regarding the museum are to be addressed to the Secretary of this Section—Mr. H. H. Clutton, 16, Palace-road, St. Thomas's Hospital, S.E.

The Children's Hospital, Great Ormond-street.—Lord Aberdare presided on Wednesday at the twenty-ninth anniversary of this institution, held at Willis's Rooms. A large and distinguished company assembled on the occasion, and over £2000 were collected. The committee are desirous, as soon as sufficient funds are forthcoming, to complete the plans originally designed by the late Mr. Barry, by which an addition of eighty beds would be effected.

MEDICAL NOTES IN PARLIAMENT.

Prevention of Floods.

IN the House of Lords on Thursday (10th) their lordships went into Committee on the Rivers Conservancy and Floods Prevention Bill, which had been considered by a Select Committee. Certain amendments proposed by Lord Spencer, who has charge of the measure, were agreed to by their lordships. One of them had for its object to enable the District Inspector or the Local Government Board to entirely exclude a district from taxation by way of contribution to the drainage. An amendment proposed by Lord Carrington, for the relief of middle and low lands, was rejected. A new clause, moved by Lord Spencer, to enable conservancy boards to construct works for arterial drainage and for the storage of water, as subsidiary to the objects of the Act, was so much objected to in discussion that the noble earl ultimately withdrew it. Lord Jersey proposed, in Clause 19, an amendment to alter the incidence of taxation from the plan laid down in the clause; but, after some discussion, it was negatived without a division. This, and the remaining clauses, having been agreed to, the Bill passed through Committee, and was reported, with amendments, to the House.

On Tuesday the report of amendments on the Alkali, &c., Works Regulation Bill was received, after another protest by Lord Midleton against the insufficient character of the measure. The report of amendments on the Rivers Conservancy and Floods Prevention Bill was also received.

In the House of Commons on Thursday, the 10th inst., Mr. Massey, chairman of the Select Committee on the Contagious Diseases Acts, reported that, in the opinion of the Committee it was desirable that Dr. Farquharson and Dr. Cameron should be added to the Committee. Subsequently Mr. Childers moved that it was agreed to enlarge the Committee by adding those two hon. gentlemen.

On Monday a petition for inquiring into the East India Army Medical Department was presented from Joseph J. Monteath. The twenty-second report of the Board of Superintendence of the Dublin Hospitals was presented.

Vivisection.

Mr. Pease gave notice that on Thursday he would move an address for copy of any report from the inspectors, showing the number of experiments performed on living animals during the year 1880, under licences granted under the Act 39 and 40 Vic., c. 77, distinguishing painless experiments from painful experiments (in continuation of Parliamentary Paper, No. 125, of Session 1880).

Vaccination in Prisons.

Mr. Yorke asked the Secretary of State for the Home Department whether the medical officers of Her Majesty's prisons are required by the regulations to vaccinate all children born in the prisons before they are allowed to go out; and, if so, whether such regulations are strictly enforced, especially in the case of the female prison at Westminster. Sir W. Harcourt said there was no absolute rule on the subject, nor could there be. It was uncertain at what age a child might be when the mother was discharged. As a general rule, a child was vaccinated in prison when it was old enough, and the mother made no objection. The answer he had received to an inquiry was, that all of the children born in Westminster prison were vaccinated if they were old enough, and not too delicate.

Fever and Small-pox Hospitals.

Mr. John Talbot asked the President of the Local Government Board whether, after the recent decision of the House of Lords in the Hampstead Hospital case, he is prepared, by legislation or otherwise, to secure to the inhabitants of the metropolis the advantages which were intended to be conferred by the establishment of hospitals for fever and small-pox under the provisions of the Metropolis Poor Act, 1867. Mr. Dodson said he was desirous of securing to the inhabitants of the metropolis the advantages intended to be conferred by the establishment of hospitals for small-pox cases under the Metropolis Poor Act; but the matter was one of much complication, and he was not prepared, until he had had more time to review the whole subject, to indicate what steps should in his opinion be taken to meet the present difficulty. He might add that the recent decision of the House of Lords had only been given with regard to one of the appeals in the case, and a month had been allowed to the managers to prosecute the second appeal if they thought proper to do so.

Scotch Medical Relief.

Mr. Crum asked the Financial Secretary to the Treasury whether, after hearing the statement of a deputation from the parochial boards of Scotland, he had given an undertaking that he would grant an increase in the medical poor-law grants if the parochial boards were willing to allow the poor-law supervision to exercise some control over the appointment and dismissal of their medical officers. Lord F. Cavendish thanked his honourable friend for the opportunity thus afforded him of removing a misapprehension. He pointed out to the deputation that if Scotland was to be placed in the same position as England with regard to grants in aid of medical relief the conditions must be the same, which could only be done by legislation. In equalising these grants consideration should be given to others, such as that for pauper lunatics. The Government were considering the subject at large, and meanwhile they would not increase the grant.

On Tuesday, in reply to Mr. Hopwood, the Marquis of Hartington admitted that the Contagious Diseases Acts had been reapplied to Bombay, in spite of a strong objection expressed by a large number of influential natives and Europeans; but stated that it was found necessary to do so, and every precaution had been taken to limit the operation of the Acts strictly to the class of women for whom they were intended.

Army Medical Officers.

On Wednesday the following notice was given for Monday:—Mr. Findlater, to ask the Secretary for War whether, having regard to the cases of wounds and sickness which have occurred amongst medical officers during recent campaigns, he will take into consideration the justice of extending to the Army Medical Department the privilege now enjoyed by all combatant officers of counting as full-pay service towards retirement any time on half-pay, not exceeding one year, when such half-pay has been necessitated by sickness incurred in and by the Service; also such half-pay as results from reduction of the department, not exceeding two years, as laid down in Army Circulars, March 1st, 1880.

On Thursday, on the motion of Mr. Pease, an address was agreed to for a return of the number of painless and painful experiments performed on living animals during the year 1880 under the 39th and 40th Vic. On the motion of Mr. Courtney a return was ordered of the annual report of the Assistant-Commissioner of Metropolitan Police for the year 1880 relating to the Contagious Diseases Acts.

Animal Vaccine.

Mr. P. A. Taylor gave notice that on Tuesday next he would ask the President of the Local Government Board if he would state to the House the source whence the new animal lymph was to be obtained, whether the calves were now inoculated from a diseased horse, or from a human being suffering from small-pox, or from what other source. Dr. Cameron asked the President of the Local Government Board whether any steps have been taken to give effect to his promise, made on the 11th of June last, that the Vaccination Department should supply calf lymph as "stock" for vaccination to such medical practitioners as preferred it to ordinary humanised lymph; and whether, in view of the alarming spread of small-pox in London, the department would consider the propriety of taking measures to secure a sufficient supply of vaccine lymph for the purpose of revaccination. Mr. Dodson: Yes, sir; steps have been taken in pursuance of that promise. Careful inquiry has been made by the medical officers of the Local Government Board as to the arrangements in Belgium and elsewhere for the supply of calf lymph, and we have been engaged for some time in endeavouring to find suitable premises for an establishment in the metropolis. This has been a matter of some difficulty, but I am happy to say that the matter has so far progressed as to enable me to appoint a medical director for the establishment, and to arrange with the Treasury as to the staff. In answer to the last question I have already stated that the department is not intended to supply a sufficient quantity of lymph for revaccination. The object for which the National Vaccination Establishment was set up was to supply a certain quantity of lymph for the purposes of primary vaccination.

The Indian Army Medical Department.

Sir Trevor Lawrence asked the Secretary of State for India when the despatches regarding the reorganisation of the Indian Army Medical Department promised by him will be placed upon the table of the House; and when the Royal Warrant fixing the new scale of retiring allowances for Indian medical officers will be published. The Marquis of Hartington said papers on the subject were being prepared for presentation to Parliament, but in order to make the case complete it was thought desirable to include a despatch of the Government of India containing a statement of the nature of the improved scale of pensions for the medical service. As soon as the despatch was approved by the Council papers would be presented.

Correspondence.

"Audi alteram partem."

FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

To the Editor of The Lancet.

Sir,—More than a quarter of a century since, when I became a Fellow of the Royal College of Surgeons of Edinburgh, by examination, and after a long course of study, it was an honour and a distinction to possess this diploma. The older Fellows must have seen with regret the deterioration of the qualification during the later years, and must, as I do, feel great cause of thankfulness to yourself and others who are endeavouring to awaken the Edinburgh College to a sense of its responsibilities to the public, the profession, and to its own members.

It is humiliating to have a qualification which I have held and valued so long dragged in the dirt as a bogus diploma, and it is, besides, a great injustice.

Yours faithfully,
March 8th, 1881. An Old Fellow by Examination.

To the Editor of The Lancet.

Sir,—I have read with interest the leader in your issue of March 5th on the Fellowship of the Royal College of Surgeons of Edinburgh, and must applaud your outburst of virtuous indignation against honorary distinctions. I should, however, be glad to see you go a little further, and include in the condemnation the other Colleges besides those of Scotland which also grant Fellowships and other higher titles without further examination. These are the Royal College of Physicians of London, the Royal College of Surgeons of England, and the King and Queen's College of Physicians in Ireland. From an answer to a correspondent in The Lancet for Oct. 23rd, 1880, I learn that there were in the Calendar of the College of Surgeons for that year the names of 1215 Fellows, 558 of whom obtained the distinction after examination. On 657, therefore, the distinction must have been conferred without examination; and many of these took their diplomas of Member years ago, when the examinations for that qualification were, to put it mildly, less severe than they are now.

The whole question of the granting of higher distinctions to gentlemen already qualified, without further examination, is one well worthy of discussion; but it is scarcely fair that the Scotch Colleges should be held up for execration as if they were the only corporations which followed the practice. Nor has the Edinburgh College of Surgeons been so lavish in its bestowal of Fellowships as might be supposed from your article. On the 20th October, 1880, the number of Fellows of the College was 463, whereas at the same period it appears, from what I said above, that there were 657 Fellows of the English College who had obtained the distinction without examination. I hope you will follow up your leader with an equally vigorous attack on *all* honorary medical qualifications.

Trusting to your sense of justice to insert this, I remain, yours faithfully, F.R.C.S. Ed., M.R.C.S. Eng.
March, 1881.

INTRA-UTERINE STEMS.

To the Editor of The Lancet.

Sir,—In The Lancet of March 5th, under the heading "Ovarian Dysmenorrhœa, with Retroflexion," &c., Dr. Ernest Herman states that his letter "has elicited from Dr. Wynn Williams that he does not know the termination of many of the cases which he has treated with his intra-uterine stems," and enters into a tirade against uterine stems generally, but considers that the one associated with my name is the least dangerous. I should strongly recommend Dr. Ernest Herman to read over his request for information, and he will find he asks to be informed how many cases were followed by impregnation after wearing the stem and shield, not whether any dangerous symptoms followed the introduction. Dr. Ernest Herman makes a most unjustifiable statement in the remark, "Dr. Wynn Williams has not seen any bad results, because he has not inquired as to the subsequent course of all his cases." The knowledge as to the termination of the cases, and the knowledge as to whether the patients became pregnant, is, as your readers can well understand, quite another thing. I defy Dr. Ernest Herman to bring forward a single instance of death following the introduction of the stem and shield in one of my own patients. That death has followed the introduction and use of *fixed* instruments I think no one will be found to deny. I never heard of but one instance where a patient of mine fell into the hands of another practitioner when anything like serious symptoms followed the use of the stem and shield, and that was mentioned at the Obstetrical Society some years ago by Dr. Edis. The case mentioned by Dr. Daly had nothing whatever to do with the stem and shield.

In my own practice I have never seen any ill consequences follow the introduction of the stem and shield that has not been immediately remedied by its removal. I have seen much more serious mischief follow the clumsy introduction of the sound, and how many deaths have followed the abuse of the hysterotome it would be difficult to state. In conclusion, I beg to assure your readers that I am fully cognisant of all the cases I have treated with the stem and shield, and they amount to many scores; so far no death has followed, but as to how many became pregnant, the greater majority having been unmarried, it is impossible for me to state. I may, however, be allowed to state that since the publication of my remarks in your valuable journal I have received several letters from medical men informing me of patients who have become pregnant after wearing the instrument associated with my name, and also from patients themselves who had heretofore been sterile and suffering from dysmenorrhœa, due to anteflexion.

I am, Sir, yours truly,
Montagu-square, March 7th, 1881. A. Wynn Williams.

"ABERYSTWYTH: A FASHIONABLE WATERING-PLACE."

To the Editor of The Lancet.

Sir,—We, the undersigned members of the medical profession practising in Aberystwyth, beg to express our astonishment at the remarks made in the last issue of The Lancet under the above heading. It is quite clear that you have been misled by the misrepresentations that have from time to time appeared in the *Cambrian News*. We fearlessly assert, and are prepared to prove, that nothing exists in this town to justify the conclusions you have come to as to its sanitary condition.

As to our sanitary arrangements we submit the following facts. Our new gravitation scheme provides the town with an abundant and continuous supply of water, pronounced by Frankland as one of the finest and purest in the United Kingdom. The drainage of the town, which was thoroughly carried out by an eminent engineer at a very large outlay, was finally inspected and highly approved of by Mr. Arnold Taylor, one of the Local Government Board Inspectors. As to the general sanitary arrangements of the town, we can safely pronounce them to be all that can be wished for. It is scarcely necessary for us to point out to you how seriously a paragraph such as the one referred to appearing in your valuable journal affects the interest of a town which so much depends upon visitors.

We confidently appeal to you to give the same prominence to this refutation that was given to the paragraph in question.

We are, Sir, your obedient Servants,
THOS. D. HARRIES, F.R.C.S. (Exam.) Eng.
C. RICE WILLIAMS, M.D.
RICHARD GILBERTSON, M.R.C.S.
MORRIS JONES, Med. Off. of Health, Aberystwyth.
JACOB ROBERTS, M.R.C.S.
JOHN MORGAN JONES, M.R.C.S.E.

THE DANGER OF NON-COMBATANTS IN BATTLE.

To the Editor of THE LANCET.

SIR, — As many people not conversant with military matters are undoubtedly under the impression that medical officers are but little if at all exposed to danger in war, and as they are consequently relegated to a position less honourable than their combatant brothers (for in battle the post of danger is the post of honour), it appears to me that every opportunity should be taken to dissipate these erroneous opinions.

Recently in the House of Commons the Under-Secretary of the Navy pointed triumphantly to the number of fatal casualties among the officers and men of the Naval Brigade engaged in the defence of the Majuba mountain as affording abundant evidence that the British sailor, now as in the days of Nelson, knows how to do his duty. Accepting this as a fair standard of the bravery of combatants, whose duty is to fight, it must also be accepted as regards the so-called medical non-combatants, whose more special duty is coolly to aid their wounded fellows in times of danger, but who, as the records of battle and the following statistics show, often combat the enemy as well:—

	No. of Officers engaged.	Killed or died of wounds.	Wnded.	Un-wounded Prisoners.	Wounded Pri-soners.	Escapd.
Army Officers	31	2	7	6	1	13
Naval Officers	2	2	0	0	0	0
Medical Officers	2	2	0	0	0	0
Army Service Corps	1	0	0	0	1	(?)

These records speak for themselves. The number of medical officers may be too limited for strict comparison, but they are as numerous as the officers of the Naval contingent. And if of these and also of Army officers it has been truly said that they nobly did their duty, it cannot be denied that the non-combatant medical officers most nobly did theirs.

I assume I am correct in stating that the number of medical officers engaged were two, as it is very unlikely that more would be attached at the front with three or four hundred men; moreover, no others appear in the lists from the seat of war.—I am, Sir, your obedient servant,

D. H. CULLIMORE,
Surg. I.M.D. (retired).
Connaught-square, March 6th, 1881.

IRELAND.

(*From our own Correspondent.*)

UP to the present, so far as can be gleaned in reference to the plan of organisation for the Royal University of Ireland, it appears that the inducements to students are of the amplest kind, the pecuniary attractions being most profuse. It is, however, one thing to formulate a scheme for endowments in connexion with a university, and a totally different thing to find that the Government will adopt the scheme as proposed in its entirety, and pledge itself to support it in the liberal manner suggested.

Dublin, for a considerable period, has exhibited an excessive death-rate as compared with other cities, and the returns for the past year prove that no improvement in this respect has taken place. So far back as July last, a resolution was adopted by the Council of the Irish College of Surgeons that an expression of opinion should emanate from them in reference to the causes which had produced, and were still producing, the unhealthy state of the city, and the abnormally high death-rate in Dublin. For this purpose a committee was appointed to confer with the College of Physicians in Ireland, and make a report as soon as possible to the council. Eight months have now elapsed since this resolution was passed, and at last the conjoint report of the colleges has been issued. The report attributes the extraordinary mortality of Dublin chiefly to the general insanitary arrangements of dwellings, the uncleanly and intemperate habits of certain classes of the people, and the spread of infection. The Colleges suggest the adoption by the Public Health Committee of certain measures calculated to remove the evils and defects indicated.

The Committee of the National Eye and Ear Infirmary, Dublin, in their report for 1880, state that there was an increase in the number of patients admitted to the wards of the hospital, and in the total number of patients registered. The hospital will continue in its old premises, Stephen's-green, until the end of March or beginning of April, when it will be moved to Molesworth-street, when some important alterations and additions have been completed. The new hospital will contain thirteen male beds, and an equal number for females, with separate day-rooms for each sex, operating-room, ample accommodation for nurses, and also, if desired, accommodation for a resident surgeon.

In the report of the Education Committee of the Royal College of Surgeons upon the proposed Scheme of Education and Examination for this College, which is now under consideration by the Council, it is satisfactory to learn that Midwifery is included in the list of subjects upon which a candidate will be examined. A considerable amount of doubt exists as to whether, when the various suggestions of the Education Committee are approved by the Council, it will come into force, or whether it must first receive the sanction of the Fellows at large.

It is intended by the friends of the late Dr. Peele of Dublin to erect a window with a mural tablet in St. Patrick's Cathedral to the memory of the deceased. An influential committee has been appointed to carry out this object, and to receive subscriptions, which are limited to one guinea.

Dublin, March 15th.

Obituary.

FRANCIS GODRICH, M.R.C.S., L.S.A.

MR. FRANCIS GODRICH, whose death occurred, as already announced, on the 8th inst., at Fulham-road, West Brompton, at the advanced age of eighty-five years, had been in practice in that neighbourhood for sixty years. For half a century he had been officially connected with St. George's Workhouse, and for nearly the same period he was medical officer of the Brompton District of the Kensington Union, as well as surgeon to the Police for upwards of forty years. He became a Licentiate of the Apothecaries' Society in 1818 and a Member of the Royal College of Surgeons in 1819. He was a life governor and one of the original founders of the Medical Benevolent College at Epsom, one of the founders of the Chelsea Benevolent Society, and for the greater part of his long life took a prominent lead in all the movements for the improvement of the district in which he resided, and of the condition of its inhabitants.

Few men have done more to raise the status of the profession. Of this, one fact may be recorded. In 1834, when called upon to give professional evidence on an inquest, he refused to do so without remuneration; he was threatened with the usual pains and penalties, but persisted; the result being that he was appointed chairman of a committee through which the late Mr. Wakley, M.P., introduced, and carried, in the House of Commons the Medical Witnesses Bill, a measure by which the payments of fees to medical witnesses was rendered compulsory. For many years he devoted special attention to small-pox and revaccination, and was an earnest and persistent opponent to the Fulham Small-pox Hospital; holding the opinion that it was a centre of infection to the immediate neighbourhood surrounding districts. His experience as Medical Officer to the Brompton District, adjacent to the Hospital, led him to this conclusion, and to the decided opinion that the aggregation of large numbers of cases of this disease intensified and extended its area of contagion and its infecting power to a far greater extent than is at present generally supposed; indeed, his death may be attributed in some degree to his advocacy of this opinion, for it was soon after delivering an excellent speech at the Chelsea Vestry Hall on this subject that he was seized with apoplexy, which in less than two days afterwards terminated his long and useful life. His death will be greatly mourned not only by his relatives and friends, but by the inhabitants of the district generally, for his long career was distinguished by kindness and generosity to all—more especially to the poor, to whom he was a true friend.

SAMUEL RICHARDS, M.D.

DR. RICHARDS was born on March 30th, 1808. He was articled to the late Mr. Jarman of Nottingham, and afterwards studied at Guy's Hospital. He commenced practice in Bedford-square, and continued it in the same locality for nearly fifty years. Dr. Richards was associated with the late Mr. Wakley, Dr. Beaman, Dr. Tyler Smith, and others, in the foundation of the New Equitable Life Office, in 1851. This office was established to enforce the principle that medical men should be paid a proper and remunerative fee for their professional opinions of the health and probable longevity of proposed assurers; insisting that the opinion was asked for in the interests of the office, and not of the patient: also that medical men should be regarded as agents, and receive the same consideration in cases sent by them to the offices that is awarded to solicitors. In 1862 the New Equitable was amalgamated with the Briton. It is computed that the profession has received in fees from the New Equitable and the Briton offices over 250,000 guineas.

Dr. Richards suffered from disease of the heart for many years, but his devotion to the profession was such that, in spite of the advice of medical friends, he continued to practise until last June, when failing health obliged him to retire and abandon the hope he so often expressed, that he might "die in harness." He died on March 7th from bronchitis and heart disease, with the usual complications.

Medical News.

CAMBRIDGE UNIVERSITY.—At a special congregation on the 9th inst., the degree of Bachelor of Medicine was conferred on Samuel Nall, St. John's College.

MR. W. F. FULLER, late Assistant Resident Medical Officer of the St. Marylebone Workhouse, has received a superannuation allowance of £80 a year.

THE GLASGOW OPHTHALMIC INSTITUTION.—At the annual meeting of the friends of this charity, it was announced that the subscriptions during the past twelvemonth had been in excess of the year preceding by £199, chiefly derived from workpeople. The hospital is to be extended, by the addition of a storey to the main building and one to the wing in Wellington-street, thus supplying a new operating theatre lighted from the roof. It is proposed to make the consulting physician, acting surgeon, and acting physician *ex officio* members of the Board of Directors.

SANITARY ASSURANCE. — On Tuesday night Professor F. de Chaumont delivered a lecture to a large audience at the London Institution on Sanitary Assurance. Mr. Erichsen, F.R.S., took the chair. The lecturer observed that of the 700,000 deaths per annum recorded by the Registrar-General consumption caused about 70,000; diseases of the respiratory organs, 100,000; diarrhœa, 33,000; enteric fever, 11,000; scarlet fever, 25,000; and diphtheria, 3500. Some of these diseases could be prevented altogether if dwelling-houses were put in a good sanitary state, and others might be modified to a very material extent. These diseases were propagated by foul air and foul water. The lecturer went on to show the fearful extent of mortality and sickness caused by defective sanitary arrangements, and to call attention to the Sanitary Assurance Association which had been formed last November. The object of this association was to inspect the sanitary arrangements of the dwellings of those who chose to become members. When a house was found to be in a proper sanitary condition a certificate would be granted. This work would be carried out under the personal supervision of the appointed officer, who would direct what had to be done, leave it to the occupant of the house to employ, if he chose, his own workpeople, and then, after seeing that the work had been properly done, grant the certificate above referred to. These advantages would be secured by the payment of a small entrance fee and annual subscription. Mr. Erichsen said that the work of the surgeon was materially retarded or aided by the sanitary state of the house in which the patient lay. He cordially approved of the association, and thought it had a large field of usefulness before it. On the motion of Sir Joseph Fayrer, seconded by Mr. Brudenell Carter, a vote of thanks was passed to the lecturer.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.—The Committee, which met on Tuesday last, made considerable progress in the appointment of judges for the various sections. Among those who have consented to act as judges are, Dr. W. B. Carpenter, C.B., F.R.S., Dr. Garrod, Dr. Bristowe, Dr. Farquharson, M.P., Dr. Playfair, Dr. Buchanan Baxter, Mr. John Marshall, F.R.S., Mr. Critchett, Mr. H. Power, Mr. Tomes, F.R.S., Sir Joseph Fayrer, Mr. C. Heath, Mr. Bryant, Mr. T. Smith, Surgeon-General Longmore, C.B., Major Duncan, R.A., Captain Douglas Galton, C.B., Dr. Thorne Thorne, Professor Prestwich, F.R.S., Mr. Alfred Waterhouse, A.R.A., &c., &c. The Executive Committee of the International Congress have guaranteed £50 towards the guarantee fund (which now amounts to £1026 7*s.*), and it has been arranged that all members of the Congress shall be admitted free to the exhibition. We would remind our readers that the 31st inst. is the last day for making applications for space. It must be remembered that the Exhibition Committee are glad to receive *single articles* for exhibition, and thus scientific inventors will have an opportunity of displaying apparatus, &c., for a fee which is merely nominal. It is hoped, also, that hospital construction and arrangement will be represented, and that the medical officers and managers of public or private institutions will take steps to show ground plans and elevations.

THE FULHAM SMALL-POX HOSPITAL. — "The Times" of the 17th inst. contained the following:—"The Central Committee formed to take steps to prevent the reception of further small-pox patients into the Fulham Hospital has been sitting daily; and sub-committees have now been elected for the Kensington, Fulham, Hammersmith, and Chelsea districts respectively. A resolution has been passed by the Central Committee requesting their chairman, Mr. J. F. B. Firth, M.P., to ask Mr. Dodson, the President of the Local Government Board, to now receive a deputation of a small number of representative inhabitants of the borough of Chelsea on the subject of the spread of small-pox through the cases brought to the Fulham Small-pox Hospital, as the position of affairs is very different from that which existed when the right hon. gentleman was first asked to receive a deputation on account of the decision of the House of Lords in the Hampstead Hospital case, and as the two cases—those of Hampstead and Fulham—are precisely similar. The reply of Mr. Dodson has not yet been given. In the meantime subscriptions to the Guarantee Fund are flowing in to the committee; and it is understood that the latter will at once proceed to move for an injunction to prevent any further new cases being received into the hospital, and to close the same when the epidemic shall have ceased."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

AITCHISON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of the Wallsend District of the Tynemouth Union.

ANGELL, Mr. A., has been reappointed Public Analyst for the Borough of Guildford for three years.

BYRNE, E. H., L.M., has been appointed Medical Officer to the High-street Dispensary District, Dublin, vice Peele, deceased.

COX, M. F., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Physician to St. Vincent's Hospital, Dublin, vice Cryon, deceased.

CRAWFORD, C. H., M.D., has been appointed Physician to the Staffordshire General Infirmary.

DAVEY, F. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Fifth District of the Royston Union.

EDWARDS, D. T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Pentyrch District of the Cardiff Union.

FAVELL, R., M.R.C.S.E., L.S.A.L., has been appointed one of the Medical Officers of the Jessop Hospital for Women, Sheffield, vice Dr. E. Jackson, resigned.

HOOPER, E. E., M.R.C.S.E., has been appointed Medical Officer for the Fourth District of the Reigate Union.

JOHNSTON, R., F.R.C.S. & M.R.C.P., has been appointed Medical Officer of Health and District Medical Officer of the Wymondham Division of the Melton Union.

KISBY, G., L.F.P.S.G., L.K.Q.C.P.I., has been appointed to the Seventh District of the Ashton-under-Lyne Union.

LANSDOWN, F. P., M.R.C.S.E., L.S.A.L., has been reappointed Senior Surgeon to the Bristol General Hospital.

LUNDY, L. F., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer and Public Vaccinator for the Sunbury District of the Staines Union.

MOORE, T., F.R.C.S.E., has been appointed Visiting Surgeon to the Seamen's Hospital, vice Davies-Colley, resigned.

NELL, R. F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Penarth District of the Cardiff Union.

PLUMMER, C. J., M.R.C.S.E., has been appointed Medical Officer for the Fourth District of the Alton Union, vice Woods, resigned.

PYBURN, G. W., B.A., L.R.C.P.L., M.R.C.S.E., has been appointed Surgeon to the Hull, Barnsley, and West Riding Junction Railway and Dock Works.

REID, G., M.B., has been appointed Physician to the Staffordshire General Infirmary.

ROBINSON, A. H., M.D., M.R.C.S.E., has been appointed Surgeon to the Hull, Barnsley, and West Riding Junction Railway and Docks Works.

RUSSELL, W., M.B., has been appointed a Honorary Physician to the Carlisle Dispensary.

SAUL, W. W., M.D., has been appointed Surgeon to the Duke of Lancaster's Own Yeomanry Cavalry, vice Moore, deceased.

SPRAKELING, R. J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bootle Urban Sanitary District for one year.

TREHARNE, J. L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Spottland District of the Cardiff Union.

WALSHAM, W. J., F.R.C.S.E., has been appointed Assistant-Surgeon to St. Bartholomew's Hospital.

WARD, H. D., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Blythe Urban Sanitary District.

WELCH, J. B., M.B., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Handsworth Urban Sanitary District for the ensuing year.

WILSON, F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed to the Heighington District of the Darlington Union.

Births, Marriages, and Deaths.

BIRTHS.

BABER.—On the 14th inst., at Langton, near Tunbridge Wells, the wife of Henry Aitkens Baber, M.R.C.S.E., of a daughter.

COLGATE.—On the 3rd inst., at Tresserans, Eastbourne, the wife of Henry Colgate, M.D., F.R.C.S., of a son.

ELLISON.—On the 28th January, at North-terrace, Adelaide, South Australia, the wife of S. K. Ellison, M.R.C.S.E., of a son.

HIND.—On the 12th inst., at 3, Whitehall-place, Stockton-on-Tees, the wife of Henry Hind, F.R.C.S., of a son.

HORMAZDJI.—On the 11th inst., at the General Hospital Branch Dispensary, Cheltenham, the wife of R. N. Hormazdji, M.R.C.S.E. L.R.C.P. (Resident Surgeon), of a son.

MARRIAGES.

CHAPMAN—CRUMP.—On the 9th inst., at St. Margaret's, Westminster, Walter Chapman, F.R.C.S.E., of Lower Tooting, Surrey, to Martha, widow of the late Albert Crump, Esq., of Forest-hill, Kent.

DOUGLAS—FULLER.—On the 26th ult., at St. Andrew's Church, Pittsburg, U.S.A., by the Rev. Reese F. Alsop, Rector, William Douglas, M.D., of Belfast, Ireland, to Anna Marie, youngest daughter of the late Captain S. J. Fuller, H.E.I.C.S., of Canada.

RAE—DUNCOMBE.—On the 8th ult., at Christchurch Cathedral, Nassau, Bahamas, by the Rev. W. H. Strombom, Rural Dean, William Masters Rae, Esq., Surgeon, Royal Navy, R.N. Hospital, Bermuda, to Beatrice de Saussure Kelsall, youngest daughter of the Hon. Frederick Duncombe, M.D., J.P., of Nassau.

DEATHS.

CHEYNE.—On the 6th inst., at Naples, after four days' illness, of acute meningo-encephalitis, George Cheyne, Esq., M.D.Edin., of 5, Bryanston-street, London, formerly of Mexico.

DAVIDSON.—On the 8th inst., at Bexley-road, Erith, Kent, James Davidson, M.D., M.R.C.P.L., Retired Fleet-Surgeon, R.N., aged 63.

STACY.—On the 12th inst., John Edward Stacy, F.R.C.S.E., of Cavendish-road, Brondesbury, in his 82nd year.

THORNTON.—On the 4th inst., suddenly, at his residence, Bank Lodge, Scarborough, William Henry Thornton, M.D., F.R.C.S.E., J.P., deeply regretted.

WILSON.—On the 4th inst., suddenly, at 9, Woodside-crescent, Glasgow, James George Wilson, M.D., F.R.S.E., F.R.C.S.E.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Henry Trentham Butlin, "On the Relations of Sarcoma to Carcinoma."

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—5 P.M. Dr. Julius Althaus, "On the Physiology and Pathology of the Olfactory Nerve."

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Spencer Watson, "On Unusual Affection of the Nose."—Dr. Wynn Williams, "On a Case of Rupture of the Perineum in a Child."—Dr. Gilbart Smith will exhibit a Specimen of Endocarditis with Embolism.

Tuesday, March 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Ordinary Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. C. Higgens, "On a Case of Vascular Protrusion of the Eyeball."—Mr. C. T. Dent, "On a Case of Innominate Aneurism treated by simultaneous Distal Ligature of the Carotid and Subclavian Arteries, with remarks on the behaviour of a Tendon Ligature."

Wednesday, March 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Henry Trentham Butlin, "On the Relations of Sarcoma to Carcinoma."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Croonian Lectures: Dr. Moxon, "On the Influence of the Circulation upon the Nervous System."

HUNTERIAN SOCIETY.—8 P.M. Adjourned Discussion on Dr. Herman's Paper ("Prolapse of the Ovaries").—Mr. McCarthy and Mr. James E. Adams, "On Cases of Varicocele treated by Excision."

Thursday, March 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Professor John Perry, "On the Future Development of Electrical Appliances."

ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On Ornament."

Friday, March 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor F. Treves, "On the Pathology of Scrofulous Affections of Lymphatic Glands."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Croonian Lectures: Dr. Moxon, "On the Influence of the Circulation upon the Nervous System."

ROYAL INSTITUTION.—8 P.M. Mr. A. Buchan, "On Weather and Health of London."

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. J. G. Waller, "On Cliona Celata: Does the Sponge make 'the Burrows?'"

CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. J. R. A. Douglas, "On Cases of Varix treated by a new Instrument for Obliterating the Veins.—Dr. Whipham and Mr. Rick, "On a Case of Extirpation of the Larynx.—Mr. Spencer Watson, "On a Case of Intra-Cranial Disease involving several Cranial Nerves."—Dr. B. O'Connor, "On a Case of Syphilitic Psoriasis."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Sir George Campbell, "On the Tenure and Cultivation of Land in India."

Saturday, March 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. H. R. Haweis, "On American Humorists."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 17th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 11	30·09	W.	51	48	..	59	47	..	Cloudy
,, 12	30·00	W.	45	44	..	54	40	..	Foggy
,, 13	30·00	E.	43	42	..	50	39	..	Cloudy
,, 14	29·85	S.E.	41	39	..	48	38	..	Overcast
,, 15	30·20	E.	42	40	..	55	35	..	Foggy
,, 16	30.40	S.E.	41	39	..	60	36	..	Foggy
,, 17	30·52	S.	41	40	..	60	38	..	Foggy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

PRELIMINARY EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

IN answer to a large number of perplexed correspondents who have written to us respecting the preliminary examinations at the Royal College of Surgeons, we reproduce the subjoined official notice, dated January 13th, 1881:—

"Notice is hereby given that from and after the 31st December, 1881 the preliminary examinations for the diploma of member and of fellow of this College, at present conducted by the College of Preceptors under the authority of the College, will cease, and that, from and after the date of this notice, candidates for the diploma of Fellow will not be required to undergo any preliminary examination beyond that required for the diploma of member of the College."

MORBIFIC ODOURS.

To the Editor of THE LANCET.

SIR,—Taking a broad and therefore perhaps the only useful view of zymotic complaints, surely there can be no reason to puzzle oneself for an explanation of the phenomena mentioned by Mr. Bernard—at least, presuming the period of incubation in small-pox to be longer than a few days, the one word coincidence seems to me to be explanation enough. For example, my experience would tend to show that a day or two before a good honest "cold in the head" appears in its open form a state of exaltation or tension of the nervous system is usually felt, in which state one might easily imagine an extra keen sense of smell to exist.

Exposure to a draught or chill may be said to be the immediate or direct cause of a cold, but surely the proper view is that it acts merely as the "last straw," added to the pre-existing load, and if there is any point at all in that well-known saying about the camel's back, it lies in our attention being drawn to the heavy load, which, without the last straw, might have escaped our notice altogether. The period of incubation in all zymotic complaints is probably of much longer duration than we are apt to imagine, and unless we have faith to believe it, we might frequently be puzzled by such like coincidences as Mr. Bernard narrates.

I remain, Sir, yours obediently,

March 14th, 1881. F. ORTON, M.D.

To the Editor of THE LANCET.

SIR,—With reference to Mr. Alfred Bernard's letter in a recent number of THE LANCET, will you allow me to say that I have a large number of cases of variola coming to my notice, and having been accustomed to make careful notes of each case, can assure Mr. Bernard that the peculiar smell followed by the disease is of by no means an uncommon occurrence.

I am, Sir, yours, &c.,

March 14th, 1881. J. B. M.

CENSURE OF A MEDICAL MAN BY THE HONITON BOARD OF GUARDIANS.

WE share with Dr. Pullin regret that the patient was not seen earlier, but this partly arose from an insufficient message as to the nature and needs of the case. It is a pity that the criticism of the Board could not have been extended from the conduct of the medical man to the state of the cottages in which the poor man lived—and died. They are thus described by Dr. Pullin:—"During the first eight days of his illness he was living in a house under repair, in the walls of which were partially covered holes large enough for his child of ten to crawl through, and through which the cold—unprecedented during this century—of course freely entered, and his bedclothing was very limited. Late in the evening of the eighth day he moved—himself walking through the snow—to another house under repair, which had not been occupied for several weeks, and which was, I am informed, wet from top to bottom." It is lamentable to think of such cottages in connexion with the snow storms of January.

"COTTAGE HOSPITALS."

To the Editor of THE LANCET.

SIR,—It is stated in THE LANCET of Saturday last that at a meeting held at Chelmsford for the purpose of promoting the establishment of a cottage hospital there, Dr. Vipan said out of 260 cottage hospitals which had been founded in Great Britain only eight had failed, and those not from want of funds, but on account of theological disputes between members of rival sects. I almost fancy Dr. Vipan must have been imperfectly reported, as so far is the statement in question from being accurate that I have shown in my book on Cottage Hospitals, by giving the history of all the failures, that in only one instance—that of the Wrington Hospital—has there been anything approaching a religious difficulty. The secretary of this hospital was a Dissenter, and to ensure that all the patients should be sent to chapel and not to church, he bought the cottage hospital, and it was soon after closed. In speaking of the chaplains and religious services, I state, as the result of careful inquiry, "so admirably has the feeling of simple piety which animated the early promoters of this movement descended upon their successors and followers everywhere, that sectarian bitterness is entirely unknown to the managers of these little hospitals."

The point at issue is all-important just now to hospital managers generally, and so I venture to ask you to allow me to make this correction.

I am, Sir, yours, &c.,

Gloucester-road, Regent's-park, N.W., HENRY C. BURDETT.
March 14th, 1881.

Club.—It is a point of law, but a stamped receipt for any sum over £2 is necessary.

Dr. Duffey (Dublin).—In an early number.

Enquirens.—18 and 20, Kentish-town-road.

Mr. F. G. Taylor.—The case seems a hard one, but it is a question of arrangement between employer and employed.

Mr. Lane's communication will appear in our next.

Country Practitioner.—1. Barnes or Galabin.—2. Tilbury Fox, Liveing, or Duhring.

Mr. George Moule Evans.—A medical officer has no legal right to question the "order" for "medical relief" given in any case, and it is unwise for him to do so. It would have been prudent to write to the clerk of the Board of Guardians, not to the overseers, and nothing should have been said to the patient. The case had better not be followed up. It is most desirable to avoid the sort of conflict these cases occasion.

"THE CASE OF PROBABLE POISONING BY COLCHICUM."

To the Editor of THE LANCET.

SIR,—From the report of this case, published by Dr. C. Budd in your issue of the 5th inst., I quote the following passage:—"To these symptoms were now added constant twitchings of the muscles, greatly aggravated by any movement." It has probably occurred to many persons who have read this that the exact time at which this peculiar and characteristic feature commenced is indefinitely fixed by Dr. Budd. The account in this respect, therefore, is misleading, for on this the whole gist of the case lies. It was clearly ascertained that the gentleman could have taken no pills after Sept. 2nd. The convulsive twitchings of the muscles commenced on the evening of the 17th. On the afternoon of that day he transacted business, and executed some mining setts. His lawyer confirms me in declaring that at that time he was perfectly steady and free from twitchings. Thus fourteen clear days elapsed before the distinctive symptom of the influence of colchicum arose, with persistent vomiting and diarrhœa during all the time. In these circumstances I was unable to concur with Dr. Budd in his diagnosis, preferring to regard this remarkable case as one due to blood poisoning from suppressed gout, in the causation of which it is probable that the colchicum acted only as a factor.

I am, Sir, your obedient servant,

Holsworthy, March 14th, 1881. LINNINGTON ASH, M.R.C.S.E.

HYGIENIC INFLUENCE OF HOUSE PLANTS.

DR. ELY M'CLELLAN contributes to the *Philadelphia Medical Times* a note on the hygienic influence which may be exerted by house plants on individuals who are predisposed to phthisis pulmonalis. The writer has observed a case which he considers to be thoroughly corroborative of the view advanced by Dr. Anders—viz., that breathing continuously the atmosphere of apartments in which plants are kept tends to retard the progress of pulmonary consumption. The case was that of a young man whose mother died of phthisis at a comparatively early age, leaving a family of five children, four of whom were carried off by the same disease. The survivor, the young man in question, married at twenty-three, and was accustomed to complain of weakness of the chest and constant liability to take cold. Being an enthusiastic floriculturist, he stocked his bedroom and sitting-room with plants, and his health appears to have become highly satisfactory, if not robust.

Mr. C. B. Grant.—Dr. Richet's paper in THE LANCET of Jan. 1st and 8th of the present year may perhaps assist our correspondent.

Mr. J. C. Orchard.—Our Students' Number, published on Sept. 12th last, will give the information required.

N.—Our correspondent's ordinary medical attendant would be the best person to consult on the subject.

Mr. Joseph Miller.—The report was doubtless rather fuller than is usual of medical details, but having been given at the inquest, we do not see much reason to complain of their publication.

DESQUAMATION AND INFECTION IN SCARLET FEVER.

To the Editor of THE LANCET.

SIR,—Allow me to remark on this subject that I consider the "Medical Attendant at the College" referred to, by isolating the boy for three weeks, did all that was necessary, as far as quarantine was concerned, to prevent the spread of infection.

It is certainly not my experience that desquamation is delayed in mild cases of scarlet fever. I find it always follows on the disappearance of the rash, though frequently in so minute a form as to be passed unnoticed. I have met with a few mild cases where, after the shedding of this almost invisible epidermic dust, an unusual interval elapsed, and then the thicker epidermis of the palms of the hands and the soles of the feet began to chip and peel. In two cases—both consumptive lads—this interval was nearly five weeks. I did not regard this late desquamation of these parts as infectious, nor did it prove so.

I may also observe that the best quarantine for scarlet fever is the inunction of carbolic oil (1 to 40). It is invaluable used twice a day for at least two weeks in mild cases. These cases, compared with severe cases, are much more infectious, owing to the liberty they often have, and the extreme minuteness of the infectious scales which the inunction restrains from being scattered about.

I am, Sir, yours faithfully,

Sudbury, Suffolk, March, 1881. J. SINCLAIR HOLDEN, M.D.

Mr. Thos. Holland will find, on reference to the Medical Directory for 1881, that the proper initials are appended to the name mentioned.

Mr. Richard Barker.—We must adhere to our rule.

Inquirer.—Information may be obtained from our advertising columns.

Mr. Mark Long.—D. Bogue, St. Martin's-place, London.

ARE MEDICAL MEN LIABLE TO ATTEND WHEN SENT FOR?

AN inquest was held last week in Dublin on the body of a dockmaster, who was killed by falling into the Spencer Dock. According to the evidence, as reported in the daily papers, it appears that the sister of the deceased went immediately, accompanied by a policeman, to the nearest dispensary, but the medical officer there refused to attend unless a fee of five guineas was paid. Another practitioner, however, attended at once without any stipulation as regarded a fee; but death resulted before he arrived. The jury censured in strong terms the conduct of the medical practitioner who had refused to attend the deceased, and commended the conduct of the gentleman who promptly went when summoned by the relatives. We think that in cases of accident or emergency a medical man should have very good reasons indeed for declining to attend. The public are sometimes shocked at a medical man for refusing to respond to an urgent message; they would be more shocked still if they knew how often the prompt and self-denying attendance of the medical man is never recompensed or even recognised.

Enquirer.—There is no such account in any single volume or pamphlet. Our correspondent should get the reports of some of the best provident dispensaries, as that of Northampton, Haverstock-hill, &c., and the publications of the Metropolitan Charity Organisation Society on the subject.

SILKWORM GUT.

Chirurgeon suggests the use of silkworm gut as an absorbable ligature in tying of arteries.

F. P. F.—We do not know of an institution of the kind.

Delta.—The reply will be found in our last issue, page 442.

A PLEA FOR PRESCRIBING CHEMISTS.

To the Editor of THE LANCET.

SIR,—The article in THE LANCET of Feb. 26th on the "Wrongs of Counter-practice" is sternly severe, but not more severe than just. The druggist who professes a knowledge of diseases and their treatment you characterise as a "quack," in other words as a dishonest pretender There is no escape from the correctness of such a verdict. The prescribing chemist who honestly examines his own conduct cannot but be self-accused and self-condemned.

The moralist who looks at this subject will find much food for reflection. In England there are probably more than thirty thousand qualified chemists and druggists, the greater part of whom you say treat disease — that is, affect a knowledge which they do not possess.

This behaviour on the part of a whole class is of more than passing interest, and particularly to chemists themselves. If they were uninstructed they might be expected to have confused ideas of morality, especially if self-interest were the confusing element, but they will hardly care to escape the condemnation due to their moral obliquity by pleading ignorance of the very elements of morals. A man need not be a philosopher to understand that it is a knavish thing to profess to know that which he does not know, and still more knavish when this is done for the purpose of gaining money. Gipsies and others who tell the fortunes of maidservants for reward are sent to prison. What is the moral difference between a gipsy who professes to know the future and a chemist who professes to understand disease?

But though the case against prescribing chemists is so clear, it canno. be said that they are absolutely without defence. Their defence, as is well known, is a countercharge against medical men. They say that "medical men add the calling of a druggist to that of a physician, and as long as doctors continue to be druggists so long will druggists continue to be doctors." This is their position, and they hold it with obstinate tenacity. It is easy to see, of course, that there is no real reason in this position. A medical man who diagnoses a disease and orders suitable drugs for its treatment may surely put them into a bottle with water in a competent fashion, but it does not therefore follow that another man who may be well qualified to put drugs into a bottle with water is able also to diagnose and treat disease. The doctor includes the druggist as "the greater includes the less," but the druggist by no means also includes the doctor—no one ever affirms that "the less includes the greater."

But though in strict logic the druggist, metaphorically speaking, "has not a leg to stand upon," in the region of practical everyday ethics his case is in no sense so desperate. Let a well-spoken chemist plead his cause before a jury of his countrymen, and he will have little difficulty in obtaining a verdict of "Justifiable Retaliation." It is in the sphere of everyday morals that this problem must be solved. Shall the druggist continue to prescribe? This question is really the equivalent of another—viz., Shall the doctor continue to dispense? In discussing this latter proposition we do not enter upon a question of morals, but of expediency. The doctor's right to dispense has not been denied, nor even doubted; but, granting that it is strictly and logically right for the doctor to dispense, is it expedient? Is it not highly inexpedient—so inexpedient that, from the point of view of the druggist and the thinking part of the public, it is practically indefensible?

The one party or the other must clearly give way. Whether of the two shall it be? It will be honourable to the druggist to desist from prescribing, because he will thereby purge himself of an offence; but it will be far more honourable to the doctor to leave off dispensing, because he will thereby sacrifice an acknowledged right in order that he may perform an act of wise self-abnegation.

I will not now enter upon a discussion concerning the practicability of giving up the dispensing of medicines entirely to chemists and druggists. A few questions, however, may be offered for consideration. Firstly, what is the real function of the modern medical man? Is it not the diagnosis and treatment of disease? Secondly, what is the true function of the modern druggist? Is it not the preparation and dispensing of medicines? If this be not his function, what is? As was the old apothecary, so is the modern chemist—"Ye doctor's cooke." Do the medical men of the present time wish to be apothecaries, or do they desire to be physicians? If family doctors prefer to be apothecaries, by all means let them continue to dispense and continue to wrangle with the rival apothecaries at the chemists' shops; but if they wish to see their profession advanced in true dignity and efficiency, let them cast away this miserable relic of earlier and more ignorant times, and stand forth in their true character as physicians. If this be done, they may, with an honest conscience and a fearless front, demand the absolute suppression of "counter-practice."

I am, Sir, yours, &c.,

Grosvenor-road, N., Feb., 1881. GEO. W. POTTER, M.D. Edin.

THE CASE OF ACCIDENTAL POISONING BY MORPHIA AT THE LONDON HOSPITAL.

To the Editor of THE LANCET.

SIR,—In the report of the inquest upon a case of accidental morphia poisoning, held at the London Hospital on the 28th ult., which appears in your issue of last Saturday, an important error occurs. It is stated in your report that the strength of the lotion sent from the dispensary was only half as strong again as that prescribed. Had this been the case the mistake of the dispenser would probably have been unimportant, as a lotion containing two grains of morphia to the ounce would under the circumstances have been almost as certainly fatal as that actually used. The substitution of a drachm of morphia hydrochlorate for a drachm of the pharmacopœial solution formed a lotion containing 120 times as much morphia as was ordered.

The case was one of pemphigus of rather an acute form, which dated from three weeks prior to admission, and was under treatment in the hospital about a fortnight. The patient was a cachectic female, aged fifty. There was an extensive area on the trunk, raw or covered with thin flaky crusts of secretion in a condition very favourable to absorption, and only a small quantity of morphia was therefore ordered to be added to the lotion to allay the irritation complained of. It was found that about six ounces of the lotion were used in four applications, which would thus have contained four and a half grains of morphia each, making a total of eighteen grains applied within a period of twelve hours. It is remarkable that no symptoms of narcotism were noticed until about four hours before death. The house-physician was called to see her about 8.45 A.M., and found her deeply comatose. He had been summoned to see her an hour previously on account of some twitching in her face, which it was thought might indicate the approach of a fit. She was then noticed to be pale and cold, and rather strange in her manner. This was less noticeable on account of the patient being nearly stone deaf. She then sat up and drank some brandy. At 6 A.M. she had washed herself and attended to her toilet as usual, complaining only of some headache, and of not feeling so well. During the night she had snored much, but not more than usual. The application of the lotion had commenced from about 9 P.M. the previous evening. The patient died at 12.15 in the afternoon, or about fifteen hours after the first application of the lotion. Injections of atropine were given subcutaneously amongst other measures adopted in the endeavours to resuscitate the patient. Three injections of one-eighth of a grain were given, and finally one-fourth of a grain, with the effect of dilating the pupils, the left more so than the right, but without any effect on the coma.

Such unfortunate occurrences as this would happily appear to be rare. In the tabular collection of cases of opium and morphia poisoning in the Manual of Jurisprudence of Woodman and Tidy only two cases are included in which death resulted from the external application of these drugs: one in which death occurred ten hours after the application of thirty grains of morphia to an open ulcer of the breast (Taylor, vol. i., p. 358), and the other the case of a young man who applied a large quantity of laudanum on a poultice to the abdomen on account of a slight ailment with pain in that part (Stillé, Mat. Med., vol. i., p. 714).

An accident of this painful nature suggests the question whether it would not be desirable to discontinue the use of identical symbols for measurement of both fluids and solids. The introduction of the letters "fl." before the symbols when used for fluids, as involving more trouble, would always be liable to be omitted when unnecessary, and hence also when such a precaution might prevent a fatal error. The distinctive symbols of fluid measures might, however, be indicated without any additional trouble by writing them with a rounded summit, the corresponding symbols for measurement of solids being written with a straight line at the top.—I am, Sir, yours, faithfully,

Finsbury-square, March 9th, 1881. F. C. TURNER.

ENTHETIC DISEASE IN THE UNITED STATES.

OF the boys who were applicants for enlistment as apprentices in the United States navy during 1879 (says the *Boston Medical and Surgical Journal*) twenty per thousand were rejected on account of venereal disease, twelve of these being syphilitics.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. F. Orton, London; Dr. Armstrong, Newton Abbot; Dr. Wallace, Greenock; Dr. Christie, Glasgow; Dr. E. Jones, Sydenham; Mr. R. Barker; Mr. Clutton, London; Mr. S. Richards, London; Mr. W. J. Hood, Eastbourne; Dr. Collier, Lincoln; Mr. Shelley Fisher, London; Mr. Johnston, Glasgow; Mr. W. H. Box, Lechlade; Dr. Collingridge, London; Mr. F. G. Taylor; Mr. H. C. Burdett, London; Mr. L. Ash, Okehampton; Mr. Thurston, London; Mr. Garner; Mr. Keith, Liverpool; Mr. E. C. Baker; Mr. Adsett, London; Mr. MacCormac, London; Dr. O'Neill, Lincoln; Mr. M. Wilson, Doncaster; Mr. J. R. Lane, London; Mr. Chauncy Puzey, Liverpool; Mr. Evans, London; Mr. F. E. Hunt, Christchurch, N.Z.; Dr. Mallit, Hooghly; Mr. Liddle, London; Dr. Creighton, Cambridge; Mr. F. C. Barker, Warrenpoint; Mr. Mather, Manchester; Dr. Woakes, London; Dr. Flint, Scarborough; Mr. Travers, Hobart Town; Mr. E. Malins; Mr. W. Wallis, London; Messrs. Atkins and Co.; Dr. G. H. Mackenzie, Edinburgh; Dr. Bourns, London; Dr. O. Dudfield, London; Dr. Barnes, Eye; Dr. Stewart, Whitby; Mr. A. M. Lang, London; Mr. Miller, Bradford; Mr. Ed. Freeman, London; Messrs. Pile and Co., London; Mr. Lowe, Lichfield; Mr. Compton, Evansville; Dr. Althaus, London; Mr. W. D. Parker, Cork; Mr. S. Weil; Mr. Makuna, Colney Hatch; Mr. C. Holthouse, London; Mr. T. Holland, London; Dr. Buchanan, Glasgow; Messrs. Mayther and Co., Manchester; Messrs. Nuttall and Co., Burnley; Mr. Rose, Kilmarnock; Mr. Hawkes, Stratford-on-Avon; Mr. Adams, Marshfield; Mr. Wells, London; Mr. Harries, Aberystwyth; Dr. Waller, Edinburgh; Dr. W. Carter, Liverpool; Mr. Walford, Lynn; Dr. Cameron, Dublin; J. Richards, London; Mr. Judge, London; Mr. Saunders, Eastbourne; Dr. F. J. Mouat, London; Mr. Shirley Murphy, London; J. Williamson, London; Major-General Irving, Folkestone; Enquirens; Loyal; Chirurgeon; Quercus; Bosh; Country Practitioner; N.; Club; S.; M.B., Harrow-road; S. H., Surbiton; K. S., Blakney; Cunctator; A Medical Student, &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Colles, Homerton; Mr. F. A. White; Mrs. Phillips, Kidderminster; Mr. Rae, Dungarvan; Dr. Roberts, Nottingham; Mr. Williams, Oakengates; Mr. Walford, Dudley; Messrs. Southall and Co., Birmingham; Mr. Hill, Crickhowell; Dr. Budd, North Tawton; Mr. Parkes Lismore, New South Wales; Mr. Hudson, New Swindon; Mr. Ellison, Adelaide, S. Australia; Messrs. Smith and Son, Liverpool; Mr. Wyer, Kimberley; Mr. Sergeant, London; Mr. Prosser; Dr. Magelsen; Mr. Couram, Launceston; Mr. McGregor, Dunblane; Mrs. Smith, Southport; Mr. Rayle, Milnthorpe; Mr. Kennedy, Derby; Mr. Field; Mr. McLaren, Glasgow; Mr. Seil, Leeds; Mr. Foster, Addingham; Prof. Buchanan, Glasgow; Mr. Young, Bridgwater; G. Johnson; Alpha, Cubitt-town; A. B., Chancery-lane; A., Blackwater; Alpha, Manchester; Dr. F., Salisbury; E. T., Manchester; Lancet; T. J. C., Oldham; W. W.; Medicus, Milan; L.R.C.P., Wigan; F. W.; C. W. E.; Rector, Melton Mowbray; Harris; Theta, Kirkby-in-Ashfield; F.; A. L. D., Sheffield; A. B.; S., Wolverhampton; F. L. M.; P. S., Cork; M. E.; Medicus, Great Grimsby; &c., &c.

The American Science, Lynn Advertiser, Doncaster Chronicle, Jarrow Guardian, Marylebone Mercury, Shields Daily Gazette, Indiana Medical Reporter, Jamaica Gazette, Sheffield Town and Times, La Reforma Médica, London Figaro, Allen's Indian Mail, La Crónica Médica, Gaceta Cientifica, Soulby's Ulverston Advertiser, Eastern Daily Press, &c., have been received.

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Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

BY WALTER MOXON, M.D. LOND., F.R.C.P.

LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—An essay might well be written on the consequences to Medicine of the rise and expansion of the science of Biology; to show how it affects medical study that the physiology of man has become a special branch of a physiology of living things. This is not the occasion for such an essay, nor even for such a remark; but the remark arises because, in beginning these lectures on the behaviour of the human brain under varying states of the circulation of the blood within it, I was of course induced, as a first step, to bring forward the natural history of the subject. But when I referred to the excellent and ably written text-book which is now universally employed as a students' manual in physiology, and searched in it for the physiology of the circulation in the human skull, I did not find a word upon the subject. I found a full and very interesting account of the tailing off of ranine intelligence which reveals itself when the several parts of the brain of a frog are successively cut away; but no notice of the curious and very important mechanism whereby the human brain is made secure within the skull under the varying stress of blood-pressure that accompanies bodily or mental exertion. I observed that the biological physiologist regards the human brain as at one with the vertebrate brain—a general kind of thing more easily studied in the frog, the dog, or the monkey, on account of its simpler development in these animals. The biologist thus takes vertebrate brains at large, and it appears that to him the blood-supply of the human brain is a detail respecting one kind of brain only, and he cares nothing for its congestion, and giddiness, and insensibility—such particulars are lost sight of in the large scope of biological science. For biology tends to wideness of scope and generality of principle. Indeed, it appears not to be quite happy far out of sight of protoplasm; it goes back to protoplasm to trace up the general nervous system, and says nothing about the cerebro-spinal fluid. But it cannot be conducive to clearness of medical thought upon the circulation in the brain that protoplasm should have displaced the cerebro-spinal fluid from works in which medical students learn Human Physiology. It is not as though protoplasm were better founded than the cerebro-spinal fluid. It is not so well founded; for there can be no doubt that there is such a thing as the cerebro-spinal fluid; nor is there any doubt that it fulfils vitally important functions which greatly concern those who are called upon to be clear about the causes of giddiness or insensibility. But it is by no means certain that there is such a thing as protoplasm. The biologist reduces the various behaviour of the nervous system to what is called the irritability of what is called protoplasm. He regards protoplasm with the same undoubting confidence in its reality as the physical philosopher has in the reality of motion, when he on his part reduces all kinds of activity in unliving matter to terms of what he calls motion, so that heat is a mode of motion, electricity a mode of motion, and light a mode of motion. Other philosophers, less restrained by fixation in the science either of living or unliving matter, generalise one sweep more widely, and tell us that vital motion is a mode of motion; so that we may take out all things knowable, even to human thought, in terms of motion, much in the same way as all kinds of value, even to human motive, might be taken out in terms of pence. But of course it is true that just in the same way that all kinds of value may equally rightly be taken out in terms of shillings or of pounds as in pence. And just in the same way as all kinds of activity in unliving matter might equally well be taken out in terms of electricity or in terms of light, as in terms of what is called motion. So also the behaviour of living matter may as rightly be taken out in terms of the brain cell or of blood as in terms of what is called protoplasm; for the only basis of knowledge in all these systems is equivalence in convertibility. The capitalist knows that his pound is convertible into so many shillings, or may be expressed in terms of shillings; the physical philosopher that his foot ton is convertible to so much electricity, or may be expressed in terms of electricity; and the biologist thinks that the nerve-cell is convertible to so much protoplasm, or may be expressed in terms of protoplasm. And the other philosopher, less restrained by fixation in the science either of living or unliving matter, thinks he knows that vital motion, even to human thought, is convertible to so much motion.

Meantime the physical philosophers have been led to say that heat is a mode of motion only because mechanical motion is more universally appreciated by our senses, so that it is natural to employ it as a standard. And for all we know the higher animals in the planet Jupiter may be so organised that they obtain mechanical motion only by difficult experiments, as we do electricity, whilst in their hot region they have electricity always obvious to their senses. In which case we may depend upon it they would naturally say mechanical motion is a mode of electricity. For there is no sense of reality in which electricity is not as real as mechanical motion, and it would be quite as right to adopt electricity as the standard, and say motion is a mode of electricity. In fact, electricity reveals the nature of motion, and motion reveals the nature of electricity. They mutually reveal their common nature: under certain conditions the one becomes the other. And the physical philosopher, for purposes of exposition, chooses mechanical motion, because it is the most tangible and the best known, and adopts it as the common standard for his reference and the basis of his thought and reasoning. But the biologist in his field reverses this plain method of dealing, and makes his thought and reasoning rest on protoplasm, which is not the most tangible and the best known of the things he deals with. Indeed, it is so far from being so, that it does not exist at all. There is no such thing as protoplasm. I have watched what is called protoplasm in what are its most nearly pure forms at work, and it was plain that its properties depended altogether on whose protoplasm it was, and that when anything is to be done with it or by it, you must accept it with its own peculiar powers as it is at work before you, and that if you act towards any living thing in terms of protoplasm with the idea of in that way getting a product of its life and nature, you find you have got hold of the wrong end of the stick, and that your abstract idea of protoplasm does not fit to the vital faculty which acts in, and I may say *is*, the living thing.

And whereas every living thing or part of a thing is held by the biologist to be a specialisation of protoplasm in the same way as light and galvanism are held to be specialisations of motion by the physical philosopher, there is no parallel at all in the sureness of the tenets in the two cases; for although motion considered apart from any moving thing is an abstraction like protoplasm, yet it is a simple abstraction which we can use in calculation and verify our calculated results by experiment. But protoplasm is a very complex abstraction, theoretically endowed with all the properties of living matter, and there are no means of testing how far this complex of properties when worked out theorectically in combination with other simple abstractions, like mass, velocity, &c., would be found on experiments to correspond with the calculated result, so that the conception of protoplasm has no stable basis like that of motion. And by means of it we do not get any established ground wherefrom to consider the phenomena of life, and we only spin out speculations by means of it, which when finished are no more realisable than the hypothetical conception with which they begin. Therefore I don't think it any real gain that the biological teacher of the medical student has displaced the cerebro-spinal fluid with protoplasm. And I am begging you to fix your attention particularly on this fluid, because it is upon this fluid that a great deal of what I have to say to-day centres itself.

It has long been known that the watery fluid within the ventricles of the brain finds entry and exit from the brain into the spinal canal, so that it comes and goes from spine to brain according as the pressure of blood in the brain is less or more; and in this way there is provision for a change in the quantity of blood which can circulate in the brain. The degree in which the nervous system can exercise its special power, independently of direct action of its supplying vessels, is a question very important for the obtaining of clear views upon the complicated phenomena of nervous disorders. In these lectures I am going to endeavour to estimate the extent of disturbance of the nervous system which can be fairly ascribed to changes in the calibre of the bloodvessels and in the blood-pressure within them, so as to ascertain what is the true value of the term "congestion of the brain," and to show the relation of the epileptic fit to vascular action, and of angina pectoris to high tension within the vessels. This kind of question has been a great deal lost sight of by the pure physiologist, who seems to me, if I may humbly say so, to have let pass the consideration of some most interesting and important branches of specially human physiology in the modern pursuit of fundamental vertebrate life in that convenient victim and martyr, the common frog. I am now concerned with one such branch, and it is the study of the means whereby the circulation in the human brain is made secure, so that no augmentation of pressure in the brain—either from changes in the force of the heart, or from changes in the atmospheric pressure, or from changes of posture—ever produces any ill effect. Our best modern text-book on physiology scarcely deigns to notice the group of mechanical contrivances whereby the human frame is adapted to go upright. The text-books of twenty years ago used to set forth the several points in the human organism whereby the erect posture is made possible. Dr. Carpenter used to give a list of these, which I will not recount, but only mention that he left out one essential to the erect posture in man—necessary at least to his long maintenance of it—and that is, the ambition that induced him to get upon his legs. Now, for this a relative increase in the size of his brain was required; so that after vitalising and giving energy to brace up all Dr. Carpenter's mechanisms, there might be left enough nervous power to be willing to take the trouble to be upright. But this increased size of brain necessitated an increase of blood supply; a great increase it must be, considering how richly blood is given to nerve.

Meantime the same erect posture placed the brain so much aloft that blood supply to it is less easy. For consider the difference in hæmostatic conditions which arises when a column five or six feet long containing fluid is suddenly raised to the vertical or suddenly lowered to the horizontal position. Imitate the case with a model of some spongy material soaked in liquid, and, of course, as you raise the column of sponge the liquid in it will collect below, and as you lower the column the liquid will go to both ends equally. And, of course, it need not be said that the physical forces which act in dead matter act equally in living, so that this tendency of the blood in the living sponge which composes our frame has to be met and counteracted or all the mechanism for the erect posture would be of no avail.

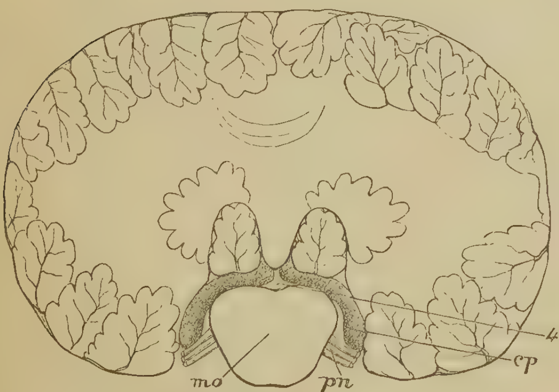
The problem, then, is how to prevent the sinking down of blood from the brain. That there is risk of at least inconvenience from such mere opposition of gravitation to circulation is experienced very often by many persons in delicate health, who suffer a certain giddiness on rising from a stooping posture; a giddiness which may be accompanied by slight loss of sight. But this occasional and trivial inconvenience to some would of course be constant in all, unless there were provided a large means of checking the great tendency of the blood to act in obedience to hydrostatic laws and sink to the lowest possible level. The principal means whereby this is accomplished is doubtless the suction exerted by the practically closed cavity of the skull. Allowing all the considerations which render this cavity less securely closed than a metal globe pierced only for entry and exit of to-and-fro pipes would be, the cranium nevertheless composes a very large space inaccessible to external pressure, except, firstly, by means of the blood in the vessels which enter and leave it, and, secondly, by means of the cerebro-spinal fluid. Let us remember the relatively not very large amount of this fluid in a healthy brain, and we must allow that blood within the skull is to a very large extent prevented from leaving the skull by the impossibility of air or any other substance than blood finding its way in to supply the place of the blood that would go out; and doubtless no part of the whole system of contrivance is equal in its efficiency to this suction. But whilst it is true that by far the greatest part of the blood would thus be retained by suction in the brain, it is also true that the incompletenesses of the closure of the cranium do allow some amount of variation in the quantity of blood which it can hold. This variation is chiefly allowed by the variation in the amount of the watery liquid in the ventricles.

Now the part of the cerebro-spinal fluid which is within the cranium amounts in most persons to about two to three ounces, and it is to a large extent capable of being pushed out of the cranium, or drawn into it. This gives us a variable margin of sufficient importance to call for arrangements that may meet such sudden changes in the amount of blood as would arise in virtue of variations in this fluid. For though it may seem that three ounces do not amount to much when compared with the whole capacity of the skull, yet there is evidence that the quantity of blood in the cranium is only capable of small changes, and that not very large changes of quantity of contents in the skull are required to produce fatal symptoms. I used to weigh the amount of blood which had escaped into the brain in cases of apoplexy, and I never met with more than three ounces and a half of it. This had been sufficient to take away sense and life—that is, so far as quantity is concerned. When the tendency was to a greater bleeding, this showed itself in density or hardness of the clot, not in increase of it. In fact, there was no room for more, and the three ounces and a half correspond nearly with the three ounces of cerebro-spinal liquid, especially when we observe that apoplexy occurs in anæmic brains, in which the cerebro-spinal fluid is present in more than the natural quantity. That apoplexy occurs in anæmic brains I shall prove in my second lecture. Thus an amount of change in the contents, which bears but a small proportion to the whole capacity of the cranium, estimating this at about fifty-five ounces, is all that is observed in case of fatal pressure on the brain. It is true that somewhat more of extraneous substance can be introduced gradually into the cranium without destroying mental life. Thus I have weighed tubercle to the extent of five ounces from the brain of a child, who showed intelligence up to the time of a fatal meningitis, which had come on in consequence of the tubercle. But it is certain that a change of about three ounces is all that can be borne suddenly by the brain. And common movements of the frame must be supposed to be quite equal to produce a change of that extent. For when a person rises suddenly from the stooping posture the blood, which was favoured by gravitation in its flow towards the brain when the head was down, has now to run up to the brain through narrow pipes of bloodvessels, and against friction and gravitation. But if the circulation is feeble the pressure of blood towards the cranium may be deficient. One may estimate the great and important extent to which sudden uprising tends to reduce blood-pressure towards the brain by recalling how raising the arms will impair the power of circulation towards the hands, and how raising the legs will reduce the circulation towards the feet, facts of which the practitioner avails himself in checking hæmorrhage and in reducing inflammation or ulceration of the extremities. And it is well known that a person may even be led to feel faint by raising both arms for a long period. Now, the brain is being constantly put into the position of a raised arm or leg, and although by the suction I have referred to it is kept from such extreme changes as the hand or foot undergoes, yet the cerebro-spinal fluid allows of changes to the amount of about three ounces. But the way by which this watery liquid enters the cranium and brain is, as I shall show, a wider and freer passage, whilst the way in which the blood reaches the texture of the brain is by the narrow passages of the capillary arteries, and if the circulation is feeble, the heart may drive the blood less forcibly to the texture of the brain than the venous pressure in the spinal canal drives the cerebro-spinal fluid into its cavities. So that when the head is raised and the venous blood falls away more readily from within the skull, the cerebro-spinal water may outstrip the arterial blood in the race to supply the place. And thus the ventricles of the brain may tend to fill with water more quickly than the substance of it with blood, and so the brain blanches and the person feels giddy. And this is especially the case when a permanent anæmia of the brain has led to an increase in the capacity of the ventricles of the brain. Many elderly people with poor circulations feel more or less giddiness during a large part of the day from this cause, and if the circulation has become, through age and high arterial tension, very inefficient, every oscillation of the head, even in ordinary walking, will, if the heart's power is at the time rather lower than usual, keep the person distressed with giddiness or a sense of insecurity, which makes him justly rather afraid of apoplexy, but which is a sign of anæmia of the brain. Apoplexy, however, occurs in anæmic brains.

This kind of giddiness, which is characteristic of age with its failing circulation, would keep the human race on all fours during the whole of existence if it were not for certain beautiful automatic mechanisms which tend on the one hand to automatically diminish outflow of blood from the brain, and on the other hand to automatically diminish entry of blood into the brain, so as to automatically keep the brain under all conditions at a certain state of pressure of blood. These mechanisms depend on elasticity of artery and general goodness of venous circulation, and it is the failure of elasticity of artery and the increasing lack of free venous circulation which cause giddiness so readily to appear in old age.

First, as to the mechanism whereby the entry of blood into the brain is automatically checked. For this end it is necessary that means of lowering the rapidity and force of the current in the vessels should be found. Now, the researches of physiologists have shown of late years that there is such a relation between blood pressure and the heart's action that they must infer the existence of a self-acting mechanism, which tends to preserve at a certain level the pressure of the blood. The seat of this mechanism is traced by experiment to the neighbourhood of the origin of the pneumogastric nerves. This inferential mechanism is doubtless the more fundamental and effectual of the automatic means of checking excessive entry of blood into the cranium. But anatomists have hitherto overlooked a very interesting mechanism in the human brain, which must plainly tend to check excessive entry of blood, and which, although not the most fundamental, let alone the chief or only means of automatically checking entry of blood, yet I think must be seen as a superadded contrivance necessitated by the large development of the brain in man, and the consequently large volume, and large change of volume, of blood to be provided for. I refer to the mass of choroid plexus of the fourth ventricle, which stretches down round the side of the medulla oblongata enclosed in the lateral offset of the ventricle, which I will call its *cornu*. Our anatomical works all speak of a sort of pouch from the side of the fourth ventricle, but none of them point out that this pouch is stuffed very full of tufts of bloodvessel in the form of choroid plexus. The cornu, as we will, if you please, call it, reaches down to, and presses upon, the pneumogastric nerve-roots.

FIG. 1.



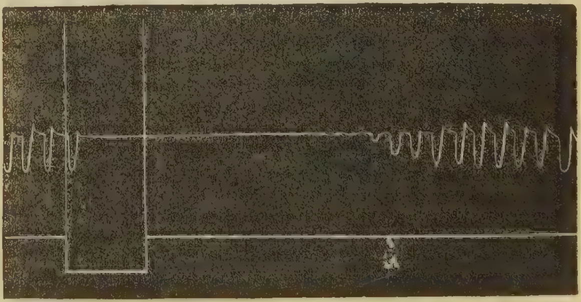
Vertical transverse section of cerebellum and medulla oblongata, through fourth ventricle opposite the origin of pneumogastric nerves, showing: *m o*, medulla oblongata; *4 v*, fourth ventricle; *p n*, pneumogastric nerve; *c p*, choroid plexus.

I said the cornu of the fourth ventricle presses upon the roots of the vagus. The proof of this pressure is interestingly given in the fact that in early life the cornu is little connected with the nerve-roots, whereas in later life, and especially in cases showing chronic distension of the ventricles of the brain, the vagus becomes firmly united to the cornu of the fourth ventricle. So much is this the case that you will commonly find, when the brain is removed with only ordinary care from the skull, that the sides of the fourth ventricle are torn open, and the choroid plexuses protrude prominently from them. I have here a specimen of a brain removed in the ordinary way, in which the choroid plexuses are thus exposed. The very slight drag on the pneumogastric nerves which was caused by the cutting of the roots with a sharp knife has sufficed to pull open the lateral cornu of the fourth ventricle on each side.[1]

I would also here draw attention to the fact that the pneumogastric nerve, of all the cranial and spinal nerves, runs, perhaps, the shortest and straightest course from its origin to its escape from the dura mater. It forms, as it were, the central nerve of the whole system. Above it all the nerves incline upwards or forwards to their exit; below it all incline, more or less, downwards. But this nerve runs a straight, short, tense course, and as it is fixed at each end a little pressure must tell on it very directly. An observation of my late friend and colleague Mr. Hilton will serve to illustrate how tense is the root of the pneumogastric nerve, and, consequently, how subject to mechanical force applied to or about it. In Mr. Hilton's lectures on "Rest and Pain" he says, "But I suspect that if in such cases (concussion of the brain) the base of the brain be carefully examined the cause of death may be discovered in injury to the filaments of the pneumogastric nerve, near the origin from the medulla oblongata. Some years ago I clearly made out this lesion in a case of concussion which caused the patient's death. The only indication of local mischief which I could discover was the laceration of some of the filaments of the pneumogastric nerve." This observation of a most experienced and most skilful observer, seeing that no other part within the skull was hurt and the pneumogastric roots were torn, shows, in a conclusive way, how tensely they are stretched. And if they are tensely stretched, slight pressure upon them must be productive of not unimportant results.

Now, it cannot be a matter of chance that the roots of the vagus should be stretched so tightly across from the origin to the dura mater as to be specially picked out for laceration, and at the same time that the vagus alone, of all the cranial nerves, should receive a peculiar offset from the fourth ventricle. So that the ventricle puts out a finger-like process, or cornu, packed tightly full of a mass of bloodvessels to reach these stretched roots of the nerve, and to press upon them so hard that as life goes on the nerve and the finger-like process become firmly united together. Whatever may be the meaning of such an arrangement, it cannot be thought that it would exist without any signification or service, or function. No other nerve is thus treated, and the question therefore arises, What are the effects of pressure on this particular nerve? In answer to this question we may first observe that, if the vagus is stimulated by galvanism, the heart's beat is caused to stop thus:

FIG. 2.



Inhibition of frog's heart by stimulation of vagus.

Again, if the pneumogastric nerve is stimulated by digitalis, the result is to stop the heart in a similar way if the dose is large; but if the dose is moderate the heart's action is not stopped, but only made slower. And by graduating the dose of digitalis the heart may be made to go slowly in corresponding degree. But what will be the effect of pressure upon the vagus? An answer is furnished by an observation made by Czermak. This distinguished physician had a small osseous tumour in his neck, and he was able by pressing the vagus against this tumour to stop at will the beating of his heart.

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[1] I may commend this very easy laceration of the cornu of the fourth ventricle by a slight drag on the pneumogastric to surgeons, for explanation of such cases of fatal concussion of the brain as appear at first sight to offer no anatomical lesion. The shock in fracture of the base is transmitted largely towards the eighth pair of nerves, and this pair is tensely stretched, so that if there is a severe jarring in the line of the posterior lacerated foramen, a sufficient vibration of the vagus nerve may be set up to tear open the fourth ventricle. Also, as to cases of unusually free and large discharge of watery fluid from the ear in frac-

We have, then, a mechanism plainly intended to do something, and we find the thing this mechanism is calculated to do is to check the action of the heart. Let us now see whether any beneficial result will follow from such checking of the action of the heart under the circumstances in which the mechanism is put in operation. It is clear that as the finger-like process is stuffed with tufts of bloodvessels the pressure it exerts will depend on the amount of blood in the vessels. The more blood the more pressure, so that it is when the vessels of the choroid plexus become distended with blood that the finger-like cornu which contains the bloodvessels will press upon the pneumogastric nerve and check the action of the heart, and thus prevent excessive inflow into the vessels of the brain. In fact, the contrivance will act exactly like the ball-tap which controls supply to a water cistern. Now, I am not saying that this is the only means of such check-action. Creatures unprovided with it show an automatic check upon the action of their vascular mechanism. But it is certain that the contrivance I thus describe will tend to control the entry of blood into the brain, and I think its development in the human brain bears a relation to the great size of the brain and to the extent of its blood supply, which requires a supplementary automatic check upon the entry of blood. Perhaps when this check is further developed in the advancement of the race the balance of activities between the mind and the heart may be still better regulated than is the case at present.

But I shall be asked for proof that when there is pressure of blood into the brain, the pulse is actually checked or slowed. Evidence is not far to fetch. Let us take a simple case—one which is constant in observed results. Take the variations in rate of pulse when we change our posture from horizontal to upright, and let me cite the well-known and careful experiments of Dr. Guy. This physician found by an extended series of observations that the rate of the pulse, when persons are standing, averages 81, but on these persons lying down, the rate of the pulse falls to an average of 67. The effect is just as if a moderate dose of digitalis had been taken. Lest it should be said that the increased rate of the pulse in the erect posture is due to the greater muscular exertion of standing, the persons under experiment were strapped to a board and supported in such a way that they did not use any exertion to keep themselves upright; and yet, when they were caused to pass from the horizontal to the erect position by a revolving movement of the board, the same increase of pulse-rate took place. Now, in the upright position the blood tends to drain easily away from the brain and reaches it with difficulty, so that the choroid plexuses would be less distended and the pneumogastrics less pressed upon. But in the horizontal position the blood goes to the brain more freely, the choroid plexuses are more distended, and the pneumogastrics more pressed upon, thus checking the action of the heart as if the person had taken digitalis. And, indeed, it will be found true that causes which involve too great a general pressure of blood into the brain slow the pulse. Thus, as we shall presently see, the effect of going into compressed air is to slow the pulse. Also the effect of a retention of great excess of blood into the skull in general inflammation of the brain is to slow the pulse. A slow, irregular pulse is, of course, one of the most significant of the group of symptoms which usher in meningitis. It is true that later in the course of this disease the pulse becomes quick again, and indeed quickens until it becomes impossible to count it. And it is true that when this quickening occurs the brain is still overfilled with blood, and these things being true, we have to explain why now the pneumogastric is no longer pressed upon and inhibited. The answer is quite clear. Under my care, as I now write, is a child in the clinical ward at Guy's; it has passed through the early stages of tubercular meningitis, and is in the last stage, with pulse 180 in the minute. I have given in the last two days large doses of tincture of digitalis to this child. Now digitalis has the power of calling out the action of the pneumogastric nerve, and so slowing the pulse. But in the case of this child, the digitalis does not show the slightest degree of such power—the child's pulse is quicker instead of slower. It is just as if a large dose of atropine had paralysed the pneumogastric, in which case it is known that digitalis will not slow the heart. We have here, then, evidence through the inefficacy of digitalis, that the pneumogastrics are paralysed, and hence pressure on their roots in the cranium naturally produces no result, any more than do the large doses of digitalis.

Such being the means of checking excessive entry of blood to the vessels of the brain, let us now take into consideration the automatic mechanisms which tend to check the exit of blood from the brain. The object is to oppose an automatic impediment to the exit of blood from the cranium which shall be efficient in proportion as the tendency of the blood to leave the cranium is exaggerated. First of all we may notice that there is a tendency to disfavour a ready exit of blood from the brain shown in the fact that whereas the arteries of the brain enter the base of it—that is, enter the part nearest to the heart, thus receiving their supply with all possible directness, and whereas the arteries of the brain then run upwards over the brain, the veins do not then descend in company with them, as veins generally do, but they run, for the most part, just the opposite way, ascending towards the top of the brain against the attraction of gravitation. The obvious result of such a disposition of the venous current is to delay the exit of blood, so that in case of feebleness of the current that very feebleness would tend to cause the blood to fail to go rapidly upwards against gravitation, to reach the sinuses, and escape from the skull. Now, Virchow also called attention to this retardation of motion of blood in the cerebral sinuses, especially by the dilatations of calibre and projecting partitions in the walls of the sinuses; and Dusch, with reason, further ascribes a retarding tendency to the peculiar form of the canals of this portion of the venous system, seeing that by deviating from the cylindrical form the proportion of the surface by which the blood meets the walls of the sinus to the bulk of the blood within the sinus is increased so that there is greater friction in proportion to volume.

But another and much more elaborate and efficient check to the exit of venous blood from the brain is seen in the curious opposition between the course of the current in the great veins at the back of the brain and the course of the current in the longitudinal sinus. Here we shall observe a self-acting mechanism which bears a most interestingly coördinated relation in its degree of efficiency to the degree of requirement which exists in each particular case. For when the human brain is compared with the brain in allied animal forms, it is seen that the superior intelligence which characterises Man is obtained through, or at least *with*, a backward extension of the hinder part of the brain, or, more properly, of the cerebrum; and in fact this backward growth does actually occur in the development of each human person, as may be seen in these diagrams of the brain in the later months of fœtal development. Now, observe the effect of this backward growth of the brain upon the course of its veins, and we see that as the brain goes back it carries with it the sources of the veins backwards away from the points of delivery of the blood into the longitudinal sinus which receives their contents. For it appears that the backward growth alike of the brain of the skull and of the dura mater takes place chiefly behind the points of junction of the hinder cerebral veins with the longitudinal sinus. The natural result of such an arrangement is to this effect. That just in proportion as the brain is developed backwards with the increase of intelligence and with the erect posture which intelligence seeks, just in such proportion is the blood from the newly developed part of the brain sent forwards into the sinus which receives it. But the blood in the sinus which thus receives a forward current is itself going backwards, and is in fact the blood coming from the front of the brain. Hence in the sinus there is an opposition of this current from the front of the brain to the current from the back of the brain, which meet and check each other and so diminish the freedom of exit of blood alike from the front and back of the brain, and detaining and making less free the rush of blood in the anterior part of the brain, which the erect biped shares with lower animals, and perhaps keeping the animal

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tures of the base, it may be noticed that the damage done to the skull is apt to run through the temporal and occipital bones where they meet; and in the violent laceration and crushing action of the crash the pneumogastric nerve is liable to get a sharper pull than is given it in cutting it with a knife. If, then, at the same time, a fissure is made through the dura mater and bones, reaching the tympanum and tearing its membranes—and I have traced such a fissure in more than one case, —a direct road is thus opened for the flow of liquid from the fourth ventricle through the external ear.

down in him to some degree; at the same time staying the blood in the whole increased mass of brain so as to render any movements in the blood less sudden. In this way the greater size of brain that induces the erect posture and goes with a disposition to take up a great variety of postures with more or less brain activity, this greatly increased brain, is kept accommodated with blood by reduction of tendency to outflow of its venous current. In short, the brain is compelled to economise its supply. Such a meeting of the backward current by a forward current must have the same effect as occurs when at the mouths of rivers the current of the river is met by the rising of the sea, so that a rise of water in the river is a consequence as in the production of tides. Nay, the obstruction being by means of one current actively opposing another is so direct that it may almost be compared to a lock in the course of a stream. The result as to the outflow from the longitudinal sinus will be that, instead of a current from the veins of the brain running with a certain velocity through and out of the sinus, the forward and backward currents neutralise each other in the sinus and the blood goes out from it, only as an overflow under the pressure existing in the veins at the time; no overflow if no pressure. And if we trace the effect backwards upon the state of the veins we see that it must tend to keep the veins full under all circumstances, locking the current in when it is feeble, and so preventing too ready an escape of blood in sudden change of posture, &c. On the other hand, when the current of blood through the brain is strong, the antagonism of the blood-streams would cause them to oppose and lock each other, perhaps too thoroughly, so that a scheme of relief is necessary as a sort of weir or escapement to allow excess of blood to pass by the lock which there is in the longitudinal sinus. This weir is provided by sending the blood from the whole of the lower parts of the brain, by means of the inferior longitudinal and straight sinuses, to a point beyond the lock which I have described; so that there is thus a free exit for some of the blood when the pressure is great.

Now, if we consider the parts of the brain that discharge their blood beyond the lock in the longitudinal sinus we see that they include the parts more essential to animal life, especially the great ganglia at the base of the brain in the medulla oblongata, pons Varolii, thalami, and parts of the corpus striatum. Blood is sent to these essential parts of the brain immediately the arteries enter the skull, so that they get their supply at high pressure, and the blood comes away from these parts of the brain by veins that join the sinuses of exit at points beyond the lock, and near the ending of the sinuses in the jugular veins; nay, some part goes independently through the inferior petrosal sinus directly out of the skull. Thus a free circulation takes place in the vital parts of the brain, whilst those parts which subserve only the relative unessential process of thinking have their blood-current partially locked, and are oblige to economise it, the free circulation of the blood in the vital parts of the brain relieving the lock when the pressure is great.

Amongst the parts that receive their arterial supply immediately the great vessels enter the skull are the choroid plexuses both of the lateral and fourth ventricles, and I have already shown how the overfilling of a particular part of the plexuses in the fourth ventricle acts like a ball-tap in putting a direct check upon the entrance of blood into the arteries of the brain. But a very considerable easement of the stress of blood is provided by the great capacity of the choroid plexuses themselves. These plexuses will contain much blood, and when the entry of blood into the brain is free they fill rapidly with it, and as they lie in the ventricles of the brain, and are bathed by the cerebro-spinal fluid, they press upon and expel this fluid into the spinal canal, where it finds accommodation by pressing in its turn on the spinal vessels. The veins from these plexuses form part of the escapement system.

And this locking system which I have described does not act without telling slowly on the arteries which feed it; for these arteries being relatively unable to empty themselves, as other arteries can and do, have to suffer greater strain; and so in time the arteries which feed the locked circulation in the seats of will and thought become injured, and the sum of injuries accumulates upon them; whereas the more unimpeded vessels of the base of the brain, which feed the parts essential to life, whose veins form the weir, are not so much strained or so much injured, because they are unobstructed. Hence, when at length some overstrained vessel must burst or be blocked, the vessel which so suffers is in nine cases out of ten a branch of an artery which sends blood to the locked longitudinal sinus, not a vessel which sends blood favoured by gravity to the more open lower sinuses.

Again, I think it reasonable to reflect further that wearing out of the cerebral arteries would affect first the arteries of parts whose activity is a matter of education, and therefore of will and intelligence, because the activities which are organised through education are, as it were, grafted on the more stable activities that are natural to animal life. And the exaggeration of action which education compels cannot be supposed to be prepared beforehand by the animal development in the same way as the animal development prepares beforehand a provision for the functions of purely animal life, so that educated activities act through and with a relatively less well-prepared vascular system than the more natural activities are favoured with. And hence, when a general difficulty overtakes the whole circulation of the brain, the least stably-organised and overstrained vessels of the parts whose function is exaggerated by education would give way first. In this manner we may explain why it is that either the distal portion of the upper extremity, the chief subject of education, or else the organisation for speech, one or the other of these is the first injured in trivial, and the last to recover in severe arterial breakdown. I think it is from this cause that the strain on the locked system of cerebral arteries picks out for its earliest victims the most highly educated parts. So that an attack of hemiplegia nearly always lets off most lightly the limbs and parts of limbs which subserve the animal procedure of walking and the swing of the shoulder and elbow, and so forth, and fastens itself on parts whose education has spun out and elaborated, and relatively weakened the vascular supply of their department of the nervous centres. These flourishing but not purely natural departments fail just as you may see often upon grafted rose-bushes that a more vigorously growing graft, which has flourished grandly whilst the stock was sound, will be first to wither when the stock begins to fail; whereas natural shoots, which before were more moderate in their luxuriance, will commonly survive.

Gulstonian Lectures
ON
ANÆMIA.

Delivered before the Royal College of Physicians,

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LECTURE I.—PART II.

Etiology of Anæmia: Loss of Balance between Blood Formation and Blood Destruction; Deficiency in Income or Excess in Expenditure, or both combined. (a) *Defects of Blood Formation:—Quantity and Quality of Food—Oxygen—Derangement of Digestion, Assimilation, Sanguification.* (b) *Excess of Blood Destruction:—Prolonged Muscular or Nervous Activity—Excessive Secretion—Catarrh—Inflammatory Effusions—Suppuration—Hæmorrhage—Albuminuria—Malignant Growths—The Cancerous Cachexia—Tubercle—Fever—Special Blood Changes, as in Scurvy, Rheumatism, Syphilis, Malaria.—Mineral Poisons: as Lead, Mercury, Phosphorus (?)—Parasites. Influence of Age, Sex, Heredity, Occupation, Light, Air, and Temperature—Climatic Conditions.*

HAVING thus considered the chief points regarding the composition of the blood and its variations in anæmia, I pass now to inquire in what way and under what influences the anæmic condition is induced. This inquiry involves the whole subject of the nutrition and expenditure of the body, together with other factors which, inherent in the individual or operating from without, tend to place the organism in a state unfavourable to the complete performance of the functions of the blood. All the complicated processes of the living animal organism are comprised in a series of changes in composition of the elements of the body, and especially of the blood, for it is through it that the normal balance between decomposition and reconstruction takes place. The cycle of changes must be complete, the amount of nutriment conveyed by the blood must be sufficient to replace the waste occasioned by tissue-change, and this latter must not be out of proportion to the amount of nutriment if the balance is to be maintained. If there be defects in the supply, the blood and tissues suffer inanition; if excess in expenditure, they suffer undue consumption. In other words, in so far as its vital processes are concerned, the body may be regarded as a complex machine requiring a definite supply of oxidisable material and of oxygen for the performance of its functions—functions which may be expressed in terms of mechanical force and its correlative, heat. We have, therefore, to consider the means whereby such material is supplied, and its supply maintained and regulated, to deal with the manner in which the body takes in this material, and how it disposes of it. If the material itself be deficient in quantity or quality, or if the methods by which it is prepared for disposal be defective, the mechanism of the body will, *pro tanto*, be deranged. The blood will be poorer in the material to be disposed of. On the other hand, if the mechanism for the conversion of the material into force be faulty, so that an excessive amount is used up in the work of the body, the blood again will be impoverished. In seeking, then, for the known causes of anæmia, we may expect to find them in these two directions —deficiency of income and excess of expenditure. I will speak shortly of each of these in turn.

In dealing with the subject of food in relation to the blood and tissue changes, attention may be mainly directed to the nitrogenous ingesta, which serve the purpose of building up the tissues, whilst the waste of tissue is measured by the amount of nitrogen excreted in the form of urea. The other organic constituents of a mixed diet—fats, carbohydrates, and gelatine,—do not directly influence tissue metamorphosis; but are none the less important in maintaining the body in a state of health, supplying by their direct oxidation heat and force, which otherwise would have to be furnished by the conversion of proteids. A sufficiency of water and of salts is also necessary to enable the processes of nutrition to go on normally, and indirectly their diminished supply induces blood changes allied to those of hypalbuminosis. The whole blood is reinforced by taking food; both red and white corpuscles are increased, and the capacity of the blood for oxygen thereby augmented. There are differences of opinion as to the precise manner in which the proteid constituents of food are disposed of, but this much is clear: that part is directly converted into fats and urea, the former to be further oxidised and eliminated as carbonic acid, or stored up in the form of adipose tissue; part retained by the liver to subserve its glycogenic function; part devoted to tissue metabolism; and perhaps a further portion to remain in storage in the blood, to be utilised in case of need. This last-named destination of the proteids is disputed by Dr. Michael Foster (to whose work I am largely indebted for this portion of the subject) on the ground that metabolism does not take place in the blood itself, but only in the tissues; and that the comparative excess of consumption of proteids in the early days of inanition, as shown by Voit and others, only proves that there is a store of material above the immediate wants of the body, not that the place of this storage is the blood. It is found also that nitrogenous food directly provokes tissue change up to a certain point, the limit being in great measure determined by the amount of oxygen available, so that the increased metabolism must be in relation to the increase of hæmoglobin in the blood and of its capacity for oxygen. Therefore, also, oxygen is as essential as food; and when from defective blood formation the amount of oxygen in the blood is diminished, tissue change is arrested, and certain retrograde metamorphoses take place which form the leading effects of the anæmic state. Quinquad found in certain cases of inanition a reduction in the hæmoglobin to one-sixth of the normal, and proved also the rapidity with which this constituent is reinforced when food is taken by starving persons; and Voit's experiments established the fact that in starvation the blood wasted in direct proportion to the loss of body weight. This obvious cause of anæmia finds abundant illustrations in disease. There is no anæmia so profound as that which accompanies grave organic disease of the stomach. Indeed, Dr. Fenwick is of opinion that the fatal forms of progressive anæmia, to which hitherto no satisfactory cause has been given, are due to atrophy of the gastric glands; that such an atrophy—if it be primary—would suffice to produce this grave anæmia is possible, but it should also, one would think, be more often accompanied by general wasting of the body—a wasting which is not by any means a constant feature of "idiopathic" anæmia. When there is wasting, latent gastric disease may be suspected. A few weeks ago there was admitted under my care at the Middlesex Hospital a man sixty-three years old who had been attacked with hemiplegia the day before. For six months past he had suffered from dyspeptic symptoms, and had grown very pale. The pallor had rather rapidly increased of late, and on his admission it was most extreme; but there was no history of any hæmorrhage, and only equivocal evidence of its occurrence in the blackening of the fæces. He was, further, much emaciated, but careful examination failed to detect any abnormal condition of the abdominal organs. One could only suspect some latent gastric disease—cancer or ulceration, with unnoticed hæmorrhages—and attribute the recent increase in the pallor to the supervention of a cerebral hæmorrhage. The number of corpuscles was 25 per cent. of the normal. For upwards of two weeks he lay in an impassive, corpse-like state; and on his death we found a chronic ulcer of the pylorus, with general chronic gastritis. The hemiplegia was due to blocking of the left internal carotid and middle cerebral artery, the former vessel being much narrowed by atheroma at its origin. Such cases as this must be eliminated before diagnosing idiopathic anæmia. Any interference to the reception or proper digestion of food, as imperfect mastication, hindrances to deglutition, functional dyspepsia, and also irregularities in taking food, as well as deficiencies in its quantity or quality, rank among causes of anæmia needing no further illustration. And as oxygen is as necessary as the ordinary elements of food for tissue metamorphosis, any interference with its due supply favours anæmia, as proved in the persons of those who habitually dwell under conditions of bad ventilation, or impurity of the atmosphere—conditions so universal and prevalent that they may fitly be included under predisposing influences. They explain the anæmiating influence of life in a crowded city, with its smoke-laden atmosphere, as contrasted with the conditions obtaining in the purer country air. Derangements in digestion, especially those of simple functional dyspepsia, are maintained by the anæmic state they induce, and it is often difficult to find where the vicious circle commenced; hence the liability to mistake effects for causes, which is one of the chief problems connected with this subject.

Of the glands which aid the peptic in the labour of digestion, the liver and pancreas may severally, when deranged, be the cause of profound inanition and anæmia. The liver has so many other important functions, and is probably so directly concerned in the process of blood destruction (and possibly of its formation also), that the manner of its action in producing anæmia is more complex than that of the pancreas, which is more purely concerned in the digestive process. Of diseases of the pancreas, however, there is only one with which we associate definite symptoms, including a marked anæmia, and that is cancer; when we have introduced a new element, the abnormal cell-growth, aiding in the impoverishment of the blood. But the marked wasting and bloodlessness accompanying such disease are surely out of proportion to the development of the cancerous mass, and are readily accounted for when the large share taken by the secretion of the gland in the digestion of proteids is borne in mind.

Passing to the processes of assimilation and absorption, it would appear from physiological data that the lacteals are little concerned in the removal of products of proteid digestion, being mainly devoted to the absorption of fatty matters. This, however, is hardly consistent with the extreme degree of inanition associated with chronic mesenteric disease, which points to a lacteal as well as a portal absorption of nitrogenous matters. We are thus led up to the final stage of blood formation; for derangements of the whole lymphatic system, and of the allied blood-forming glands, play a very notable part in the etiology of anæmia from inanition. For in the work of nutrition the share taken by the lymph is not less important than that of the blood itself. Of the two fluids, the lymph, which has its analogues in the whole animal kingdom, would almost seem to be the more necessary. But the lymph contains no hæmoglobin. This special substance—found in all vertebrates—is that which gives the blood its distinctive character, and enables it to perform its respiratory function in the widest sense. The lymphatic system is not a mere appanage to the blood system; it is an essential complement to the latter, and reinforces it in blood-corpuscles.

As I have previously pointed out, the process of blood formation, in so far as its distinctive cellular elements are concerned, appears to take place in several organs and regions of the body, where blood and lymph systems blend, and we look naturally to disorders in their mechanism to explain imperfections in the composition of the blood, not accounted for on more obvious grounds. Such derangement might result in the imperfect formation of corpuscular elements, in an over-abundant supply of leucocytes, or a relative increase in these, and of immature corpuscles failing to be transformed into the red globules. Such conditions do occur, and until we are in a position to give a name to the morbid change in the cytogenic organs themselves, we are bound to use provisionally such terms as leukhæmia and anæmia to denote the diseases of which the blood state is only a secondary result. We may be able to differentiate a leukhæmia due to splenic, lymphatic, or medullary disorder respectively, and the same may be possible as regards anæmia; and there is nothing incongruous in the idea, for example, that in Hodgkin's disease there may be sometimes a condition of lymphatic anæmia, and sometimes a condition of lymphatic leukhæmia, the question as to the distinction between such forms being one of the relative degree to which red corpuscles and leucocytes are respectively increased or diminished in number. It is from the analogy afforded by the existence of such diseases that we are driven to conclude that cases where anæmia is throughout the leading and only symptom, depending on no derangement of normal nutrition, either in the way of income or expenditure, are due to changes in these blood-forming viscera. At present but little progress has been made in this direction, and as I hope to show the derangement at the root of idiopathic anæmia is hardly more known to us than it was to Addison, who in his search for some organic change in these organs in such cases discovered the supra-renal disease, and brought to light a new clinical entity, whereby his name has become famous.

Having thus slightly, and, I fear, imperfectly pointed out how the blood may be impoverished from defects either in the materials of its formation or in the manner in which these materials are converted into blood, I pass to the remaining and far more extensive causes of impoverishment, where there is undue expenditure of tissue and of blood.

The whole work of the body is effected by oxidation, not in a simple manner by the direct combustion of material contained in the blood, but of that which is stored up in the tissues to which it has been brought by the blood. Setting aside the conversion of carbon compounds and considering only the subject of nitrogenous metabolism, we find that the nitrogenous matters brought by the blood are utilised to repair tissue waste and to aid in the actual production of energy—i.e., mechanical motion and heat. Every molecular change is accompanied by heat production, and mechanical motion appears under different forms in many of the vital acts. Muscular action is the chief source of this expenditure. It is marked by rise in temperature, the separation of carbonic and lactic acids out of proportion to the amount of oxygen consumed, indicating that some highly complex molecule is destroyed, the nitrogenous portion of which is retained by the muscle. Such changes go on, but to a lessened extent, in the muscle during rest. The nutrition of muscle, then, consists in a constant formation of contractile material periodically greatly decomposed, and as this decomposition is accompanied by heat much force is expended. Over-work of muscle does not impoverish the blood so much as might *primâ facie* be expected, and this for several reasons. The circulation is accelerated by muscular activity, and tissue changes go on more rapidly so long as a sufficient amount of oxygen and carbon compounds is supplied to the working muscle; and hypertrophy of a muscle called forth by extra work enables it to utilise more material. This, however, implies an increase in the intake of the blood; and were it not that a limit was placed by the condition of fatigue the blood would be greatly impoverished. As it is, long-continued exhausting physical labour, and its frequent repetition, undoubtedly cause anæmia. I might remark in passing that if any good is to be derived from the extravagant feats of physical endurance at present so popular, it should be by utilising them for physiological inquiry in these directions.

The opposite condition—that of lack of normal muscular activity—is a more prolific cause of blood-impoverishment than excessive action; but its mode of operation is, of course, very different. There is then diminished tissue change, diminished oxidation, and the blood suffers from being imperfectly renewed, and not from being drawn on for extra supply. Conversely, inability for physical exertion, and the readiness with which this is followed by fatigue, are prominent features of the anæmic state, and are readily explained by the lessened power of oxidation.

As regards expenditure in the production of nervous energy there is less certain knowledge than is the case with muscle. The actual chemical changes taking place in a nerve during the passage of a nervous impulse are comparatively insignificant, but those which occur in the central mechanism are probably much greater. The complexity of the construction of a cerebral molecule, for example, is very great, and its activity must, no doubt, depend upon a due supply of oxygen, as in the case of other tissues; and it is probable that for every act initiated by the nerve-cells the energy must be supplied by oxidation changes in these complex molecules. More than this, however, is probably concerned in the question of the influence of the nervous system. Its intimate relations with all parts of the body point to an exercise of control over blood formation as over nutrition and secretion, so that under certain conditions the nervous system may bring about an anæmia other than by the exhaustion of material supplied it by the blood. It is only on such an assumption that the occurrence of a profound, lasting, and even progressive anæmia following great mental shock or emotional disturbance can be explained. I am not prepared to say that this same influence does not operate in the production of anæmia from exhausting mental labour, from anxiety, or from want of sleep. It may be one factor, the other being the disproportionate expenditure of material.

In the act of secretion there is more obvious reason for believing that excessive function entails a loss of material from the blood. The secreting cell not only takes up material and converts it into its peculiar product, but such conversion often demands the destruction of the cell itself. Some secretions are composed of more complex substances than others; and the drain on the blood must be proportionally greater when these glands are too freely exercised. One of the best known instances of a symptomatic anæmia is afforded by such excessive and prolonged activity of the mammary gland, which yields a product rich in all the main elements of the blood. A like instance is afforded by the product of the male generative organs—a product of a peculiarly stable character, and endowed with highly specialised properties. It is plain on mere *à priori* grounds that an excessive production of this secretion must cause undue drain on the blood, and such is a well-recognised fact, although in both these instances the effect on the nervous system as the controller of blood formation must not be entirely lost sight of. Probably it is the same with every other secreting gland, in extent varying with the quality of the secretion. The transition from conditions of excessive discharge of normal products to those of perverted and abnormal discharges is slight. We may comprehend in one view all the abnormal fluxes—from a simple mucous catarrh to an abundant purulent discharge from a mucous tract, where the formed elements of the blood compose a great part of the discharged material. Such outpourings not only impoverish the blood directly, but where, as in the case of the intestine, they involve organs subservient to digestion and assimilation, they of course interfere with the formation of blood; and the rapidity with which a diarrhœa produces anæmia is well known. Such causes of blood impoverishment may lead to other conditions, where either the blood itself or its albuminoid constituents are poured out from the vessels. Of hæmorrhage nothing need be said. Even the monthly loss by the catamenia is represented by an actual fall in the richness of the blood. Inflammatory effusions into serous sacs, when abundant, must necessarily entail anæmia; but I do not know if the degree to which this occurs has been much studied. Quinquad, in three cases of acute pleural effusion, found a marked reduction of hæmoglobin and of the solids of the serum, and also noticed that paracentesis was followed by a further reduction of these constituents. Large inflammatory exudations, such as occur in acute pneumonia, are also accompanied by a fall in these constituents, but, according to this writer (and in that respect the observations of Drs. Baxter and Willcocks coincide), not to a very marked extent, especially when the high degree of pyrexia is taken into account. Passing from simple inflammatory exudations to suppuration, we meet with conditions of drain on the blood too obvious to require illustration.

The anæmia of chronic albuminuria forms another example in this lengthy category. A notable deficiency in red corpuscles has been shown to occur in chronic Bright's disease, and the supervention of dropsy is apparently due to the replacement of albumen by water in the blood.

The relation of malignant growths to the composition of the blood involves a subject complicated by the question of cachexia. Undoubtedly, when malignant disease is of rapid development it must deprive the blood of much nutriment, perverting it to its own ends, and living on the body in a truly parasitic manner. Or if the disease involve organs essential to digestive or nutritive functions, it must obviously indirectly interfere with blood formation. It is said that in cancer the red corpuscles are not only diminished in number, but are smaller in size than the normal, and that the hæmoglobin in cancerous subjects becomes reduced to a very remarkable degree. But that this precedes the development of the disease there is no warrant for saying, or that there is in cancer a cachexia apart from the circumstances of the growth itself, and the additional drain frequently occurring from the ulceration and hæmorrhage of the diseased mass. I have seen cancer arise in the robust and plethoric, and in such subjects it grows with terrible vigour; but it is not, of course, always so, and the problem is to discriminate between an underlying blood-condition and that induced by the malignant growth itself. It seems to be otherwise with regard to tubercle; and among the numerous points in which medicine is indebted to Trousseau is that where he declared the fact of the existence even of marked anæmia in subjects of tubercular tendency before the local manifestations of the diathesis appear. Whether it be that in these individuals the lymphatic system is primarily deranged, and the work of sanguification impaired, or whether we may look upon tubercle as a true blood-disease, I do not know. When, however, tuberculisation is declared other factors come into play to aid in the production of the anæmic state; there is abundant cell-formation and destruction of tissue, whilst prominent among all the influences is *fever*. On its special influence in inducing anæmia I must now say a few words.

The central fact in the febrile process, next to the heightened body temperature, is the increased metamorphosis of the albumen of the body, as shown in the rapid wasting of the tissues and increased elimination of urea. When to this is added the impairment of the digestive and assimilative functions, we get in fever a combination of both the conditions of blood impoverishment. The blood suffers as well as the other tissues; its corpuscles appear to be more rapidly disintegrated, their number is notably diminished, the hæmoglobin is reduced, and the pigment excreted in excess. Consequently, to maintain the increased oxidation the circulation is accelerated and the respiratory changes are more rapid. Wagner says,[1] "without any doubt metamorphosis is increased in fever. This does not occur as a simple and uniform increase of the normal process of metamorphosis, but the process of oxidation of nitrogenous substances is made more active than that of the non-nitrogenous. More especially there occurs a greater destruction of albumen, chiefly indicated by increased excretion of urea, and that in spite of the fact that the conditions for its separation are less favourable in fever because of the diminution in the amount of urine. Even under the most favourable circumstances we find in fever patients an average increase in the excretion of urea amounting to more than double what is thrown out in non-febrile states under otherwise similar conditions. According to a number of investigations, it is the red blood-corpuscles—that is to say, those elements which we know to take up oxygen from the air and serve to transport it to the tissues—which suffer most in fever. If the organism in fever cannot appropriate as much oxygen as in the same dietetic conditions in the non-febrile state, it likewise cannot furnish as much products of oxidation. But as larger quantities of oxygen are used in the formation of a greater amount of urea, it is probable that an excessive formation of other products of combustion (so often asserted) does not take place." The present methods of blood analysis have not wholly substantiated these inferences (Baxter and Willcocks), but as these methods take no cognisance of alterations in the density of the blood, these results can hardly be quoted against the manifest effects which fever produces in its subjects, and the plain evidence of increased tissue metamorphosis afforded by urinary analysis.

I must also enumerate, to complete the list of known causes of anæmia, certain diseases (in many of which fever plays a part) which are specially characterised by alterations in the composition of the blood. Scurvy is an example of such a disease. Arising in defects of diet, it is, as Dr. Ralfe has demonstrated, productive of a diminished alkalinity of the blood, which in its turn leads to corpuscular disintegration, and all the effects following upon this. These effects are probably then largely dependent on the anæmia of the disease, for the changes in the viscera and bloodvessels are similar to those met with in profound anæmia. Quinquad has noted a very marked reduction of hæmoglobin in scurvy. In acute rheumatism anæmia is a prominent symptom from the first, and it is an example of a disease in which the blood is directly influenced. Diminution in corpuscles has been noted both in acute rheumatism and in acute gout. The anæmia induced by the malarial poison is sufficiently accounted for by the degree to which the more important organs concerned in blood formation are influenced by it. The subject has been especially studied by Kelsch, who found in simple intermittent fever a considerable decrease in the number of red corpuscles after each febrile paroxysm, followed by a partial return to the normal—a renovation which was not accomplished owing to the recurrence of the paroxysm, so that the anæmia is maintained and intensified as long as the fever lasts. The subsequent malarial cachexia is marked by a lowering in the number of blood-corpuscles. Quinquad's estimations of hæmoglobin teach the same fact, and, in addition, he remarks upon the considerable diminution in the solid matters of the serum in malarial disease. Lastly, in syphilis we have an animal poison, probably directly affecting the blood, and showing its effect in diminution of the red corpuscles and hæmoglobin.

Amongst mineral poisons lead and mercury are powerful agents in the impoverishment of the blood. Workers in lead are always anæmic, often to an extreme degree. This may be in part due to the direct action of the metal on the blood; but it is at least an open question whether, in view of its action upon the nerve tissues, it does not also operate by impairment of sanguification through disordered innervation. Observations are not wanting to show that there is a considerable diminution in corpuscles and colouring matter in chronic lead poisoning. I have included phosphorus in this category, although its precise mode of action is doubtful; acute poisoning by phosphorus leads to changes which seem related to deprivation of the blood of its oxygen; but whether this is in consequence of a directly noxious effect on the corpuscles or not I cannot say.

Lastly, some forms of anæmia in tropical climates, especially that form known as "Egyptian chlorosis," were explained by the discovery of a blood-making nematoid parasite, the *anchylostomum duodenale*, which may exist in large numbers in the upper part of the alimentary canal, where it is conveyed by the ingestion of impure water. The obscure disease which proved fatal to some of the workers in the St. Gothard tunnel was shown to be due to the presence of this parasite, which "bites its way into the mucous membrane, pierces the submucous cellular tissue, and subsists on the blood. After its removal there remains an ecchymosis, the size of a lentil, the centre of which presents a white spot of the size of a pin's head, with a fine hole. Out of these wounds the blood oozes into the intestinal cavity" (Wagner).

Having thus reviewed the conditions liable to lead to the impoverished state of blood known as anæmia—conditions of defective nutrition and impaired sanguification on the one hand, excessive expenditure and loss of nutritive elements on the other, and certain specific and other poisons, and parasites, there yet remain for consideration certain influences in the individual or in his conditions of life which operate powerfully to the same end. These influences—to which, for want of a better term, the word predisposing is usually given—include the factors of age, sex, heredity, and occupation; and the influence of light, air, and climate. With a brief reference to each of these in turn I shall conclude this portion of my subject.

In the growing organism the process of blood formation is at its height. We have seen how in fœtal life the elements of the blood are developed from the mesoblastic tissues almost indiscriminately. As parts become more specialised this function is limited to cetain special tissues, which are embraced under the term "cytogenic." In infancy and childhood the cytogenic tissues obtain their acme of development, and share with all the nutritive processes in the work of building up the body. The whole organism is thereby modified; it is mobile and plastic; repair and renovation are more rapidly effected; tissue change, and therefore oxidation, are increased, the temperature of the body heightened, and circulation and respiration accelerated. I cannot forbear quoting the terse sentences of Dr. Michael Foster as he sums up the nutritive conditions obtaining in the infant organism. He says:[2] "Metabolism is directed to constructive ends. The food taken represents, undoubtedly, so much potential energy; but before that energy can assume a vital mode the food must be converted into tissue; and in such a conversion, morphological and molecular, a large amount of energy must be expended. The metabolic activities of the infant are more pronounced than those of the adult; for the sake, not so much of energies which are spent on the world without, as of energies which are for a while buried in the increasing mass of flesh. Thus the infant requires, over and above the wants of the man, not only an income corresponding to the energy of the flesh actually laid on, but also an income corresponding to the energy used up in making that living sculptured flesh out of the dead amorphous proteids, fats, carbohydrates, and salts, which serve as food." Thus, then, in the growing organism we have not only a greater instability in the nutritive processes, but also a direct source of expenditure in the very fact of growth itself. In consequence of that instability, we find how comparatively slight causative influences may lead to considerable defects in the blood, reducing it below the physiological standard; and in the fact of growth we see how the tissues may demand more nutriment than the blood can supply, and an anæmia special to the period of childhood and adolescence may readily be provoked.

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[1] Elements of General Pathology (Seguin's Edition), p. 660.

At the other extremity of the cycle of life, when the demands are lessened, when all tissues and organs more slowly perform their functions towards the close of the long years of activity through which they have passed, when all the nutritive processes take place with a sluggishness in contrast to the period of active growth; the blood (no longer required for the purposes of growth or the renewal of tissues) loses in corpuscular richness and in hæmoglobin, so that one feature of the natural decline of life is the presence of slowly deepening anæmia, which in its turn probably aids in the diminution of the vital powers. It is plain that a very slight derangement, either in the direction of intake or that of undue waste, must readily influence and intensify this senile anæmia and marasmus.

Turning now to the contrast afforded by the sexes, which up to the age of puberty advance almost in parallel lines, we find, in the first place, there is a difference in the precise composition of the blood (see Table I.), that of the female being notably less rich in corpuscles and hæmoglobin than that of the male; and although this difference in health is, doubtless, in precise relation to the amount of work called for in each sex, yet, in consequence of it, the female is rendered more liable to anæmia. She is also subjected to influences special to her sexual function. Ovulation and menstruation go on in health with regularity, and the blood loss they entail is readily renovated. But they are most easily influenced by derangements in health and nutrition; and, on the other hand, when diminished or excessive, may be important factors in the production of anæmia. Pregnancy, the puerperal period, and lactation severally subject the female to anæmiating conditions, and the cessation of the menstrual function is often the period at which anæmia is developed.

I have no doubt that heredity plays some part in disposing the organism to anæmia, but it is not easy to give instances. A tendency to anæmia may certainly be transmitted, just as a tendency to hæmorrhage, in hæmophilia.

The other conditions, which I have included under predisposing causes, frequently co-operate. Occupation may involve deprivation of a due amount of light and air, the exposure to heightened temperature, and a want of due amount of sleep. I need hardly particularise them further: they are influences which are almost as much exciting as predisposing causes of anæmia; they stand, at any rate, on the borderland between the two groups in the etiology of the condition.

The influence of climate is well known as favouring the anæmic state, the subjection to prolonged tropical heat having a direct influence over and above that which is due to the inertia called forth by life under such conditions.

In conclusion, it must be borne in mind that any given anæmia may arise from a multiplicity of causes, each of which is sufficient of itself to have induced the state; and in the second place the impoverished blood itself reacts on the organism in such a way as to maintain and intensify the anæmic condition. For all the vital processes are influenced by blood defective in the oxygen-carrying substance—hæmoglobin. Hence the capacity of blood for hæmoglobin must be increased, as well as the removal of the primary cause or causes, if any given anæmia is to be remedied. Metabolism must be quickened, and oxygen supplied for that purpose. I should have hesitated, in this hasty survey of the known causes of anæmia, to take you over ground so familiar if this were all that the subject comprised; were that the case, there would have been no need to discuss the subject at all. But when the category of known causes is exhausted, there remain cases of more or less profound and progressive anæmia, to which hitherto no sufficient explanation has been given. It is the existence of such a class of "idiopathic" cases that has induced me to speak to-day of the factors known to operate in producing the anæmic state, before proceeding to the consideration of that class of diseases to which I shall invite your attention in my next lecture.

CASE OF

ANEURISM, FIRST OF ONE FEMORAL ARTERY, THEN OF THE OTHER;

LIGATURE OF BOTH WITH CARBOLISED CATGUT, AND ANTISEPTIC TREATMENT; CURE.

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AT the present time, when we have been hearing so much of cases in which the application of the catgut ligature to an artery in its continuity has been followed by unsatisfactory consequences, it may be well to place the following on record, which, besides its bearing upon this particular question, is one of very considerable clinical interest. I may preface the account of the case by saying that not only was the progress of the patient after both operations quite satisfactory, but there can be no doubt that both of the arteries to which the ligatures were applied have been completely obliterated at the seat of operation.

A. T——, aged thirty-four, was admitted under my care into University College Hospital on Aug. 27th, 1878. By occupation he was a cab-driver, and had been a great beer-drinker, but had not taken much spirits. He had suffered from gout, but there was no history of rheumatic fever, nor could conclusive evidence of venereal disease of any kind be obtained: he was unconscious of having sustained any injury. For a fortnight previously the patient had noticed a slight catch in the knee and some pulsation, and for nearly a week he had suffered some actual pain. His general condition was not good: he had a bloated appearance, with distended cutaneous veins, a furred tongue, and a tendency to fine tremors of the limbs. He was emphysematous, and had scars of old ulcers on the legs. The apex beat was hardly to be felt, except at the epigastrium; but there was no cardiac murmur, and but slight tendency to arterial disease, as shown in the more superficial arteries of moderate size. In the right popliteal space was an aneurism of considerable size and irregular in shape. The pulsation, which was comparatively superficial, and seemed to indicate that the walls of the aneurism were thin, was most marked two inches above the lower border of the internal condyle, but it extended outwards to the outer border of the limb, and upwards to a line three inches above the crease of the ham. The knee was slightly flexed, and the limb, which lay upon its outer side, was considerably œdematous below this joint, the cutaneous veins being markedly full. The posterior tibial pulse was weaker than that on the opposite side.

At 8.30 P.M. on Aug. 27th the limb was bandaged, and after being flexed at an acute angle, was fixed by means of bandages in this position, some cotton-wool having previously been placed in the ham. Half a drachm of bromide of potassium and half a drachm of tincture of opium were administered. There was considerable pain during the night, and the patient slept very little. The following morning the bandages were loosened, but as no change had occurred in the aneurism, they were reapplied till 4 P.M. on the 28th, making altogether nineteen hours and a half, when beyond the disappearance of the œdema from below the knee no alteration had taken place. On the afternoon of the 29th I had proposed to ligature the superficial femoral, but when taken into the theatre the patient's condition appeared so critical, his pulse becoming very feeble and his countenance cyanotic, while the tremor previously noted had markedly increased, that it was decided to defer the operation for a time. He was accordingly taken back to bed. A low diet was ordered, and a mixture containing ten grains of iodide of potassium and twenty grains of bromide of potassium was given every three hours. On Sept. 2nd compression was begun with Carte's compressor, and continued for four hours and a half without effect. The patient complained of great pain, so that the treatment could not be continued for a longer time. On Sept. 4th digital compression of the common femoral was practised for twelve hours, the pulsation in the aneurism being completely arrested for by far the greatest part of this time. This again caused the patient almost unbearable pain, though hypodermic injections of morphia were freely administered. On Sept 6th, as the patient's general condition had decidedly improved, and as the means adopted for the cure of the aneurism had proved completely ineffectual, I proceeded to tie the superficial femoral artery in the usual way at the apex of Scarpa's triangle. A catgut ligature kindly given me by Mr. Lister was employed, and strict antiseptic precautions were followed throughout the operation. This was performed at 2 P.M.; at 6 P.M. the patient had a shivering fit, and his temperature rose to 103·6° F., but by 11 P.M. it had fallen to 101·6°; on the 9th it was 100·4°, and after that kept between 99° and 100°, which indeed appeared to be his normal temperature, as it never sank below 99° except on one occasion. There is little to remark about the progress of the case. I employed a horsehair drain, which did not work perfectly, the result being that a little serum collected in the wound, and at one time there was a drop or two of pus. In consequence of this the progress was rather slow, the wound not being completely healed till four weeks after the operation. A slight pulsation was felt in the aneurism from the 11th to the 15th of September, but this completely disappeared, and by the time the patient left the hospital, on Oct. 14th, there was only a firm tumour of the size of a bantam's egg in the popliteal space. There was some tingling pain about the inner condyle, and occasional shooting pain at the inner and lower part of the thigh. No pulsation in the posterior tibial artery or dorsal artery of the foot could be detected.

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[2] Text-book of Physiology, 3rd ed., p. 633.

I saw the patient from time to time after this, and watched the gradual diminution in size of the aneurism, which, when it had reached a certain point, became stationary, a small, hard, non-pulsating tumour remaining in the ham. In the early part of April, 1879, he began to complain of stiffness and coldness in the left calf, and on examination it was found that he had a small circumscribed aneurism in the ham on this side. His general health was now much better than it had been on the previous occasion, he having observed more temperate habits in the meantime. On Feb. 27th the circulation was completely controlled in the limb by means of an elastic bandage, applied over a flannel bandage, above and below the knee, the joint itself remaining uncovered. This was continued from 10.5 A.M. till 11.5 A.M., one-sixth of a grain of morphia having been given subcutaneously. The pain at last became unbearable, and it was impossible to continue the treatment without administering an anæsthetic; the bandage was accordingly taken off after screwing down a Carte's compressor three inches below Poupart's ligament. At 1.45 it was found that the tourniquet had slipped, and the aneurism was pulsating; it was relaxed for a quarter of an hour and then reapplied at 2.5 P.M., and the pressure was continued till 6.10 P.M., when it was finally removed. No alteration in the tumour had taken place. On the 28th a conical shot-bag was applied to the artery, so as almost completely to stop the circulation. The bag was slung from a bar, which passed over the bed, and the position was regulated by the patient himself. Its employment was begun at 10.45 A.M., and was continued almost without intermission till 7 A.M. on the 29th. After the bag had been applied for eleven hours the tumour seemed decidedly harder, and to be pulsating less, but when finally removed but little, if any, change from the original condition could be perceived. It is, of course, highly probable that the pressure was not efficiently applied during the whole of this period, as so much of the regulating of the position of the pad remained in the hands of the patient himself. A good deal of redness and tenderness of the skin was caused by the pressure of the shot-bag. On March 6th it was noted that the aneurism was decidedly larger and softer. At 1.48 the elastic bandage was reapplied without the previous application of the flannel bandage, so as completely to stop all circulation. One-third of a grain of morphia was given hypodermically. At 2.45 the pain had become unbearable, and the bandage was accordingly removed, the shot-bag having been previously applied; but as this was not quite in position at first, it was ascertained that the pulsation in the ham still existed. The pressure was continued efficiently till 10.40 P.M., when it was removed, and the pulsation was found to be less. On the 7th the shot-bag was again used for some hours without benefit.

As no effect was produced upon the tumour, which indeed was obviously increasing in size, I determined to ligature the vessel. This was accordingly done in the usual way, and with strict antiseptic precautions, on March 12th. The healing of the case went on very satisfactorily, and was complete, with the exception of a small superficial patch of granulations a quarter of an inch in diameter, by April 2nd. As in the previous operation, the drain did not act perfectly at first, and therefore the healing was not quite so rapid as might have been expected in an aseptic wound. The temperature reached 101° on the 12th, 14th, and 15th. On the 19th the maximum was 99°, and it did not afterwards exceed this limit. From the 20th to the 22nd very slight expansile pulsation in the aneurism was detected, which after this disappeared.

On May 17th the following note was taken:—Left leg: pulsation felt in femoral, below the seat of ligature, when the limb is extended, and sometimes a little in the popliteal space. A little hardness, in the shape of a stout cord, is felt in the ham, and a little pulsation can be detected apparently in this. There is a weak pulse in the posterior tibial. The nutrition of the limb is good. Some stiffness is complained of in the ham. On the right side no pulsation is felt in any part of the limb below the seat of ligature. The thickening in the popliteal space is decidedly less than when the patient was in hospital. The pain and stiffness are more than in the opposite limb.

On February 16th, 1881, two years and a half after the patient first came under notice, I made a very careful examination of the two limbs, and the following note was taken:—In the left leg (the second operated upon) the femoral artery can be felt pulsating as far as the upper part of the scar of the operation wound. Below this it is imperceptible, and, indeed, the only point at which any pulsation lower down in the limb is to be detected is in a vessel of some size which lies close to the inner hamstrings; the posterior and anterior tibial pulses appear quite deficient. Some occasional and indefinite discomfort is felt below the knee on this side, especially in cold weather; but this appears to be diminishing. On the right side, in the same way, the femoral pulse is not to be felt below the upper part of the scar; and here, again, only one vessel was, after a prolonged search, felt to be pulsating. This accompanies the external popliteal nerve to the head of the fibula, and is smaller and more superficial than that felt on the left side. No discomfort or pain remains in the right limb at all. On neither side is any trace to be discovered of the aneurism, the thickened cords mentioned in previous notes having completely disappeared. He says that in very severe weather his limbs feel a little more cold than was the case before the occurrence of the aneurism; but this is not enough to inconvenience him to any extent. His general health is now excellent.

Those who have watched the treatment of aneurisms by the various methods of compression in vogue, or who have read the published accounts of such cases, cannot fail to be struck with the fact that while in many instances the results are brilliant and in every way satisfactory, it not unfrequently happens that after submitting the patient to a prolonged and painful ordeal he is in no way relieved, if indeed his condition be not materially altered for the worse. For it must be remembered that after consolidation of an aneurism as the result of such treatment, gangrene of the limb is not by any means unknown; and not only so, but it is at least possible that the vessels and the surrounding tissues may have been, as the result of the pressure, placed in a less favourable condition for the application of the ligature than they were previously. The surgeon who has, as the result of experience, complete faith in the efficiency of the antiseptic system to prevent the various dangers which are incidental to the existence of the smallest open septic wound, and who knows that it is a matter of certainty that the small wound involved in the ligature of the femoral can be kept aseptic, would therefore, I think, hardly hesitate to tie the femoral without much delay in a case of popliteal aneurism if he were quite certain that the ligature employed was in every way trustworthy. Up to the present time this has unfortunately not been possible. We have several cases on record in which the ligature has no doubt yielded too soon, with the result of allowing the artery to become again patent; in some of which it may be presumed that the gut employed had not been sufficiently prepared, but in others it appears that the very best material to be had was made use of. The tests to which Mr. Lister has subjected the ligature, the preparation of which he has recently described, seem to show that it may be thoroughly trusted to withstand the softening effect of the tissues until the obliteration of the vessel has been completed, and therefore I, for one, shall feel little disposed to subject a patient to prolonged attempts at cure by compression. It has recently been suggested by Mr. M'Carthy and Mr. Treves that a certain amount of inflammation round the vessel is essential to the formation of a clot strong enough to withstand the force of the circulation. Cases such as mine, and many others which are on record, appear, in my opinion, to dispose at least of the universality of the truth of this position; and those who would argue in favour of allowing putrefaction to occur in the wound in order to ensure the amount of inflammation which is supposed to be necessary, will do well to bear in mind the following facts:—In the first place the existence of putrefaction is certain to accelerate the softening of the catgut ligature; and in the second place, it has been amply proved by the experience of generations that the inflammatory tissue is by no means always strong enough at the time at which secondary hæmorrhage is likely to occur to prevent the occurrence of this disaster. It is notorious that when hempen or silk ligatures were employed the danger of secondary hæmorrhage was real, and always present, but as far as I know it has never yet followed the application of the catgut when the wound has been kept aseptic to the last. It would seem therefore that even with the old imperfect material, a distinct advance had been made in the direction of safety, the inconvenience of the opening up of the vessel having been substituted for the danger of secondary hæmorrhage; it is surely fair to assume that with the improved means at our disposal, both the inconvenience and the danger will have been done away with, and we may now resort to the ligature with greater confidence than at any previous period in the history of surgery.

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THE PATHOGENY AND TREATMENT OF BRONCHOCELE OR GOITRE.

BY EDWARD WOAKES, M.D. LOND.

(Continued from page 450.)

AS already stated, the object of conducting the treatment in the present series of cases was to determine whether fluoric acid exercised any curative influence over goitrous diseases. The result—17 recoveries and 3 failures, or 85 per cent. of the former—gives what I think may fairly be considered an affirmative answer to this point. But it will be observed from the details that the treatment extended in most of the cases over a lengthened period of time—time that might not be accorded in other than hospital patients. In endeavouring, therefore, to estimate the position of fluoric acid as an anti-goitrous remedy, I certainly should not regard it for this reason alone, irrespective of its occasional failure, as occupying the position of a specific. It is to be regarded rather as a basis of constitutional treatment, with which iron in anæmic patients may be advantageously combined; while coincidentally with its internal administration recourse may be had to such local proceedings as experience has shown to favour the dispersion of goitre. It is matter of observation that when fluoric acid is adapted to a given case, its effect upon it is often immediate and rapid. As an illustration of this point I may refer to a young man who came under treatment at my out-patient clinic for the first time on Feb. 8th, 1881. He had a fibrous goitre of two years' duration, which was steadily increasing. Laterally it extended from the clavicles to the level of the hyoid bone on each side, while the isthmus was hard and prominent, the girth at this point being 16¾ in. He was given half-drachm doses of the acid three times daily. On his next visit, Feb. 15th, just one week, he volunteered the statement that the tumour had gone down half an inch, which on measurement proved to be the case. Perpendicularly the diminution was greater than this, the lobes now reaching only to the level of the cricoid cartilage. In such a case one would be content with the acid treatment. But there are others in which improvement goes on up to a certain point only, the peripheral portions of the tumour disappear, but its centre remains firm and large as ever. Then I should add the plan which originated with Professor Lücke, formerly of Berne and now of Strasbourg, and which has ever since been extensively practised at the Throat Hospital—viz., that of injecting the substance of the tumour with tincture of iodine. After this absorption recommences, and often it only requires to continue the acid, or a second injection may be necessary. The evidence points with certainty to this fact, that when fluoric acid is administered internally, but is insufficient of itself to cure the disease, the number of injections necessary for this purpose is materially diminished, a point not unworthy of notice by those who are nervous on the subject of injecting bronchoceles. On the other hand, some of the cases indicate that fluoric acid alone has proved efficacious, after injections and every other method had failed. From all these considerations it will, I think, be conceded that we have in this drug a valuable adjunct for treating diseases of the thyroid gland.

A brief recapitulation of the points already insisted upon will serve the purpose of indicating in what the *modus operandi* of fluoric acid and its allies consists regarded from a therapeutic point of view. The vessel area of the thyroid gland has become a part of least resistance, as regards the vascular system at large. This implies a fault not so much in the bloodvessels themselves as in the sympathetic ganglia which furnish the nervi vasorum of these thyroid vessels; the power which maintains them in equilibrium is thus to a great extent lost or exhausted. Hence they exhibit a very slight resistance to the blood pressure originating in the heart; they yield, in fact, to the *vis a tergo* of the blood current, and so receive more blood than normally should be the case. My contention is that the fluorine restores the lost contractile function to the impoverished ganglia, either by acting as a physiological spur to their function or, which is equally admissible, by furnishing a deficient element in their composition, one without which the nerve currents generated in them are reduced to *nil*. The supply of the missing element acts like the recharging of an exhausted galvanic cell.

CASE 1.—F. H——, a female, aged twenty, living at Camden-town, has had goitre for two years. In November, 1876, there was a fibrous enlargement of both lobes and isthmus, the right lobe being firmest and largest. The girth of the neck was 15½ in. Till July, 1877, she was treated with iron and iodide of potassium, with very little result. She was now given fifteen minims of fluoric acid (half per cent. dilution); but she almost immediately took typhoid fever. In March, 1878, she was again put on the acid, and in the three months following received altogether nine injections of tincture of iodine into the substance of the tumour. From June, 1878, the treatment was confined solely to the acid internally, the dose being increased gradually to thirty minims. In March, 1879, she was well, the tumour having disappeared. In February, 1880, she remained free from the disease. The period during which the acid was taken was nine months.

CASE 2.—C. P——, a female aged forty-seven, a governess, living at New Cross, presented on June 14th, 1878, a fibrous enlargement of the left lobe of the gland, of the size of a hen's egg, causing her considerable difficulty in swallowing. She began with twenty minims of the dilute acid three times daily on June 14th. On the 21st the swelling was much larger and softer, but she swallowed better; this enlargement is a good sign. On the 29th the dose was increased to thirty minims; on July 5th to forty minims; and on August 2nd to fifty minims. The tumour became softer and smaller gradually, and in November it had quite gone. The time of treatment by acid was six months.

CASE 3.—A. B——, a female, aged seventeen, a needlewoman living at Clerkenwell. She had soft goitre of the entire gland; girth 14 in. She began the fluoric acid with twenty minims on May 28th; in June thirty minims; in July forty minims; girth was now 13 in. This dose caused flatulence, so she took thirty minims to the end of the year; in January, 1879, fifty minims; in March seventy minims; in June she was well. Duration of treatment about twelve months. She had previously been blistered, and had undergone other treatment without benefit.

Case 4.—S. S——, a female, aged sixteen, a servant, living near Regent's-park. Disease commenced five years previously when living at Hertford, after suffering two accidents in quick succession. In August, 1877, she presented a goitre which extended nearly to the chin, in parts very firm, in others soft; girth 14½ in. During August and September she was twice blistered, and took iron, iodides, and bromides internally. She had also one injection of tincture of iodine. In October there was no improvement; dimensions as at first; she was given twenty minims of dilute fluoric acid twice a day. At the end of three months the girth was 13 in. In March, 1878, thirty minims; in April, forty minims. In May the girth was 12½ in., and the dose caused some sickness. In July the girth was 12 in. She continued the treatment to the end of the year, by which time the tumour had quite gone. Time, nine months.

Case 5.—L. S——, aged nineteen, milliner, living at Highbury. She presented in April, 1878, a simple, soft goitre of the entire gland; girth 13 in. There were also several enlarged lymphatic glands on the left sterno-mastoid. The disease had lasted one year. On April 23rd she was given twenty minims of dilute fluoric acid and one grain of sulphate of iron in an ounce of water three times a day. On May 14th the dose was increased to twenty-five minims, and on June 11th to thirty. This was continued till October, when the swelling had disappeared.—Note: Some swelling returned in the thyroid a month from this date after singing, but rapidly subsided. This fact bears on the foregoing remarks respecting the causes which bring about enlargement of the thyroid. Time, six months.

Case 6.—M. P——, aged sixteen, a nursemaid, living at Westbourne-park. She presented a simple, soft goitre of the entire organ, causing considerable dyspnœa. It had existed one year and a half; girth 13¾ in. On Sept. 4th, 1877, she was given fifteen minims of dilute fluoric acid. On Sept. 25th she breathed more comfortably, but had some headache. On Oct. 30th the tumour was receding, and on Nov. 13th there was marked diminution. Medicine caused sickness; to take half the dose. On Dec. 11th she was cured. Time under treatment, six months.

Case 7.—H. F——, aged fourteen, clerk, living at Camberwell; simple soft goitre. Was under a colleague from November, 1877, till April, 1878. He was transferred, for his own convenience, to the evening clinic. At this latter date the girth was 14 in., and the tumour reached the upper margin of the thyroid cartilage. On April 8th, 1878, began with thirty minims of dilute fluoric acid; April 30th, forty minims; May, fifty minims. The girth was now reduced to 12½ in. July, sixty minims. In September the disease remained stationary; the acid was discontinued, and he was directed to rub in red iodide of mercury ointment. This was withdrawn after a month's use, no effect being produced on what remained of the swelling. On Nov. 5th recommenced with thirty minims of fluoric acid; December, fifty minims. In 1879 there was marked improvement, especially in the perpendicular diminution. He continued the acid till June, by which time the gland was reduced to normal. The period during which the acid was taken was thirteen months.

Case 8.—C. W——, aged twenty-four, female, married, living in Long-acre; duration of disease six months. On June 7th, 1878, a tumour was presented in right lobe about the size of a walnut, and painful. Ordered twenty-five minims of dilute fluoric acid three times a day. On June 21st the tumour was smaller and free from pain. Given thirty minims of fluoric acid. On July 16th the tumour was still smaller. After this date the patient did not attend again. Practically cured; time six weeks.

(To be concluded.)

At Dorking several horses have been poisoned by eating the leaves of the yew-tree. The toxic character of the leaves of the Taxus baccata should by this time be well known.

BLOOD-CASTS WITHIN THE CAVITY OF THE UTERUS AS A CAUSE OF UTERINE HÆMORRHAGE.

By MATTHEW J. RAE, M.D.,
PHYSICIAN, BLACKBURN AND EAST LANCASHIRE INFIRMARY.

Hæmorrhage from the uterus, unconnected with pregnancy, is often very embarrassing to the medical practitioner on account of the frequency, extent, and persistence of the discharge, and its resistance to treatment apparently the most appropriate to the case. There are probably no diseases in which a thorough knowledge of the pathological condition of the part affected is more necessary to the practitioner than in those affecting the uterus and its appendages. Without such knowledge it is impossible either to have an exact idea of the state of the organ and the causes operating in the initiation or continuance of its disorders, or to devise the medical and surgical means necessary to remedy the existing defects and promote the return of the uterus to its healthy and normal condition. Systematic writers on the diseases of women, in their enumeration of the causes of hæmorrhage from the unimpregnated uterus, do not allude to blood-casts contained within the uterine cavity as a cause of it. Graily Hewitt is the only modern author, so far as I know, who makes mention of it, and only in a cursory way as a rare occurrence. Dr. Ashwell, in his valuable work on Diseases of Women, merely alludes to it as having occurred in one of his patients, a lady at the climacteric period, who suffered from congestive menorrhagia. He does not connect the protracted passive hæmorrhage with the blood-casts. There was scarcely any pain attending the attack, at least none requiring an anodyne to allay it. From the fact of a blood-cast as a cause of uterine hæmorrhage being so seldom recorded in works on uterine diseases, one might conclude that it was either a very rare occurrence or that it had been overlooked. I am inclined to think that it is not so rare, and that its presence has been often unrecognised, and the accompanying hæmorrhage attributed to some other local or constitutional cause.

The uterus is very intolerant of any foreign substance within its interior. A blood-cast generally excites severe uterine contractions, causing violent paroxysms of pain in the hypogastric region, of an expulsive character, and which show a certain periodicity in their recurrence. They resemble labour pains, or those of inflammation or severe spasmodic disorder. With the accession of a paroxysm of pain there is increased hæmorrhage. This state may continue for a considerable time, and probably lead the medical attendant to form various conjectures as to the exact nature of the case, thinking it may be some morbid growth attached to the inner surface of the uterus, an abortion, or even malignant disease of the uterus itself in its primary state. After the expulsion of the cast or blood-clot the violence of the pains subsides; but the hæmorrhage may go on, in a slighter degree, for some time afterwards. It may even continue, like the passive hæmorrhage in congestive menorrhagia, over one or two monthly periods, which renew its force and increase the hyperæmic condition of the already congested uterus. On digital examination the uterus feels more or less enlarged, and is tender and painful on pressure, frequently more so on one side than on the other. There is tenderness to the touch above the pubes, and generally also over one or other ovarian region. The speculum shows the os uteri swollen and patulous, with blood oozing from it. The blood-cast under consideration does not include that sometimes met with in menorrhagia or abortion, and it is probably formed somewhat in the following manner:—The subject of it during a catamenial period, when the uterus is in full functional activity, receives suddenly a severe mental or physical shock, which at once arrests the discharge, and paralyses as it were the uterus. After a time the effects of the shock pass off, and the uterus recovering its power a little, a slow oozing of blood takes place into its cavity. This gradually coagulates, and the coagulum is moulded to the form of the interior of the uterus. When the clot is expelled, it is found to be more or less an exact model of the uterine cavity, is smooth on the surface, and of varying degree of firmness, of a reddish and sometimes of an ashy-grey colour.

The best mode of treatment is first to remove the blood-cast, and afterwards to check the hæmorrhage, and relieve the congestion of the uterus. With this view, ergot in full and repeated doses should be given along with ipecacuanha, sedative solution of opium, or belladonna. Should there be great irritability of the stomach, a hypodermic solution of ergotin and morphia, or atropia, may be used instead. After the expulsion of the clot, ergot in small doses should be continued for some time, and combined with belladonna or cannabis indica and cinnamon, or the tincture of acteæ racemosa instead of the ergot, if the constitution of the patient is rheumatic. The ergot checks the hæmorrhage by exciting uterine contractions; but it lessens it also by its constringent effect on the capillaries, and thus tends to relieve the uterine congestion.

It is not always an easy matter to effect the cure of a highly congested uterus; this is partly owing to its position and partly to the peculiarity of its blood-supply. Some authorities recommend, in such cases, scarification of the os or the application of leeches to it. This plan of treatment does not seem to me at all rational. It is surely better to endeavour to determine the flow of blood from than to a congested organ. In active hyperæmia of the brain, or inflammation of its coverings, leeches are applied with effect behind the ears, or the cupping glasses to the nape of the neck or between the shoulders. On the same principle I think leeches should be applied to the labia, above the pubes, or over the insertion of the broad ligament of the uterus, as advised by Dr. J. Whitehead and others, or over the ovarian region or the sacrum, if these parts are the seat of pain.

Should there be great fulness of the hæmorrhoidal vessels or hepatic congestion, much advantage will be obtained by leeching round the anus. The extent of the hæmorrhage does not contra-indicate further depletion by means of leeches or cupping. Their judicious employment will be found of great service, along with appropriate remedies, both in checking the hæmorrhage and in restoring the congested uterus to its normal condition. Plugging the vagina will hardly ever be needed in these cases.

It may be necessary to give along with ergot, or without it, tannin, gallic acid, one or other of the mineral acids, or some astringent preparation of iron — the perchloride, pernitrate, tincture or sulphate with or without salines, combined according to the exigencies of the case or the predilections of the practitioner. With the internal exhibition of medicine, the frequent use of astringent and sedative injections per vaginam should be had recourse to. The skin and state of the kidneys demand attention, and the bowels must be kept open, as constipation tends to produce and maintain uterine congestion. For the hypogastric pain nothing answers better than either the compound chloroform and aconite liniment, or mercury ointment with extract of belladonna, applied over the affected part.

The patient ought to be kept in the horizontal position, and during the day to recline on a couch so soon as her condition will admit of her safe removal from bed. A regulated diet should be enforced, and all strong wines and spirits prohibited, unless there is great exhaustion, when small quantities of them may be cautiously given. In some extreme cases, where there is danger of fatal collapse setting in, a large quantity of these stimulants may be absolutely needed. But in the ordinary hæmorrhage from any form of congestion of the uterus my experience is that they are not required, and, if given, do harm by keeping up the hyperæmic state of the uterus. Instead of the heavy wines and spirits, Bordeaux or similar light wines may be allowed; they assist digestion and are refreshing, tonic, and slightly astringent.

By the employment of the means already indicated convalescence will be gradually established; and afterwards, by the proper use of alteratives and tonics (mineral and vegetable, both nervine and general), the cure will be effected and the general health re-established, which may be hastened by change of air and a course of chalybeate or other mineral waters.

Blackburn.

CHILDREN'S HOSPITAL, BRISTOL. — The annual meeting of this charity was held on the 19th inst. The report stated that of the 399 little patients admitted during the past year, 212 were restored to their friends cured, 128 were benefited, and 11 died. A new site for the hospital has been secured, and the committee are waiting hopefully for the funds necessary to enable them to construct a suitable building thereon.

OBSERVATIONS ON CASES OF

PNEUMONIA TREATED IN THE DIVISIONAL FIELD HOSPITAL, CABUL, 1879-80.

BY J. MORRIS, M.D.,
SURGEON, ARMY MEDICAL DEPARTMENT.

DURING the late campaign in Afghanistan thirty-five cases of pneumonia were under my care at Cabul, all of which belonged to a single Highland regiment. Disease in the greater number of cases was induced by overwork, combined with exposure to severe cold and want of sleep. A large proportion of cases was admitted during the first five days of January, 1880, partly due to reaction after the excitement of the siege. Several of the cases must have contracted the disease on New Year's eve, which is a great festival in Highland regiments. The barrack-rooms in Sherpur were very cold, being 60 ft. by 16 ft.; a small fire at each end had very little effect on the general temperature of the room. The floors were constantly damp, water being found about three feet from the surface. There was no attempt at ventilation. In eighteen cases the right lung was affected; in ten, the left; the remaining seven had both lungs implicated. Mortality, eleven, or 31·4 per cent. Double pneumonia, four fatal out of seven, or 57·14 per cent. Average duration of cases, eight to ten days before convalescence set in; average duration of fatal cases, 5·1 days. In many cases the disease was complicated with pleurisy, in one with remittent fever, and in three symptoms of meningeal inflammation were present for some time before death. Where death took place, it was usually the result of apnœa, the patients presenting the bluish appearance characteristic of non-aeration of blood. The disease was generally of the catarrhal or diffuse character. In four cases, where a single lobe only was affected, resolution occurred on the third or fourth day. In the earliest stage the treatment was tartrate of antimony in doses of a quarter of a grain every three hours, accompanied by large doses of potash, to render the sputa less viscid. As soon as the sputa could be brought up easily, carbonate of ammonia was substituted for the alkaline mixture, the antimony being still continued. As the disease was in the majority of cases of an extremely asthenic type, stimulants were exhibited at an early stage, gradually increased as needed. Sinapisms were applied daily over the lung affected. When dyspnœa became excessive, dry cupping over the front of the chest usually gave great relief.

I may remark, in conclusion, that the patients in the Divisional Hospital were supplied with every comfort in the way of food, wine, &c. The excessive severity of the weather was a large factor in causing the high rate of mortality. The thermometer frequently marked 28° to 30° of frost. I have seen it mark 20° F. for several successive days at 10 A.M. It can therefore be easily understood how impossible it was to keep up an equable temperature in wards hastily fitted up, with doors and windows fitting imperfectly, and little or no drainage.

SYMPTOMS OF CANTHARIDES POISONING DURING ITS INTERNAL ADMINISTRATION.

BY T. F. CLARKE, M.R.C.S. ENG., &c.

THE two following cases, exhibiting symptoms of poisoning by cantharides during the later treatment of gonorrhœa, may be of interest on account of the favourable result in each case.

I may preface my remarks by stating that in nearly every case of gonorrhœa for the primary symptoms—e.g., scalding, chordee, &c., with thick discharge,—I prescribe saline medicines and tepid-water injections. When the discharge becomes thinner, and all active inflammation has abated, I prescribe iron and cantharides internally (tincture of the perchloride of iron and tincture of cantharides, of each five minims, three times a day), and an injection of sulphate of zinc (two grains to the ounce). Such was the course followed in the present instances.

In the first case my patient had been taking the cantharides mixture for five days, at the end of which time he was virtually cured. A week after the discontinuance of the medicine I was summoned to him for violent pain over the bladder, and this was accompanied on the following day with strangury. These symptoms, at first very severe, passed off at the end of about four days, during which time I gave him nitric ether and hyoscyamus internally, and ordered hot baths whenever the strangury came on.

In the second case the patient, after taking two doses only of the cantharides mixture, had some of the symptoms of poisoning—viz., frequent desire to pass urine, burning pain during micturition, which was very difficult, and always accompanied towards the end of the process by a few drops of blood. I ordered him to take only half the dose, but these directions were not followed, and he continued with the full dose, the symptoms, nevertheless, rapidly abating.

In each case every trace of the gonorrhœa was removed, and as soon as the active symptoms produced by the cantharides passed off, the patient felt as well as ever, and had not the slightest discomfort in the urinary organs. Why these symptoms of cantharides poisoning should have presented themselves—for I frequently administer the drug in much larger doses, and without any untoward symptom—I am at a loss to understand. The delay of the symptoms in the second case may, I think, be explained by the supposition that the drug became stored up in the kidneys, and that after a short time its cumulative action gave rise to the poisoning symptoms.

Somerset East, Cape Colony.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

ANEURISM OF ASCENDING AORTA OPENING INTO A FALSE ANEURISM BETWEEN THE ASCENDING AORTA AND STERNUM; APPARENT IMPROVEMENT UNDER LARGE DOSES OF IODIDE OF POTASSIUM; DEATH.

(Under the care of Dr. STURGES.)

FOR the notes of the following case we are indebted to Dr. W. Gristock, medical registrar.

E. D——, aged fifty-five, a stableman, was admitted on Sept. 28th, 1880. He had previously drunk a good deal of rum; had rheumatism once several years before; no history of syphilis; had been much exposed to the weather, and had often had insufficient nourishment. He was in the hospital first in May, 1877, with evident aneurism of the aorta, with distinct pulsating bulging in the second right intercostal space. Though he had since then been in different hospitals over and over again, he had been able to do a little light work at times. The last time he was in Westminster Hospital was in 1878. The signs of aneurism were most marked, but under large doses of iodide of potassium and rest, both the symptoms and physical signs subsided very considerably, the tumour becoming apparently solid. During the summer of 1880 he did light work and lived badly. He caught cold a month before admission, and became much worse. He had much aching pain in the right axilla and down the right arm, and his hand felt numb. He had also some pain and numbness in the left arm, which was never previously affected. He had occasional dysphagia for liquids, some dyspnœa—"a choking sensation." During the week before admission pain in the back came on. The appetite was good, the bowels were rather constipated, but there was no sickness.

On admission there was orthopnœa, with especial difficulty in lying on the left side. There was slight working of the extraordinary inspiratory muscles, stridulous breathing, and aneurismal cough. Pain was complained of in the back between the shoulder-blades, and there was dysphagia. The heart's apex beat was two inches and a half below, and an inch outside the nipple in the sixth space. There was visible and distinctly expansile pulsation to the right of the sternum reaching from the lower border of the second rib to the upper border of the fourth rib. Dulness extended from the first space to the fifth rib, reaching two inches and a half to the right of the sternum, and slightly across the sternum. The right margin of the sternum was tilted up. There was no apex murmur, but a double murmur was heard over the tumour. There was a distinct thrill in both carotids; no particular enlargement of the superficial veins of the chest was discernible, but the jugulars were prominent, especially the right, and the veins of the left arm were more prominent than those of the right. There was no pulsation in the back. Hollow respiratory sounds were audible over the root of the right lung, as if from pressure, and there were a few moist râles.

By Oct. 5th the patient was easier, and slept fairly well. A fortnight later, after cold, foggy weather, the dyspnœa had increased, and also the dysphagia, and the patient's sleep was very disturbed. The heart's impulse became very indistinct, probably by becoming covered by lung. On Oct. 16th the pulsation was distinct at two points to the right of the sternum, as if there were two centres of pulsation. The pain in the back became more severe, and the patient also complained of pain in the right side of his throat, increased by swallowing. The bowels were also very confined; the pain was relieved by ice, though unaffected by fomentations. By the end of November the pain was much worse, not being so much relieved by ice. The dysphagia varied at different times, but there was a good deal of cough, which caused a "tearing pain." By the beginning of December there was acute pain in swallowing, with symptoms of pressure on the œsophagus. Orthopnœa increased towards the end. The temperature, when taken, was about normal or subnormal throughout till Nov. 30th, when the patient had a rigor, after which the temperature was febrile: 102·6° on the evening of Nov. 30th; 100° to 101° afterwards; pulse 96 to 100. The treatment consisted of iodide of potassium, in twenty grain doses, with bromide of potassium and chloroform, three times daily, from Oct. 13th to Nov. 5th, when it was omitted for a few days, then resumed. After Nov. 30th twenty grains of iodide of potassium, simply in an ounce of water, were taken three times a day. Besides this, expectorant mixtures and sedatives were required, and frequent purgatives.

Necropsy (*abstracted from the notes of* Dr. HEBB, *the pathologist*) *nineteen hours after death.*—Body warm; rigor mortis well marked; an elastic tumour, about the size of a florin, in third right interspace, immediately adjacent to sternum; dulness on both sides in front from lower border of third rib downwards; the sac of the aneurism intimately adherent to sternum over an area of about two inches and a half in diameter; the veins at the root of the neck were much dilated and gorged with blood. The thoracic viscera were removed *en masse*. There were slight adhesions at left apex and anterior surface of right lung; lungs gorged with frothy serum, but otherwise normal. The pericardium was distended with clear yellow serous fluid. The heart was enlarged as a whole, mainly owing to dilatation of the right cavities, especially the auricle, but there was also slight hypertrophy of the left side. The right auricle was choked with whitish-yellow clot, and there was yellow clot in the other cavities. Aortic valves atheromatous, but competent; the other valves were normal, but the tricuspid orifice was dilated. Aorta atheromatous throughout, and ascending and transverse portions dilated enough to admit the closed fist. The dilated part bulged chiefly to the right. There was an opening about the size of a shilling in the anterior wall of the ascending part. This opening communicated with a sac lying between the aorta and the sternum, and was adherent to the latter. The anterior and lateral portions of this sac were lined by laminated clot, the external part of which (about a quarter of an inch in thickness) was tough and evidently old. The more internal layers were softer. The posterior wall of the sac was formed by the aorta. It was smooth, yellow, and not covered by clot. The fourth dorsal vertebra was eroded, rough, and of purplish colour on its anterior aspect; and the sternum adjacent to the anterior sac was injected, purplish, swollen, and spongy. There were several dilatations of the abdominal aorta, the largest being just below the bifurcation on the right common iliac artery. There was another aneurism of the superior mesenteric artery, three inches in length and nearly one in diameter.

The coats were rough from atheroma, and the sac contained black clot. The laryngeal cartilages were ossified; cords normal. No apparent pressure on the trachea. The liver weighed seventy-four ounces, dark purple, but tissue normal. The spleen weighed nine ounces, and was adherent to the diaphragm. The right supra-renal body was adherent to the liver. The kidneys weighed five and five and a half ounces respectively, capsules adherent, granular surface, much diminished cortex; tissue congested.

Remarks.—This case is interesting as regards the apparent effect of iodide of potassium. During the patient's last stay but one in the hospital in August, 1879, under large doses of iodide of potassium, combined with rest and good food, he showed material improvement in general symptoms, while, at the same time, the pulsation and prominence of the tumour subsided. The iodide had no such effect in the last illness, and the results of the post-mortem examination showed a condition of the parts in which the tempory improvement could be easily accounted for without any special action of the iodide.

MONTGOMERYSHIRE INFIRMARY.

CASE OF DISLOCATION OF THIGH, WITH PERSISTENT LENGTHENING OF LIMB AFTER REDUCTION.

(Under the care of Dr. PRATT.)

J. P——, carter, aged thirty-five, was admitted on the 13th November, 1880. On examination he was found suffering from dislocation of right thigh. According to the man's own account he was knocked down by his horse in the street, and being picked up was found unable to stand, and was consequently carried to the infirmary. The dislocation was easily made out. There was inversion of the foot, with very slight shortening, pointing of the right great toe over the ball of left great toe, and, as the patient was by no means stout, the head of the femur could be felt in its new position, lying deep in the sciatic notch, almost upon the spine of the ischium. The man was at once put under chloroform, and upon manipulation the head of the bone glided below the acetabulum into the thyroid foramen. Thence it was easily dislodged, when it went back to its old position. The flexion upon the abdomen was now made more complete than at first, and whilst the limb was being everted and extended, the head was slightly lifted up, when it went into the cotyloid cavity with an audible snap, and the limb was easily placed alongside the other. But now the limb was found to be half an inch longer than its fellow. Nevertheless it was all right in the acetabulum. What was the cause of this lengthening? Was it a quantity of effused blood and serum into the socket, causing the head to protrude, or was it owing to paralysis of the muscles? The latter was thought to be the right cause, and upon its disappearance the limb would no doubt be the same length as the other. The knees were accordingly bound together, and the patient left comfortable in bed. On recovering consciousness he professed to feel quite right, but upon being questioned declared that as far as he knew his two lower limbs were always of the same length. In a few days much discolouration appeared upon the pelvis and thigh, proving that much blood had been extravasated. This gradually went away in a fortnight, and perfect movement of the thigh in all directions was recovered, but still the lengthening of half an inch persisted. In the third week he was up, and walking about with a slight limp. He went out and returned to his old work. He was seen about a month afterwards, when he declared that he walked as well as ever. He knew no difference between his walking now and what it was before the accident. He was taken into the infirmary and measured, when the injured limb was found still to be nearly half an inch too long. The only conclusion that could be now arrived at was that here was a case of congenital difference in length between the two limbs. It is worth recording, on account of its rarity and on account of its early puzzling character, which raised a doubt whether the dislocation had been properly reduced.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. Robert Ross, late of Glasgow, bequeathed £1000 to the hospital at Dingwall, erected in commemoration of his friend and kinsman, Dr. Wm. Ross.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Innominate Aneurism treated by Simultaneous Distal Ligature of the Carotid and Subclavian Arteries, with remarks on the behaviour of a Tendon Ligature.

THE ordinary meeting of this Society was held on the 22nd inst., Dr. Barclay, President, in the chair. One paper occupied the evening. It was by Mr. Dent, of St. George's Hospital, and dealt with a subject which has been before the Society twice this session—the question of animal ligatures. An interesting discussion arose, in which two points were raised—viz., as to the efficacy of such ligatures in occluding the artery, and as to the precise nature of the "organisation" of the ligature.

A paper was read on a "Case of Innominate Aneurism treated by simultaneous distal ligature of the carotid and subclavian arteries, with remarks on the behaviour of a tendon ligature," by Mr. C. T. DENT. The chief object of this paper is to describe the changes observed in an artery tied with a tendon ligature. The parts were examined ten days after death. The history of the case was as follows:—S. L——, an engineer, aged thirty-seven, was admitted with an aneurism of the innominate artery, the first symptoms of which had been noticed about twelve months previously. He improved at first under rest and iodide of potassium, but then as the growth increased the carotid and subclavian arteries were ligatured subcutaneously by Mr. Pollock. For the carotid artery catgut was employed as well as the tendon ligature; the subclavian was secured with a flat tendon ligature only. Both arteries were healthy. The aneurism improved, but the patient had at times very severe attacks of dyspnœa, and died ten days after the operation. A large ulcerated opening was found in the trachea, which did not communicate with the cavity of the aneurism. The carotid artery was dissected out and examined; the following points were observed:—A very moderate amount of lymph was effused about the tied artery, though sufficient to bury the knot of the ligature. Well-formed clots were found in the proximal and distal ends of the completely obliterated vessel. No trace of the catgut ligature could be found. Much of the tendon ligature, where not in contact with the artery, was unaltered. The external coat of the artery was not ulcerated. This the author ascribes partly to the fact that tendon, like other animal ligatures, is capable of slight softening and swelling, and partly to the fact that new bloodvessels are early developed in parts lying close to the artery. The inner coats of the artery were ruptured. The tendon ligature, in many of the sections, was in most close connexion with the artery, and in these places was infiltrated with small round granulated cells, which in places split up the fibrous material into longitudinal bands. Some of the cells seem to be more elongated than others. In connexion with these cells, and formed by them, were seen new bloodvessels. Here and there it appeared possible in the sections to trace bloodvessels passing across the line of connexion, extending into the artery on the one hand, and into the tendon on the other. In conclusion, the author states that though he did not share in the objection urged against catgut ligature, still it seemed that tendon might furnish an animal material which would require less preparation than the carbolic or chromic catgut ligature, and which would probably be more constant in its behaviour.—Mr. BRYANT said the question of the use of flat ligatures involved the important principle whether it were necessary for permanent occlusion that the inner and middle coats should be divided, the point established by Dr. Jones; and he had himself some years ago come to the same conclusion that permanent occlusion could only be thus obtained. The flat ligature, which only compressed the vessel, would cause simply a temporary occlusion, long enough in some cases to allow of coagulation in an aneurism, but not in the other more difficult cases where ligature had to be resorted to. He compared the action of the flat ligature to that of acupressure, which had been almost abandoned because (in the case of severed arteries) it was frequently followed by secondary hæmorrhage, the vessel not being occluded long enough to allow of permanent clotting. Hence those cases of aneurism which could not be cured by other means of compression were not suitable for the application of the flat ligature. A similar mode of temporary obstruction was devised by Mr. Dix of Hull some years ago, consisting in a wire loop placed round the artery and secured over a piece of cork. He thought much evidence was required before the fact of organisation of an animal ligature could be admitted. He had examined six or seven vessels some weeks after ligature by carbolised or non-carbolised catgut, and although he had seen new vessels around the material he could not believe they had been formed at its expense.—Mr. **Savory** thought it strange if dead matter could be converted directly into living tissue. Several years ago it had been shown that masses of dead tissue introduced into the living tissues became infiltrated with leucocytes; but the inference was that the leucocytes had proceeded from the irritated living tissues, and had absorbed the dead material. In Mr. Dent's case new vessels appear to have formed in the dead substances. The same criticism was applicable to the subject of organisation of blood-clot about which so much had been heard lately. John Hunter studied it, and some of his specimens were in the College of Surgeons' Museum; but in his cases he dealt with living and not dead clots. It was different in the case of large masses of blood-clot in wounds, masses which must be inert and act as foreign matter; which could not organise, but which might be replaced by new tissue proceeding from the living parts around. If an animal ligature could organise it would be important to know from what source it was prepared, and whether it was old or recent.—Mr. **Holmes**, from his own limited experience, had arrived at a different conclusion about the efficacy of animal ligatures to that of Mr. Bryant. He fancied Mr. Barwell had slightly exaggerated the difference in the action of a ligature of flat shape as compared with a round one; for he (Mr. Holmes) had been able on the dead subject to divide the internal and middle coats partially or completely by means of the flat ligature when tied sharply. In the two cases in which he had tried Mr. Barwell's ox-aorta ligature the vessel was permanently occluded, one was a case where he had tied the iliac for rapidly enlarging iliac aneurism with good result; the patient was long under observation (requiring two amputations before his discharge), but the aneurism remained perfectly occluded. In another case, where the patient died in consequence of a debauch two weeks after operation, the ligature was found firmly attached to the artery, which was quite closed. In a third case, where two arteries had been tied, they were found occluded by a diaphragm, as in Mr. Treves's case, the ligatures having disappeared. The evidence, so far as it goes, is in favour of the permanence of these ligatures, and that an artery may be safely occluded whether the material used be oxen aorta or tendon. It had been explained that the ligatures did not themselves become organised, but that they disappeared, and were replaced by a ring of fibrous tissue. That such a replacement was not peculiar to healing under antiseptics was shown by this case of Mr. Pollock's and Mr. Dent's, where no antiseptics were used. It seems that these animal ligatures may be invaded by leucocytes and caused to disappear, new tissue taking their place; and this is now allowed by Professor Lister to be what is meant by "organisation" of the ligatures. So also in the case of blood-clot, the actual organising elements and new vessels being supplied from the surrounding tissues, the walls of the arteries, &c., surrounding the clot. It is quite possible that an animal ligature may excite this formative influence, and its results could not be compared with the effect produced by acupressure.—Mr. **Barwell** was not sure that inert matter would not take on vital properties again, and thought that skin-grafting was an instance in point. In a recent case of a large burn, where the "grafts" did not take on the granulating surface, he had found that minute portions of the inner coat of the ox's aorta placed on the surface became converted into a distinct epidermis, others of them melting down into pus. He reminded Mr. Bryant that at the last meeting of the Society he had recorded twelve cases in which perfect occlusion had followed the use of the oxen ligature, and had been able to show the specimens from two of these cases; so that the flat ligature in no way resembled acupressure in its effects. The question as to the need for the division of the inner and middle coats was different now than when Dr. Jones wrote, for at that time ligatures were used which subsequently came away by ulcerating through the outer coats. Now, however, we have ligatures which can be left on the vessels, and which do close arteries permanently. It was essential that the animal ligature, whether tendon or not, should be used first, or should have been dried when fresh; for if putrefaction take place in it its characters are altered and its efficacy impaired.—Dr. **B. O'Connor** said that a short time ago he examined microscopically a mass of lymph lodged at the inner end of a drainage-tube, which had been removed by Mr. Lister. This lymph, which was not in contact with living tissue, contained distinctly small vascular branches. In reply to Mr. Page, he added that the drainage-tube had been *in situ* about four days.—Mr. **Dent**, in reply, said that the discussion showed that questions were still unsettled which had been thought to be determined by Dr. Jones. He mentioned that in one of Dr. Jones's experiments a septum was formed in the artery precisely like that lately described by Mr. Treves in a vessel tied by the carbolised catgut ligature. In the present case there was microscopical evidence that the inner coat had been ruptured, and that the artery was permanently occluded. In the subclavian artery, where only a tendon ligature was applied, the clots were not so large and well-formed as in the carotid, where two ligatures, one tendon and the other catgut, had been used. As to "organisation," one of the specimens showed vascularising lymph between the two occluded ends of the artery, at a distance from the tendon ligature; and he believed the view taken by Mr. Savory and Mr. Holmes was probably the true one. Mr. Stirling, who had brought these kangaroo tendon ligatures from Australia, had selected them because of the readiness with which they were prepared. Ligatures of whale tendon had also been suggested. Mr. Dent had used them as sutures, and found them too thin and too readily dissolved in the tissues. There was no reason why the same material should not be used as a round rather than a flat ligature; the great advantage claimed for it over catgut being the time it remains unabsorbed.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

President's Address.—Pseudo-hypertrophic Paralysis.

At the meeting on the 14th instant the chair was taken for the first time by the newly-elected President, Dr. **Broadbent**, who delivered an opening address, in the course of which he recommended the Fellows to be ever jealous for the welfare and reputation of the Medical Society, and remarked that if, by any chance, the Society should cease to exist, it would become a positive necessity that another society, formed on similar lines, should at once be set on foot. He mentioned that the objects of the Society were general, and they therefore required not only the experience of the hospital physicians and surgeons, but also that of the general practitioner, who was here enabled to bring forward each week notifications of the morbid processes met with in his practice, and relate them to the Fellows, details which gentlemen of the former class were quite unable to supply. He said—"There is a want of opinion on all subjects from all professional sources, and such a want this Society supplies. Such reports as are received must, of necessity, influence both our views and our practice. Moreover it is the duty of the seniors to place the results of their experience before the juniors, and it is the privilege of juniors to hear and derive profit from them. The present time is the seed time for the younger practitioner; a thought planted in the brain, flowers and bears fruit almost unconsciously." He invited Fellows to bring forward communications for the advancement of medical science.

Dr. **Dowse** then exhibited a patient suffering from Hypertrophic Paralysis. The father and mother were both healthy; the patient, a boy of eleven, was a delicate, sickly-looking lad, one of five children, three of whom had died of bronchitis. The mother stated that when a child the boy was always backward in getting about, fairly intelligent, but weak about the loins, and not able to walk like other children; she also noticed his calves were harder and larger than they should be, whilst the other muscles of the body were wasting away. Dr. Dowse drew attention to the history of this disease and to its pathology, observing that the following points were essential to diagnosis:—First, peculiar gait of the patient both in walking and standing, the hip and lordosal spine being more or less fixed and erect, the boy walking upon the toes owing to the contraction of the Achilles tendon; secondly, the enlarged and hardened condition of the muscles of the calves; thirdly, the instability of the normal equilibrium of the body; and, fourthly, the peculiar way in which the lad raises the body from the prone to the erect position by placing the hands upon the knees and thighs, progressing from below upwards.

Dr. RADCLIFFE CROCKER showed a case of Pseudo-hypertrophic Paralysis, which had been under his care at the East London Hospital for Children from within three months of the noticed commencement of the disease until the present time—a period of eleven months. The patient was a boy aged seven years and a half, in whom the disease commenced at the age of six years and nine months. When first seen on July 31st, 1880, he could get up from the floor as readily as a healthy boy, but he was always falling down, mostly forwards. He stood with his knees a little bent, and his head slightly thrown back; his left foot dragged a little when he walked, and his calves were large and hard. Mentally he was normal, and physically well nourished. He was the fourth child; the three previous had died before they were twelve months old, but not of any nervous disease. There was no history of similar disease in the family. He was not seen again until Dec. 6th, 1880. Both legs now drag distinctly, but the left more than the right. He could still get up very well, but the knees were more bent. The left calf measured 9¼ in., the right 10 in. There was very little change in electrical reaction. The muscles of the calf reacted rather more readily to the anode than to the cathode of the galvanic battery. On March 14th, 1881, the bending of the knees was much more marked, and there was slight but evident lordosis; his walk was more shuffling, and he had rather more difficulty in getting up from the floor, but does not "climb up his knees." The measurement of the calves is the same, and the patellar tendon-reflex is still normal. Noteworthy points were the comparatively late age, considering the sex, of the commencement of the disease, the early stage at which it was first seen, and the rapid progress it was making, together with the good general nutrition.—Mr. WILLIAM ADAMS remarked that the case of Dr. Dowse was most characteristic of an interesting but at present little understood disease. Years ago he had divided in many such cases the Achilles tendon. The patients were generally small children; one of the first came under his care in 1867. Many of them are reported in the Transactions of the Pathological Society, vol. xix., 1868. Dr. Duchenne had regarded them from an electro-therapeutic point of view, he himself from an orthopædic. Mr. Adams stated that an interesting report of one of the latter character was published in the Transactions of the Medical and Chirurgical Society by Dr. Lockhart Clarke.—Mr. HENRY BAKER had treated these cases by a strap round the instep, which was successful as regards the tripping.—Dr. JAGIELSKI called attention to the increased size of certain of the muscles; he knew of two families in which there had been weakness of intellect associated with pseudo-hypertrophic paralysis. Faradisation, phosphorus, and strychnine had failed in his practice, and he would like to know from Dr. Dowse whether such patients demonstrated mental imbecility.—Dr. BROADBENT reported a notable instance in which the form of paralysis had attacked two girls in a family of three, whilst the boy was the subject of epilepsy. One important feature was wanting in this case—viz., hypertrophy in any of the muscles, though they presented characteristic symptoms. The disease in this case commenced as late as sixteen years of age. Hypertrophy was, perhaps, a symptom in the beginning of the disease.—Dr. GILBART SMITH hoped Dr. Dowse would state if he considered these cases of hypertrophic paralysis as instances of Duchenne's disease, as the latter name seemed to be applied to other nervous affections by many.—Dr. DOWSE said he did not recognise any special association between the physical and mental disease, especially in its early state, and he hardly called these cases of Duchenne's paralysis.—Dr. CROCKER alluded to the fact of there being a Duchenne's disease and a Duchenne's paralysis, and was inclined to think that there was frequently an association between the muscular and mental disease. He gave an unfavourable opinion as regards time in his case, as the disease had been making rapid progress during the last six months.

Reviews and Notices of Books.

Syphilis and Marriage. By ALFRED FOURNIER, Professeur à la Faculté de Médecine de Paris; Médecin de l'Hôpital, St. Louis. Translated by ALFRED LINGARD, M.R.C.S. With Prefatory Remarks by JONATHAN HUTCHINSON, Esq., F.R.C.S. London: David Bogue. 1881.

PROFOUNDLY interesting as are all the problems in connexion with syphilis, whether pathological, clinical, or therapeutical, their importance is intensified when the question of marriage is considered in the very many relations in which syphilis affects it. The rules at first laid down to guide the profession in this matter have proved in one particular disastrously misleading, for it is not the case that only the primary manifestations of syphilis are contagious, and that marriage is proper at any time after the subsidence of the early period of the disease, nor, on the other hand, is it true that marriage is unallowable at any period after contracting the disease. Neither of these extremes being correct, it is a difficult matter to hit upon just that happy mean between them that avoids the dangers on every side. There are few, if indeed any, who are so well qualified to speak on this subject as M. Fournier, and the English speaking part of the profession is under a debt of gratitude to Mr. Lingard for translating these valuable lectures.

Fournier first discusses the dangers imported into marriage by syphilis, and divides them into: (1) dangers to the wife of direct infection from a syphilitic husband, or infection from a syphilised fœtus; (2) dangers to the children of direct infection, of death of the ovum, fœtus, or child soon after birth, and of degenerative affections interfering with the robustness of the individual, apart altogether from the more special forms of syphilitic inheritance; and (3) dangers to the husband of serious or fatal tertiary manifestations. Having considered the danger of improper marriages, the next lecture is devoted to a discussion of the conditions under which a syphilitic man becomes fit for marriage, and these, stated very briefly, are as follows:—1. Absence of actual specific symptoms. 2. Advanced age of the diathesis, at least three or four years devoted to methodical treatment. 3. A minimum of eighteen to twenty-four months of immunity after the last specific manifestations. 4. A mild form of disease and absence especially of affections of the eye and nervous system. 5. Thorough specific treatment carried out in a methodical manner for a sufficient length of time. The minimum period of time of freedom from symptoms, and of duration of the disease under methodical treatment, is longer than that usually insisted on in this country, and Mr. Hutchinson, who writes the preface, while on the whole endorsing the author's views, suggests that his rules are fairly capable of some relaxation; it is, moreover, necessary to consider every case separately on its own merits, and not to be too much influenced by hard and fast standards. The third lecture is devoted to a consideration of the proper management of the various conditions brought about by syphilis present in one or both of a married couple. The various problems that arise when syphilis has extended into a family are stated with admirable clearness, and the lines laid down for treatment are such as must commend themselves to those acquainted with the management of these cases.

M. Fournier is firmly convinced that a child may inherit syphilis from the father only, the mother remaining healthy, and he believes that such a fœtus may subsequently, while in utero, infect the mother.

There is a question of medical ethics introduced to which it may be well to refer for a moment. In discussing the surgeon's duty when called upon to treat a wife recently infected by her husband, M. Fournier lays great stress upon the paramount duty of concealing from the wife, at all costs, the real nature of her malady. And then he goes on to point out the difficulty and oftentimes the impossibility of this course, and that by concealing its nature we are often deprived of our only chance of treating the case successfully. Now, although the surgeon should never voluntarily or carelessly lead to an exposure of the errant husband, it is well to bear in mind that our duty to the wife is our patient is paramount, and that wilful and direct deception can never be justified. The old attempt to attain good ends by bad means is as disastrous in medicine as in social relations. We can only add that the translation is well done, and the book very creditably got up.

The New Playground, or Wanderings in Algeria. By Alexander A. Knox. London: Kegan Paul and Co. 1881.

This is a gossipy book, written partly, probably, to kill time during a winter's exile in Algiers, and partly for the information and amusement of others. The chapter on the climate of Algiers, written "for invalids," is the only one which has special interest for our readers. Judging from a record kept at the military hospital for the thirteen years preceding the winter of 1879–80 it appears that during the six winter months the average mean temperature was for October 68½° F., November 60°, December 55°, January 59°, February 55½°, and March 57°. Only once in the month of January did the thermometer descend to 32°, and the difference between the average maximum and the average minimum in these thirteen years was 14½° in October, 12½° in November, 13° in December, 12½° in January, 13½° in February, 14° in March, while the average maxima registered were 75½° in October, 66½° in November, 61½° in December, 60½° in January, 62° in February, and 64° in March. The sunlight is practically always at a maximum, and during Mr. Knox's sojourn he spent on an average five or six hours per diem in the open air. Ice was not seen during his stay, and be it remembered that his residence, in the suburb of Mustapha Supérieur, was 600 ft. above the sea level. On one day there was a terrible dust-storm, but only one.

The drainage of the town of Algiers is not of the best, and many of the houses are haunted by bad smells. Among the villas of Mustapha Supérieur the drainage is said to be better, and in 1879–80 Mr. Knox heard of six cases of typhoid occurring among the English residents of that locality. The accommodation at Algiers appears at present to be inadequate. The hotels are not to be compared with those on the Riviera, and the rental of villas for the winter months is rather high, varying from £200 to £500.

THE ROYAL UNIVERSITY OF IRELAND.

The following are the arrangements for the medical portion of the curriculum as proposed by the committee appointed for that purpose by the Senate:—

In Medicine the degree of Bachelor of Medicine and Doctor of Medicine will be conferred; in Surgery, that of Master of Chirurgery; and in Obstetrics a special diploma. The course for the degree of M.B. and M.Ch., and the diploma in Obstetrics, shall extend over at least four years, and shall be divided into periods of at least two years each. Candidates will be required in addition to the ordinary first university examination to pass the following professional examinations—viz., first professional examination, second professional examination, and the degree examination, while candidates for the M.D. may present themselves at the examinations for this degree at the end of two academical years from the date of obtaining the degree of M.B. The fee for the first professional examination will be £1, and the subjects for examination zoology, botany, and a modern language. Candidates who pass with honours, and whose aggregate marks entitle them to a first class will receive exhibitions of £35, and those whose aggregate marks entitle them to a second class will receive exhibitions of £20. The second university examination in medicine comprises anatomy, physiology, materia medica, and chemistry, and the fee for the examination will be £1. The examination for the M.B. degree will comprise the subjects recommended for study during the second period of medical study —viz., anatomy and physiology, practical anatomy, theory and practice of surgery, midwifery, theory and practice of medicine, medical jurisprudence; also examinations in clinical medicine and surgery. Candidates who pass with honours and obtain a first-class certificate will receive exhibitions of £60; a second-class, exhibitions of £40. The fee for this examination will be £3. The degree of Master of Chirurgery will be conferred only on candidates who have obtained the degree of M.B. of the University; and the examination will comprise the theory and practice of surgery, including operative and clinical surgery. The fee for this examination will be £5. The examination for the diploma in Obstetrics will be conferred only on candidates who have obtained the degree of M.B. of the University. The fee for the examination will be £2, and the subjects will comprise the theory and practice of midwifery, and the use of obstetrical instruments and appliances. The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and has been engaged for two years in hospital, or private medical or surgical practice, or in the military or naval medical service. The candidate must also furnish a thesis, which will not be approved unless it contains some original or personal observations in practical medicine, surgery, midwifery, or in some of the sciences embraced in the curriculum, or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise reference to the publications quoted. All certificates of attendance at lectures must expressly state the absolute number of attendances at lectures of the individual student, and no such certificate will be received by the Senate unless it show a *bonâ fide* attendance of two-thirds of the whole course. All degrees in the University will be open to persons of either sex; but the examinations for women will be held apart from those of men, but will take place upon the same days. The Committee recommend that the University Buildings shall be situated in Dublin.

THE HIGHER QUALIFICATIONS OF THE IRISH BODIES.

To the Editor of The Lancet.

Sir,—The exact position of the Royal College of Surgeons in Ireland, in respect to its highest qualification, has not, as far as I have seen, been distinctly stated in any of the leaders and letters which have appeared in your columns.

This body possesses the power of granting an honorary Fellowship, but it has been so sparingly exercised that at present but seven such Fellowships are in existence, including such names as William Bowman, George Gulliver, and others of equal standing; with these exceptions the Fellowship has never been granted without examination since the date of the last charter in 1844.

I am not so well acquainted with the regulations of the King and Queen's College of Physicians; but I believe that their Fellowship, though given by election, is granted under very stringent regulations, and only to those holding the highest position as physicians, and is almost entirely confined to gentlemen practising in Dublin.

I am amongst those who think that, except in very rare instances, the higher qualifications should never be granted otherwise than by examination; but that the examinations, though very thorough, should be chiefly practical, and granted only after some years of practice; then would result a selection of the most hard-working and energetic men; and to such men the attainment of a higher examinational grade would prove a stimulus of great value.

I am, Sir, yours &c.,

March, 1881. One Interested in Medical Reform.

THE LANCET.

LONDON: SATURDAY, MARCH 26, 1881.

The helplessness of the Local Government Board in respect to small-pox, and the arrangements for the control of that disease, are, if possible, becoming more and more humiliating. Questioned in the House of Commons as to supplies of vaccine lymph for revaccination, the President is careful to explain again, as he explained last session, that the National Vaccine Establishment is simply concerned with the issue of lymph as *stock*, for starting fresh series of arm-to-arm vaccination, and that it is not proposed to do more than this when the establishment is enabled to supplement its supply of humanised lymph with animal lymph. In other words, if it has happened (as has been abundantly shown, and is now again being shown) that the regulations and suggestions of the National Vaccine Establishment in respect to the cultivation of lymph for revaccination have proved futile, so much the worse for the public; but it is of infinitely more importance in the Board's opinion to maintain the traditional practice of the National Vaccine Establishment intact, although it was established at a time when very different views as to the need for revaccination were held from those held now, than to disturb its even course by meeting a proved public want. Again, the decision of the House of Lords in the Hampstead Hospital case has thrown the Local Government Board into a state of perplexity, which proves how entirely it has been following a hand-to-mouth policy in regard to the metropolitan infectious disease hospitals. We have now the extraordinary spectacle of a great central body professing its present inability to deal with this hospital question in regard to small-pox until the Metropolitan Asylums Board has given some indication of what it is going to do; and, on the other hand, we have the latter Board equally professing helplessness until it is advised by the Local Government Board! This is a spectacle of the blind leading the blind, and both falling into the ditch with a vengeance. But not content with floundering in the sufficiently deep mire (as most persons would think) into which the Central Board had fallen prone, the President of that Board must seek to prepare other and deeper ditches for himself or his successors to fall into.

On the 19th inst. the President of the Local Government Board received a deputation of the inhabitants of the borough of Chelsea with regard to the Fulham Small-pox Hospital, headed by Mr. Firth, M.P. Nothing could be better than the mode in which Mr. Dodson referred to the Hampstead Hospital case. He said, as reported, "they [the Board] were now in a position of great legal difficulty by the decision which had been given in the Hampstead case, because it cast a doubt, at all events, upon the legality of maintaining these different hospitals. Some doubt had been expressed as to whether the intention was that these hospitals should be established for the benefit of London at large. He did not think the decision threw any doubt upon that point, as he understood it. These hospitals were provided at the expense of the whole of the ratepayers, and each and all of them for the benefit of the ratepayers at large. What the decision, so far as it went, had decided was this, that the Act did not give power to the managers of the Metropolitan Asylums to erect a hospital which was a nuisance to the neighbourhood, and which was convicted of being a nuisance." But what are we to think of the expression of opinion on hospital accommodation that followed, coming, as it did, from a responsible Minister of the Crown? "It has been suggested," said Mr. Dodson, "that there might be provision for the infectious sick in the different districts. He had been reminded that there were thirty-nine sanitary districts in the metropolis. If each of these districts contained a small-pox hospital he did not know whether the risk of the propagation of disease—whether they accepted the germ (!) or the contagion theory—would be less than by the larger hospitals. Many persons would be inclined to think that it would be much greater. Whether they had a large number of small hospitals or a few larger hospitals, the danger of spreading the disease by nurses, attendants, and visits of friends would be much about the same." In other words, the preposterous suggestion is made that the chances of incidental communication of the contagion of small-pox (setting the question of atmospheric diffusion aside for the present) to the members of a community in the immediate vicinity would probably be as great if the hospital were small as if it were large! This topsy-turvy application of the doctrine of chances surely needs no refutation, but suggested from such a source its mischievousness must be untold.

We are beginning to know something of the risks attending large accumulations of small-pox patients to the people living in the neighbourhood in which they are placed; we have a tolerably clear knowledge of the uncontrollable character of the contagion when the disease is retained in the houses of the poor—an uncontrollableness which, in conjunction with our knowledge of a like phenomenon with other infectious diseases, led to legislation as to hospital provision to be made by sanitary authorities. And now Mr. Dodson helps us to a suggestion that hospitals in regard to small-pox are equally harmful, whether of large capacity or not, and so condemns inferentially the legislation on the subject altogether, and lands us in the paradoxical position that every family ought to keep its own small-pox patients within its own circle! It seems difficult to believe that the President of the Local Government Board can have committed himself to statements such as we have quoted unless he has some evidence in hand concerning mischiefs from moderate-sized small-pox hospitals. Not a few of such hospitals were scattered about the metropolis in 1871 and 1872, but no account of them was ever given to the world, and certainly no suspicions ever got afloat as to their proving mischievous in the localities where they were situated. If the Local Government Board possesses an account of them, it is high time it was made public, and if the account confirms Mr. Dodson's suggestion, what possible defence can be made of the action of the Central Board in relation to the Metropolitan Asylums Board as regards their small-pox hospitals since the epidemic of 1871–72?

A correspondent drew attention in our columns last week to the casualties of medical officers in the late action in the Transvaal, where both the surgeons who accompanied the troops up the Majuba-hill lost their lives from wounds received in that action. Since the publication of this letter the relative *advantages* and *disadvantages* of the two positions, that of "combatant" and that of "non-combatant," have formed the subject of an official utterance by the Secretary of State for War in his place in Parliament. Mr. Childers observed: "I cannot undertake to lay down the broad proposition that non-combatant officers are to have all the advantages of combatant officers, unless the converse be also accepted—that is to say, that they are to have all the disadvantages." Paramount among these disadvantages we take to be the risk of casualty in action. The facts in relation to these matters are exceedingly interesting.

We have repeatedly pointed out that the term "non-combatant" as applied to army surgeons is a misnomer; their death-roll from all causes is shown by statistics to be 20 per cent. higher than that of the so-called combatant officers. No one will deny that a medical officer struck down while attending his men in cholera or yellow fever epidemics does sacrifice his life to the call of duty as much as the military officer who is slain on the battle-field. The two recent campaigns show that in addition to the risks of climate and disease to which all branches of the military service are necessarily exposed in warfare, our army surgeons are called in the discharge of their duty to be under fire, are often wounded, and often die. The Afghan or Boer bullet shows no discrimination in sparing a medical "non-combatant." Proof is hardly needed, but the casualties amongst medical officers in Afghanistan, Zululand, and the Transvaal, shown by the following list, are strikingly convincing of the soundness of the argument we advance:—

Killed or Died from Wounds, Climate, and Exposure.—Deputy Surgeon General J. H. Porter, Cabul; Surgeon-Major H. Kelsall, Khyber Pass; Surgeon-Major J. Wallace, Lundi Kotal; Surgeon-Major J. Wright, Attok; Surgeon Ambrose Kelly, massacred at Cabul; Surgeon Keith, Cabul; Surgeon-Major Bolton, Kandahar; Surgeon-Major A. R. Hall, Malta, *en route* from Kandahar; Surgeon-Major Peter Shepherd, massacred at Isandlana; Surgeon Brice, massacred at Isandlana; Civil Surgeon Glanville, massacred at Isandlana; Civil Surgeon Cobbin, massacred at Intombi; Surgeon-Major Cornish, Lang's Nek; Surgeon Landon, Lang's Nek.

Wounded in Action.—Deputy Surgeon-General Townsend, Kurram Valley; Surgeon Duncan, Peiwar Kotal; Surgeon Burroughs, Afghanistan; Surgeon-Major Preston, Maiwand; Surgeon Ward, Transvaal; Surgeon Longfield, R.N., Ekowe.

Nevertheless we think it a matter for regret that Mr. Findlater should have asked the Secretary of State for War whether "he would take into consideration the justice of extending to the Army Medical Department the privilege now enjoyed by all combatant officers of counting as full-pay service towards retirement any time on half-pay, not exceeding one year, when such half-pay had been necessitated by sickness incurred in and by the service; also such half-pay as results from reduction of the departments, not exceeding two years, as laid down in the Army Circulars, March 1st, 1880." It is little more than a year since the conditions of service of the army medical officers were revised, and a new Warrant was brought out introducing marked improvements in them. Among others, there was an extension, from six months to one year, of the period during which a medical officer may be retained on full-pay when disabled for duty by sickness contracted on service. The provisions of the Warrant gave general satisfaction to the department and the profession, and we think Mr. Findlater has been injudicious and ill-advised in attempting to reopen the subject. Mr. Childers was fully justified in adverting to the recent settlement of these questions as a ground for refusing again to take them up, and he fairly pointed out that medical officers cannot expect to have all the advantages enjoyed by combatant officers unless they are prepared at the same time to accept all the disadvantages. This argument, however, appears to involve the duty, on Mr. Childers' part, of seeing that medical officers are not unfairly deprived of any of those advantages common to both branches which have been acknowledged to be justly due to them. We recently pointed out that one of these privileges —a fair share in the distribution of rewards and honours—had been withheld. One of the points very clearly laid down by Lord Cranbrook's Committee, and accepted by the late Secretary of State for War, was that in such distribution "the Medical Department should be judged rather by the standard for combatants than for non-combatants," and we trust Mr. Childers will take such measures as he may deem most advisable to ensure this being carried into effect in spite of the opposition practically shown to it by the authorities at the Horse Guards.

We gladly welcome, and will try to cherish, the hope that a satisfactory system of management is, at length, being established at Guy's Hospital. The new regulations which lie before us do not, indeed, bear out all the bright promises with which the profession and the public have been entertained during the last few weeks, but possibly they mean more than they say. It is, however, so common an experience that these radiant harbingers of reform mean *less* than they say, that we must, at the risk of being judged hard to please, and even censoriously hypercritical, venture to point out a few dark specks on the halcyon prospect.

At the outset, while it is cheering to note that the Sisters are to be "appointed by the Taking-in Committee," it is not equally satisfactory to find that they "shall be selected from the register of applicants kept by the Matron." It is natural that applicants for the office of "Sister"—that either meaningless or mischievous title for a chief nurse—should address themselves to the Matron; but it is not, therefore, necessary that the "Lady Superior" or "Lady Superintendent"—who, we are glad to note, is henceforth to content herself with the more modest designation of Matron—should be entrusted with the construction of a "register" which is to be the passport to patronage. This may seem a small matter, but, looking to the recent history of the institution, it would have been better to avoid even the appearance of evil. Far more serious is the provision that the Sisters, when appointed, "shall be responsible to the Treasurer, Superintendent, and Matron for the efficient nursing and good order of the patients," &c. Considering that the whole of the recent trouble has been due to the persistent resolve, and endeavour, to subordinate the "nursing" to the views and will of the Treasurer and Matron, it is, at least, disquieting to find that the same authority is to be dominant. We attach no importance whatever to the fact that the Superintendent is to be one of the Triumvirate. The medical man holding that office is not, at Guy's, as shown by experience, necessarily the representative of the medical staff; but if he were, looking to the fact that "the Taking-in Committee" is to appoint the Sisters, and that this Committee meets every week, and is supposed to exercise some of the functions of a "House Committee," it is, we fear, significant that it has not been entrusted with a share of the authority now vested in the Treasurer, Superintendent, and Matron, with respect to what is essentially a prominent element of the medical work—that is, the nursing! Nor are we able to regard with entire confidence the specification of duties which the Sisters are required to fulfil. What, for example, is the meaning of the clause in Rule 4, which enjoins that "they shall endeavour to have the bed-cards filled up by the medical or surgical registrars either before or shortly after the patients have left the hospital"? Surely it is, or ought to be, the business of the resident medical officer to see that the medical and surgical registrars do their duty. Are these young men to be taught their profession or kept up to their work by the Sisters? The Superintendent furnishes the cards, and it is *his* function to see that they are duly filled up. There can scarcely be a just appreciation of the line which should be drawn between the duties of a nurse and those of a resident medical officer, when such a regulation as this can be either newly framed or retained. Again, Rule 10, which more explicitly defines the duties of the Sisters, directs that "they shall pay particular attention to the state and symptoms of the patients, especially if these be of an uncommon nature, that they may be able to report to the attending physician or surgeon, whom they shall *accompany* when visiting the patients." There is, of course, no objection to a nurse watching a case; it is obviously a part of her duty to do this, but the position she occupies would be more clearly and justly marked if she were directed to *attend* the physician or surgeon, instead of to "accompany" him round the ward. It might not be worth while to criticise this expression, but that further on in the same Rule we find the salutary but strangely worded intimation that "they [the Sisters] shall on no account give medicine to patients without the *concurrence* of the medical attendant;" and when in doubt as to her instructions, the Sister is to "apply at once to the House Physician or to the House-Surgeon for *advice*." The italics are ours. It may be simply a concession to the maudlin and false sentiment of the day in respect to "woman's place" and "women's rights," that the nurses in charge of wards are instructed in this more than equivocal phraseology, just as it is in deference to a spurious religious sentiment that they are called "Sisters;" but we think it is a mistake, and, for ourselves, we should certainly regard with distrust not less than dissatisfaction regulations thus drawn. The general impression conveyed is either disquieting or misleading. Again, what is the meaning of Rule 13, "They shall be at liberty to employ the patients to assist in the ward work, provided always such employment be *certified* by the medical attendants to be not inconsistent with their recovery"? Are the medical attendants at Guy's—who, as it is, have not time to keep, or dictate, the usual clinical records of their cases—to give a certificate to the Sister for each patient who may safely be employed to do a little dusting in the ward? The notion is grotesque. It is, however, part of a system which seeks to make the female nursing element an agency apart from, and only loosely related on equal terms, instead of being subordinated, to the medical treatment.

The new regulations for "nurses"—a lower order of beings in the hospital system—also challenge some criticism. These women, who are in fact the immediate attendants upon the patients, and therefore the direct agents of the medical staff, are to be "engaged and discharged by the Matron, with the concurrence of the Superintendent, and shall be under the immediate control of the Sister of the Ward to which they are appointed." The Taking-in Committee has a qualified jurisdiction—on appeal—in the matter of the change of nurses. They are not, as under the recent bad *régime*, to be removed capriciously from ward to ward. The "concurrence" of the medical officer is to come into play in this matter, and unless he actively *concurs*—in some way—there will be few changes. This is a distinct gain, and, so far as we can gather from the wording of the new regulations—waiving for the moment the jubilant construction which has been hastily put on them—it is the *only* concession which has a clear and sharp ring in it. Nurses, like Sisters, are to "*accompany* the medical officers in the course of their daily visits," and, when requested or required, they are to attend to their medical duties, and even to assist the surgeons or dressers. This is considerate, particularly when we bear in mind that the sole business of the hospital is to treat patients with a view to cure or relieve them, and that "nursing" *is* treatment. There are interesting as well as grave points for notice—for example, when Nurse-probationers essay to rise from that low rank to the dignity of full Nurses they must "undergo an examination," which is to be conducted "by the matron *and one or more of the medical staff*." Might it not be well that the Medical Council should be moved to send inspectors to these important examinations, conducted by "the matron and one or more of the medical officers"? In all seriousness, it is difficult to believe that the bad spirit has been exorcised at Guy's, and that "nursing" is no longer to be glorified as a craft in itself while a farce like this is perpetrated. The simple question is, or ought to be, whether the *servants* employed in the wards of a hospital to carry out the instructions of the medical staff have been docile and dexterous. The ceremony of an "examination" keeps up the absurd and injurious impression that there is more in *nursing* than cleanliness, kindness, and womanly tact. The idea that there is anything more ought, in the interests of humanity and common sense, to be sternly crushed out, with or without the "concurrence" of the medical faculty.

We have said that the new regulations at Guy's Hospital are welcome. It is something—perhaps much—gained that the authority of the Treasurer is not so conspicuously asserted as in recent but, let us hope, *past* times. That this authority is not suspended is clear from the provision that the "Sisters" are to be held responsible to the Treasurer as first and chief in a triumvirate, upon which the medical staff is not, as it ought to be, directly represented. We must wait to see how the work of reconstruction is carried out at this hospital before forming a final judgment on the new instructions, or attempting to form an estimate of the good which may have come out of the evil that awhile ago filled certain members of the medical faculty and the profession and the public with alarm. It is, perhaps, natural that the Governors should be unwilling to change their policy too openly and suddenly, though it is only manly to confess an error, and to mend it straightly when once it has been discovered and exposed. The proper course to have taken would have been to admit certain members of the Medical Faculty to the Board, instead of giving them seats as a Sub-Committee, and thereby to have recognised the medical element in the active management of a medical charity. The Founder of the hospital plainly intended that medical men should have seats on the Committee of Management; but the present administrators of the trust have, true to the spirit of modern progress, "shaken off the dead hand." We pause to see whether the living hand which has now undertaken the work of reform at Guy's will be loyal, firm, and dexterous. It is in no carping mood that we criticise the concessions which have been made, but we must remember that there is not less need of public caution in this matter than of personal consideration and courtesy.

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THE operation of nerve-stretching as a means of treating locomotor ataxy was introduced, it will be remembered, by Dr. LANGENBUCH, who recorded a startling improvement in a case so treated, the intense pains and considerable ataxy having almost entirely disappeared after the operation, and the diminished sensibility having returned to the normal. Symptoms of similar character and of marked degree persisted in the upper limbs, and, indeed, appeared to have become more intense. Hence it was decided, three months later, to stretch also the nerves of the arms. While the patient was under the influence of chloroform an epileptic fit occurred, and he died. The spinal cord from this important case was given for microscopical examination to Professor WESTPHAL, who has just published the results in the *Berlin. Klin. Wochenschrift*. The cord was seriously crushed at certain places, probably in the process of removal. Other parts, however, were in good condition for examination, especially the lumbar enlargement, the upper part of the cervical region, and small parts of the dorsal region. These parts showed nowhere the clear tracts which indicate the presence of sclerosis in hardened cords. Microscopical examination in glycerine showed no granule corpuscles nor the translucent appearance which indicates degeneration. After tinting, the posterior columns were found intact throughout, without a trace of sclerosis or of atrophy of the nerve-tubules. The periphery of the posterior columns, in which a slightly paler colour had been noted with the naked eye, tinted more deeply than the rest, and here the regular arrangement of the nerve-fibres was wanting, and the condition showed clearly that this appearance had only arisen from an injury during the removal of the cord. Sections from the dorsal region and the upper cervical region showed also a perfectly normal white substance, nowhere any trace of sclerosis or of atrophy. No abnormal changes were found in the grey substance, and the nerve-fibres of the anterior and posterior roots exhibited also no trace of atrophy.

It is certain from these facts that the case was not one of posterior sclerosis. Can we (WESTPHAL asks) from these facts draw the inference that in a certain stage of tabes the disease may exist as a neurosis without structural changes, and that the degeneration of the posterior columns represents a later and consecutive change which has nothing to do with the special symptoms, in accordance with the older view held by TROUSSEAU? This conclusion seems incompatible with the fact that in all cases examined hitherto, without a single exception, structural changes in the posterior columns have been found. Moreover, the case of Dr. LANGENBUCH does not, he urges, point to such a conclusion. The clinical history has only been very briefly recorded, but the facts as stated are altogether peculiar. The affection had been of very rapid development; although the symptoms were advanced, they had only existed for a few months, and the arms were considerably affected a few months later. The case thus resembles those of so-called "acute ataxy," such as occur spontaneously or after acute febrile diseases, and which have a course altogether different from that of ordinary tabes, often ending in complete recovery. The nature of these cases is unknown.

LANGENBUCH was inclined to regard his case as one of a primary affection of the peripheral nerves, but, unfortunately, the large nerve trunks could not be removed at the post-mortem examination. It is, however, noteworthy that at the operation the left sciatic was seen to be "reddish and somewhat swollen."

In publishing these facts, WESTPHAL does not desire to discountenance the operation in other cases in which the existence of a spinal lesion is undoubted, since, as he rightly points out, experience rather than theory must be our guide; but he strongly urges, and with reason, the great importance of a thorough and skilled examination of the nerve symptoms in all cases before the operation, that we may know whether the cases so treated are to be regarded as examples of true posterior sclerosis or not.

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THE evil to which "L. S. C." directs our attention to-day is becoming a very serious one both for the public and for medical practitioners. It may be characterised as the Private Dispensary System. On Feb. 5th "L.R.C.P. Edin." strikes a very kindly note of warning to young medical men, who are often victimised in connexion with this "so-called Provident Dispensary." It is important at the outset to draw a distinct line between the proper Provident Dispensary and the "so-called Provident Dispensary," or, as we have called it, the Private Dispensary System. The Provident Dispensary is an institution managed by a Committee of a public character, with which several medical men are connected, and to which the working classes subscribe, in sickness or in health, by a systematic weekly payment all the year round. The Private Dispensary, on the other hand, is rather a mysterious and dingy-looking affair. It is here to-day and in another street to-morrow. The gentleman to be seen on the premises is generally one whose name is not to be found in the Medical Register, and his appearance occasionally suggests that, however affluent the receipts, they do not go to his tailor. It is true that generally the name of a registered medical man is placed in large letters over this institution, or over these institutions, for one gentleman generally owns a group of them, and occasionally his carriage may be seen at the door of one of them, suggesting a grandeur in strange contrast with the humble style of the unqualified assistant who sees most of the patients and does most of the work. Well, the question is: What is the harm? Who is injured? What business have we or any others to assume the office of censor in regard to such experiments? The question is a very fair one, for we are strongly of opinion that no perfectly satisfactory means have yet been discovered of adjusting the supply of medical service to the poor on conditions of efficiency and dignity. We will frankly admit that neither the Provident Dispensary nor the Free Dispensary appears to us satisfactory. In the one the medical man seems to be paid, and is so only very inadequately, the patient perhaps thinking that he is paying him handsomely. In the Free Dispensary the medical man does the public's work of charity, and the poor are often degraded by it. But this is not the question just now. We are concerned with the evils of Private Dispensaries, and have to justify ourselves for speaking of them in terms of warning. We warn the public against them, for it has been repeatedly shown that they are worked on a large scale by unqualified assistants, and often very ignorant ones. This comes out in the letters of our correspondents, and occasionally at the inquests of coroners. Persons who are seriously ill will do much better to go to the private house of a neighbouring medical man than to a cheap or Private Dispensary, which is presumably worked by an assistant who probably knows no more than a neighbouring chemist. There have never been wanting good men in poor neighbourhoods who have adapted their fees to the means of their patients. Or if people do go to the Private Dispensary, we should advise them to ascertain whether the person they see is the principal, and whether he is a registered medical man. Another class has to be warned against the ways of some of those who deal in Private Dispensaries. Our correspondent of Feb. 5th, "L.R.C.P. Edin.," points out the snares that the "so-called Provident Dispensaries prove in the great majority of instances to young medical men who are tempted to eagerly purchase what on the surface appears a most profitable investment." It would be most wrong to think that all men who try to work Provident Dispensaries work them delusively, and sell them at a higher price than they are worth. We would fain believe that our correspondent may be wrong when he estimates that "the great majority" of those who sell Private Dispensaries are selling what is comparatively worthless. But nobody who does not shut his eyes can fail to see that a new trade has arisen in the profession which needs to be guarded against—viz., the sale of quickly extemporised and as quickly abandoned Dispensaries, as different as possible from the sale of a well-conducted and long-remembered private practice. We repeat the expression of our respect for men who for modest fees give their own advice to the poor. But we distinguish between them and those who only give their names to Dispensaries, send to the poor unqualified assistants, and after having created a Private Dispensary proceed to sell it.

Annotations.

"Ne quid nimis."

THE METROPOLITAN ASYLUMS BOARD.

AT the meeting of the Metropolitan Asylums Board, on the 20th instant, Dr. Brewer in the chair, a report was presented by the General Purposes Committee, prepared by the Board's solicitors, on the position of the Board in relation to the Hampstead Small-pox Hospital since the recent decision on that case in the House of Lords, and a deputation was received from the Sanitary Committee of the Hackney District Board of Works, headed by Mr. Gane and Dr. Tripe, to submit certain statements on the structural arrangements of the Homerton Small-pox Hospital. The statements, in form of memorial, as to Homerton were referred to the Homerton Hospital Committee. The report as to the Hampstead case, referred to Appeal No. 1 in the House of Lords, which was for a new trial, and which had been placed in suspense, and to Appeal No. 2, on the question of law, which had been heard before the House of Lords and had been decided against the Asylums Board. The report was accepted, and, after consideration, the following resolutions were passed:—"1. That the solicitors should be directed to proceed with Appeal No. 1—i.e., for a new trial,—the House of Lords to be asked to relieve the Board from the payment of a certain amount of the plaintiffs' costs, as ordered by the Court of Appeal as a condition of granting the appeal for a new trial. 2 (as a rider to the former resolution): That the managers desire to be now advised by the Local Government Board whether they are to receive any more small-pox patients into the hospitals, and what, if any, steps the Local Government Board propose to take with a view to give the managers authority to carry out their duties without further molestation and litigation." The first resolution was carried by a majority of 1 (the votes being 20 to 19), and the second unanimously. What the Asylums Board hope to gain by a new trial in the Hampstead case it is difficult for any but the legal mind to foresee. With regard to the second resolution, it may be said that in speaking to the Fulham deputation, on the 19th, Mr. Dodson stated that the Local Government Board would not come to any decision upon the course it should take in its present perplexity anent the metropolitan small-pox hospitals until the Metropolitan Asylums Board had decided upon *their* course. It now appears that the Asylums Board is waiting upon the Local Government Board to declare themselves.

NAVY MEDICAL DEPARTMENT.

IN bringing forward the Navy Estimates, Mr. Trevelyan adverted to the very unsatisfactory state of the Medical Department. Instead of having, as he conceived ought to be the case, four candidates for every vacancy, they have four vacancies for every candidate; and it is long since the supply of candidates has been equal to the demand. The supply of late years has come in large proportion from the Irish medical schools. "It was important in a national service that candidates should be drawn from all parts of the United Kingdom. They had, however, only 103 from the medical colleges of England, 128 from Scotland, and 251 from Ireland." We presume these numbers have been calculated from the officers actually in the service, for it would require the returns of very many bygone years to make up a total of 482 candidates. Mr. Trevelyan stated that it had been determined to adopt the report of the Committee on which the recent changes in the Army Medical Service had been based, and to add to the pay 7 per cent. to compensate the naval medical officers for the more disagreeable nature of their service. He added that there were other advantages which they would enjoy, and that he had no doubt the difficulty to which he had referred (of obtaining an adequate supply of candidates) would be removed. We are promised that an Order in Council embodying these improvements will be published in a few days. Until this is done we reserve all further remarks, except that we trust the new regulations may be of such a nature as to remove the existing objections to the service, and to make the Naval Medical Department a desirable career for well-educated gentlemen. Meanwhile we remark with satisfaction that we were the first to point out that, as regards pay, this principle had been evolved from the inquiries made by a committee that sat in 1866, and we trust that this Government will extend that principle more generally, taking other directions than that of pay only, as many improvements are required other than those so long established. It is a subject for regret that at the commencement of the present movement, when the age for retirement of the senior medical officers at sixty for sixty-five years of age was effected, a great error was committed in depreciating the value of their services to about seven per cent. below, instead of seven per cent. above, that at which those of the senior officers of the Army were computable, and soon after computed in a new Army Warrant; this inequality remains to the injury of the officers affected. This should be redressed in the forthcoming Warrant, as it shows that in small matters the Navy is too apt to be thrown in the shade of the Army. The medical schools of England and Scotland do not now yield so many candidates for the Navy as Ireland alone does, while Oxford, Cambridge, and the London Universities are not represented in the Naval Medical Service.

SUPPRESSION OF TYPHOID STATISTICS BY THE FRENCH GOVERNMENT.

THE French Government appears to have resorted to the feeble expedient of secrecy to cover sanitary imperfections which it is its duty to reform. Dr. Galliott, of the French Marines, had written a remarkable report on the prevalence of typhoid fever in the Toulon barracks, and had received a gold medal from the Ministry of Marine in recognition of his services. Anxious to study the fruits of a large experience, a correspondent applied to Dr. Galliott for a copy of his report, and was not a little surprised to hear that he had been expressly forbidden to show it to anyone. The gold medal was allowed to be shown; but the report which had won this reward was for ever consigned to silence and oblivion of a ministerial pigeon-hole. Some facts in reference to the matter, however, have been ascertained. The barracks of Mourillon are unfavourably situated, and were till recently occupied by about 2000 marines. In front of the barracks there is a large main sewer, which is not water-tight. Hence the organic matter and sewage from the village of Mourillon accumulate in front of the barracks to a depth sometimes of a yard and a half. This can only be cleared away by rain; but it rarely rains on these coasts unless there is an east wind; and, as the mouth of the sewer which communicates with the sea faces the east, the waves beat up against it and check the exit of the sewage. The decomposition of organic matter in the sewer is therefore facilitated by the admixture of water, and the leakage is increased. Hence arise continuous outbreaks of typhoid fever in the neighbouring barracks, these outbreaks corresponding very accurately with high temperature, easterly winds blocking the mouth of the sewer and rain increasing the amount of sewage and accelerating its fermentation. The number of cases that have occurred is appalling. We cannot of course give the numbers, as communication of the official returns was not allowed; but from several indirect sources, it is pretty clearly shown that there were about a thousand cases of illness during the course of twelve months, and that half of this number were fully developed cases of typhoid fever, while a large proportion of the remaining patients also showed symptoms of a suspicious, if not of so conclusive a character. The majority of cases occurred among the volunteers for one year's service, for these men are young, eighteen to twenty years old, and therefore most susceptible. Indeed, it seems that a young recruit, if quartered in these barracks, would have little or no chance of escape, from at least a slight, if not a fatal, attack of enteric fever. That the report in which these facts are set forth is not published is much to be regretted, as it gives remarkable evidence derived from many hundreds of cases of the extreme susceptibility of certain classes and the total exemption of others. Youths coming from countries and districts free from typhoid fever almost invariably contract the disease when quartered in these barracks; while the natives of Toulon, and others living in similarly contaminated centres, have been so thoroughly inoculated with the poison that the specially unfavourable position of the barracks does not affect them. It is satisfactory to learn that after many years of illness and a scandalous and wasteful loss of many hundred lives, the quartering of young recruits at the Mourillon barracks has at last been forbidden. These are now sent either on board ships, or in the outlying forts. Only a small number of older soldiers, numbering 1200 in all, and who have passed the most susceptible age, are allowed to inhabit these fatal barracks, and the result has been that no more cases of typhoid fever have occurred.

THE PATHOLOGY OF ATHEROMA.

THE theory of the origin of atheroma, to which Virchow has given currency, regards it as of inflammatory origin, and has been conveyed into modern pathology by the help of the name "endarteritis deformans." This designation, although not unassailable, has been widely accepted on account of the apt expression which it gives to the conspicuous characters of the morbid change. The same theory of initial inflammation has been, in effect, adopted by Lancereaux, while Cornil and Ranvier do not admit any other element in the morbid process than simple degeneration.

The latter view is regarded as the more probable by the writer of a recent memoir in the Paris *Revue de Médecine*, M. Hippolyte Martin, who has endeavoured to ascertain the pathological origin of the degeneration, and believes that he has found it in a lesion of the nutritive arteries of the walls of the vessels, to which the visible degeneration is simply secondary. In the early stage of the affection the cells of the connective tissue of the vessels may be found notably increased in number, and the middle and internal coats are increased in thickness; these changes cannot be regarded as the result of any irritation by the globules of fat which may be found sparsely scattered through the wall. If the minute vessels which ramify in the external coat before penetrating the middle layer are examined, they are found to be healthy, with the exception of those which correspond to the spot of atheroma. Here, however, the nutritive artery of the degenerated region presents a striking proliferative endarteritis, which, in the case of extreme degeneration of the atheromatous patch, amounts to almost complete obliteration of the minute vessel, so that very little blood can circulate through it. This lesion is never absent, although considerable care may be necessary to find it. The change is only found in the vessel going to the diseased spot; other arteries, although closely adjacent, may be perfectly healthy. But it may be held that in the old, in whom generalised arterial disease is common, the affection of the arteries, and of their nutritive vessels, may be due to the same cause, and do not stand in any causal relation. In contravention of this objection, M. Martin describes the case of a lad, nine years of age, who died of diphtheria. At the autopsy two atheromatous spots were found in the commencement of the aorta, above the sigmoid valves. They were well marked, about a square centimetre in extent. All the other vessels were healthy. Sections at the position of the atheromatous patches showed, in the middle of healthy tissue of the outer, and even of the middle coat, a perfect example of endarteritis of the nutritive vessels, one of which was almost obliterated. Moreover, it was evident from the histological characters of the two that the affection of the nutritive artery was of older date than that of the inner coat of the aorta.

This lesion in the vasa vasorum appears to commence in their inner coat, the nutritive supply to which is always the most difficult, but at a later stage the middle coat is also affected, and its muscular fibres may be observed to undergo a fatty degeneration. This alteration is regarded as inflammatory in nature, the result of some, at present unknown, cause. The facts Martin has ascertained are of much interest and importance, but they only put the origin of the disease farther back, and farther into the region of pathological mystery. It is conceivable that mechanical strain and other causes may determine the occurrence of a degenerative inflammation beginning in the wall of the strained vessel, but the cause of the affection of the vasa vasorum is entirely unknown. The change in the larger artery may be due to the disease of the minute vessels, but what is to explain the latter lesion? And if we admit it to be a primary endarteritis, may not the disease of the wall of the larger vessel be in many instances of the same nature?

PHYSIOLOGICAL PROPERTIES OF THALICTRIN.

M. DOASSANS in an inaugural thesis published in Paris, and abstracted in the *Revue Scientifique*, has given some very interesting particulars in regard to the action of the essential principle of a plant rarely found in the Pyrenees, named the Thalictrum macrocarpum, belonging to the Ranunculaceæ. The root of this plant contains two substances, which have been isolated. One is an alkaloid, to which M. Doassans has given the name of thalictrin, and which proves to be, although as yet he has only been able to obtain it in too small quantities to permit its composition to be determined, a crystallisable substance, capable of combining with acids to form crystallisable salts. The other substance is a yellow colouring matter, which apparently confers the yellow tint characteristic of the fresh section of the root. On treatment of the root with successive portions of alcohol, and with water acidulated with hydrochloric acid, this yellow substance can be obtained in a state of purity, and has been christened *macrocarpin*. Macrocarpin is neither an alkaloid nor a glycoside, but a substance which chemically resembles berberin, from which, however, it differs in some particulars; it has no therapeutic action.

Thalictrin, on the contrary, has well-defined and powerful physiological properties. If a certain quantity of the aqueous extract be subcutaneously injected into a frog a local action is immediately observed, the contractile power of the muscles becoming impaired. After a short interval the muscles contract, and the limb which has been injected becomes hard and rigid. Injected beneath the skin of a dog, it causes sharp pain, and sometimes, owing to its irritating local action, the formation of an abscess. A dose of from two to three centigrammes proves fatal to a frog in the course of three or four hours, and about ten times the quantity of the salts of thalictrin is required to produce the same effect. A dog is killed with quantities varying from two to four grammes when subcutaneously injected, but its toxic influence is much less when swallowed. The principal symptoms observed are general weakening of all the functions governed by the nervous system. The arterial pressure is lowered to an extreme degree, which is dependent, not on dilatation of the capillaries, but upon great diminution of the force of the cardiac impulses. The pulse becomes more frequent. The respiratory acts are also increased in number, yet no true asphyxia is perceptible, for the arterial blood remains red, and the relative amount of oxygen it contains is augmented rather than diminished. Indisposition to perform voluntary movements is observed, but the general sensibility is not generally much impaired. The nerves preserve their action on the muscles to the end of life, and the pneumogastrics continue to act upon the heart. The muscles preserve their irritability. Death appears to follow as the result of progressive weakness of the heart, respiration continuing frequently some time after the heart has ceased to beat, which shows that the centres presiding over the respiratory movements are not so profoundly affected as those which govern the cardiac movements.

MEDICAL OFFICERS (IRELAND) SUPERANNUATION.

A RETURN has been issued by the House of Commons consequent on a motion by Mr. Meldon, M.P., of all medical officers of workhouses and dispensaries in Ireland who since the passing of the Medical Officers' Superannuation Act have resigned their appointments and applied to their Boards of Guardians for superannuation; further, the causes for such resignations, their length of service as poor-law medical officers, and the result of their application to the Guardians. The return shows that since the passing of the Act in question 189 medical officers applied for a retiring allowance, and of these twelve were refused, the reasons assigned for the latter proceeding generally being that the Guardians were opposed to granting retiring allowances to any officer of the union, and sometimes because the applicant held other public appointments. Forty-seven medical officers, or one-fourth of the applicants, obtained the full retiring allowance of two-thirds of their salaries. In one instance, that of Dungannon Union, where the medical officer of the workhouse did not apply for superannuation, the Guardians of their own accord proposed and agreed that two-thirds of the salary should be granted to Dr. Ambrose Hunt.

PARASITIC EPILEPSY IN THE DOG.

A REMARKABLE form of disease in the dog was described by M. P. Mégnin at the meeting of the Société de Biologie on Feb. 5th. A number of dogs belonging to a gentleman near Havre, although of different races and coming from different sources, were affected with a disease which caused epileptiform convulsions and ultimately death, after several months. These cases of disease recurred, with similar characters, during several years, and all the dogs which he bought to replace those that died ultimately became affected by the disease. The yard was several times thoroughly disinfected, the walls limewashed, and yet the epidemic persisted without modification. A terrier thus affected was sent to M. Mégnin, who watched the dog carefully for eight days and observed the epileptiform attacks, and also the frenzied blows which it constantly gave to its ears. Examining the interior of these organs he found the external auditory meatus lined with a thick layer of cerumen, dotted with minute almost imperceptible white points, which were discovered, on microscopical examination, to be acari of the species described under the name of Chorioptes ecaudatus. This species of acarus was first described by M. Mégnin as met with only in the auditory canal of dogs, cats, and ferrets, and he was aware that it was capable of causing attacks of frenzy, but had not observed that these might have an epileptiform character. The discovery of this parasite explains the remarkable contagious character of the epileptiform affection. The proof that the symptoms were really due to its presence was afforded by the fact that the repeated injection into the meatus of a solution of 5 per cent. of sulphide of potassium completely arrested the fits. M. Mégnin also showed, in confirmation of his conclusions, the ears of a rabbit which had died of an affection altogether similar to those which he had described. In the meatus was found another acarus, the Psoroptus longirostris, a species common to the rabbit and the horse, and which also causes in these animals a form of itch. As another illustration of the remarkable lesions caused by these parasites the foot of a cock was exhibited enlarged to four times its normal size by tubercular nodules, composed exclusively of stratified epidermic products. Under the deepest layers, in immediate contact with the corium, were myriads of the females of Sarcoptes mutans, engaged in depositing their ova. These acari do not cause furrows, and are not transmissible to the horse, or to the other mammalia, as has been asserted.

INTRA-PERITONEAL TRANSFUSION.

To obviate many of the difficulties and dangers of intravenous transfusion Ponfick has introduced a method of injecting defibrinated blood into the peritoneal sac, and has availed himself of the rapid absorption occurring from serous surfaces. His example has been followed by others, and Kaczorowski has recently published his results in the *Deutsche Med. Wochenschr.* He employed the method first in a case of puerperal septicæmia, and then in five other cases of anæmia and extreme exhaustion. He injected from 250 to 500 centimetres, and in one case repeated the larger quantity. In one case only was there no substantial result. The local reaction of the puncture, which he recommends should be done under antiseptic precautions, he found to be very slight, and even the entrance of pure air to be harmless. He recommends that intra-peritoneal transfusion should be practised in cases of protracted fever where there is threatened paralysis of the heart, and also in chronic anæmia without fever.

On Tuesday, the 22nd inst., a large meeting of the Central Committee for the closing of Fulham Small-pox Hospital met at Albert-gate, Mr. Firth, M.P., in the chair, to consider what should now be done, as the managers of the Asylums Board intend to re-open the whole matter of the Hampstead Hospital case by the prosecution of the first appeal—viz., whether the hospital is itself a nuisance, or by its administration has become a nuisance to the neighbourhood. The Chairman and other speakers strongly condemned the new action of the Asylums Board, stating that they were now commencing legal proceedings for which again the ratepayers would have to pay without any chance of a successful result. A resolution was unanimously passed that the Central Committee should adjourn to that day fortnight, for the purpose of obtaining subscriptions to the guarantee fund to the amount of something like £5000, and that immediate legal proceedings should be taken to move for an injunction against the Fulham Small-pox Hospital as a dangerous nuisance, and to demand the closing of its wards.

We have received the prospectus of a new quarterly journal, *L'Encéphale*, to be published in Paris under the direction of Professor Ball and Dr. Luys. It will be devoted to mental and nervous disease. The first number was to appear on the 24th inst.

A northern lay contemporary directs attention to the inferior position held by the Faculty of Medicine in the University of Aberdeen in the matter of bursaries and scholarships as compared with that enjoyed by the Faculties of Arts and Divinity respectively. Thus, connected with the Arts Faculty there are 258 bursaries, of the aggregate annual value of about £4423; and eight scholarships, value £695. In the Divinity Faculty there are 38 bursaries and two scholarships, the former worth £823, the latter £35. Last and least, attached to the Faculty of Medicine there are but 10 bursaries, of the aggregate value of £173, whilst a single scholarship of £20 is the only prize of this description to which a medical tyro can aspire.

The movement for the establishment of a veterinary college in Dublin has of late been retarded, but the matter is at present engaging the attention of the Lord-Lieutenant; and it is stated that Dr. Lyons, M.P. for Dublin, has formulated a scheme which, if adopted, will meet the requirements of those who signed the memorial to his Excellency last December. What the memorialists desire is a college perfectly independent of the London institution, and which shall be not only a teaching, but also a licensing body.

Mr. Stansfeld has lately addressed a meeting at Croydon in support of the scheme for enabling the working classes of the metropolis to obtain, on provident principles, medical aid for themselves and their families. We have frequently called attention to the strong and the weak points of this movement, and need not here repeat our comments. Resolutions in favour of the proposed enterprise being tried in Croydon were passed.

A committee appointed by the Illinois State Health Board to investigate the condition of medical education in the State has recommended: (1) a strict preliminary education; (2) more clinical study; (3) three full years of study, one half of each year at least to be spent in a medical college; (4) a more rigid regard to the moral character of the applicants for admission to the profession.

In accordance with the report made by the special examiners, Professors Huxley, Michael Foster, and Thistleton Dyer, no election has been made to the Biological Fellowship offered by University College, Oxford. Another examination will, therefore, be held in the same subject, probably not earlier than the end of the present year.

An executive committee has been appointed, with the object of raising a testimonial to Professor Bain to commemorate his long connexion with the University of Aberdeen. The form of the testimonial is to be a portrait of the Professor, to be placed in the University, and the establishment of an annual gold medal as a prize in Philosophy.

The Members of the Irish Graduates' Association celebrated St. Patrick's day in London at the Holborn Restaurant under the presidency of Dr. G. E. Paget, D.C.L., F.R.S. Many of the leading physicians and surgeons of London and others were present at the festival.

An ardent supporter of cremation, M. Alfred Petit d'Ormoy, has recently died in France. Foreseeing that difficulties would be thrown in the way of cremation by the authorities, he directed that his body should be conveyed to Milan for that purpose.

THE managers of the Royal Infirmary, Edinburgh, have unanimously resolved to accept the offer of £24,500 made by the Town Council for the centre and western blocks of the old infirmary to be used as a fever hospital for the city.

THE veterinary school of Lyons has been temporarily closed in consequence of the riotous conduct of the students, who had organised an opposition to Professor Chaveau on account of his supposed clericalism.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bournemouth.—Mr. Philip W. G. Nunn reports for this watering-place during 1880, in an estimated population of 13,000, a death-rate of twenty per 1000, and a birth-rate of thirty-three. The health-history of the year had been satisfactory, and characterised by the small amount of infectious disease in the place. It is gratifying to learn, in the interest of visitors, that considerable attention has been given to the sanitary condition of the hotels, and that the majority of them have had their drainage arrangements overhauled and placed in a condition which would satisfy the requirements of the model by-laws as to buildings issued by the Local Government Board. Still we are surprised to find that the sanitary administrative arrangements are still so imperfect that the system of tipping ash-refuse (often very offensive) in several parts of the district continues, and that large fixed ashpits are permitted. Mr. Nunn directs attention to the clearances of fir trees in and about Bournemouth, which has been going on for several years, without apparently any systematic attempts to supply the deficiency by replanting. He looks upon these trees as one of the greatest attractions of the place, also as playing a part in determining its celebrity as a health-resort.

Pontypool.—According to Mr. J. B. Mason the death-rate of this urban district, the population of which he estimates at 5100, was in 1880 15·8 per 1000 inhabitants. The health-history of the district during that year presented nothing for special note; but Mr. Mason records a parasitic disease, which he believes he has discovered in connexion with fluke in sheep, and which deserves a more detailed description than he devotes to it in his report, but which we give in his own words:—"I have condemned large quantities of mutton; in one case eighteen carcases, all very much in the same condition, owing to fluke in the liver. In most cases the meat appeared to the naked eye to be healthy and wholesome; but examination with high powers of the microscope revealed a wavy segmented parasite, occupying the sheath of the muscular fibre, leaving behind it a trail of minute eggs. After a deal of investigation I have associated this parasite with fluke in the liver. I believe meat or mutton so infested to be totally unfit for the food of man, and that this parasite may, in suitable cases, produce disease in man. I have had occasion to show this parasite to several medical officers of health, who agree with me entirely in its association with fluke."

Hitchin.—Mr. William Jenner, in his report for 1880, with reference to a sharp outbreak of scarlet fever, which appears to have been the chief disease event of the year, first takes his sanitary authority to task for not having provided an infectious disease hospital for the district. The want of a hospital crippled the efforts of the medical officer of health in endeavouring to stay the extension of the malady, and he writes very positively of the great use it would have been. The death-rate of the year was 22·4 per 1000 inhabitants, and the birth-rate 34·0 per 1000. Hitchin obtained the benefit of a constant water-supply in the course of 1880, but the distribution of the supply throughout the town is not yet quite completed. The drainage of the town was also materially improved.

Montrose.—Dr. S. Lawrence, in his report for this borough in 1880, estimates the population at 15,890 and returns a death-rate of 22·4 per 1000 inhabitants. He gives a pleasing picture of the advances which have been made in the sanitary condition of the borough in recent years. "Instead of a stinted there is now an abundant supply of excellent water, which, besides subserving domestic purposes, has permitted a long desiderated drainage system for the borough to become an accomplished fact; the prevention and removal of all nuisances is now more than ever an object of vigilant attention; facilities and attractive inducements to out-door recreations and exercises have recently been multiplied; in various quarters of the town antiquated, ill-constructed tenements have been removed, opening out freer space for light and air; and last, though not least, through the enterprise of intelligent and energetic citizens, a class of dwelling-houses has gradually sprung up vastly superior to those they are meant to replace or to supersede in all that pertains to sanitary conditions and arrangements." It remains now for the individual members of the community to give attention to the behests of personal hygiene. The local authority has done and is doing its duty; let the community personally do theirs, and Montrose may look forward to an even higher condition of health than it now enjoys.

Stroud (*Urban*).—Mr. Partridge estimates the population of this district in 1880 at 7608, and gives the death-rate for the year at 14·8 per 1000 inhabitants, the birth-rate at 36·1. The health history of the year was uneventful, but here is an illustration of small-pox diffusion. A tramp from Portsmouth enters the town, and sickens from small-pox in a lodging-house. He is removed, presumably for purposes of isolation, into an empty cottage near at hand; a man, the father of a family, is suffered to visit the invalid, in order to gratify his curiosity. This man "catches" the malady, and while he is ill a child of his, six weeks old, and who had been vaccinated only six days, is placed in the same bed with him. The child suffers from confluent small-pox and dies.

Dorking and Reigate.—Mr. E. L. Jacob's reports for these two districts show that no very special event characterised their health-history in 1880. *Dorking* (estimated population 16,350) had a birth-rate of 28·5 per 1000 inhabitants, and a death-rate of 13·4, and *Reigate* (estimated population 12,400) had a birth-rate of 34·0, and a death-rate of 16·5. An outbreak of diphtheria and accompanying throat-illness in the Reigate district, attacking twenty-five persons (twenty-two being children) and killing three, affords matter for more detailed comment in the report on the district. Milk infection might have played some part in the diffusion of the disease in two houses, the occupiers of which were cowmen, who continued their duties about the cows, including the milking, while the disease was in their families. The employer of one of these cowmen, a registered cowkeeper, was found to be unaware that diphtheria was one of the dangerous infectious diseases to which the prohibition of the Dairies and Cowsheds Order of the Privy Council applies, and Mr. Jacob conceived the notion that it would be well if the magistrates would take steps to make registered cowkeepers and dairymen of the district more fully acquainted with their duties under this Order of Council. But the magistrates, on the Sanitary Committee suggesting this view, took the simpler method of summoning the cowkeeper before them, and fining him £5 and costs.

Surbiton.—The death-rate of this urban district in 1880 is stated by Dr. Owen Coleman at 14·3 per 1000 inhabitants. The chief interest of Dr. Coleman's annual report rests in the brief account he gives of two outbreaks of diphtheria which occurred during the year, both of which were attributed to the dissemination of the contagion of the disease through milk, and both of which attracted attention outside the district at the time of their occurrence. Dr. Coleman is anxious to clear the sewerage of Surbiton of the imputation (made by some residents at the time) of having played a part in the outbreak of diphtheria, but he is evidently somewhat doubtful of his case, for he writes of the sewers only "as on the whole" good, and that "there is admittedly need for further ventilation of them"—very qualified approval, indeed, it must be said.

Chailey (*Rural*).—Mr. Richard Graveley reports a death-rate for this district, during 1880, of fourteen per 1000 of the estimated population. He has some thoughtful observations on the sort of houses in which so many of our poorer population live in rural districts, not so much "with a hope," he writes, "of remedying existing evils, but with a view of preventing others arising."

Okehampton (*Rural*), *Devon.*—Mr. Linnington Ash, although he has only held office a few months, in succession to Mr. Wynter Blyth, has prepared a report for this district for the year 1880. He returns a birth-rate of 25·4 per 1000 of the population, and a death-rate of 16·0. Mr. Ash sketches for the information of his authority the course he proposes to take in the execution of his duties, and we may anticipate that his next annual report, by which time he will have become familiar with his district, will contain much matter of interest.

Bury St. Edmunds.—Mr. Winter Clarke reports for this ancient borough, in 1880, a birth-rate of 32·0 per 1000 of the population, and a death-rate of 21·7. He states that a great improvement has been effected during the year by the adoption of a plan of compulsory, regular, and systematic removal of house refuse, through the operation of which the overflowing ashbins, and disgraceful accumulations of the past, have vanished.

Helmsley, Rural. — Dr. Bruce Low reports for the Helmsley division of the rural district a death-rate of 19·1 per 1000 inhabitants, and a birth-rate of 31·7. He has some instructive observations upon the nursing of illegitimate children, and expresses regret that the Infant Life Protection Act does not bring every single nurse-child under observation. The district seems to be woefully behind hand in regard to excrement removal and privy accommodation.

INFECTIOUS DISEASES ON BOARD EMIGRANT SHIPS IN THE THAMES.

The Port Sanitary Authority of the Thames have issued a series of instructions for the guidance of the masters of emigrant ships in the Thames in case of infectious sickness appearing on board their vessels. The instructions give clear directions as to the diseases included under the term infectious, and the course to be pursued to remove them to hospital from the ship according as the vessel lies above or below Woolwich. They must prove eminently useful to the masters of these vessels in the difficult circumstances they are sometimes placed in by the appearance of an infectious disease among a number of persons about to put to sea, or who have been brought temporarily into the port.

WORKHOUSE MILK.

Two cases are reported, both the subject of judicial inquiry, of attempts to palm upon workhouse authorities diluted milk. In the one case, at the Toxteth Workhouse, no less than sixty-four parts of water had been added to the skimmed milk, and thirty-three parts to the new milk. A fine of £10 with costs was inflicted upon the dealer. In the other case, at the Salford Workhouse, 22 per cent. of water had been added. In this case a fine of 40*s.* with costs was imposed upon the dealer.

The Jarrow journals report a somewhat curious case heard in the Jarrow Police Court a few days ago. A medical practitioner in the borough was summoned before the magistrates for an infraction of the Local Improvement Act. He had notified to the sanitary authority a case of "infectious disease," and the authority appear to have contended that according to the Act he ought to have specified the nature of the disease as "small-pox, cholera, or fever." The answer to this seems to have been that the notifier had satisfied himself of the infectious character of the disease before he had ascertained its precise nature, and that he had thought he best met the object of the Act by giving immediate notice of this, and not in delaying until he could designate its precise character. On the other hand, the authority maintained that it was his duty to wait until he knew the disease he was dealing with, and, in effect, that it was of more importance to meet the verbal requirements of the Act than the object for which the verbal construction was intended. The medical officer of health was put into the witness-box to say that he had visited the case after he had received the notice, and that, in his opinion, it was one of typhus. It is not stated how this evidence was supposed to affect the notifier's statement that he had not recognised the particular nature of the disease when he notified its occurrence. The Bench dismissed the summons, stating that there was not evidence to show that it was possible that the notifier could define the disease as being small-pox, cholera, or fever, and the notification was therefore the best that could be given under the circumstances. The case seems to have been very ill-advised, and indicates that the Jarrow Act, as regards notification of infectious diseases, wants amending.

A deputation, headed by Mr. Stavely Hill, Q.C., M.P., had an interview with the President of the Local Government Board, on Tuesday, to advocate an amendment of the Public Health Act, admitting of qualified inspectors being appointed (by local authorities we presume) to guarantee by frequent inspection that the sanitary arrangements of every building are constructed and maintained in proper order. Legislation as to construction of buildings will have to be put in a very different position from that which it maintains at present before this detail of administration can be usefully considered, and it is to be regretted that the deputation did not first deal with the general subject. Moreover, it appeared to have chiefly in view good class houses.

A deputation has had an interview with the President of the Local Government Board to urge upon him the desirability of provision being made in London for the isolation of patients from scarlet fever who had reached the convalescent stage. The President intimated that the time for the consideration of such a question was exceedingly ill-chosen, on account of the difficulty in which the Board was plunged by the recent decision of the House of Lords in the Hampstead Hospital case, but he apprehended that sanitary authorities might make such provision if they so willed. Sir Rutherford Alcock, Dr. A. P. Stewart, and others were among the deputation.

Dr. MacCabe, Local Government Board Inspector, in a recent inspection of the North Dublin Union Workhouse, states that it is not adequate to the requirements of the Union. The real accommodation, after setting apart a proper proportion of day-rooms, will provide beds for 2079 inmates; but during the six months ending December 31st, the average number daily resident has been 2210.

The Town Council of Southport have under serious consideration the system of sewerage existing in the town. When first established the influence upon the health of the inhabitants was very marked, the amount of sickness falling very considerably. But it is defective in several respects, and it has become desirable that a skilled engineer should be consulted upon the system generally.

The Manchester Corporation have applied to the Local Government Board for a further loan of £100,000 to carry out various improvements in the city, and in connexion with privy accommodation. Mr. C. N. Dalton, barrister-at-law, one of the inspectors of the Board, held an inquiry in the town-hall, Manchester, concerning this application a few days ago.

A Bill has been introduced into Parliament by Mr. Walter James and Mr. Bryce to amend the Metropolitan Spaces Act (1877), by giving power to trustees and others to transfer certain open spaces and disused burial-grounds to the local authorities, for public use as open spaces, and providing for the expenses of such transference and the maintenance of the grounds for public use.

The Withington Local Board contemplates taking action against the Rusholme Local Board under the Rivers Pollution Prevention Act for polluting certain streams running through their district.

The Lord Advocate and Home Secretary have brought a Bill into Parliament toen able parochial boards in Scotland, with the consent of the Board of Supervision, to grant superannuation allowances to their officers.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Mortality in the large English towns showed a marked decline last week, and was lower than it had been in any week since the middle of December last. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5576 births and 3001 deaths were registered last week. The births exceeded by 390, while the deaths were 256 below, the average weekly numbers during 1880. The deaths showed a decline of 351 from the number returned in the previous week, and were equal to an annual rate of 20·6 per 1000, against 23·0 in each of the two preceding weeks. The lowest death-rates in the twenty towns last week were 15·9 in Brighton, 16·4 in Hull, 16·5 in Plymouth, and 17·3 in Birmingham. The rates in the other towns ranged upwards to 22·2 in Oldham, 23·8 in Manchester, 25·4 in Liverpool, and 26·5 in Wolverhampton. During the first eleven weeks of the current quarter the death-rate in the twenty towns averaged 24·2 per 1000, against 25·6, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 290, 296, and 311 in the three previous weeks, declined to 287 last week, the lowest weekly number in recent years. These 287 deaths included 66 from whooping-cough, 56 from measles, 46 from scarlet fever, 44 from small-pox, and 41 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged only 2·0 per 1000 in the twenty towns, and ranged from 0·0 and 0·3 in Plymouth and Hull, to 2·5 and 3·1 in Liverpool and Newcastle-upon-Tyne. Scarlet fever showed the largest proportional fatality in Leicester, Portsmouth, and Newcastle-upon-Tyne; and whooping-cough in Bradford and Liverpool. Nine of the 11 deaths from diphtheria in the twenty towns occurred in London. The death-rate from fever (principally enteric) showed an increase upon the low rates in recent weeks, and was highest in Leicester, Newcastle-upon-Tyne, and Manchester. Small-pox caused 46 more deaths in London and its outer ring of suburban districts, and one in Liverpool (of a coloured seaman recently landed from New York), while no fatal case was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the twenty preceding weeks from 77 to 792, further rose last week to 853, which is a higher number than has been under treatment in these hospitals at any time since April, 1878. The new cases of small-pox admitted to these hospitals, which had been 195 and 186 in the two previous weeks, rose to 265 last week, considerably exceeding the number in any recent week.

The deaths referred to diseases of the respiratory organs in London were 345 last week, and were 109 below the corrected average number in the corresponding week of the last ten years; 217 resulted from bronchitis, and 77 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 4·9 per 1000 in London last week; while the rate from the same diseases in Liverpool was 5·8.

The causes of 76, or 2·5 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·8 per cent. in London, while it averaged 3·2 per cent. in the nineteen provincial towns. No uncertified causes of deaths were registered last week in Bristol, Leicester, or Sunderland; while their proportion was largest in Oldham, Leeds, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, the annual death-rate averaged 23·1 per 1000 last week, against 22·9 and 23·4 in the two preceding weeks; this rate was 2·5 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 14·7 and 15·9 in Leith and Greenock, to 25·3 and 33·9 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which were 83 and 82 in the two previous weeks, rose to 97 last week; they included 31 from whooping-cough, 17 from diarrhœa, 15 from diphtheria, 13 from scarlet fever, 12 from "fever," 9 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 3·8 per 1000; this rate ranged from 3·0 and 3·3 in Aberdeen and Dundee, to 4·5 and 5·3 in Edinburgh and Paisley. The 31 fatal cases of whooping-cough included 17 in Glasgow, 6 in Edinburgh, and 5 in Dundee. The 15 deaths referred to diphtheria exceeded by 2 those in the previous week. Of the 13 deaths from scarlet fever, 5 occurred in Edinburgh and 4 in Glasgow. The deaths referred to "fever," which had been 6 and 10 in the two previous weeks, further rose to 12 last week, of which 6 occurred in Glasgow and 2 in Edinburgh; the annual death-rate from "fever" in the Scotch towns was last week nearly twice as high as the average rate from the same cause in the twenty English towns. Eight of the nine deaths from measles occurred in Glasgow. The deaths referred to acute diseases of the lungs, which were 179 and 168 in the two preceding weeks, further declined to 164 last week.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, although still excessive, showed a further decline last week. The annual death-rate in the city, which had slowly but steadily declined from 47·4 to 33·8 in the seven preceding weeks, further fell to 30·4 last week. During the past eleven weeks of the current quarter the death-rate in the city has, however, averaged no less than 38·9 per 1000, against 24·2 in London and 22·4 in Edinburgh. The 194 deaths in Dublin last week showed a further decline of 22 from recent weekly numbers, and included but 11, or less than 6 per cent., which were referred to the principal zymotic diseases, against 21 and 23 in the two previous weeks. These 11 deaths from zymotic diseases included 4 from fever (including typhus, enteric or typhoid, and simple continued), 3 from whooping-cough, 2 from scarlet fever, 2 from small-pox, and not one from measles, diphtheria, or diarrhœa. The annual death-rate from these zymotic diseases did not exceed 1·7 per 1000 in Dublin last week; against 2·4 in London, 3·8 in Glasgow, and 4·5 in Edinburgh. The deaths referred to fever in Dublin showed a marked decline from recent weekly numbers, but the annual death-rate from this cause was more than twice as high as the average rate from the same cause in the twenty large English towns. Two fatal cases of small-pox were reported against but 1 in the five preceding weeks. The recorded deaths from whooping-cough and scarlet fever scarcely differed from those in the previous week. The deaths of infants, although slightly more numerous, were below the average; and those of elderly persons were fewer than in any previous week since the first of the year.

THE HUNGARIAN CENSUS.

The results of the Hungarian Census, which was taken on 1st December last, have just been officially published at Pesth, and show that the population of Hungary with Croatia, which was 15,417,327 in 1870, is not now more than 15,610,729. This shows an increase of only 193,402, or considerably less than one per cent. in the ten years. This slow rate of increase contrasts in a striking manner with that which prevailed in the German empire, where the increase of population during the five years 1875-80 was no less than 5·8 per cent. The Hungarian figures are undoubtedly surprising, more especially when the high birth-rate in that country is borne in mind, and they are said to have excited considerable sensation in Buda-Pesth. As might be expected, nearly the whole of the small increase during the past ten years is shown in towns, and it follows that the population of the greater part of the country, which is rural, has been stationary, if it has not actually declined. Various reasons are assigned for this signal check to the increase of population during the past ten years; among others, frequent outbreaks of cholera and epidemic fever, a succession of bad harvests, with floods and other natural calamities, which have more or less contributed to a considerable increase in the rate of emigration. One of the noticeable features of these Hungarian figures is that the excess of females in the population is comparatively small. At the recent census there were rather less than 103 females to each 100 males. This inequality is very much smaller than that which prevails in England, where the proportion in 1871 was 105 females to each 100 males. It appears, however, from the Prussian census, the results of which have just appeared, that the proportion of females in that population did not exceed 103·2 to each 100 males on 1st December last.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

A report is published in the *Portsmouth Times and Naval Gazette* of an inquiry made at the request of the Admiralty by Lieut. Col. Percy Smith, R.E., into the water-supply, ventilation, and drainage of the Royal Portsmouth, Portsea, and Gosport Hospital. The report is of special interest, because it is accompanied by a series of marginal comments, inserted, our contemporary states, by the Chairman of Committees of the Hospital at the request of the Committee of Management. Colonel Smith's inquiry disclosed so many and such grave defects in the structural arrangements of the hospital, that, notwithstanding the Managing Committee appear to have carried out very generally his recommendations, the question is suggested, should not the whole building be given up and a new one built upon approved principles? It is evident from Colonel Percy Smith's description that the wards, with scarcely an exception, are not adapted, according to modern notions, to the uses and accommodation for which they were designed, and the statement of the Committee that they are never fully occupied as a sort of apology for their continued use, serves to confirm the impression got from the report that a new hospital is needed. The defects which Colonel Percy Smith describes in the arrangements for the water-supply, the drainage of waterclosets, baths, sculleries, slop-sinks, and of the drainage generally, are those peculiar to a hospital built nearly forty years ago, and many of these defects have been remedied. But it is evident that no tinkering can bring about proper ventilation of the wards, and we are quite unable to understand the comment of the Committee of Management upon Colonel Percy Smith's recommendation that the system of drainage of the hospital should be cut off from the town-sewer, by an intercepting chamber freely open to the outer air and with an S-trap on the sewer side—to wit, "This has not been done because of the diversity of opinion in regard of its desirability." Is it possible that a doubt on this matter exists within the limits of England, and almost within the shadow of Netley?

THE PLAGUE.

Further particulars received from the Levant enable us to form a pretty definite notion of the locality in which plague has again appeared in Mesopotamia. Information, however, respecting the outbreak comes in slowly, very slowly indeed, but the news is confirmed, and there is reason to fear that cases have been more numerous and more fatal than hitherto reported. The outbreak appears to have taken place within the district lying to the south of the Hindieh marshes and having the old bed of the river Euphrates on the east, the sea of Nedjef on the west, and the Shat el Atchan on the south. By means of cordons round the infected localities, also a cordon round the whole of the infected district, and quarantine stations established on the various routes of water communication with the districts to the East, the Ottoman Government is endeavouring to prevent the spread of the malady out of the infected area. Russia is also preparing to take measures of precaution in the Black Sea and Caspian Sea; Egypt has established quarantine against Syrian ports and ports in the Persian Gulf for ships coming thence with sickness on board, and the Italian Government has instituted a medical observation of ships coming from both Ottoman ports and ports in the Persian Gulf. Dr. Cabiadis, whose name is familiar in conjunction with plague in Mesopotamia, has been despatched by the Ottoman General Board of Health to the scene of the recent outbreak.

Typhoid fever is reported to be very prevalent in Goulburn, New South Wales.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Brigade Surgeon Charles Carroll Dempster is granted retired pay, with the honorary rank of Deputy Surgeon-General; Brigade Surgeon Sampson Roch has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Brigade Surgeon John Meane is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Joseph Gray, African Medical Service, has been granted retired pay, with the honorary rank of Brigade Surgeon.

Surgeon-Major R. Clifton, and Surgeons Le Motte and Chester have been detailed for duty with the 14th Hussars proceeding from India to the Transvaal.

Surgeon Dod, A.M.D., embarked on board the transport *Holland*, on the 22nd inst., in medical charge of a battery of artillery and drafts ordered to the Transvaal.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts: Mr. William Henry Latham, Congleton Union (second time). Mr. Linnington Ash, Holsworthy, N. Devon.

THE HOMERTON SMALL-POX HOSPITAL.

THE following are the conclusions of the Sanitary Committee of the Hackney District Board of Works on the Homerton Small-pox Hospital:—

"1. Your Committee have to report that, with the Medical Officer of Health, they visited the Small-pox Hospital, Homerton, and the adjoining neighbourhood, on Wednesday, December 29th. They carefully observed the approaches to the hospital, and consider them to be highly objectionable, especially that now used—viz., College-lane—on account of its narrowness and contiguity to the Homerton College Schools. They were informed by the Medical Officer of Health that boys, especially those attending at the Homerton College School, have occasionally ridden behind the ambulances while passing down College-lane. The Committee therefore consider that some means should be taken to prevent this practice in future by an alteration of the vehicles.

"2. The Committee would also point out another source of danger to the inhabitants of the neighbourhood arising from the ambulances being compelled to stop outside the gates during the time occupied by the porter or his wife in coming from the lodge. During this interval children frequently gather round the vehicles, and may thus become infected. In the opinion of the Committee this should be forthwith remedied by the present gates being always left open during the day, and inner gates erected within the hospital grounds.

"3. The interior arrangements, as regards the delivery of stores, are most objectionable, as tradespeople have to enter the hospital grounds, passing close to the windows of the wards, and deliver their goods either at the door of the stores or at the end of one of the corridors. The Committee saw soap being delivered from a van into the corridor by a man and a young lad, the latter of whom went inside the building repeatedly. The laundry is placed opposite to this corridor, and is ventilated almost directly into the street, which the Committee consider should be altered. The Committee have been informed that *employés* engaged in the delivery of goods from contractors have suffered from small-pox, showing that the Committee's objections to the position of the stores are well founded.

"4. The Committee also strongly object to the residences of the Medical Officer and Steward being situated in the centre of the hospital premises, and opposite to the Fever Hospital, as visitors and tradesmen going to these houses, as well as to the stores, are exposed to infection. They consider that these residences as well as the stores should be built in such a position as to admit the persons entering them from the public highway. The Committee would also point out the proximity of the mission-house to the hospital.

"5. After visiting the hospital the Committee went to Brooksby's-walk, carefully viewed the position of the houses, and are unanimously of the opinion that the houses Nos. 41 to 59 inclusive, and the mission-hall, which abut on the small-pox hospital, should be purchased by the Asylums Board and the former removed.

"6. Pending these alterations, the Committee are unanimously of opinion that the wall adjoining Brooksby's-walk, and that bounding the footway in the Grove, should be raised to a uniform height of 12 ft. at least, as the air from the open ventilators of the wards and laundry is at present directed at such an angle as to be carried over the last-mentioned wall, and the gardens of some of the houses in Brooksby's-walk abut on the hospital wall. These arrangements, in their opinion, are highly objectionable, as the windows in the end of the wards are within 24 ft. of the wall abutting on the Grove, and the mortuary is within 11 ft. of some of the gardens.

"7. The Committee are also of opinion that the best entrance to the hospital would be obtained by the managers of the Asylums Board purchasing a slip of ground from the Guardians of the City of London, so as to allow the patients to enter by the large gates of the Union Workhouse (which the Committee are informed are not now used), and pass along a passage between high walls leading into the hospital grounds. These outer gates could always be left open during the day, if a porter were kept in attendance near them, and a second porter were placed at the present lodge. The ambulances could then be admitted without delay or danger to the inhabitants of the neighbourhood, and without risk of infection to the friends of and visitors to the patients, who at present often stay outside the gates gossiping or making inquiries from the porter whilst an ambulance is passing by. This source of danger would be avoided by the plan recommended, as it would provide a separate entrance for visitors, and also enable the ambulances to pass along College-street, which is comparatively wide, instead of College-lane.

"8. If the entrance through the City of London Union grounds could not be obtained, a much safer means of access to the hospital than the present could be procured by pulling down two houses in High-street, Homerton, so as to open up Albert-street, which is about three times as wide as College-lane.

"9. The Committee consider that the present arrangements, which necessitate the use of the same entrance by small-pox and fever patients, and the passage of the latter through the small-pox hospital grounds, are decidedly objectionable, and would point out that a new entrance can be readily obtained from the Clifden-road. They are also of opinion that it is of the utmost importance, especially to persons residing in the vicinity of the hospital, that the number of patients in future admitted to the small-pox hospital should never exceed the number for which it is certified —viz., 102.

"The Committee finally desire to state their conviction that if the alterations recommended be carried out, the advantages arising from the presence of a hospital for the treatment of infectious diseases would, to a considerable extent, counterbalance the disadvantage arising from its present position."

Deaths from Small-pox in Hackney District, 1871-80: a statement prepared by the Medical Officer of Health (Dr. Tripe) and submitted to the Metropolitan Asylums Board by a deputation of the Hackney Sanitary Committee, 20th March, 1881:—

In Albert-street, Brooksby's-walk, College-street, College-lane, Farm-place, Holmbrook-street, Templar-road, and the Grove, being the streets nearest to the Small-pox Hospital, the deaths from small-pox amounted to 95 in ten years amongst 2314 people, and there were also 277 cases reported to me from these streets. These deaths give an annual death-rate of 4·1 deaths per 1000 population. In the streets within a quarter of a mile radius, in front and at the sides of the hospital, there were 167 deaths and 625 cases reported in the ten years amongst a mean number of 6823 inhabitants, giving an annual death-rate of 2·45 persons per 1000 population. Amongst 30,171 residents of the other small houses, occupied by poor persons, which are inspected annually, after deducting the deaths in, and population of, the above-mentioned streets, there were 484 deaths and 1745 cases, which give a death-rate of 1·6 deaths annually per 1000 population. The death-rate from small-pox amongst a mean population of 119,400 persons residing in the rest of the district was only 0·21 per 1000 population per annum, 261 deaths only having been registered amongst them in the ten years. The death-rate was 0·58 per annum per 1000 population for the whole district. These figures are necessarily calculated on the deaths, as cases in respectable houses are rarely reported to me, and the calculations would consequently be misleading. If all deaths in hospitals assigned to Hackney, or for which no addresses are given, had been included, a larger percentage of deaths in the poorer streets would have been shown. I was unable to assign fifty-three deaths in hospitals to the localities from which the patients had been removed, as their place of abode was not stated, but if these were added the annual death-rate would be 0·64 instead of 0·58 per 1000. The cases per 1000 population per annum in the ten years were as follows:—In the streets around the hospital 12·0; in those within a quarter of a mile radius in front and at the sides, in the other small houses, 5·8 per 1000 population. The number of deaths from small-pox in 1861–70, after allowing for those removed to the Highgate Hospital, was 173, which gives an annual death-rate of 0·167 per 1000 for the whole district. There were 15 deaths within the quarter of a mile radius, which, with 3 added for proportions removed to Highgate Hospital, gives 0·264 per 1000 population, against 2·45, or nearly ten times as many as in 1871–80. The proportion of deaths in the quarter of a mile radius in 1861–70 to the total deaths from small-pox was nearly 116 to 10, whilst in 1871–80 it was 412 to 10, or more than three times as many, showing that the inhabitants of these streets suffered to a far greater extent, as compared with the rest of the district, in 1871–80 than in 1861–70.

The following is a summary of the distribution of deaths in Hackney in the period 1871–80:—Deaths in streets adjacent to the Hospital, 4·1 per 1000 population; 164 deaths in streets situated within a quarter-mile radius of Small-pox Hospital = 2·45; 484 deaths amongst 30,177 poor persons living in other small houses = 1·60; 261 deaths amongst 119,400 population, excluding poor population and deaths = 0·21; 912 deaths amongst total population (total deaths) = 0·64.

In the period 1861–70 the total deaths in the same district from small pox = 0·167 per 1000; deaths within a quarter-mile radius of the Small-pox Hospital = 0 264. It is to be noted that the Hospital was not open during any part of the ten years 1861–70.

Deaths from Small-pox.		Per 100,000 population.
1861–70	London	28
"	Hackney	17
1871–80	London	46
"	Hackney	64

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Thursday, the 17th, the Alkali Works Regulation Bill was read a third time and passed, as was also the Rivers Conservancy and Floods Prevention Bill.

The New Vaccine Establishment.

In the House of Commons, on Thursday, the 17th inst., in reply to Sir Trevor Lawrence, Mr. Dodson stated that Dr. Cory had been appointed medical director of the National Vaccine Establishment.

On Friday a petition was presented from Dreghorn for an alteration of the law relating to Scotch medical relief. Fifteen petitions from London and provincial towns were presented in favour of the prevention of vivisection. The annual Metropolitan Police report with regard to the working of the Contagious Diseases Acts was presented. On the motion of Viscount Lymington a return was ordered of the number of adult male paupers in England who had been members of friendly societies. In Committee on the Navy Estimates, a vote of £65,969 was agreed to for medical establishments at home and abroad, and a vote of £70,460 for medicines and medical stores, &c. The Alkali Works Regulation Bill was brought down from the House of Lords, and read a first time.

On Monday the annual return under the Lunacy Regulation Act, 1862, was laid upon the table. The second reading of the Vivisection Abolition Bill was deferred to May 11th. Mr. Puleston gave notice that he will move the rejection of the Alkali Works Bill, and Sir Sydney Waterlow gave notice that he will move that the Bill be referred to a Select Committee.

Army Medical Department.

Mr. Findlater asked the Secretary of State for War whether, having regard to the cases of wounds and sickness which had occurred amongst medical officers during recent campaigns, he would take into consideration the justice of extending to the Army Medical Department the privilege now enjoyed by all combatant officers of counting as full-pay service towards retirement any time on half-pay, not exceeding one year, when such half-pay had been necessitated by sickness incurred in and by the service; also such half-pay as resulted from the reduction of the department, not exceeding two years, as laid down in Army Circulars, March 1st, 1880. Mr. Childers said he feared he could not undertake to lay down the broad proposition that non-combatant officers were to have all the advantages of combatant officers, unless the converse be also accepted—that they were to have all the disadvantages. The regulation as to the retirement of medical officers had been so recently settled that he could not undertake to re-open the question, but when he had more leisure he would look into it.

Belfast Workhouse.

Mr. Biggar put a long series of questions with regard to the management of the Belfast workhouse, one of which was founded upon the assumption that the Local Government Board had allowed the schoolrooms to be converted into hospitals. Mr. Forster, after replying to the questions of workhouse management, stated that the inmates were well supplied with bedding and clothing, and the house was free from epidemic disease. The assumptions of the hon. member were not correct, and he saw no reason for altering the constitution of the Local Government Board.

On Tuesday a petition was presented from the grand jurors of the South Riding of the county of Tipperary, for inquiry into the subject of butter adulterations.

The Hampstead Hospital Case.

Mr. Firth asked the President of the Local Government Board whether the decision arrived at by the Metropolitan Asylums Board on Saturday last, to continue legal proceedings in the Hampstead Hospital case, had the sanction and approval of the Local Government Board; and whether the estimated cost of the legal proceedings already incurred, and at present paid or payable by the Metropolitan Asylums Board out of public funds, exceeds £20,000. Mr. Dodson replied that the approval of the Local Government Board was not requisite for the proceedings referred to, but he had no hesitation in saying that he had expressed his acquiescence in the decision of the managers, not to abandon the second appeal. He had no information as to the estimated cost of the proceedings. Mr. Firth thereupon gave notice that, in consequence of the answer of Mr. Dodson, he should oppose the clause in the Metropolitan Board of Works Money Bill which proposed to lend £50,000 to the Metropolitan Asylums Board.

The London Lock Hospital.

Mr. Hopwood asked the Secretary of State for War whether his attention had been called to the doubt which existed, whether the certifying of the London Lock Hospital, and the detention of patients therein under the Contagious Diseases Acts, 1866–9, was legal, inasmuch as that institution was not situated in any "place" to which those Acts apply. Mr. Osborne Morgan answered the question, which, he said, was a purely legal one. He did not feel that the doubt was well founded. The Acts in question authorised the Secretary of State for War, or the Admiralty, "to provide and certify for hospital purposes any building without any restriction as to place;" and he did not think that these general words could be taken to be restricted by the prior clause in the Act, confining the operation of the Act for police purposes to certain specified areas. He must add that that interpretation of the Act was fully borne out by the way in which the schedules were framed.

Animal Lymph.

Mr. P. A. Taylor asked the President of the Local Government Board if he could state to the House the source whence the new animal lymph is to be obtained—that is, whether the calves are now inoculated from a diseased horse or from a human being suffering under small-pox, or from what other source. Mr. Dodson replied that the Medical Department hoped to commence their series of calf vaccination from a well-ascertained case of spontaneous cow-pox. If such lymph could not be obtained the Board would commence their series from the well-known lymph at the Hague or Brussels station, where it had long been in use.

During the debate on Mr. Chaplin's motion concerning imported cattle disease, Dr. Lyons took the opportunity to make a strong appeal to the Government to establish in Ireland a veterinary college, which would enable veterinary students to be educated and trained in the country instead of having to go to London, Edinburgh, or Glasgow, as at present. Dr. Lyons stated that this subject had been unsuccessfully agitated by Irish members for the last fifty years.

On Wednesday a petition for inquiry into the East India Army Medical Department was presented from William H. Harris. A petition of the registered medical practitioners in Ireland was presented in favour of an alteration of the Medical Acts. Sir R. Cross gave notice that on Tuesday next he will move for a Select Committee, to consider the working of the Artisans' Dwellings Acts.

On Thursday Mr. P. A. Taylor gave notice of a further question to Mr. Dodson on the subject of vaccination—viz., whether in view of the increase of mortality through the use of bad lymph, the Government would bring in a Bill to abolish compulsory vaccination.

Small-pox in Kent.

Mr. Ross asked the President of the Local Government Board whether his attention had been called to an outbreak of small-pox in Boxley parish, Hollingbourne Union, Kent, where, apparently from the medical attendant not having taken precautions to isolate the case, five other cases had since occurred (one ending in death), which were traceable to infection caught from the said case. Mr. Dodson, who was most indistinctly heard in the gallery, said his attention had been called to the matter, and from inquiries he had made it appeared that a labouring man, being taken with small-pox, his medical attendant ordered his removal to the hospital. His wife was then attacked, and died after giving birth prematurely to a child. Two relatives who attended the funeral were also attacked by the disease, but in the mildest form. A competent nurse was procured for the man and his wife, and the usual precautions, including the free use of disinfectants, were taken to prevent the disease spreading by the directions of both medical men who attended, neither of whom, in his opinion, was to blame.

Correspondence.

"Audi alteram partem."

THE BIRMINGHAM HOSPITAL FOR WOMEN.

To the Editor of THE LANCET.

SIR,—You have been good enough to copy a report of my speech from the *Birmingham Daily Gazette* and to allude to it as a "mass of nonsense," and further to assume ignorance on my part of the literature of diseases of women. I am quite prepared, however, to abide by what I said as perfectly correct. The statistics of our operations for the removal of *ovarian tumours* are better by far than those of any hospital statistics yet published, and I challenge you to show that this is nonsense. The case of cholecystotomy, recently published, and some of hepatotomy shortly to be published, amply justify what I have said about the hospital doing work never attempted before in any institution, and only once previously in private, and then not successfully.

The insinuation at the end of the paragraph that we perform operations which are not legitimate is hardly a worthy one for the leading medical journal to make. In another part of your issue you speak of "spaying" as an operation still *sub judice*, and that is the only operation upon which your insinuation can be directed. We are giving it a trial, and have at least established the conclusion that it can be justified by a low mortality, and that is more than has been done anywhere else. Whether it will be further justified by its ultimate results yet remains to be proved, though I am quite satisfied it will, and I cannot help feeling that such a paragraph as yours can only tend to excite prejudice, and prevent the formation of a fair conclusion.

I am, Sir, yours, &c.,

Birmingham, March, 1881. LAWSON TAIT.

⁂ We are sorry to find Mr. Tait unable to disclaim the paragraph quoted in last week's LANCET. In proof of our statement that operations are done elsewhere with success at least equal to that obtained at the Birmingham Hospital for Women, we would quote Marion Sims, who in April last wrote as follows: "Keith has cured of his last hundred cases (ovarian tumours) ninety-seven per cent., seventy-three of these in succession without a single death."—ED. L.

EMPYEMA AND ITS TREATMENT BY FREE INCISION, IRRIGATION, AND ASPIRATION.

To the Editor of THE LANCET.

SIR,—I aimed at being just and not severe in my criticism of Mr. Moxhay's paper. He certainly stated that he was likely the first to adopt Fraentzel's method in this country, but as he disclaims pretension to priority in his letter, I willingly pass this over.

Mr. Moxhay may be assured that I read Fraentzel's article on Pleurisy, and while I admire the soundness of his opinions on most points, I confess my inability to concur with him always. Fraentzel holds that a pneumothorax is impossible without the admission of external air. Dr. Markham Skerritt and others demonstrated years ago that gas could and did accumulate without such admission, and I have verified pathologically that this is decidedly correct.

Mr. Moxhay says he may have introduced germs through injecting water; now this is what I object to. Would Lister do this? and, if not, why does Mr. Moxhay persist in murdering the expression, "perfect Listerian precautions"? Does he forget how Dr. W. Roberts, in his celebrated experiments, found that by injecting five drops of hypodermic solution of morphia into one of his flasks of steralised beef-tea he could produce full putrefaction in forty-eight hours? But Mr. Moxhay even asserts that water at 100° to 103° Fahr. may have destroyed, or rendered harmless, these micro-organisms. This, however, is a *principii petitio.* I would refer him to the literature of the subject, and he shall find that, although they are neither Zulus nor Boers, yet they are unwilling to die without a struggle. The above temperature would rather favour their development. Dallinger and Drysdale have shown that while 104° Fahr. suffice to kill adult septic monads, their spores are capable of germinating after subjection to a heat of 300° Fahr. for ten minutes (W. Roberts). Now, although no harm resulted through injecting water in Mr. Moxhay's case, it does not follow that his proceeding is universally applicable; if this were so, then the principle on which Listerism is founded would be made assailable.

I never objected to a free opening—quite the contrary. It is to the proceedings with which "free opening" is associated that I object.

Mr. Moxhay will please observe that "empyema proper" and "circumscribed empyemic abscess" are surgically similar and proper. We have now more definite information about the case though. There were clearly two collections of pus encapsuled by false membranes, and this fact of itself goes to teach us how we should explore the pleural sac in such cases, and break up, as far as possible, all intersections early. I am, Sir, your obedient servant,

Lichfield, March 14th, 1881. JOHN LOWE.

CATGUT LIGATURE IN THE TREATMENT OF ANEURISM.

To the Editor of THE LANCET.

SIR,—Having had some experience in the ligature of arteries with catgut, may I ask for space in your columns to add my mite to the discussion which is now going on *à propos* of the paper recently communicated by Messrs. Treves and Macarthy to the Medical and Chirurgical Society?

Mr. Treves's case was one in which the carotid and subclavian arteries were both tied in the same patient for innominate aneurism, the carotid first by Mr. Adams, the subclavian, three weeks later, by Mr. Treves. Mr. Macarthy's was one in which the subclavian was tied for axillary aneurism, and amputation at the shoulder-joint became necessary from bursting of the tumour two months afterwards. Both patients died; the first one hundred and eight days after the ligature of the carotid, the second sixty-four days after ligature of the subclavian. Of the three arteries tied only one was permanently obliterated, the other two became pervious after a time, although with considerable narrowing of the channel. Antiseptic treatment was adopted in all three, and answered perfectly in two—viz., Mr. Adams's carotid case and Mr. Macarthy's subclavian case, both wounds uniting rapidly by first intention. It failed in Mr. Treves's case, in which the wound opened and suppurated freely; and this was the only one of the three in which the artery was permanently obliterated.

The inference sought to be drawn from these cases is that rapid and immediate union may be injurious by not exciting sufficient inflammation and effusion around the vessel—the repair being, in fact, too perfect; whereas when there is suppuration greater thickening and solidification will be ensured. It is against this doctrine, which I consider to be illogical and misleading, that I write to protest. It seems clear to me, from the account given, that the two failures arose from the ligature not being effectually applied; and the one success was obtained, notwithstanding the disadvantage of the suppuration, because the vessel was thoroughly secured. Mr. Barwell pointed out in THE LANCET for March 5th that Mr. Adams and Mr. Macarthy used a double and then a single hitch in tying their knot, while Mr. Treves used a single hitch, repeated in the usual manner. This probably had some influence on the result, as the double hitch is *clumsy*, and difficult to draw tight as well as to maintain at the required tension while the second hitch is being tied; consequently the inner coats were completely cut through in Mr. Treves's case, but only very incompletely so in the other two. This seems to me to be clearly shown by the description, the inner coat in those two cases being uninterruptedly continuous from the proximal to the distal part of the vessel. This incomplete division of the inner coats was probably the cause of the entire absence of coagulum, which is such an important factor in the process of repair.

My own experience of the catgut ligature has been uniformly satisfactory. I have used it on the femoral artery nine times, on the external iliac twice, on the carotid artery three times, on the common femoral once, and on the brachial, radial, and ulnar each once. In none has there been secondary hæmorrhage, failure to obliterate the vessel, or other mishap. Some of the wounds have suppurated freely; latterly they have all healed by first intention under antiseptic treatment.

I look upon this result as dependent upon the special care which I have always taken to thoroughly divide the inner coats, and to observe that the first hitch does not slip while the second is being drawn tight, and I always add a third for additional security. It is the more necessary to attend to these points in using catgut in consequence of its stiffness and slipperiness as compared with silk, if it is not sufficiently softened in carbolic solution just before being used. If the inner coats are cut through, and the ligature tightly tied, I believe that complete obliteration will be brought about in almost every case, and even in spite of suppuration occurring. It was because this was not effectually done that these two failures took place, and they do not afford a particle of reliable evidence that suppuration is an end to be either aimed at or desired. On every principle of surgery there must surely be additional safety in securing immediate union by the plastic operations of nature, uninterfered with by the degenerative inflammatory action which suppuration implies. Catgut, if of proper quality, and properly applied, is, in my opinion, by far the best material yet known for ligature of arteries, whether in their continuity or otherwise; but if the well-established rule in surgery, that the inner coats must be divided by the ligature, be not carefully observed, and if, as there seems to be some prospect, a return should be made to the long-abandoned practice of using broad ligatures, and attempting merely to approximate the sides of the vessel, I venture to predict that it will not be long before more failures will be heard of.

I have had four opportunities of observing in post-mortems the changes effected by the catgut ligature. I will not go into the details of the cases, as it is unnecessary for my immediate purpose. Briefly, the following were the conditions met with:—

1. Ligature of external iliac for hæmorrhage; death after sixty hours. Ligature firmly in position, and but slightly changed; internal coats divided; firm conical coagulum above and below, adherent by their bases to the seat of ligature, and also to the sides of the vessel.
2. Ligature of common femoral; death in eleven days; wound healed by first intention; ligature completely absorbed; vessel firmly closed; divided edges of inner coats visible, and turned inwards; firm conical coagulum above and below, adherent as in the first case.
3. Ligature of superficial femoral; death after twenty-eight days; wound suppurated freely, but suppuration did not reach down to the vessel; artery firmly closed, and constricted at seat of ligature, which had disappeared; firm conical coagulum adherent, as in the other two cases, but fainter in colour.
4. Ligature of external iliac for hæmorrhage; death in thirty days; sloughing of wound extending towards artery, but not reaching it or affecting peritoneum; artery firmly closed and constricted at seat of ligature, which had disappeared; firm, pale coagulum for some distance above and below, and apparently undergoing absorption.

The deaths in these cases were from causes quite independent of the ligature. The uniformity of the result as regards coagulation and closure is remarkable, and goes far to show the desirability of thoroughly dividing the inner coats. The use of a substance which will be removed by vital absorption, the ends of which may, therefore, be cut short, is a great advantage, as it appears from the last two cases mentioned that plastic effusion may take place around the ligature and vessel, so as to shut them off from unhealthy processes which may be going on in the superficial parts of the wound.

I am, Sir, your obedient servant,

Norfolk-square, March 14th, 1881. JAMES R. LANE.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—Dr. Balfour entirely ignores my explanation as to how I came to mistake *his* views. He surely must admit that it is possible to miss a paper even in THE LANCET. Having missed his paper, I maintain, firstly, that I was entitled to consider the views expressed in his work on the heart as representative of his opinions; and, secondly, that the conclusion at which I arrived after studying his sixth chapter—viz., that "he denies that the so-called basic murmurs of anæmia are ever arterial" was a logical conclusion, justified by his argument as a whole, and by the passages which I quoted in my last letter in particular.

I have already expressed regret that I should have coupled Naunyn's name with the chlorotic murmur. As an extenuating circumstance, I was, I think, justified in stating that such trustworthy authorities as Dr. Bristowe and Dr. Fothergill had come to the same conclusion on this point as myself, and I am glad to know that neither Dr. Bristowe nor Dr. Fothergill takes exception to my having done so.

The explanation which Dr. Balfour gives of the reduplicated second sound in mitral stenosis is not mentioned, much less accepted, by any writer to whom I have been able to refer. (Since this paragraph was originally written I have learned from Dr. Balfour that the explanation is his own.) The same argument which Hayden brings against the theory that the reduplication is due to asynchronism in the closure of the segments of either sigmoid valve seems to apply with equal force here.

Hayden says: "I have repeatedly made the following observation, which seems conclusive as against the univalvular origin of double second sound. Whilst a double second sound was equally audible at the orifice of the aorta and pulmonary artery, but most distinctly so at a point intermediate to, and equidistant from both, a single second sound only existed at the distance of an inch or so external to either orifice in the horizontal line. Manifestly if derangement of synchronism in the closure of the segments of either set of valves had been the cause of reduplication, the latter would have been audible to an equal distance from the orifice in the directions inwards and outwards, and it would have been most distinct at the orifice itself, and not midway between the two orifices."—(Diseases of the Heart, p. 127).

But, further, is it a fact that the systolic closure of the valves, which Ceradini describes, is attended by any sound at all? I understand that the distinguished Professor of Physiology in the University here is in the habit of teaching that the second sound is not due to the closure but to the stretching which follows the closure. Dr. Fothergill writes me that in his opinion the systolic closure of the valves, in a fluid in equilibrium, could not cause an audible snap.

I am, Sir, your obedient servant,

Edinburgh, March 18th, 1881. BYROM BRAMWELL.

PRIVATE DISPENSARIES.

To the Editor of THE LANCET.

SIR,—I have noticed various allusions of late in your valuable journal to what you call "private" dispensaries, and generally of an unfavourable character. The profession generally will sustain this representation. I was waited on a few weeks ago by the unqualified assistant of a well known proprietor of these cheap dispensaries. His object was to beg a few shillings under the following circumstances: He and his other unqualified colleagues had all at one fell swoop been discharged by his master, and, as his wages were only 25*s.* a week when in work, he was impecunious. He told me that he saw most of the patients and attended a good deal of the midwifery. Such a system as you point out in last week's LANCET is deluding to the working classes and discreditable to the men who carry it on. I have noticed, too, a tendency to make dispensaries rather with a view to sale than practice, by which innocent men—as pointed out by your correspondent, L.R.C.P. Edin. (THE LANCET, Feb. 5th)—are lured into very delusive purchases. I hope you will keep your vigilant eye on this undignified style of work.

I am, Sir, your obedient servant,

March, 1881. L. S. C.

MANCHESTER.

(*From our own Correspondent.*)

MONSALL FEVER HOSPITAL, it appears, is larger than is required for infirmary patients, and for those for whom provision is reserved on behalf of the city of Manchester, and that it has been the custom to admit patients from the suburban townships, as well as pauper patients, on certain terms. The annual loss to the infirmary in keeping up an establishment so much in excess of its requirements is, in round numbers, £1500 per annum, and the Board of the Infirmary have come to the conclusion that the present arrangements with the sanitary and poor-law authorities must be so revised as to prevent any further encroachment upon their funds. An adjourned conference on the subject was held on the 17th inst., the Infirmary Board being met by representatives of the health department and most of the local boards of the outlying districts. Considerable discussion took place as to the best and most equitable mode of distributing the excessive expenditure, the following resolution being ultimately adopted:—"That an arrangement be made that will distribute the ascertained annual loss of £1500 on the Monsall Fever Hospital, in fair proportions, amongst the several sanitary authorities of Manchester and the district, and that the said arrangement be calculated upon the mean percentage of the population and rateable value of property, and, further, that a charge of 3*s.* per head per day be made for each patient sent; this arrangement to be in force for three years." This scheme bids fair to make good the deficiency upon an equitable basis, and relieve the infirmary funds of an expenditure which presses hardly upon them, and ought to be accepted by the authorities, as the infirmary, a public charity, should not be a loser in a matter which so deeply concerns the health of the city and district.

Last week Mr. Cornelius Neale Dalton, the inspector of the Local Government Board, held an inquiry at the Manchester Town Hall in reference to an application which has been made by the corporation for a provisional order to enable them to acquire *inter alia* certain powers of raising money, and providing privies and ashpits in buildings where manufactures were being carried on; with these by-laws I do not propose to deal, but the 5th section greatly affects the medical profession of this city, in so far as the corporation asks power to require a notice of cases of infectious diseases to be given to the medical officer of health by the occupiers of premises when such cases occur, and also by the medical man in attendance on such case, and to provide for his remuneration for each case reported. It was stated as a plea for the necessity of compelling householders and the medical attendant to inform the sanitary authority of the existence of infectious diseases that last year the number of deaths in the city from infectious diseases was 423, and assuming that for every death eight cases recovered, the large number of 3884 cases would be reached, and yet only 85 cases were removed to Monsall Fever Hospital, and 94 to the Children's Hospital during that period. The corporation were further of opinion that it is only by systematic information given by medical men who are brought into contact with such cases that infectious diseases can be adequately dealt with.

A deputation of the Parliamentary Committee of the Medico-Ethical Association, consisting of its President, Dr. Lloyd Roberts, and its Secretary, Dr. Pierce, together with the President of the Society, Dr. John Roberts, Dr. Peatson, and the Honorary Secretaries, waited upon the inspector with a view of giving support to the general principle contained in the by-law quoted above. After considerable discussion the inspector decided to recommend the responsibility of reporting the cases to be laid, as the corporation desired, on both the householder and the medical attendant, but fixed the fee to the latter at the rate of two-and-sixpence per case. The forms of infectious disease scheduled were typhus, typhoid, variola, rubeola, diphtheria, and cholera. The medical profession here owes a debt of gratitude to the Medico-Ethical Association for their prompt action in the matter, for in the absence of their representations it is problematic whether an adequate fee would have been allowed for the reports.

At the Royal Infirmary Mr. Hardie is adopting a somewhat new method of dressing stumps and other amputations with much success. He covers the wound with a sponge dipped in an antiseptic solution, and retains it *in situ* by means of an elastic bandage; he does not remove the dressing for several days, and, as a rule, obtains primary union and no purulent secretion. I hope Mr. Hardie will explain his method in detail in your columns at no distant date.

GLASGOW.

(*From our own Correspondent.*)

THE number of changes which have taken place in medical circles in Glasgow within the last few years is quite remarkable, and it seems as if we were shortly to have another very considerable rearrangement of offices and places. The present excitement is caused chiefly by the vacancies in Anderson's College, the Western Infirmary, and the medical officership to an important insurance company. Judging by the number of candidates who are striving for the post, the last-mentioned prize appears to cause most stir; it is a noteworthy fact that the President of the Faculty of Physicians and Surgeons is canvassing as a candidate for it. In the Western Infirmary one physician and one surgeon are to be appointed to the new wards recently opened; for these offices also the number of claimants is very large. For the Chair of Midwifery at Anderson's College the principal candidates are Dr. A. Wallace and Dr. W. L. Reid, in either of whom the directors of the College would find a man well qualified to uphold the dignity of this important extramural school.

The Lord Provost of Glasgow, who seems to have made the sewerage question his own, announced recently that in a short time a sewerage scheme, likely to be the one most suitable for Glasgow, would be made public. If his lordship is right we shall all have reason for thankfulness, as the Glasgow sewerage question appears at present to be in as great a tangle as ever.

I hear it reported that in Mount Florida, a suburb of Glasgow, there is quite an epidemic of typhoid fever. The milk supply is blamed, but this part of the question is still under investigation.

PARIS.

(*From our own Correspondent.*)

THE measures being taken by the Municipal Council to replace the religious sisterhoods in the Paris hospitals by lay superintendents, or as it is called the *laïcisation* of the hospitals, have already created widespread dissatisfaction, and are likely to be the cause of serious trouble. The *France Médicale*, which has become the mouthpiece of the tolerant party, has published two protests against the expulsion of the nuns, which are signed by ninety-five hospital physicians and surgeons, and this number will no doubt be largely increased. It must not be supposed that the question at issue is one of religion. The majority of those who signed the protests would resent the accusation of "clericalism" as they have resented the persecution of the sisters, and the real motives of their conduct are entirely independent of creed. The true reason is to be found in a letter addressed by M. Desprès, with his characteristic bluntness, to the Prefect of the Seine, and published some time back by the medical press. No one can deplore more than the writer of this document the proselytising tendencies of many of the nuns; but, notwithstanding this defect, twenty-six years' experience in the hospitals has proved to the surgeon of La Charité that a secular attendant is worse for the patient. "A lay woman," says M. Desprès, "may be married and the mother of a family; when she will take as much time as possible from her duties for the management of her household." In this case the patient, left to the tender mercies of an often brutal *infirmier*, is not in an enviable position. "The lay superintendent, moreover, may keep the rings, earrings, and other trinkets which the nurses often take from the dying when they are not surrounded by the friends or properly watched. Such a temptation does not exist for the nun. The lay woman may have a child or husband ill, and she will not hesitate to take some dainties from the hospital for her own table." In wards for the reception of contagious disease, such as small-pox and diphtheria, a married woman will either neglect her work or run the risk of carrying infection abroad, and if she dies at her post it is a calamity for her family. But when a nun falls a victim to disease, "she dies alone, and is at once replaced by another. The thing is so much a matter of course that it has never occurred to anyone that her name should be recorded on a memorial tablet." From an economical point of view, change is also unadvisable. The religious communities cost the administration at the rate of £8 per head, and the members are fed and lodged together. A lay superintendent, on the other hand, is paid £24, and separate board and rooms have to be found in the hospital.

M. Desprès has studied the working classes very attentively, and he gives it as his opinion that patients who would vote in secret for the maintenance of the *religieuse* are the same who in public meetings and with their comrades shriek for the destruction of gods, churches, and ministers, with the greatest clamour. Even amongst the upper classes, he says, will be found many who declaim against the nun for the sick in hospital, but who themselves engage her in illness, because she does not get drunk or pry into cupboards. Without going into the same details as M. Desprès, the writers of the protests against *laïcisation* urge that the change is contrary to the interests of the patients.

Obituary.

DR. T. E. MACLEAN.

A RECENT number of the *Egyptian Gazette* gives a few particulars of the career of the late Dr. T. E. Maclean, whose death at Cairo we announced some weeks ago. After taking the degrees of M.B. and B.S. at the London University, and filling various posts at London hospitals, Dr. Maclean resolved to devote himself entirely to diseases of the eye. Symptoms of chest weakness manifesting themselves, he was strongly recommended by eminent physicians in London to go to Egypt. This advice he followed, and established himself at Luxor, the central point of Upper Egypt for Nile travellers. By his own personal efforts he there opened a small hospital, which was highly valued by the natives, who crowded to it for medical advice and operations. Dr. Maclean ultimately broke off his connexion with Luxor and settled permanently in Cairo, where he gained for himself a considerable reputation as an oculist ere he was carried off by the disease that had for several years more or less crippled him.

Dr. Maclean was most popular as a student, his steady perseverance and honesty of purpose in all he undertook, also his patience when teaching, were fully appreciated and acknowledged by the students electing him the President of the University College Medical Society.

JOSEPH BINDLEY TALBOT, L.R.C.P. LOND., &c.

THE late Mr. Talbot received his early education at the Park near Sedgley and at Douai in France. Having shown a predilection for the medical profession, he became a pupil of Messrs. Walker and Ashmead of Brierley Hill, and afterwards a student of the Birmingham School of Medicine. He was successful in carrying off the medals in anatomy and physiology, and attaining the senior prize in clinical medicine at the Queen's Hospital. Having filled the posts of Resident Clinical Assistant Physician and Resident Obstetric Physician at the Queen's Hospital, he obtained the appointment of Assistant Physician to the Bickton Asylum, Shrewsbury, and won the esteem of all connected with the establishment. He was afterwards appointed Medical Officer of Health for Kingston, Jamaica, but the office of Assistant-Physician to the Lunatic Asylum there becoming vacant, he succeeded to the post. Subsequently he practised at Swan River, Orange Valley, and latterly at St. Ann's Bay. Possessed of more than ordinary abilities and many accomplishments, he combined with them a high spirit and generous disposition; many of his teachers and fellow students will not readily forget his genial nature or fail to regret that his light should have gone out so soon. The deceased gentleman had been called up during the night, and appears to have been working hard all the morning, only ceasing for an interval to play and sing one of his accustomed songs. He expressed himself as feeling unwell; but hopefully expected to be better after a nap. He proceeded to the hospital, and, after writing some prescriptions and leaning forwards upon the table with his head resting upon his hands, was found by the dispenser in a state of insensibility. He was removed to his residence, but never regained consciousness.

Mr. Talbot has left a young widow and two daughters, as well as the old folk at home, to deplore his loss. A post-mortem examination showed that death had occurred from heart disease, the particulars of which are not forthcoming.

SURGEON ARTHUR TERMYN LANDON.

SURGEON LANDON, whose lamented death from wounds received in action at Majuba Hill we have already recorded, was but twenty-nine years of age, and had only received his commission for three years. This gallant young officer highly distinguished himself whilst at Netley, where he proved himself to be *facile princeps* amongst the army medical candidates of his session as regards his professional attainments by passing out first on the list and carrying off the prize for Military Surgery, whilst his genial qualities made him a universal favourite. The news, therefore, of his early death will be received with feelings of deep sorrow by all the candidates for commissions of the summer session of 1878, not unmingled with a sentiment of admiration for the gallant way in which he met his death in the service of his country.

Medical News.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on March 10th:—

Pigott, Peter, Dulwich.

The following passed on March 17th:—

Atkinson, Thomas Ruell, Fleet-street.
Hagyard, Robert, George-street, York.

The following gentlemen also on the same day passed the Primary Professional Examination:—

George Neale, London Hospital; Henry Roberts, St. Bartholomew's Hospital; Thomas Taylor, Middlesex Hospital.

COLLEGE OF PHYSICIANS IN IRELAND.—During the March examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—James Stuart Brooke, Harry Lysaght Hoops, James Quirke, H. J. Wyatt.

MIDWIFERY.—Harry Lysaght Hoops, Clement Mallins, Vincent Adolphe Passanha, Godfrey Forrest Reid, Frederick Thomas Skerrett, Richard Charles Studdert, H. J. Wyatt.

The under-mentioned Licentiates have been admitted Members:—

John Joseph Dingenan, George Alexander Moorhead, Richard Foster Owen, Joseph Michael Redmond, Richard Gelling Tyner.

MR. JOHN HANDLEY, late of Newark-on-Trent, bequeathed £100 to the General Hospital, Nottingham.

THE Prince of Wales has fixed Monday, the 9th of May, for the festival dinner of the Royal Hospital for Children and Women, Waterloo-road, at which his Royal Highness will preside.

MR. J. D. T. RECKITT, on resigning the post of house-surgeon to the Newark Hospital, was presented by the governors with a purse of thirty guineas, as a mark of their esteem, and of their consideration for his past services.

THE total proceeds thus far accruing from the Hospital Saturday and Sunday collections at Manchester, amount to £5752 3*s.* 5*d.*—a sum slightly below that realised in 1879.

HOME FOR PROTESTANT INCURABLES, CORK.—During the past year a sum of £6375 was placed to the credit of the Building Fund, and the committee have in hand sufficient funds to carry out the necessary works they have entered upon.

THE full superannuation allowance has been awarded to Dr. F. J. Lynch, late medical officer of the Loughrea Union.

A MEETING was held in Dublin last week for the purpose of forming a Ladies' Association, in connexion with the Dublin Sanitary Association, for improving the condition of the homes of the poor of Dublin, and for the promotion of health reform amongst all classes of society. A provisional committee was appointed to prepare rules and to report at a future meeting.

THE "Charity Record" gives the following reminder of the necessity in making bequests to accurately describe the charities intended to be benefited. The Royal London Ophthalmic Hospital, Moorfields, was left £500 by a lady, but the institution not having been correctly named, claims were made by other hospitals, and, the matter being placed in the Court of Chancery, only £119 18*s.* has been awarded to the Royal London Ophthalmic Hospital.

IN the report read at the annual meeting of the friends of the Hertfordshire Seaside Convalescent Home, allusion was made to the frequency with which the true objects of the institution were overlooked by those who had the privilege of recommending patients for the receipt of its benefits. It has been found necessary in consequence to adhere rigidly to the rules regarding the admission of inmates, and to exclude such persons as may be sent in violation of the regulations.

EARLSWOOD ASYLUM.—On Tuesday last the thirty-fourth anniversary of this institution was held under the presidency of Mr. J. Colman, M.P. It appears there had been a marked falling off in the contributions last year, which is a matter for regret, seeing that only about one-third of the £30,000 expended in the maintenance of the Asylum had been paid by the friends of the patients. Some £2000 were contributed during the evening.

A COMBINED meeting of the Northern Counties, the North Western, and the Yorkshire Associations of Medical Officers of Health will be held at York, on April 7th, to consider the question of Infantile Mortality from Diarrhœa. The discussion will be confined to the following points—viz., 1st, The causes of diarrhœa, more particularly those indicating a specific or non-specific origin. 2nd, Is the infantile diarrhœa prevailing during the third quarter of the year a zymotic disease? 3rd, The pathology of uncomplicated diarrhœa. As the meeting will not be confined to members of the three societies, Dr. J. Mitchell Wilson, Doncaster, Secretary of the Yorkshire Association, will be glad to receive papers, or the proposal to speak at the meeting from other members of the profession.

AN influential meeting, under the presidency of the Lord Mayor of Dublin, was held last Monday for the purpose of considering the best site for the new science and art museum. The authorities at South Kensington wish to place the new building on Leinster Lawn—a proposal which is regarded by the majority of the citizens with disfavour,—have offered £100,000 if their suggestion is adopted, and have more than hinted that unless this plan is accepted a very much smaller sum will be forthcoming. The meeting unanimously adopted a resolution that the Kildare-street site should be selected, and pressed on Her Majesty's Government the justice and expediency of proceeding as expeditiously as possible to give effect to the provisions of the Dublin Science and Art Museum Act, 1877.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

BALL, C.B., M.D., M.Ch., F.R.C.S.I., has been appointed Medical Officer to the Grand Canal-street Dispensary District, Dublin.

BEVAN, W. Ll. P., M.B., C.M., has been appointed House-Surgeon to the Dorset County Hospital.

BRERETON, J. B., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the First District of the Bodmin Union.

CAWTHORNE, B. W., M.B., C.M., has been appointed Medical Officer for the Fifth District of the Stroud Union.

COLLINS, H. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Fifth District of the Axbridge Union.

EDWARDS, D. T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of the Pentyrch District of the Cardiff Union.

ENGLISH, Mr. E., has been appointed House-Surgeon at the London Hospital, vice Richardson, resigned.

FORD, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Ninth District of the Axbridge Union.

JOHNSTON, H. M., M.D., L.R.C.S.I., has been appointed Medical Officer to the Stranorlar Union Workhouse and Fever Hospital, vice Love, resigned.

KEMMIS, H. M., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer for the First District of the Bridgwater Union, vice Hurman.

LOWE, W. F., F.C.S., has been appointed Public Analyst for the County of Carnarvon, vice Owen, resigned.

MORGAN, W., F.C.S., has been appointed Public Analyst for the Borough of Haverfordwest.

O'DONAGHUE, P., L.K.Q.C.P.I., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer to the Hospital of the Loughrea Union, vice Lynch, resigned.

ORFEUR, C. H., has been appointed Medical Officer for the Nailsea and Wraxall District of the Bedminster Union, vice Adams, resigned.

PATTON, W. J., B.A., M.B., L.R.C.S.I., has been appointed Assistant Medical Officer to the Three Counties Asylum, vice Dr. J. S. Buck, resigned.

POTTER, S. R., A.B., M.B., has been appointed Public Vaccinator for Collumpton District, Tiverton Union.

SMITH, J., M.R.C.S.E., L.M., L.S.A.L., Honorary Medical Officer to the Royal Surrey County Hospital, has been elected Medical Officer of Health to the Rural Sanitary Authority, Guildford Union, at a salary of £200 per annum.

STEELE, W. C., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Newington Infirmary, Walworth.

WOOD, E. J., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Third District of the Maidstone Union.

Births, Marriages, and Deaths.

BIRTHS.

CARNE-ROSS.—On the 18th inst., at Chalmers-street, Edinburgh, the wife of J. Carne-Ross, Esq., M.B., C.M. (late Lieut. 73rd Regiment), prematurely, of a son, who survived his birth an hour.

ELLIS.—On the 17th ult., at Sitapur, Oudh, the wife of J. Ellis, M.D., Bengal Medical Service, of a daughter.

HARRTRY.—On January 27th, at Barkly Diamond Fields, South Africa, the wife of William Rosser Harrtry, L.R.C.P., M.R.C.S.E., J.P., of a son.

LAND.—On the 18th inst., at Bordyke House, Tonbridge, Kent, the wife of William J. Land, Esq., M.R.C.S.E., of a daughter.

LAW.—On the 22nd inst., at 20, Warrior-gardens, St. Leonard's-on-Sea, the wife of W. T. Law, M.D., F.R.C.S., of a son.

WINCKWORTH. — On the 11th inst., at Shefford, Beds, the wife of Charles Edward Winckworth, L.R.C.P.L. &c., of a daughter.

MARRIAGES.

MOORE—ARMSTRONG.—On the 15th inst., at Christ Church, Leeson-park, Dublin, John W. Moore, Esq., F.R.C.P., Physician to Meath Hospital and Cork-street Fever Hospital, to Louisa, youngest daughter of the late Edmund J. Armstrong, Esq., J.P. and D.L., of County Clare, and Lower Leeson-street, Dublin.

PURVES—ADIE.—On the 19th inst., at St. John's Church, Woodlands, William Laidlaw Purves, M.D., of Stratford-place, Oxford-street, W., to Elizabeth Adie, second daughter of Patrick Adie, of Worton Hall, Isleworth.

YEO—SICH.—On the 16th inst., at the Parish Church, Chiswick, Robert F. Yeo, Esq., Surgeon R.N., only son of Thomas F. Yeo, Esq., of Uplands, Delgany, County Wicklow, to Alice, eldest daughter of William Thrale Sich, Esq., of Chiswick.

DEATHS.

ASHFORD. — On the 18th inst., at Windsor Villas, Plymouth, John Butter Ashford, Esq., M.D., in his 59th year.

CHILDS. — On the 14th inst., at Tower House, Uxbridge, Archibald Prentice Childs, F.R.C.S.E. &c.

DANIELL.—On the 23rd inst., at 20, Cathcart-road, South Kensington, S.W., Sarah, the beloved wife of Richard Thomas Daniell, M.B., F.R.C.S.I.

DAVIES.—On the 13th inst., at Nice, Albert Davies, M.D., late of Maidstone, Kent.

ELLIS.—On the 19th inst., at his residence, Tower-street, Hackney, and late of Sudbrook-park, James Ellis, Esq., M.D., aged 77.

FORBES.—On the 20th inst., at Queen-street, Edinburgh, George Feddes Forbes, Surgeon-Major, H.M. Indian Army.

SPROTT.—On the 16th ult., at Kingstown, St. Vincent, West Indies, Robert Porter Sprott, M.D., Medical Officer No. 1 District, aged 59.

WHITE.—On the 14th inst., at Montague House, Bath, John Ludford White, M.A., F.R.C.S., formerly of Dowlais, aged 67.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 24th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 18	30·53	W.	46	44	..	61	39	..	Hazzy
„ 19	30·23	W.	47	44	..	58	42	..	Cloudy
„ 20	29·90	W.	48	46	..	55	39	..	Overcast
„ 21	29·71	W.	44	41	..	47	40	..	Overcast
„ 22	30·01	N.W.	35	35	..	45	29	..	Overcast
„ 23	29.92	W.	40	38	..	49	30	..	Cloudy
„ 24	29·33	N.W.	47	43	..	50	37	·20	Cloudy

Medical Diary for the ensuing Week.

Monday, March 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M. ; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. The President will exhibit a Case of Paralysis in an Adult simulating Hypertrophic Paralysis and a Case of Double Facial Paralysis.—Dr. J. Milner Fothergill will make a few Remarks upon the Digestion of Fats, and exhibit some Specimens of Oils.—Dr. Stephen Mackenzie will give the Notes of a Case of Syphilitic Disease of the Spinal Cord.—Dr. Day, "On 'Tubercular Meningitis' and the Mode of Treatment."

Tuesday, March 29.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

Wednesday, March 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Croonian Lectures: Dr. Moxon, "On the Influence of the Circulation upon the Nervous System."

Thursday, March 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On Ornament."

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM. — 8 P.M. Living Specimen.—Mr. Sebastian Wilkinson, "On a Case of Retinal Hæmorrhage."—8.30 P.M. Adjourned Discussion on the Relation of Optic Neuritis to Intracranial Disease. Dr. Stephen Mackenzie, Mr. Hutchinson, Mr. Couper, Dr. Gowers, Mr. Nettleship, Dr. Walter Edmunds, Dr. Buzzard, Dr. Brailey, and others are expected to speak.

Friday, April 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Lumleian Lectures: Dr. Southey, "On Bright's Disease."

ROYAL INSTITUTION.—8 P.M. Sir H. S. Maine, "On the King in his Relation to Early Civil Justice."

Saturday, April 2.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. H. R. Haweis, "On American Humorists."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

On the Relation of Temperature to Mortality.

A paper was read by Dr. Guy, F.R.S., at the last meeting of the Statistical Society, "On the Relation of Temperature to Mortality," as shown by the returns of Dr. Wm. Heberden, Dr. Thomas Short, and Dr. Scoresby-Jackson, and further illustrated by the experience of the German insurance office at Gotha for the half century ending 1878. Dividing the year into three periods of four months, the first comprising the period of greatest heat (June, July, August, and September), the second that of greatest cold (December, January, February, and March), and the third, or temperate period (April, May, October, and November), it appears that the first furnishes the smallest and the second the largest number of deaths, the third holding an intermediate place. This, however, applies only to the more temperate climates, for the returns for Marseilles and Montpellier show the highest number of deaths in the hot and the lowest in the temperate months, the cold furnishing the intermediate number. An examination of Heberden's tables brought out two important facts—1st, that the lowest mortality occurred at all ages in the summer, and, with the exception of infants and children under five years, the highest in winter; 2nd, that, with a solitary exception, the high mortality of the cold months increases, while, without any exception, the low mortality of the summer months becomes less and less as age advances. The author went into some detail as to the influence of temperature on the mortality by various groups of diseases, and also illustrated the power of cold in raising the death-rate of the aged by a comparison of the mortality above sixty in years, in which there was a marked difference of temperature. Dr. Guy said it was not a new truth that the highest death-rate prevailed during the coldest months, but it was a new truth that the three seasons in the year which presented the coldest, highest, and intermediate temperatures did present also a continuity, or, rather, a regularity of results which had not been previously pointed out. The paper gave rise to an interesting discussion, at the close of which the thanks of the meeting were voted to the author.

The letter of *Mr. A. Kisch* arrived too late for consideration this week.

Mr. Bowman.—An answer will appear in our next.

Subscriber had better apply to the Secretary of the B. G. A., 20, Golbourne-road, W.

CHRYSOPHANIC ACID IN PSORIASIS.

To the Editor of The Lancet.

Sir,—Having just seen in your last issue an account of the treatment of a case of psoriasis by Dr. Radcliffe Crocker (read before the Medical Society of London), in which one-half of the body was treated by chrysophanic acid and the other by turpentine, and where it was apparently shown that the one drug was quite as active as the other, I venture to communicate the following:—Professor Charteris, in a recent lecture to his class, described some cases in which it was very evident that chrysophanic acid acted constitutionally as well as locally. In one very severe case he, having previously very carefully wrapped up the arm and leg of one side in cotton-wool, applied chrysophanic acid (one drachm to one ounce) to the leg of the opposite side. In ten days the cure was complete, and on removing the cotton-wool from the other side it also was found to be quite cured of the psoriasis. This shows that the drug acts constitutionally as well as locally. Might this not be an explanation of the apparent efficacy of turpentine in Dr. Crocker's case?

I am, Sir, yours, &c.,

March 7th, 1881. A Student in Materia Medica,
Glas. Univ.

The Lifeboat Institution.

This enterprise has a strong claim on the sympathy and support of the community. As a means of saving life it appeals to the instincts of the medical profession, and must needs awaken strong interest. The institution has now 270 lifeboats in operation. In 1880, 577 persons were rescued from wrecks, and twenty-seven vessels were saved by the help of the society. It would be difficult to point to any institution more worthy of the pecuniary aid of the philanthropic.

House-Surgeon.—No.

SOME OBSERVATIONS ON BRITISH MINERAL WATERS AT THE PRESENT TIME.

To the Editor of The Lancet.

Sir,—For some time past I have been interesting myself in British mineral waters, and as I have come to certain conclusions respecting them, I shall be glad if you will insert this communication, with the hope of bringing the matter before the profession, and, through them, before the public.

It is not my intention at present to enter into the merits of any particular spring, but simply to gather up a few fragments, which I hope will be the means of inducing those members of the profession who live in localities where mineral waters exist to bestir themselves, and by every legitimate professional endeavour to bring their particular mineral water before the British nation.

I think that if some kind of general organisation or co-operation could be set on foot amongst all ranks of the profession, and especially among the consultants of London and other large towns, much might be done to save our great mineral springs. I have reason to believe that there is a move going on in the proper direction; at least such is my impression from the numerous communications received from medical men and others.

I do not for a moment undervalue the merits of most, nay, of all foreign mineral waters, but I contend that we have many mineral waters of equal value in this country. This is the opinion of many of the highest authorities in the land, from Sir Robert Christison and Sir Henry Thompson downwards. I have a letter from Sir Robert Christison so late as December 6th, 1880, on this very subject. He was kind enough to give me his opinion upon certain kinds of mineral waters, and amongst his general remarks he says, "There is no doubt that in search of relief from the use of most varieties of mineral waters our countrymen have for a long time past made it a senseless fashion to repair to the continental springs when they have comparatively at their doors springs of the same quality, beautiful surroundings, national amusements, and, above all, British comforts." He then goes on to compare British and foreign mineral waters, giving credit to many kinds of thermal waters, and also to the acidulous cold springs which abound on the Continent. In concluding his remarks, he says, "As to aperient saline springs, for which we Britishers have perhaps more occasion than for any others, so long as Leamington and Harrogate, &c., in England, and Airthrey at Bridge of Allan, in Scotland, are not drunk dry, there is no reason—no medical reason, I mean—why a man should deprive himself of his home comforts and submit to the annoyances of long journeys and continental deficiencies. The best means would be, if possible, to convince the consulting physicians of London of the folly of the present fashion."

Now, what are some of the mineral waters for which Great Britain is famous, where are they to be found, and what are some of the maladies which they remedy? Let us inquire.

1st. Salines.—Found at Leamington, Epsom, Cheltenham, &c., in England, and Bridge of Allan in Scotland. Complaints which they remedy: Chronic gout, rheumatism, dyspepsia, sciatica, hepatic, renal, and uterine disorders, paralysis, &c.

2nd. Sulphurous.—Harrogate and Leamington in England, Strathpeffer in Scotland: Skin diseases, rheumatism, dyspepsia, &c.

3rd. Alkalines.—Bath, Buxton: Rheumatism, gout, eczema, dyspepsia, &c.

4th. Iodo-Bromides.—Woodhall (stronger than any on the Continent): Syphilis, rheumatism, tumours, &c.

5th. Chalybeates.—Tunbridge Wells, Cheltenham, Leamington (in small degree), Harrogate, &c.: Anæmia, dyspepsia, &c.

These are a few British springs, and many of them will bear comparison with any foreign ones. Well, then, may Sir R. Christison ask "Why go abroad for the same thing?" Experience goes to show that those waters give greater benefit when drunk fresh from the wells and for a certain period. Let, therefore, consultants and medical practitioners generally combine to recommend our home mineral waters where they are likely to afford equal relief with the foreign ones, and depend upon it that all parties interested in the matter will benefit.

In a following paper I hope to bring forward the properties of our Leamington springs, and in the meantime I ask our professional brethren to combine, agitate, and write wherever they have valuable springs to write about. To show how necessary it is that something should be done in this way, I may say that at the present time in this town it is proposed to "build upon and partly shut up" a certain number of baths in connexion with the pump-rooms to make room for municipal buildings. Sir Robert Christison, when speaking of the decay of another inland watering-place, describes it as "the now despised, but once popular Bath." Can we do nothing to remedy the evil? I think we can.

I am, Sir, your obedient servant,

Leamington, Feb. 28th, 1881. F. William Smith, M.D.

A DISCREET BOARD.

THE question of the supply of stimulants to the workhouse having come up for discussion at the Preston Board of Guardians last week, Dr. Ridley said, that if spirits as stimulants were not allowed the Board would have to have recourse to drugs, which in many instances were far more costly, though spirits would often answer the same purpose, and at less expense. One of the guardians remarked that the medical officer was their master in this matter, and they should abide by his decision. It was then resolved that spirits be supplied as heretofore.

Dr. Edward Jones.—The fee rests with the coroner in a case when no inquest is held.

Anglo may obtain information from our advertising columns.

FLEXIONS OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—I crave permission to have inserted this short letter. A communication from Dr. Herman appears in your issue of March 5th, containing some pointed remarks on a most important subject. They seem to me rather unfair. It is no doubt evident that the publication of isolated cases does not prove much, but, unless I am entirely mistaken, no one is more desirous of having "every case" recorded (if that happy consummation could be in any possible way arrived at) than Dr. Wynn Williams. For a period of about three years I have been a close observer of his practice at the out-patient department of the Samaritan Free Hospital, being specially interested in this particular subject. At his clinique all comers are most courteously received who desire to witness his practice. A great many cases returned again and again, most for symptoms not connected with former troubles. Some of the patients I accidentally met elsewhere. One was first of all under my own care in private practice, and is, like nearly all the others I have seen, a successful instance of treatment by this particular intra-uterine stem in question.

Thus far I can bear testimony that in no instance did I witness anything like dangerous symptoms follow the practice. Dr. Herman's use of the phrase "this startling statement" in his letter I regard as quite natural. It was the cause of my regular attendance at this hospital for so long a period.

I am sorry now to be unable from want of time to follow out my so far negative quest of unsuccessful cases, or rather for cases ending fatally, for surely no one supposes that success in every case is invariable, or even complete. I am, Sir, yours, &c.,

Warwick-road, S.W., March, 1881. ALEX. M. LANG.

J. H. B.'s questions have been mislaid. The degree can be obtained from the various universities of Europe. Our correspondent would find much useful information in a work entitled "Medical Education and Practice in all Parts of the World," by Herbert Junius Hardwicke, M.D., published by Churchill. The most useful work on Clinical Thermometry is Wunderlich's, published by the Sydenham Society.

C. H.—We cannot interfere in the matter.

Dr. Meredith should apply to the Secretary of the Manchester Provident Dispensary Association and to the secretaries of the Royal Albert Hospital, Devonport, and of the Royal Portsmouth, Portsea, and Gosport Hospital, both of which co-operate with provident dispensaries.

Beta.—We are not aware. The information may no doubt be obtained of one of the hon. secretaries of the Fund by addressing a letter to 11, New Burlington-street.

DISLOCATION OF SHOULDER-JOINT AND DEATH FROM CHLOROFORM.

To the Editor of THE LANCET.

SIR,—I have been struck, as doubtless others have also, with the comparative frequency of death from chloroform when the patient under its influence has been the subject of dislocation of the shoulder. The only death from chloroform I have seen was one of this kind. I well know that it is very much easier to reduce a dislocation with the patient under the influence of chloroform than to strain one's arms in pulling in a dislocation in the ordinary manner with the heel in the axilla. But the question arises, Is it worth the risk? Emphatically, No. The method I have adopted for over eight years, and have taught, has been to take an ordinary jack-towel, fix it with a clove-hitch above the elbow of the dislocated limb, and then put the other end over one shoulder, across the back, and under the other arm; then, placing my heel in the axilla, I use the weight of my body and the muscles of my back in making the extension that is to tire out the shoulder muscles of the patient—from two to three minutes generally effects this,—and then bringing the patient's arm towards the median line, the head of the humerus slips in. This method I have never known to fail, and by it I have several times reduced a shoulder dislocation when others had failed and were going to administer chloroform. It has also the advantage of not tiring the surgeon's arms.

I am, Sir, yours faithfully,

HERBERT A. LAWTON, L.R.C.P. Lond.,
Late House-Surgeon, Liverpool Royal Infirmary and
Poole, March 5th, 1881. Westminster Hospital.

JELLY-FISH.

MR. ROMANES, F.R.S., in his lecture at Trinity College, Mandeville-place, Manchester-square, last week, on jelly-fish, mentioned two or three facts respecting this interesting animal which, though well known to biologists, may be new to many. The lecturer stated that he had found by experiment that the fresh-water species were as intolerant of salt water as the marine species were of fresh. Jelly-fish were very various in form, but, although divergent in shape, they all presented fundamentally the same anatomical structure. However minutely cut up, each portion would develop into a perfect animal. The lecturer also showed that alcohol possessed an intoxicating power over jelly-fish.

"MAIN SEWER VENTILATION."

To the Editor of THE LANCET.

SIR,—Referring to the observations of Mr. Robert Rawlinson, that appeared in THE LANCET of January 15th, does it not seem rather anomalous that the utmost care should be exercised to prevent the entry of sewage gas into our dwellings, and yet the gas may be allowed to escape by means of the gullies, around which children may constantly be found playing? If the gas, when much diluted, can be shown to be free from disease germs or spores, I presume no danger may be apprehended; but, unless this be the case, would it not be better for Mr. Rawlinson to qualify his remark having reference to ventilation by means of the gullies, especially as his observations on such questions have much weight with many engaged in sanitary science? As one, I beg to subscribe myself A SANITARY ENGINEER.

March 17th, 1881.

TRACHEOTOMY TUBES.

To the Editor of THE LANCET.

SIR,—With reference to the observations in your journal on Tracheotomy, I would suggest that the tube used should be double—that is, one tube contained within the other. By that means the inner tube can be removed and cleansed, and then replaced with little trouble and great ease to the patient. Sponging, mopping, and the use of feathers, &c., would thus be avoided.—I am, Sir, yours truly,

Strand, March 15th, 1881. W. M. HILLES.

VACCINATION AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—I find that some medical men in this neighbourhood are daily in the habit of making use of lymph from vesicles in cases of revaccination. If this be an unsatisfactory mode of performing the important operation of vaccination, publicity of the fact is most desirable. Trusting that you may agree with me as to the importance of the subject, and find space for this short letter, I remain, Sir, yours, &c.,

Earl's-court, S.W., March 24th, 1881. ALEX. M. LANG.

"HOME FOR LITTLE BOYS."

SIR STAFFORD NORTHCOTE very kindly and ably presided on Saturday last over the dinner celebrating the seventeenth anniversary of this benevolent institution, in which 300 little boys found something as like a home as it is possible to supply in the absence of the real one.

F. P. S.—There is no special work on the subject. See books on Physiology; Quain's Anatomy (last edition), Kölliker on Development, and Senff.

Mr. E. J. Day.—It is not desirable to revive the discussion of the subject.

SOCIETY FOR THE ABOLITION OF VIVISECTION.

To the Editor of THE LANCET.

SIR,—In reply to your leading article of the 19th inst., pray permit me to state publicly in your columns that the assertion therein made—viz., "their mode of carrying on the agitation has been, to say the least, unscrupulous and undignified," is without foundation in regard to the original Society for the Abolition of Vivisection.

In the *Morning Post* and *The Times*, of April and May, 1877, this Society disavowed any approval of the sensational and revolting illustrated placards which had been put up in the streets and public places of the metropolis and inserted in a penny weekly newspaper (the *Police News*), addressed to a certain class.

The Society—which gave the first great humane impulse to the public mind by its publications, the press, its numerous and costly advertisements and correspondence with eminent physiologists, and which obtained the appointment of a Royal Commission, and gave evidence on three days before it—has no connexion with persons who make a convenience of the cause, and seek notoriety or subsistence by a humane enterprise.

The Society had nothing to do with the "anti-vivisection" meetings got up in Peterborough and elsewhere, but regrets itinerant and incapable exhibitions as bringing discredit on the cause.

As to the Bill in Parliament, we repudiate it. Our opinion has always been that to introduce a Bill into Parliament before the country is educated is useless.

I remain, Sir, your obedient servant,

March 22nd, 1881. GEORGE R. JESSE, Hon. Sec., &c.

"INFLUENCE ON WOMEN OF SPECIAL BRAIN-WORK."

To the Editor of THE LANCET.

SIR,—I have read your leading article this week on the above subject with very much interest, where you show so clearly, to my mind at least, the injury done to the brain of the offspring by not so much the education of the woman as by the natural talent she has been endowed with.

I cannot think you spoil the woman by education, unless that education be in medicine and surgery; nor can I think that brain development is at all arrested in the offspring because the parent should be engaged as a medical practitioner; but I am convinced, from some experience too, that the brain of the offspring suffers from the study and occupation of the mother during pregnancy in literary pursuits.

One case in point: My wife is a literary woman of considerable reputation, having written and published several works. I am an ordinary individual, perhaps an average member of the profession. I have three sons, none of whom I could by any means educate sufficiently to enter any profession for want of brains enough to retain what they were taught. Yet they are smart fellows for other pursuits, and doing well at what I have placed them; but there is an entire want of literary taste in all three, and always a disgust to learning.

I have two daughters sufficiently intelligent, but no taste for medical literature, and although I have been disappointed at not having one of my sons in the profession, nothing would induce me to substitute a daughter, thus for ever to bury her womanly charms by changing her gender.

For a long time I have been favourable to women occupying the department of midwifery, and would willingly relinquish my right in that branch of the profession to them. When I was learning it I was obliged to recognise the authority of two celebrated French women as possessing the largest experience even in operations. Why not now give to English women the same right? I mean as a superior class of nurses doing the duty of general practitioners at present among the working classes, what in Ireland is generally done by midwives.

With regard to diseases of women, I fear it dips a little too deeply into anatomy, pathology, and physiology for them unless they are educated under the usual curriculum, and which, to my mind, is altogether out of place; but, were it not so, I say by all means give them that department as well.

I am, Sir, yours, &c.,

March 6th, 1881. M.D.

"MULTIPLE LIVER ABSCESS IN CONNEXION WITH DYSENTERY; DEATH."

To the Editor of THE LANCET.

SIR,—Anent the interesting case of the above, described by Dr. Henderson, of Shanghai, in THE LANCET, January 8th, 1881, p. 55, I would beg, with your permission, to state that about four or five years ago there was a similar case under the care, at first of Dr. Cameron MacDowall, and subsequently under my own. A full report of it, together with our remarks on the symptoms and morbid appearances, we at the time published, conjointly, in the columns of the *Indian Medical Gazette*. We then seized the opportunity to discuss briefly the pernicious influence of malaria upon the hepatic and splenic functions as it appeared to us, and we also took occasion to indicate the futility of operative measures in cases of multiple—we then preferred to use the word "multiple" ourselves—abscesses of the liver. Perhaps Dr. Henderson and our other medical brethren would like to refer to our article, in which they will observe that, though Dr. MacDowall resorted repeatedly to Dieulafoy's pneumatic aspirator, and evacuated, not unsuccessfully, large quantities of pus, and this, indeed, with temporary relief to the patient, yet the disorganisation of the organ, as found after death, was such as to our minds to hopelessly preclude all chance of recovery on anatomical grounds.

I am, Sir, yours, &c.,

India, January, 1881. JOHN C. LUCAS.

Quercus.—1. Certainly not; a qualified medical man is at liberty to practise in any part of Her Majesty's dominions excepting any in regard to which he has contracted not to practise in.—2. There would be no propriety in their doing so.—3. There is nothing wrong in the titles. A young practitioner is apt to be impatient in commencing practice. His great aim should be to be in the way of duty, which comes when it is least expected, and to adhere to those great principles of ethics the observance of which distinguishes professional from ordinary commercial behaviour.

Cunctator.—We have no doubt the examination in question has been abolished, as all the regulations bearing upon it are omitted.

Clericus, M.A., has not enclosed his card.

A. Z. had better consult his usual medical attendant.

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Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

By WALTER MOXON, M.D. Lond., F.R.C.P.

LECTURE I.—Part II.

But I am almost forgetting, in this digression, that I may be asked for some proof that the arrangements which I have described as a lock in the cerebral circulation actually lead to the obstruction and delay of the venous current which we are assuming they are designed for. Now, upon this question there is a very curious and interesting kind of evidence to show that throughout life the blood is held up at the mouths of the cerebral veins, and this evidence is in the so-called Pacchionian glands or bodies. If we look at this drawing of the venous system of the top of the brain in an elderly person, we see that around the points at which the veins enter the longitudinal sinus there are a number of knots of fibrous tissue, the nature of which has given rise to much inquiry and speculation from time to time. These bodies may be more or fewer in number, greater or smaller in size—may even be so large as to penetrate and even perforate the skull by their increase; but they are always there in subjects above three years old, and it is important to notice that they increase as age progresses, and are always attended by a thickened state of the pia-arachnoid membrane around the points where they take their rise in this membrane, and that they always appear about the endings of the great cerebral veins in the longitudinal sinus, and chiefly around the posterior cerebral veins. To understand the signification of these bodies and of the thickening of the membrane around them, we may reflect that the opposition of the currents in the sinus has the same effect as the meeting of the Thames with the waters of the Channel at the rising of the tide. The consequence in the case of the Thames or any tidal river is that a tide is felt for a certain distance up the river, and if it be high it floods the low-lying districts, ceasing to have any influence at a certain distance from the mouth of the river. In just the same way the quasi-tidal obstruction in the veins tells most near the mouth of the vein, and especially most on the feebler current at the side of the vein, which feebler current receives the latest small branches from the membrane, the obstruction damming up the last small branches entirely when it merely impedes the flow in the branches that feed the freer current in the middle of the vein. Now, a chronic delay in venous blood tends to cause increase and thickening of the lower forms of texture, such as fibrous tissue. Conspicuous examples both of thickening and of tuft-like growth may be seen on the capsules of the liver and spleen in heart disease and in cirrhosis. In some cases of very chronic and yet severe obstruction of the mitral valve I have seen the serous covering of the liver thickened and crowded with bodies which were exactly like in all points to the "Pacchionian glands." It was this observation, in fact, that suggested to me the explanation of the Pacchionian glands that I am giving, which is that around the mouths of the cerebral veins in the tidal area, if I may so call it, arise proofs of protracted delay of venous blood, in the form of thickening of the fibrous membrane and development of fibrous tufts, which are the Pacchionian glands, whose causation has long been a puzzle to observers. No such bodies are ever found about the points of exit of the veins at the base of the brain.

I will ask you now to direct your attention to the last particular of the anatomical part of my subject, and to consider the curious opening at the apex of the fourth ventricle, which forms the means of communication between the interior of the cerebral ventricles and the subarachnoid space of the spinal canal. It is through this opening that the cerebro-spinal fluid is driven or drawn to or from the cerebral ventricles by the action of the choroid plexuses, and thus a principal part of the escapement system of the cerebral circulation is put in operation. None of our works on anatomy bestow more than a trivial and passing notice on this opening. The edition of Quain's Anatomy that I learnt from spoke of the opening as "generally" present, and the last edition merely says on the authority of Magendie that there is such an opening. But surely throughout the entire frame, and amongst all the wonderful adaptations by which the liquids and solids of the body are actuated to their mutual duties, there is no spot more worthy of close attention than this curious aperture of escapement situated immediately above the very centre of life, and of essential service to that centre. Shall I be forgiven if I take time to describe the anatomy of the part with some care? It deserves the attention of the physiologist even if only because the sudden change of character of the surfaces which communicate at the opening is as remarkable as the difference of the surfaces which meet at the fimbriated opening of the Fallopian tubes. For the interior of the fourth ventricle is lined at the floor and sides with ependyma, or proper lining of cerebral ventricles, and this has upon its surface a layer of thick close-set epithelium, whose cells are of irregular cubical shape, and very conspicuous, whereas the subarachnoid space is entirely without lining membrane or epithelial covering. The change from the one character of surface to the other occurs very abruptly, the epithelial cells breaking into groups, and disappearing as you trace from the ventricle towards the space. The opening is in the middle line, and is another place of non-union of symmetrical parts. It is situated exactly over the spot where the central canal of the spinal cord joins the fourth ventricle. It is a hole with edges well-defined at the sides and below, but is entirely without any definiteness above; in fact, when you are proceeding from the subarachnoid space towards the fourth ventricle, upon the roof of the ventricle you find that there are no signs of a boundary at all. And, indeed, the matter is left curiously to chance, for in some subjects the choroid plexuses of the fourth ventricle wander out nearly an inch into the subarachnoid space in the most regardless manner, whilst in others they keep themselves well within the bounds that would correspond with the limits the opening reveals at the sides and floor of the ventricle. The line of demarcation between the subarachnoid space and the fourth ventricle is more than indefinite upon the roof of the ventricle; indeed, it does not exist. And the roof of the ventricle is, in fact, organised after the manner of subarachnoid space. This space runs forward on it to reach the valve of Vieussens. In other words, the subarachnoid space is in open continuity with the fourth ventricle all along the roof of the ventricle until you reach the valve of Vieussens, where a proper ependymal surface appears for the first time as you trace forwards.

The delimitation, then, between the fourth ventricle and subarachnoid space concerns only the sides and floor of the ventricle, and is entirely indefinite above. As to the sides of the ventricle, about this opening they are composed of a double membrane, the outer of which can be separated from the inner. Here is a drawing of the inner membrane after the outer has been removed. The outer membrane is the pia mater springing from the edge of the calamus scriptorius and reaching the under surface of the cerebellum, where it loses itself, or at least I always lost it. The inner membrane is a layer resembling the valve of Vieussens, but thinner. It is easily lacerable, like cerebral tissue, being composed of the felted fibrils of ependyma with a few nerve fibrils, and its inner surface is coated with the thick epithelium which I have described. It rises from the edge of the calamus scriptorius, and has pia mater at its outside, but separable from it, as I have said, and it rises up to reach the edge of the choroid plexus in the roof of the ventricle, beyond which it cannot be traced, except that it sends its epithelium over the ventricular face of the choroid plexus; not beyond this, however, so that it does not reach into the middle line of the roof. At the verge of the opening itself the pia mater extends in a fimbriated form one-twelfth of an inch or so beyond the free edge of the ependyma, and it is on this one-twelfth of an inch that the epithelium of the ependyma disappears as I have described.

I examined the opening in upwards of seventy brains removed with especial care for the purpose, and taken from subjects at different periods of life, some very early. Thus in a fœtus 2·6 inches long, which I took to be two months old, I found the three membranes—dura mater, arachnoid, and pia mater—quite distinct, and the opening of the fourth ventricle already evident, but its relations to the cerebellum and medulla oblongata not definite, on account of the undeveloped state of those parts. The choroid plexuses of the fourth ventricle were already very well developed. At yet earlier periods I found the thalami and corpora quadrigemina protuberant on the surface of the brain, uncovered by the cerebrum, so that the membranes which even here were distinct had no relations to these parts comparable to their relations in the developed brain. I observed though that the membranes of the brain develop very early. I have found a fringed opening of the fourth ventricle in the brains of dogs and of chickens. I could not succeed in frogs, the films of membrane were so thin, and I could not be sure of more than two membranes to the spinal cord of frogs.

At the fourth and fifth months of human fœtal life the opening is quite obvious, the lips of the orifice well formed; but the edges slope from below upwards and forwards, instead of upwards and backwards, as in the adult. This appears to prove that the backward growth of the cerebellum is greater than that of the pons and medulla after the fifth month, so that the upper attachment of the edge of the orifice to the cerebellum is moved back with the growth of the cerebellum. This backward growth of the cerebellum carries back the tail of the choroid plexus often far beyond the line of the edges of the opening; the choroid plexus seems thus stretched back in linear form to prevent its obstructing the opening.

I trust I may be pardoned this long account, because of the surprisingly slighting way in which the anatomy of this most vitally essential part of the human organisation is treated by anatomists. Not long ago a Guy's student was seriously reprehended by an examiner at the Royal College of Surgeons for speaking of a choroid plexus in the fourth ventricle. He was informed that he ought to know that the choroid plexuses are in the lateral ventricles.

Now considering that a large and free communication between the ventricles of the brain and the spinal canal through the end of the fourth ventricle is universal in all warm-blooded vertebrates, and is absolutely required in order to allow of variation in quantity of blood in the skull, and to adjust the pressure with which blood bears upon the brain; and considering that our security in changes of posture, and even in the less active matter of thinking, depends largely upon this communication, I cannot help suggesting that a little more notice should be taken of it, and a little more attention given to the facts concerning it. The admirably clear and instructive text-book of the Cambridge School of Physiology does not deign to touch the curious mechanism of the varying blood-supply to the human brain, although it treats very fully of the apparent intelligence with which a frog deprived of his cerebrum will scratch himself when tickled, and will seem to take care lest he should be upset when tilted about. Meantime I am not aware of any reasons to believe that consciousness and will must inhabit homologous parts of the brain in remote classes of vertebrates, or that light is thrown on the special functions of the human brain by experiments on frogs. When the head is inclined downwards, so as to be on a lower level than the trunk, and especially when anyone stands on his head, a sensation of great discomfort is produced, because the cerebro-spinal fluid, which is protective in natural postures, now reverses its operation, and forms a column of liquid of some length directly pressing into the ventricles of the brain, adding to the pressure which the blood produces by escaping with difficulty from the head, so that water as well as blood press forcibly upon the brain. I have never known anything more than discomfort occur from this cause, but it is well to remember the cerebro-spinal fluid, when in chloroform-syncope, &c., one is tempted to cause a flow of blood to the head by lowering it below the level of the body. For in so lowering the head you delay venous circulation, and send water as well as blood towards the brain, thus lessening the blood-changes there which you wish to increase.

To show how important it is that the opening in the fourth ventricle should be free let me shortly describe the case which first fixed my attention on the results of its absence or closure. A boy of sixteen had always been a rather slow, dull boy, forgetful and hesitative, without being at all idiotic or utterly incapable. He used to go to his father's warehouse, and amuse himself in his slow, dull way, without being of much use. This boy was one day not very well, but his illness appeared trivial. He stayed at home that day, and the next day went to bed early; he became worse in the night, being faint and weak, and a relative went to his bedside. Then quite unexpectedly, and rather suddenly, he died. I had not seen the lad during his life, but was asked to inspect the body. Nothing whatever of a morbid kind was found in the viscera of the trunk, but on raising the calvaria and removing the dura mater a very curious appearance offered itself. A large bladder, just like an hydatid, was in the right cerebral hemisphere, separating the convolutions from each other; it was about two inches in diameter. I naturally thought it was an hydatid, but on opening it I found it extended deeply into the brain, and, in short, it proved to be an immensely dilated lateral ventricle. The ventricle of the other side was almost as much dilated, but did not reach the surface. The post-mortem was made in a private house, and under the usual difficulties. I therefore took away the parts around and including the fourth ventricle. I hardened these, and examined them. There was a growth of papilloma—in fact, a wart—starting off the floor of the fourth ventricle near its apex, and running upwards to touch the roof, almost completely closing the opening of the ventricle and stopping the way of liquid out of it. The sudden death in this case and in several other cases of intra-ventricular dropsy of the brain which have come under my observation I believe to be due to inhibition of the heart through pressure upon the pneumogastric centres.

Having thus, at what I much fear will have seemed tedious length, described the mechanisms whereby variations in the quantity and in the pressure of blood within the cranium are provided for, I will now proceed to inquire whether these mechanisms are of due efficacy, and I hope to show that the provisions against undue pressure of blood within the cranium will be found so far efficient that wherever intra-cranial blood-pressure can be separated from asphyxia and strangulation, such pressure does not produce any ill result. In other words, congestion of the brain as distinguished from strangulation does not produce symptoms, and those symptoms which are supposed to be due to congestion of the brain as a distinct disease must be referred to other causes. But before beginning the course of my argument, may I make clear the position intended to be taken up. I wish to contribute towards doing away with a fallacious notion which continues from one author to another as work succeeds work on Practical Medicine—the fallacious notion that a quantity of blood forced into the vessels of the brain becomes itself the cause of several serious and even fatal diseases, which are described under the name of "congestion of the brain," or "determination of blood to the head." Whereas in such cases there is no mechanical obstruction to exit of venous blood from the cranium. I wish to show that no quantity of blood that can be forced into the vessels of a brain whose veins are not closed by obvious pressure, does as a matter of fact produce any such symptoms. I believe this may be proved beyond dispute. I should like to make it clear that in doing this I am proceeding in harmony with the great principles enunciated by the greatest of pathologists—the illustrious Professor Virchow—who, with vast learning and keen original observation, showed that we are not to look to the vessels for the initiative in diseases of the textures of the body. He proved that the life of texture is in the texture itself, its pathological as well as its natural life, and that the movements of the blood in what is called irritative or inflammatory congestion are secondary to a demand upon the blood and bloodvessels, which demand is made by the proper power of the texture elements. And these elements have power to grow and to multiply, and to exert themselves in function, dependent on the blood only as the labourer is dependent for his powers on his bread and cheese. And when I say that the forcing of blood into the vessels of the brain produces no symptoms, I do not mean that no symptoms will attend a fulness of the vessels when that fulness has been caused by disturbance of the brain's texture itself. There will be symptoms, but symptoms caused in the texture by the very irritation that drew the blood to the brain, and not to be ascribed to the blood that is drawn thither.

There is one power by which blood can be sent into the vessels of the brain with certainty, and with any degree of force that may be desired, and that power is atmospheric pressure. It needs no experiment to show that great increase of atmospheric pressure must drive the blood away from the surface of the body and into any parts that are accessible to blood and not to air; such parts are the interior of the cranium and spinal canal. Even moderate degrees of pressure, such as an addition of half or three-quarters of an atmosphere have been noticed by Petrequin and Sandahl to cause the disappearance of a tolerably considerable hyperæmia of the conjunctiva, but such minor degrees of pressure have had no ill results upon the nervous system, although such results have been carefully watched for in air-chambers constructed for the relief of asthmatic persons. The result, as given by Sandahl, who carried out observations on an extended scale, is thus described :—"Upon the nervous system the pressure served to exert a directly soothing effect, whereas on sudden reduction of the pressure nervous phenomena made their appearance." The only marked consequence of the pressure was slowing of the pulse. But in fulfilling some of the demands of civilisation, and especially in the construction of bridges over great rivers, workmen have had to go to great depths below the surface of the water. And the human frame in some instances has been exposed to degrees of pressure vastly greater than any that could be applied in the therapeutic air-chamber. The effects produced by such great degrees of atmospheric pressure have been recorded by many observers in numerous memoirs, one of the best of which is in the *Annales de Chimie et de Physique* for 1841, by M. Triger, who worked at a depth of sixty feet in the valley of the Loire ; but the greatest depth which I can find to have been reached was upwards of ninety feet, in the construction of the great bridge across the Mississippi at St. Louis. A good account of the effects of the tremendous power exerted at this great depth was published by the chief engineer, Captain Eads, and is printed in the *Medical Times and Gazette* for 1871. Like all who have witnessed and experienced the effects of such pressure, Captain Eads dwells long on the severe pain in the ears which is caused by the force acting upon the tympanic membrane until air enters by the Eustachian tubes into the tympanic cavity. No other result is noticed until the Captain speaks as follows :—"When the depth of sixty feet had been attained, some few of the workmen were affected by a muscular paralysis of the lower limbs. This was rarely accompanied with pains, and generally passed off in the course of a day or two. As the penetration of the pier progressed the paralysis became more difficult to subdue, and in some cases the arms were involved, and in a few cases the sphincter muscles of the bowels. The patients also suffered much pain in the joints when the symptoms were severe, an average of at least nine out of ten of those affected suffered no pain whatever, but soon recovered, and generally returned to the work. . . . . The total number of men employed in the air-chamber of this pier was 352 ; of this number about thirty were seriously affected. . . . . Twelve of the cases proved fatal. . . . . Nearly, or quite, all of these deaths happened to men unaccustomed to the work. Several died who had worked but one watch of two hours. . . . . In contrast to this is the fact that a very large number of the men (certainly one-half of those constantly employed) commenced with the work at its inception and remained throughout its continuance entirely without injury or inconvenience. . . . . Considering that the air-chamber was briefly visited by thousands of persons, including many delicate ladies, even after it had reached the bed-rock, some remaining as long as an hour in it, without any of them experiencing the slightest ill effect from the pressure, and that no cases of any importance whatever occurred amongst the workmen after the watches were reduced to one hour," Captain Eads feels satisfied that this is the true cause of the paralysis, and that by lessening still more the duration of the watches a depth considerably greater can be reached without injury to the workmen. Too long a continuance in the air-chamber was almost invariably followed by symptoms of exhaustion and paralysis.

It is necessary to note that all the accounts of this extreme pressure agree in showing that no ill results appeared during its continuance, and that the grave and sometimes fatal symptoms which occurred on its removal affected the lumbar portion of the spinal cord, producing paraplegia, which would not correspond to lesion of the brain. In fact, the brain showed a strange immunity from injury under this great pressure.

My next step will be to endeavour to estimate the extent to which blood is forced into the brain during exposure to the atmosphere of the caissons, that I may compare this forcing of blood into the brain with such stress of blood as the intrinsic powers of the circulation are able to exert upon the brain. For this purpose we will reflect as follows :—Each act of ordinary breathing exerts a force of about 42 mm. of mercury. Now, the effect of each breath is to increase the arterial pressure to a degree equal to at least twice the pressure caused by one beat of the heart. But when the body is exposed to atmospheric pressure of 42 mm. of mercury blood is driven into the closed cavity of the skull with as great force as air drives blood into the chest in ordinary breathing. So that within the cranium there would be for each 42 mm. a rise of pressure as great as that expressed by two beats of the heart (really more, because the pressure in the carotid, which I have taken as the standard of comparison, is the whole pressure within the chest, lessened by the direct pressure on the arterial blood). But the pressure at 90 ft. depth of water is about fifty times 42 mm. of mercury, so that the intra-cranial pressure produced in the caissons is as great as that of 100 heart's beats.

Now, if we observe an inhibition trace to see how many heart's beats restore the normal tension after it has been brought down by inhibition to the line of no tension, we see that about ten heart's beats suffice to bring up the full normal tension. And the atmospheric pressure of the caissons was equivalent to 100 heart's beats, so that the caisson pressure would raise normal arterial tension ten times. But as to the highest morbid arterial tension observed with the sphygmograph, Drs. Burdon-Sanderson and Galabin, kindly answering my inquiry, say that 9 oz. to 10½ oz. make the highest morbid tension they have recorded, which is about three times the normal tension as observed with the sphygmograph. But the caisson tension is ten times the normal, and hence is three times the greatest abnormal tension from intrinsic causes. So far as this comparison is valid, the general conclusion is that the caisson pressure raises the whole vascular tension within the cranium by an amount which is as great as three times the greatest morbid arterial tension that has been observed to be due to the intrinsic powers of the circulation.

I dwell upon this kind of congestion of the brain because the flow of blood to and from the brain is meantime free, and this congestion is one purely due to fulness of the vessels, so that we have an active congestion of the brain affecting only the condition of the circulation, and not starting in any variation of behaviour in the nervous tissue. In this example we can consider the effects of pressure within the vessels apart from the condition of strangulation, which condition has had a very detrimental effect, as lending a seeming support to assumptions of independent congestion of the brain. And I have thus endeavoured to show that the pressure to which Captain Eads' workmen were exposed must have the effect of filling the vessels of the brain with a current of blood under greater stress than would be possible through any action of the intrinsic forces of the circulation whilst normal entry and exit of blood from the brain was allowed. Whether the comparison of pressures I have made is valid or not, I am aware that there are questions regarding the respiration curve in the manometer tracing which are unsettled. It still remains true that the effects on removal of the pressure are so peculiar and terrible as to show how great is the degree of stress from which these symptoms form the recoil. It is evident that the physical conditions of the circulation in the nervous centres upon removal of great atmospheric pressure are unknown and probably very complicated ; and I will not attempt to speculate upon the question of their nature, but only ask you, first, to observe that whatever may be the cause or causes of them, they affected only the lower end of the spinal cord ; and, second, to observe that the tremendous positive pressure into the vessels of the brain did not produce upon it any effects whatever. Under the positive pressure there were no effects, and under the unknown conditions arising through sudden relief from pressure, the tip of the spinal cord was the part which showed itself to be suffering.

I will ask you to remember the negative effects of the great pressure of blood into the brain for the argument of my next lecture, and now will digress for the remainder of this lecture, to inquire why the after-effects of atmospheric pressure should involve only the lower part of the spinal cord. And then I will point to some inferences from my explanation which may have a bearing on obscure points in clinical medicine. Here I must take the liberty of drawing your attention to some very well-known anatomical points by which the curious fact that only the legs suffer in the caisson disease is, I think, quite clearly explained. I need scarcely remind you that whilst the spinal canal extends down into the sacrum, the spinal cord does not extend below the lower border of the first lumbar vertebra; but the spinal cord gives off nerves all the way down on each side, and the spinal canal on its part is pierced on each side with a series of openings all the way down, even to the lowest part of it, at pretty even intervals, the openings serving to let out the nerves that arise from the cord. The consequence of this arrangement is of course that the distance between the place of origin of the nerves of the cord, and their place of exit from the canal is short, as to the upper nerves, but increases much as to the lower nerves, so that the nerves run nearly horizontally to the neck and upper limbs, whereas to the loins and legs they run a long way down before reaching the dura mater, extending indeed for many inches, and forming a bunch of long, loose threads, something like a horse's tail, and known as the cauda equina. Now, the spinal cord is suspended within the spinal canal in subarachnoid fluid, which entirely insulates it. And meantime surrounded by this liquid, and insulated by it, the spinal cord itself is out of reach of any blood-supply except such as can come to it from the brain above or else along the nerve-roots at the sides. And in fact the supply of this important part becomes, if I may so speak, one of Nature's difficulties. Let us see how the difficulty is met. The blood-supply to the spinal cord is carried out by slender vessels which come from the vertebral arteries within the cranium. There are three of these arteries—one on the front and two on the back of the cord; they are very slender, and yet have to run along its whole length. No arteries so small as these run so great a length elsewhere in the body, and pressure falls rapidly in minute arteries as the length of pipe increases, so that it becomes necessary to reinforce these slender vessels wherever possible; and advantage is taken of the nerve-roots to send up little reinforcing arteries along these. In the part of the cord corresponding to the neck, upper extremities, and trunk, where the nerve-roots are short, the reinforcing arteries are also short, and they reach and join and furnish blood to the spinal arteries—so that in this part of the cord every segment of it is supplied with blood from two directions, the anterior spinal artery bringing blood from above and the reinforcing artery from below. But when you approach the tip of the cord the supply from below becomes exceedingly precarious, and even apt to fail entirely, because upon the long strands of the cauda equina the small arteries are too narrow and too long to reinforce the cord with any certainty. But at the same time the supply from above has to be furnished with greater difficulty than in the upper regions of the cord, because the original anterior spinal artery is very far away, and the reinforcing arteries even in the lumbar region have to run considerably longer courses than they had in the cervical region.

Thus the tip of the cord has its blood-supply only from above, and deficiently even there, whilst the upper parts of the cord have a better sustained supply both from above and below; and this becomes especially the case upon the cauda equina itself, for here the arteries are exceedingly minute and uncertain in size on the several nerves. Hence we see that the tip of the spinal cord corresponding to the lower limbs and sphincters is much more weakly organised as to its circulation than are the upper parts of the cord. But lest this should seem a purely theoretical view, let me quote a report which Dr. Carrington, the able Demonstrator of Anatomy at Guy's Hospital, has kindly sent me after examining this matter for me. Dr. Carrington says:—

"I have examined seven cords in all, and send you the results. I have also written out the account of two which were the best of my specimens in a little more detail, and I can send you a like account of all if you wish it. 1. Our subjects are injected from the femoral artery; therefore, *à priori*, there would be a greater probability of the lower than of the upper end being well injected. The fact that it was not the case makes the results more striking. 2. In all the cords there was clear evidence that the anterior spinal artery filled from above downwards, the injection ceasing either at the lower end of the cord or above that part. It was obviously reinforced by vessels which entered along the nerves. 3. In no case were the reinforcing vessels on the nerves of the cauda equina injected.

"*Details.*—Case 1. Anterior spinal artery injected in upper third, injection ceased at junction with middle third; the injected part was reinforced by branches which ran along the nerves of the upper third; none of the reinforcing branches were injected in the lower two-thirds on the anterior surface. On the posterior surface the arteries which accompanied the nerves were more or less injected as far as about two inches from the commencement of the filum terminale, many were, however, uninjected. No injected arteries accompanied the nerves of the cauda equina.—Case 2. Anterior spinal artery particularly well injected as far as the beginning of the filum terminale. Beyond this point the vessel could be traced empty on the filum. The injected part of the vessel was well reinforced by vessels which ran on the nerves. On the posterior surface the arteries along the nerves were injected with varying degrees of fulness; some were uninjected as far as two inches from the end of the cord, at which point the injection ceased. The largest and lowest of these reinforcing arteries accompanied a nerve which ran for a distance of one inch within the dura mater. No injected arteries were found with any of the nerves of the cauda equina, but, *per contra*, on one of them a well marked long slender artery was found empty."

We have here convincing proof that under difficulties of circulation, such as must arise when the body is subjected to great changes of atmospheric pressure, the tip of the spinal cord is a part which would suffer from anæmia, for it is out of reach, except by vessels of great length, in proportion to their calibre. Meantime the career of these vessels is through the cerebro-spinal fluid, which forms an easy water-bed for them that may favour the freedom of flow in their minute channels. But then, unfortunately, this cerebro-spinal fluid is itself subject to variations of pressure. Indeed, it exists as a means of conveying pressure from the cranium to the spine, and we have seen that, when there is activity of circulation within the skull, the cerebro-spinal fluid is sent out to press a little, hardly within the spinal canal, on these smaller arteries of the spinal cord. So that over-much activity of the cerebral circulation would tend to compress these arteries, and interfere with the straight and narrow economy of the unfortunate end of the spinal cord. I think this is why very studious people get so delicate about the caudal ends of their spinal cords. And it is, at any rate, a good reason why students should take care to let their legs have a fair share of activity in every day's time for the establishment of proper circulation in the spinal centres. Now, whilst the tremendous pressure in the caissons is sending blood into the vessels of their brains and cords with great force the workmen feel more lively and elastic, and go up their ladders with ease. But as soon as this tremendous pressure is taken off, and the vessels of the nervous centres, instead of being intensely stuffed with blood, have a tendency to lose their contents in the same way as they do when exposed to a rarefied atmosphere; so that a general deficiency of supply arises in the previously well-filled channels. This difficulty tells most on the more weakly organised system of supply to the spinal cord, and hence the workmen are paralysed as to their lower extremities and sphincters when they go into the air.

But how, then, should any people escape? Have I not proved too much? As to this question I have observed that the anastomotic reinforcing branches of artery along the nerves vary in size upon the several nerve-roots in different subjects, and a large anastomotic branch in the dorsal region would do much to save the cord. Also it is true that the vascular tension is more efficient in some people than others. And as a matter of fact we can directly observe that some peoples' textures bear variations of blood-supply much less equably than do the textures of other people. Further, I think it probable that when the arterial supply of the cord fails under the caisson pressure the result is paralysis, but when the result of the pressure tells more on the veins—keeping them too full—the result is that pains in the limbs are complained of. But when I thus am indicating this peculiar source of weakness in the spinal cord at its lower end, it will naturally be asked whether there is any further proof of such a weakness of this part—whether the cord is paralysed under other conditions very trying to its peculiar circulation. Well, the answer to this question is not far to seek, seeing it is an otherwise and I may say a hitherto unexplained fact that in so many cases of spinal palsy from whatsoever cause the lower limbs suffer, while the upper limbs escape; whereas, so far from the lower limbs being intrinsically weaker, it is of course true that in cerebral paralysis the lower limbs suffer less and the upper limbs suffer more. Let us take the example of common paraplegia. Everybody knows that this nearly never attacks the upper limbs, but it affects the lower extremity and lower part of the trunk, and a short experience of cases of this disease will show a remarkable uniformity in the extent to which the lower half of the body is involved. You will find almost always that the paralytic affection in common paraplegia ceases to give evidence of its presence about the lower dorsal or upper lumbar region. Numbness and paralysis are not traceable above the lower margins of the thorax, ceasing often along a rather well-defined line. The anatomical state of the substance of the cord found post-mortem to account for this is a condition of "softening"—i.e., a pathological state which is the same as that found in the brain as a consequence of impairment of nutrition by deficiency of the supply of blood. The causes of this condition are often obscure, but are in many cases evidently debilitating causes, such as in this very typical case which I met with. An Irish dock-labourer had been standing about the entrance of the docks for some days without employment, and getting little food, when he felt pins and needles run up and down his legs; and after he got home that evening he felt very weak, and went to bed. In the night, being taken with diarrhœa, he went from his bed, feeling very cold and feeble, and he could not return, being totally unable to move his legs. This man lived about a year, his disease showing all the characters of common paraplegia, and post-mortem examination showed the lumbar cord in a state of "white softening." This was one of my cases when I was clinical clerk, and it puzzled me much to know why the poor man should thus suddenly suffer from so chronic a change as white softening, and why he should only have symptoms just up to the top of the lumbar cord, and never higher in the whole course of his ailment; but I seem to know well now why it was. He was paralysed through starvation of his cord on account of the difficulties of supply to it, and the paraplegia did not extend above the lumbar cord, because the cauda equina does not extend above it, and the upper dorsal part of the cord obtained enough blood along short arteries through which the blood pressure had been able to force a sufficient supply. Indeed, the very different kinds of cause which agree in producing paralysis of the lower extremities would show that there must be some such simple and general explanation of its ready occurrence. An instance came under my observation so like that of my poor dock labourer that the similarity of effect was as remarkable as the unlikeness of causation. It was in the person of a very well-fed and healthy female cat which suffered, I am sorry to say, at my hands. A nest of thrushes was eaten by cats in my garden, and I thought it fair to retaliate by putting down a bowl of milk also containing prussic acid, and I warned a relative to keep her cat in; but, to my grief, next morning the only cat in trouble was my relative's fine cat, which lay beside the bowl of poison in a curious state, quite paralysed as to the hind legs, but otherwise unaffected. The front paws were active and vigorous, so that she could pull herself about on the level ground by means of them, but the hind legs did not make any movements for three weeks. I did what I could for her, but it was four weeks before the cat could leave the basket she was placed in, and six months elapsed before she could spring upon a wall; after this she quite recovered, and had several large families. Now, prussic acid acts by lowering the tension of the blood after a slight temporary rise, and whereas it is very difficult to suppose that the prussic acid had any preferential power over the nervous centres of one pair of legs as compared with those of the other pair, it is, I think, quite readily to be accepted that as the hinder pair draw blood through longer and very slender pipes of vessel, the cat, lying with depressed circulation nearly dead all night, suffered so much in the nutrition of the end of her spinal cord that it became almost irrecoverable. Indeed, it is interesting to observe how the very temporary action of the poison should have so damaged the cord that it was six months in recovering, whilst the damage was so adjusted that recovery was finally possible. Such an occurrence throws some light upon the curiously protracted tenacity of injury on the part of the cord, which the history of paraplegia brings so painfully forward. But it is not only prussic acid that affects the hind legs of creatures more than their fore legs. Although toxicologists have paid no attention to the difficulties of circulation in the lower end of the cord, so that no experiments have been made with the intention of developing this point, yet in reading through a book on Materia Medica one finds repeated examples of drugs which are depressants of the circulation, and which paralyse the hind legs of animals without affecting their fore legs. Among these I mention aconitia, conia, and, doubtfully, veratria and chloral. With reference to prussic acid, it is said to benumb the hind legs first.

Again, for other instances, take the very complete paraplegia of the lower extremities which so much impressed Dr. Bristowe in the highly interesting cases of Rupture of Abdominal Aneurism, which he recently published. Surely, if we consider the mode in which the arterial supply of the spinal cord would be reduced by the bursting of the aneurisms, the paraplegia in these cases is immediately comprehensible. Again, if we take the so-called urinary paraplegia, of functional paraplegia of any kind, including what is called hysterical paraplegia, we find these affections never troubling the upper limbs, but always the lower. And I think the point I have raised will suggest lines of investigation that may throw great light on this obscure class of nervous diseases. I believe that it is by impediment to the exceedingly and peculiarly difficult blood-supply of the caudal end of the spinal cord that all these various conditions lead to paralytic weakness of the lower limbs, and they are to be met by conditions improving the circulation if possible. Why the lumbar cord should be thus straitly supplied is an interesting question. Perhaps it may be connected with a necessity that the economy should be so organised as to feel fatigue early enough in the parts which directly put forth exhausting exertion, lest strain of effort should first overtake more vital parts that secondarily share in all such exertion. In short, the cord is supplied scantily, so that we should sit down when we have walked enough, and lie down when we are tired, and especially that we should, if necessary, fall down when faintness overtakes us, to the end that in the horizontal position the circulation may be able to restore itself.

Gulstonian Lectures
ON
ANÆMIA.

Delivered before the Royal College of Physicians,

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LECTURE II.—PART I.

Idiopathic Anæmia: Earliest Recognition of it by Addison—Records of Cases (1851–1871) by Barclay, Lebert, Wilks, Habershon, King—Gusserow—Biermer's New Departure (1871)—Growth of its Literature in the last Decade—Wide Extension given to the Term "Pernicious"—Clinical Features of "Pernicious" Anæmia—Onset—Progress—Digestive, Circulatory, and Nervous Symptoms—Hæmorrhage—Irregular Pyrexia—Duration—Termination in Recovery—In Recovery followed by Relapse—In Death—Post-mortem Appearances.

MR. PRESIDENT AND GENTLEMEN,—It is impossible to speak of idiopathic anæmia without reference to Addison, for he it was who seems to have distinctly called attention to a class of cases in which anæmia is the prevailing symptom from first to last—an anæmia not depending upon recognised causes, not associated with wasting of the tissues, but insidious in its onset and slowly downward in its progress, revealing after death no changes but those of fatty degeneration, especially of the heart. The passage in which he summed up his experience of this condition occurs early in his essay on Disease of the Suprarenal Capsules.[1] This passage has been so often quoted that it is hardly necessary for me to repeat it now, much as I am tempted to do so, for it is a model of a succinct summary of clinical observation. It was written in 1855, but Addison's observations dated far before that period, and indeed he described the condition in his lectures as early as 1843.[2] There is no doubt also that similar cases had been observed, and a few recorded about the same period. In 1851 Dr. Barclay published the notes of two fatal cases of anæmia[3] occurring in St. George's Hospital. One was the case of a man aged thirty-four, admitted under Dr. Page on Jan. 21st, 1852. He had been ailing for twelve months, and had suffered from inconstant aching pain in the loins, accompanied by scanty, loaded urine. He had lately lost flesh and had a slight cough, was remarkably pallid, complained of shortness of breath and palpitation; pulse 120, and very weak; and he suffered from constipation. There was deficient breath-sound at both apices, especially the right, where it was distant and tubular; there was then no cardiac murmur. A fortnight later he was attacked by vomiting. A bellows-murmur with the systole developed, best heard in the mid-præcordia and towards the apex. He rather rapidly passed into a state of exhaustion, ending in coma, on Feb. 11th. Mr. P. Hewett, who made the autopsy, found the body well nourished, the brain very anæmic, a few extravasations in the pia mater, cretified deposits at the apex of the right lung, emphysema elsewhere, the posterior parts being engorged with frothy serum. The heart was healthy and pale, but contained large fibrinous clots in all its cavities. The abdominal viscera were bloodless, and a few cysts were observed in the left kidney. The dark and healthy colour of the muscles was observed in contrast with the pallor of the integument, and the extremely yellow colour of the subcutaneous fat was also noted. The other case was that of a married woman with several children, admitted under Dr. Wilson, Jan. 29th, 1851. She had not been well since her last confinement, four months before; had been weak, but had not suffered from hæmorrhage; she had, however, been troubled with diarrhœa for two months previously. She was extremely anæmic; pulse quick, feeble, and empty; appetite bad; urine scanty and loaded; her only complaint was of general weakness. The diarrhœa was checked by remedies, but she did not gain strength. She suffered from insomnia, and had some attacks of dyspnœa, after one of which she died, about three weeks after admission. The post-mortem examination by Dr. Ogle revealed the pallor and slightly yellowish tint of skin, slight œdema of the lower extremities, great pallor of abdominal walls, fatty kidneys, frothy serum in the lungs, some ecchymoses in the larynx, a healthy heart containing little or no coagulum, but a small quantity of semi-fluid blood.

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[1] See Addison's Collected Works (New Sydenham Society), p. 212. The passage is quoted by Dr. Pye-Smith in Virchow's Archiv, vol. lxv., p. 507; by Dr. S. Mackenzie, THE LANCET, 1878, vol. ii., p. 799; by Dr. Finny, Brit. Med. Jour., 1880, vol. i., p. 5; and many others.

Lebert, too, in 1853 had recorded cases of fatal "puerperal chlorosis" at Zurich—the seat of the subsequent observations of Gusserow and Biermer—and had spoken of these as examples of what he regarded as an "essential anæmia." Then, however, a long silence on the subject occurs in medical literature, broken only by the publication in Guy's Hospital Reports for 1857 of a series of cases by Dr. Wilks, under the head of "Idiopathic Fatty Degeneration," and of a case in THE LANCET for 1863,[4] by Dr. Habershon in a paper on this subject. The patient in this case was a spare woman aged forty, who had for many years been subject to attacks of vomiting, which for eight months before her admission had been almost of daily occurrence. She had much gastralgia, pain in the back and limbs, and was very pallid. The attacks of pain were renewed with much severity. She, however, improved, and left the hospital, to return a year later, "blanched, emaciated, and extremely feeble." No gastric disturbance was present now, only an extreme degree of asthenia and anæmia, under which she sank in two months. The necropsy by Dr. Wilks disclosed only intense anæmia of organs, marked fatty degeneration of the heart, and slight, passive effusions in the serous sacs. Thus, these observations showed that in the hospital of Addison, at any rate, the existence of the disease was recognised; and Dr. F. Taylor did good service in collecting all the cases observed there up to the year 1878—namely, as many as twenty-three.

Curious to learn whether the like experience had befallen the physicians of the Middlesex Hospital, I have searched the post-mortem records for any fatal cases which could be thought to have belonged to this class, and from 1844 to 1871 (excluding 1852 and part of 1851) I can find only one unequivocal case, which, it will be seen, was associated with a certain amount of gastric disease. This case occurred in 1865, its subject being a woman aged fifty-one, who was admitted for extreme anæmia three days before her death. No satisfactory history could be obtained, save that she had become rather rapidly anæmic. The skin was of a peculiar yellow hue, and she suffered from constant vomiting during her brief stay in hospital. After death the sallowness of the surface was noted, also a considerable layer of subcutaneous fat. There was effusion in the serous sacs, and œdema of the lungs. The heart was of normal size, contained a little fluid blood—no coagula, but the condition of its walls is not recorded. There was slight atheroma of the aorta. The spleen was small and normal; the kidneys small, and the seat of a few minute cysts. The gastric mucous membrane was thickened in the pyloric region and the seat of a small polypus. Recent hæmorrhage had occurred under the dura mater, and the brain was bloodless. Of other cases which come less clearly under this category I find one in 1844, of a woman, complicated by old pulmonary tubercle and recent pneumonic hepatisation; one of a boy aged eight, in 1857, thin and sallow, with slight serous effusions, ecchymoses in the heart, which is described as "yellowish, mottled, and very fatty," the liver of a deep yellow-brown colour, with bleeding points and white specks on the surface; and one in the same year of a man aged thirty-five, who died suddenly of fatty heart. These practically comprise all the cases within the period mentioned, with evidences after death of extreme anæmia and cardiac degeneration; other cases being chiefly those of cancer, renal disease, and purpura, one or two of which latter might possibly belong to the class in question. In 1871, however, an undoubted case occurred under Dr. Greenhow's care, and was published by my friend and former colleague, Dr. R. King, then medical registrar. I shall give the details of this case subsequently, but mention it now because its publication, antedated by a few weeks the appearance of an essay by Biermer, which did more than anything else to draw general attention to the subject.

Biermer's work must be taken in connexion with that of Gusserow (for both laboured in the same field), who in 1871 published six cases of a fatal form of anæmia in pregnant women. Biermer, who had previously related a case before a society at Dresden in 1868, described and summarised in the essay referred to fifteen cases of a "peculiar form of progressive pernicious anæmia, usually accompanied by fatty degeneration of the circulatory passages, and, secondarily, by hæmorrhages of the skin, retina, brain, and its serous membranes." This publication marked a distinct departure in the knowledge of this disease, and its taking and rather startling title assisted to draw attention to it. From that time to this, just ten years, a whole literature has sprung up around the subject.[5] For a time it was even thought that in this "progressive pernicious anæmia" of Biermer a new disease had been discovered, but Drs. Wilks, Taylor, and Pye-Smith reasserted the claims of Addison, and proved conclusively that no new discovery had been launched upon the world. Nor has the new nomenclature been without its drawbacks. It designates more than is implied by the term "idiopathic," much as we may wish to banish that term from nosology, and it has rather obscured than emphasised that leading fact of the condition described by Addison. For by the use of this terminology authors have been led to class together cases of anæmia depending on known causes with those truly "idiopathic," and some even speak of the supervention of pernicious anæmia in cases of cancer, for example. I shall show that this extension is perhaps justifiable provided that at the same time a distinction be made between the cases which arise spontaneously and those where the anæmia is obviously secondary. At present I will merely state my belief that pernicious anæmia includes, but does not comprise, idiopathic anæmia.

I have collected 110 cases, including most of those mentioned by M. Lépine in a review published in 1877. The number might, I believe, well be doubled, before embracing all those cases which have been recorded. Seldom has such a mass of evidence bearing on any one disease been accumulated in so short a time; and yet it is not possible to arrive at a satisfactory solution of the question of its origin. It presents us, however, with the symptomatology of anæmia in its most severe form, and throws light upon the most marked lesion produced by anæmia. Of these 110 cases, 56 were males and 54 females. The ages at which the patients came under notice—often, that is, only a short time before death—varied with the sexes, for among the male cases the majority—viz, 33 or 59 per cent., occurred between the ages of forty and sixty; and among the female series—34 or 63 per cent.—between twenty and forty.

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[2] See Dr. S. Mackenzie's Lecture, loc. cit.

[3] Medical Times, 1851, vol. i., p. 480.

[4] Vol. i., p. 518.

[5] An analysis and review by M. Lépine in 1877 (Rev. Mensuelle) has facilitated reference to this literature, but much has appeared and continues to appear since that time.

MALES.	
Under 10 years	1 case.
10 and under 20 years	2 cases.
20 ,, 30 ,, ...	8 ,,
30 ,, 40 ,, ...	9 ,,
40 ,, 50 ,, ...	19 ,,
50 ,, 60 ,, ...	14 ,,
60 ,, 70 ,, ...	3 ,,
	56

FEMALES.	
Under 10 years	0 case.
10 and under 20 years	4 cases.
20 ,, 30 ,, ...	18 ,,
30 ,, 40 ,, ...	16 ,,
40 ,, 50 ,, ...	9 ,,
50 ,, 60 ,, ...	7 ,,
	54

Somewhat different statistics are given by Hermann Müller of Zurich,[6] who describes 44 cases from Prof. Biermer's clinic, 9 only being males, and 28 of the 35 females being between the ages of twenty and forty.

Age.	No.	Male.		Female.	
		Married.	Single.	Married.	Single.
15 to 20 years	6	0	2	0	4
21 to 30 ,,	11	1	1	7	2
31 to 40 ,,	20	0	1	17	2
41 to 50 ,,	4	1	1	1	1
51 to 55 ,,	3	2		1	0
	44	9		35	

The preponderance of females corresponding to the period of child-bearing.

The onset of this severe affection is sometimes quite sudden—in such cases following severe mental shock or some violent emotion; or a profuse hæmorrhage, which at the time may threaten life, leaves behind it an anæmia which never disappears, and may become pernicious—i.e., may deepen in intensity in spite of treatment. More commonly this exciting cause is added to a pre-existing and long-standing anæmia, which then takes on a fatal form, or the determining event may occur in some other exhausting discharge. Leaving for the present the consideration of these prodromal influences, I may simply state now that in many cases the onset is gradual and insidious, having perhaps in some cases a foundation in conditions of blood impoverishment, but in others arising quite apart from such conditions. Or the patient may have been always below the standard of health as regards blood; may have suffered more than once from extreme anæmia, and have regained the previous level, to be finally again lowered beyond restoration. However this may be, the symptoms which usher in the condition can all be attributed to it. There is a growing pallor of the skin and visible mucous membranes: a pallor frequently mingled with a yellowish tint, and even with a slight degree of actual jaundice; and the face becomes wax-like in appearance. At the same time there is an increasing disinclination for physical exertion, partly from mere listlessness, partly from the breathlessness and palpitation which any physical effort evokes. The nutrition of the body is often well preserved; there may be, as Addison remarked, even an excessive amount of cutaneous fat. Then, as the blood becomes more impoverished, dropsical effusions may appear in the eyelids and lower limbs; but such œdema is not a constant symptom, and is generally late in its appearance. With the muscular asthenia there is often complaint of pain in the limbs or back; and headaches, vertigo, and tinnitus are frequent. Sleep is sometimes, but not usually, heavy, a lethargic, drowsy state supervening towards the end, which may pass into semi-coma. But insomnia is a more constant symptom. Delirium may occur at the close, and sometimes convulsions. On the side of the digestive system there is generally loss of appetite, it may be with actual intolerance of food, and dyspepsia with nausea and vomiting are common. Indeed, vomiting stands out prominently among the symptoms of the disease, so common, so frequent, and so early in its occurrence as to lend support to the view of Drs. Flint and Fenwick as to the essential dependence of obscure and fatal anæmia upon primary gastric derangement. Although in some cases such vomiting and other symptoms of gastro-intestinal disturbance do precede the appearance of the weakness and pallor, yet it is not always so. Thirst, too, is marked in many cases. Gastralgia and epigastric tenderness are generally associated with the dyspeptic symptoms. Then, as to the intestines, diarrhœa is almost as often met with as vomiting, occurring sometimes early in the disease, sometimes just towards the close, which it determines; and although it is amenable to treatment it may recur again and again with much severity. Constipation is not so common as diarrhœa.

As a rule, in the earlier stages, the breathing is quiet, except on exertion, which induces marked breathlessness; but sometimes, at an advanced stage, attacks of dyspnœa are frequent and painful, and may lead to a fatal result. In the cases I have had the opportunity of reading I have not found this dyspnœa recorded as being of the peculiar ascending and descending rhythm, with a period of apnœa, known as Cheyne-Stokes respiration. The association of that type of respiration with fatty degeneration of the heart was noticed by its discoverers, and though it occurs under other conditions also—e. g., uræmia, cerebral hæmorrhage, embolism, &c.—yet its association with fatty heart is still accepted. As such degeneration is the most constant morbid lesion of anæmia, it is at least singular (if it be a fact) that this type of dyspnœa does not occur. As a rule, unless there be old disease in the lungs, there are no abnormal physical signs, except towards the end of life, when these organs become engorged, and serous effusions may take place in the pleura.

Attacks of syncope are liable to occur, but do not seem to be so frequent as might be imagined. The action of the heart is generally regular and quick, often very feeble. The impulse is often widely visible, undulating, and thrilling; the area of præcordial dulness laterally increased, signs attributed by some to retraction of the lung, by others to dilatation of the heart itself. The so-called "hæmic" bruits are commonly, but not invariably, met with; a systolic blowing murmur at the apex and xiphoid cartilage, a bruit of coarser character simulating pericarditic friction at the base. The large arteries of the neck often visibly pulsate, and are the seat of loud murmurs. The jugular hum is seldom absent, and pulsation of the jugular vein is often observed. The pulse is soft and compressible, quick, jerking, and empty.

In all these symptoms there is nothing peculiar or special. They simply denote the presence of an anæmia of pronounced degree, but there is one group of symptoms which occurs with such frequency in those severe forms as to be almost regarded as distinctive of them. I refer to the supervention of hæmorrhages, and here it seems to me important to make some reservations. In several cases hæmorrhages of one kind or another—e.g., epistaxis, menorrhagia, take place in the prodromal period, and antedate the development of the anæmia, which they have much share in producing. Such hæmorrhages must be distinguished from others, often quite as profuse, which follow upon the appearance of the anæmia, and when appearing they add greatly to the intensity of the disease. In a case the particulars of which I shall presently narrate the patient had been anæmic, and progressively so, for years; then supervened profuse menstruation, and finally a severe uterine hæmorrhage which nothing would check till it carried her off. Epistaxis, too, is common as a secondary result. Sometimes cerebral hæmorrhage may ensue and carry off the patient, but this is not common. More frequently towards the close of life petechial and purpuric eruptions occur, and beneath serous membranes, and the dura mater ecchymoses are common, as well as in the substance of mucous membranes. In one very curious case, both in its rapid development, intense character, and as rapid recovery, recently recorded by Lachmann from Riegel's Clinic at Giessen there developed during the progress of the anæmia a considerable tumour in the iliac region, with œdema of the lower limb on that side; from its physical characters and manner of disappearance it was conjectured (and with probable truth) that this swelling was due to a hæmorrhagic effusion beneath the peritoneum. The patient was a young man of nineteen, and the anæmia had developed rapidly with no other exciting cause than heavy walking through snow. That patient, like the great majority of those in whom the anæmia is profound, presented retinal hæmorrhages. These hæmorrhages and the other retinal changes, œdema of the disc, and neuro-retinitis have been described and figured by Drs. S. Mackenzie and Gowers, the latter of whom says:—"The extravasations are often numerous, and more or less striated or flame-shaped from their situation in the layer of nerve-fibres. They are usually most abundant around the optic nerve-entrance. They are frequently associated with white spots and areas, due in part to leucocyte-like cells, in part to degeneration in the disturbed retinal tissues. Occasionally a pale spot may occupy the centre of a small hæmorrhage."[7] Quincke in his 31 recorded cases met with retinal hæmorrhages in all but 7—and notes the rapidity with which they disappear. We cannot, I think, regard them as invariably present; although their existence is a very valuable indication of the advanced stage of the disease. Moreover, as they are not commonly met with in other forms of anæmia, their presence has a certain diagnostic as well as prognostic value; but on the latter point Quincke gives cases which have recovered. Of the 110 cases (which include Quincke's) there are only 39 in which the ophthalmoscopic examination is recorded, and in 30 the hæmorrhages were found, but only 17 were fatal cases, 1 left unrelieved, and no fewer than 11 were regarded as recovered. Of the 9 cases in which these hæmorrhages were *absent*, 6 were known to end fatally. I should not like to lay much stress upon such meagre statistics; especially as it is possible that the traces of previous hæmorrhage might have escaped the observers; but so far as they go, they point to this—that retinal hæmorrhages do not imply a fatal termination, and that their absence does not necessitate a favourable prognosis.

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[6] Die Progressive Perniciöse Anæmie. Zurich, 1877; kindly lent me by Dr. Pye-Smith.

There is usually no enlargement, or to only a slight degree, of either liver or spleen or lymphatic glands, and in only a very few cases has any special tenderness been noted over the bones.

Albuminuria, slight and transient, has been noted; but as a rule the urine is free from this abnormal constituent, of low specific gravity, mostly pale, sometimes high coloured, and deficient in urea and uric acid; but the latter constituent is not diminished in proportion. Chlorides are reduced (Hugenin), but the excretion of phosphoric acid is said to be increased relatively to the nitrogenous matters (Edelfesen). A marked indican reaction was always observed by Hugenin. In one case recorded by Dr. Finny of Dublin[8] the interesting observation was made by Dr. Emerson Reynolds of an appreciable quantity (viz., 0·308 grain in 72 ounces of urine) of iron in the urine sixteen days after treatment by iron had been discontinued.

There remains another symptom of peculiar significance—viz., pyrexia. The charts before you, both from marked cases of the disease—one by Immermann, the other by Quincke—illustrate the irregular course taken by the temperature, and this often without any concomitant changes appreciable in the patient's condition. The former (Chart 1)[9] is that of a single woman aged thirty-one, who was under treatment at Basle from August 23rd, 1872, to September 19th. The case is of some interest, for she had chlorotic symptoms develop when the catamenia began, at the age of seventeen; but apparently recovered completely. The symptoms dated from three weeks before admission, when she became feverish and lost appetite, and anæmic. The anæmia rather rapidly increased, and with it its cardio-vascular signs developed, but no retinal hæmorrhages. An appreciable hemiparesis of the facial muscles and of the tongue made the diagnosis difficult, so that the possibility of ulcerative endocarditis was entertained. Some diarrhœa occurred towards the close of the case. Slight splenic enlargement (no increase of white corpuscles) was also present. The post-mortem examination revealed, in addition to an enlarged firm spleen, only the anæmic condition of organs and fatty changes met with in pernicious anæmia. No brain lesion was found to account for the facial and lingual paresis. The other case (Chart 2, Case 11 in Quincke's series[10]), is that of a woman thirty-three years of age, who had been married nine years and had two children, the younger of whom, aged four, she had suckled for six months. She came into hospital on May 11th, 1876, having for five months suffered from debility, palpitation, and vertigo. She lived in very poor circumstances, and was admitted in an extremely weak and anæmic state. Cardio-vascular signs of anæmia were marked; there were retinal hæmorrhages and œdema, and the blood showed marked variations in the red corpuscles, their numbers being only 143,000 per cubic millimetre (1-38th). Transfusion was performed on May 24th, and the chart shows the course of the temperature for the following days, so that its irregularities must, I suppose, hardly be considered as due to the anæmia alone. This patient recovered, left the hospital on Aug. 25th, and was seen again in November, looking well-nourished and healthy. The third chart (No. 3) is one where profuse menorrhagia was added to the anæmia, the details of which I propose to give presently. As a rule, the temperature is liable to sudden exacerbations, sometimes reaching remarkable heights (in one of Dr. Finny's cases 106°) from a normal or nearly normal level; or it may have a more or less continuous course, varied by such exacerbations. Exceptionally there is no abnormal rise of temperature throughout. The apparently paradoxical event of fever occurring under conditions of diminished oxygenation—as in anæmia—is discussed by Immermann, who points out that the same obtains in leukhæmia and Hodgkin's disease—between which affections and anæmia there is the common link of poverty in red corpuscles. He shows also that the temperature rises after copious venesection; and the instability of temperature in anæmic convalescents is well known. He is inclined, then, to relate the pyrexia to the reduction in red corpuscles below a certain point; not that it is produced by increased metabolism, but by the decay of the tissue elements—their conversion from complex unstable compounds into more stable substances—a conversion which must be accompanied by the setting free of heat, although not requiring increased oxidation. And to

CHART 1. (IMMERMANN.)

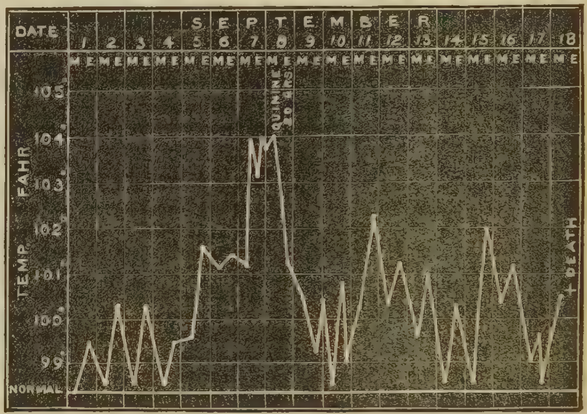
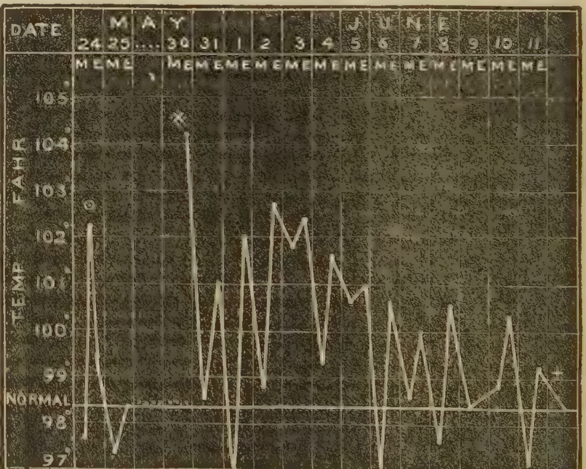


CHART 2. (QUINCKE.)



⊖ Transfusion. Collapse during operation, followed by sensation of cold, but no rigor. * Rigor. † From this date the course was apyrexial.

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[7] Manual of Medical Ophthalmology, p. 190.
[8] Brit. Med. Journal, vol. i., p. 44. 1880.
[9] Deutsches Archiv für Klin. Med., xiii., p. 233.
[10] Deutsches Archiv für Klin. Med., xx., p. 1.

this increased heat-production, combined probably with heat-retention, he attributes the "anæmic fever" of these diseases. The blood has, when examined, been found to be altered; but I will speak of that when I come to discuss the pathogeny of the disease.

It is not easy to fix the duration of many cases. The patients themselves cannot tell when their anæmia began, and some have been, they say, pale all their life. Of the series of cases I have collected (viz., 110) I find that in 32 the total duration of symptoms was from one to six months; in 24 from six to twelve months; in 25 from one to two years; and the remaining 12 for periods exceeding two years. As many writers only speak of many weeks or months, such estimation does not include all the cases; and in those cases where the symptoms date back only a few weeks there is often found a history of some antecedent anæmia or a period of variable length of slight languor and ill health.

There can be no doubt that pernicious anæmia is not invariably fatal. Cases of recovery have been recorded by Quincke and others, where all the symptoms have been marked. Dr. Finny gives a striking case, and of the series to which I have so frequently referred no fewer than twenty are regarded by their observers to have recovered. Some of these did recover perhaps permanently, but of this it is not possible to speak with certainty, the last-recorded note often referring to them as being in perfect health; and these were cases which clinically were indistinguishable from those that ran a lethal course; some of them undoubtedly were rescued by prompt transfusion, and others got well under medicinal treatment; but their occurrence is encouraging, the natural tendency of the disease being undoubtedly towards death. Four cases passed away unrelieved; and 4, after an apparent recovery lasting a few weeks or months would relapse into the previous state, to again be temporarily restored to comparative health—once more to relapse without possibility of recovering. The greater number, however, die (86 out of 110) sooner or later (4 of these after temporary recovery and relapse), the mode of death being a simple asthenia and exhaustion, or passage into a comatose condition, or in syncope, or by dyspnœa, or convulsions. To briefly paraphrase Müller's vivid description of the manner in which death approaches: the distress attains a painful intensity, sleep is hindered by the constant beating in the head, the hum and roar in the ears, whilst the faculties became dim and unspeakably dulled. Vertigo and headache grow so severe that even sunlight causes pain. The prostration and weakness are so great that spontaneous effort is annulled, and the slightest movement, even the weight of the bedclothes, is irksome, and the patient groans and sighs in his distress. Now and then, towards the close, the hunger for air grows excessive, complaints are made of the painfulness with which every breath is taken, and relief is begged from this tormenting need. Some become so feeble, and sink into so deep a lethargy, as to cease to take interest in anything, or they lie impassive, breathing deeply and heavily, pale as a waxen figure, motionless as a corpse. Others toss restlessly from side to side, and in their delirium make vain efforts to escape, and then die suddenly from exhaustion. What is this but the picture of death from loss of blood—a loss, not from hæmorrhage, but from impoverishment of the blood in its chief elements?

The post-mortem appearances show extreme pallor of the surface and viscera. There is often a considerable amount of subcutaneous fat, and frequently slight œdema of the lower limbs. Dropsical effusions, never to large amount, occur in the serous sacs. The blood is fluid, thin, and watery, and scanty, pale clots are mingled with the fluid blood in the chambers of the heart. Hæmorrhages are met with in the form of subcutaneous ecchymoses, and similar extravasations beneath the pleura, pericardium, intestinal mucous membrane, and in the pia mater. Sometimes blood effusions of large amount occur in the latter situation. But the brain is pale, bloodless, and "wet" from œdema. The lungs are generally œdematous, and, owing to the fluidity of the blood, appear engorged in their dependent parts, contrasting with the marked anæmia of their other portions. Almost without exception the heart is in a state of fatty degeneration; its walls are pale, flaccid, and friable; the interior of the ventricles, particularly of the left ventricle, show irregular whitish striæ running transversely across the muscular bundles, and especially the papillary muscles, an appearance to which Dr. Quain gave the name of "tabbycat" striation. Microscopically the muscular fibres are pale, and destitute of striation, granular, or loaded with fatty molecules and cell globules of various sizes. Opaque patches of fatty degeneration occur on the mitral valve and stud the lining membrane of the aorta. Fatty degeneration of the intima of the smaller arteries, and even of capillary walls (especially in the retina) are observed, and serve to explain the liability to their rupture and hæmorrhage. Sometimes, but not invariably, there is fatty degeneration of the liver and kidneys. The spleen, lymphatic glands, and supra-renal capsules do not show any changes from the normal (except sometimes slight enlargement of the spleen), but in some cases the bone-marrow is found to be of a red colour and to show microscopical evidence of marked hyperplasia.

Such in brief are the essential features of progressive anæmia.

ON A CASE OF

CAROTID ANEURISM TREATED BY DIGITAL COMPRESSION AND SUBCUTANEOUS INJECTION OF ERGOTIN.

BY EDWARD BELLAMY, F.R.C.S.,
SURGEON TO CHARING-CROSS HOSPITAL, HON. FELLOW OF KING'S COLLEGE, LONDON.

I MAY mention at starting that, although I cannot record an absolute cure in this case, there was such marked and decided improvement that I feel convinced had my patient allowed an extension of the treatment adopted I should have been enabled to add another to the list of successful cases of digital compression. As to the action of the ergotin I am somewhat sceptical.

Mrs. C——, aged sixty-five, stout and florid, was brought to me in March, 1880, by the late Dr. Campbell, of Westbourne-place, with an aneurism at the root of the neck on the right side. After most careful examination, instituted on several occasions, before I began treatment, I made out that the aneurism was situated at the commencement of the right common carotid, and that, as far as my diagnosis went, the innominata was free. The tumour was freely expansile in all directions, was increasing, and the "whirring" noise well heard even without the stethoscope. The internal jugular vein was not compressed, and there was consequently no venous congestion of that side of the head and face. No difficulty in swallowing was complained of, neither had the tumour caused any displacement of the clavicle. There was no dyspnœa. The sac was very thin, and, in one point in particular, felt as though it might give way at any moment, more especially as my patient was an active woman, with a strong will of her own, and accustomed to take a great deal of physical exertion. The skin over the aneurism was movable and not reddened. The pupils on both sides were equal, and responded in the same degree to light. No difference could be detected in the temperature of the two sides of head and face.

Mrs. C—— decidedly objected to any "operation," and would not hear of it; yet, as far as I could judge, both from its position and the ease with which the trunk of the vessel above the tumour could be got at, it would have been a suitable case for distal ligature. Moreover, she would not hear of an anæsthetic for the "rapid" method of pressure. I noticed, however, that Chassaignac's tubercle (transverse process of sixth cervical vertebra) was very distinct, and that the vessel seemed of normal lumen as it passed over it. I therefore determined to try digital pressure on this tubercle, not with such force as to occlude the artery entirely, but to slow and diminish the current through the aneurism.

As Langenbeck, Dutoit, and others had apparently had such good results with the assistance of the injection of the watery extract of ergot, I determined to give it a trial, and before the first day of pressure (March 9th) I injected subcutaneously in the neighbourhood of the tumour two grains, dissolved in one part glycerine to five of alcohol. On March 10th, with the help of my late colleague, Mr. Amphlett, and Messrs. Whitehead, Clarke, and Turton, I commenced digital pressure on the vessel over the tubercle.

The pressures were maintained on the succeeding days as follows. On those marked with an asterisk the ergotin was used in doses increasing to three and a half grains:—

March 10th	3·5 hours.	March 16th	4·5 hours.
,, 11th*	3· ,,	,, 17th	2· ,,
,, 12th	3·5 ,,	,, 18th	3· ,,
,, 13th*	5· ,,	,, 19th	3·5 ,,
,, 14th	3·5 ,,	,, 20th	3·5 ,,
,, 15th*	3· ,,	,, 21st	3· ,,

Total ....41 hours.

As regards the applications of the pressure they were divided between the morning and the afternoon, an average of 1·5 hours at a time, which was all the patient could bear, on account of pain, which was complained of after a few minutes' pressure on the side of the head corresponding to the aneurism. The skin over the artery at the place where compression was applied was at times protected with a piece of amadou, and fuller's earth was powdered on before the compression commenced. At times, in order not to chafe the skin, pressure was made a little lower down on the distal mouth of the sac. The skin at no time was abraded. On the 15th I left off the ergotin, as it gave rise to very uncomfortable symptoms—sickness, local pain, and general uneasiness. Very soon after commencing pressure, a great difference was noticeable in the character of the pulsation in the tumour; it was much reduced, and the mass was evidently solidifying. On the 19th the bruit was very slight, and on the 21st, the last day, was quite imperceptible. At this date the aneurismal sac seemed perfectly solidified, although it was evident that there was a small channel through it which let blood into the carotid beyond, since it could be felt, though with difficulty. The character of the pulsation in the sac was that of one administered by the blood-current in the innominata, and not a distending one existing in itself. Mrs. C—— now showed signs of fatigue from the pressure, and resolutely refused further treatment. I therefore constructed an apparatus consisting of a hollow air-pad, which I retained over the tubercle by means of a modified Esmarch, but I found my patient would not use it.

Another day or perhaps another two days' pressure might have cured the aneurism. As it was, Mrs. C—— after leaving town began using the arm in various violent ways, and, from what I subsequently heard, undid a good deal of what had been done for her.

The case, though incomplete, is encouraging, and it would seem, with a little more assistance on the patient's part, might have been attended with a most satisfactory result.

Wimpole-street, Cavendish-square.

NOTES ON

VACCINATION AND REVACCINATION.

By G. E. YARROW, M.D.,

PUBLIC VACCINATOR AND MEDICAL OFFICER TO THE HOLBORN UNION.

AT a time like the present, when an epidemic of small-pox prevails, it is highly necessary that public vaccinators and others should know the full extent to which they can use the chief preventive means without being charged with over-zeal, or, still worse, cupidity. Considering the length of time the Vaccination Acts have been in operation, one is astonished at the number of contradictory statements as to the mode of working them that are continually appearing, apparently upon the best authority, and even the opposition to carrying them out by those who should evidently be among their strongest supporters. With a view to eliciting the opinion of others I should like to refer to a letter which appeared in *The Times* of Feb. 24th, from Mr. Blennerhassett, in which he calls attention to a report of the medical officer of the Lambeth Infirmary, to the effect that he is in the habit of vaccinating infants twenty-four hours old, and to a circular letter of the Local Government Board recommending that the operation be performed on infants born in the workhouses and Poor-law infirmaries within six days of birth. Mr. Blennerhassett says: "Several medical men have, I believe, protested against these arbitrary measures, as fraught with imminent risk and danger to infant life, and many persons will object to them as involving a treatment of the children of the poor in workhouses and infirmaries entirely different from that which is enforced by law, or would be tolerated by public opinion, with respect to the vaccination of the children of the well-to-do classes."

In the first place, I am surprised to read that there exists any medical evidence of "the imminent risk and danger to life" resulting from early vaccination, as for some years I have diligently sought for such evidence, and the result has only been to confirm the experience I gained during the last small-pox epidemic, when I vaccinated between five and six hundred infants under seven days old, and I cannot call to mind one case attended by any untoward result; on the contrary, I found that the local inflammation so frequently seen in infants a few months old was rarely seen in the very young; and this I believe is accounted for by the very limited amount of movement of which the child is capable, and the low degree of sensibility of the skin at this time of life must reduce the pain of the operation and progress of the vesicle to a minimum.

Another point of great moment in reference to the vaccination of pauper children is that during residence in a workhouse they have the care of nurses and mothers which cannot be found after leaving, for even when the parent is a married woman she is usually compelled to seek her livelihood by following some employment which necessitates her absence for several hours at a time, during which the child is left to the tender mercy of a stranger or, as our great modern author puts it, "the giant child in charge of a dwarf nurse."

Many persons will join Mr. Blennerhassett in his lament that the treatment demanded of children born in workhouse infirmaries differs from that required of children of the well-to-do classes. But what alternative is there? The majority of the children are the offspring of unmarried women who leave the institution from ten to twenty days after confinement, and who cannot tell where they may next find a home, much less where the children may be found at three months old. If they are sent out unvaccinated they go forth for the most part to our densely populated localities to form possible foci of future epidemics. That evidence is not wanting to convert this possibility into a probability is demonstrated by an instance which has recently come under my notice.

A. K——, the child of an unmarried woman, born in the City-road workhouse, left at three weeks old. After having lived in several other places, the mother took apartments in one of our most densely populated thoroughfares; here the child was taken with small-pox and died last January, unvaccinated, aged eight months. An elder child belonging to the same woman is now in the small-pox hospital. Two young men residing in the house have been removed to the hospital, one of whom, aged nineteen, has since died. The child of a neighbour has also died unvaccinated (the father of this infant is a potman to a neighbouring beer-house). The child of a fourth family has been lying in a dangerous condition from the same disease (also unvaccinated). The mother of this child was in the habit of going backward and forward to the first case (A. K——) while the child was lying ill, and during this period her children were attending a board-school, from which there are now absent seven other children suffering from small-pox. Now, I think it is fair to assume that if the child A. K—— had been vaccinated three lives would have been spared, thirteen cases of small-pox prevented, and the cost of maintaining these patients at the public expense saved.

At the Holborn Union Infirmary, City-road, it is an instruction not to vaccinate until the children attain the age of six weeks. One hundred and fifty-seven children were born in this institution last year, twenty-four only of whom were operated upon before leaving, and therefore 133 infants were sent out without that protection, or the smallest guarantee of that obedience to the law which is demanded of persons in better circumstances, and which the latter in turn have a right to expect shall not be evaded by those whom they contribute to support.

In response to the circular letter of the Local Government Board, I am informed that the Guardians of the Holborn Union at their last meeting passed a resolution that all children born in the workhouse be vaccinated at fourteen days old, *subject to the consent of the mother*. The practical result of this change will be that instead of 16 per cent. of the children being vaccinated, as heretofore, there will now be none. For even if they remained long enough any-one may perceive how useless it would be to waste time in arguing the point with the class of persons I have described.

On referring to the Consolidated Orders of the Poor-law

Board, under the head of "Duties of the Workhouse Medical Officer," Article 207 directs, among other things, "to vaccinate such of the children as require vaccination;" and a foot-note to this order says: "It not unfrequently arises that the parents of children in a workhouse will not allow the medical officers to vaccinate their children. In answer to an inquiry as to whether the guardians had the power to cause such children to be vaccinated without the consent of the parents in such a case, the Commissioners have stated that they are of opinion that the guardians have, without the permission of the parent, the right to vaccinate any child in their custody, during any danger of contagion from small-pox."

Again, Official Circular, vol. vii, p. 204: "The Poor Law Board have expressed an opinion, that if the guardians and the workhouse medical officer think that *any* child in the workhouse requires vaccination, the medical officer should vaccinate such child notwithstanding the objection of the parent."

My object in quoting the above is to show that the guardians have the power to cause vaccination to be performed on children in workhouses without the consent of the parents, although statements to the contrary are continually being made. That the regulations as to revaccination at the public expense are not generally understood is shown by a report in the LANCET of February 26th, which states that Dr. Barclay, in calling the attention of the Chelsea Vestry to the matter, said that the Local Government Board would not sanction the payment for revaccination of children under fifteen years of age. In your note on the subject you say: "Revaccination may be given at the public expense if the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully vaccinated." Surely, at whatever age vaccination is performed for the first time it is primary, and payable for as such.

The Vaccination Act of 1867 (Sec. 8), after rescinding contracts providing for payment for revaccination then in operation, authorises the Privy Council to make provision for revaccination and for the amount to be paid for the same. The Act of 1871 provides (Sec. 9) that a fee of two shillings and sixpence shall be paid by anyone who does not allow the result of revaccination to be ascertained by the Public Vaccinator or his deputy, and (Sec. 13) provides for revaccination by Poor-law medical officers in houses where they are attending persons suffering from small-pox, but beyond these two references this Act makes absolutely no provision for revaccination. The form of contract does not contain a word on the subject, but a Privy Council letter, dated Feb. 18th, 1868, indicates the extent to which revaccination at the public expense may be given as follows:—"The performance of revaccination by the Public Vaccinator on persons applying to him for that purpose shall be limited in each case by the following conditions:—1. That, so far as the Public Vaccinator can ascertain, the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully revaccinated; and (2) that, in the Public Vaccinator's judgment, the proposed revaccination is not for any sufficient medical reason undesirable; and (3) that the Public Vaccinator can afford vaccine lymph for the purpose without in any degree postponing the claims which are made on him for the performance of primary vaccination in his district."

Even the limitation prescribed in this letter is to be regretted, for the experience gained during the last epidemic, and which is being corroborated by the present outbreak, clearly proves that there are degrees of protection afforded by vaccination, but one mark, unless it be very large, is not as good as five or six, and the admissions of vaccinated persons into our small-pox hospitals are in an inverse ratio to the number of vaccination marks which they possess.

Old-street, E.C.

BRISTOL INFIRMARY.—The report of the committee of this institution, read at the annual meeting on the 23rd ult., was, from a financial point of view, of a decidedly gloomy character. Whilst the expenditure during 1880 was £13,116, the income stood at £11,198, showing a deficiency of £1918, while there was a balance due to the treasurer of £8816. The remark of the president, that it would be a lasting shame to the great and wealthy city of Bristol if the committee had to close any of the wards of the charity, must, we think, be endorsed by his fellow-citizens.

THE PATHOGENY AND TREATMENT OF BRONCHOCELE OR GOITRE.

BY EDWARD WOAKES, M.D. LOND.

(Concluded from page 498.)

CASE 9.—A. S——, a female, aged eighteen, in service at Stratford. The tumour had existed two years. On Dec. 11th, 1877, presented simple goitre; girth 13¼ in. At first patient was treated with bromides, iodides, and iron for three months; under this treatment goitre enlarged to 13¾ in. On March 22nd, 1878, she was given fifteen minims of dilute fluoric acid. This in April was increased to thirty minims; swelling disappearing. On June 21st scarcely a trace of enlargement. Time of taking acid three months.

CASE 10.—S. H——, aged twenty-six years, a laundress, living at Islington, had noticed the enlargement four years ago. In September, 1877, patient presented a firm tumour the size of a tennis ball, occupying the isthmus, and a portion of the right lobe of thyroid body. There was deep-seated fluctuation, but from the thickness of the cyst-walls and extreme tenseness of the swelling this was somewhat obscure. It was diagnosed as a fibro-cystic goitre; girth of neck 15¼ in. Wishing to test the acid in this phase of the disease, the patient was given fifteen minims in water three times daily, on Sept. 4th. On Sept. 18th the girth was 15 in. On Sept. 25th she was seen by an assistant, who injected the tumour with twenty minims of tincture of iodine. After this a thin clear fluid continued to ooze through the puncture made by the needle during two hours. On Oct. 2nd the girth was reduced to 13½ in., owing to the escape of fluid, and the contracted cyst-wall, about the size of a walnut, was distinctly to be made out. On Nov. 20th scarcely a trace of this remained, and the patient was discharged cured. Time of treatment three months.

Remarks.—The above case has been already alluded to in the opening paragraph of this paper. It is unique in its way, for, though the orginal design of the treatment was frustrated by the inadvertent tapping as detailed, it afforded the unexpected result of a fibro-cystic goitre of considerable size and long duration recovering in three months with no other treatment than that recorded. The puncture and injection were made on the assumption that a fibrous goitre was being dealt with. The iodine could scarcely have affected the result, as, being diffused through the contained fluid of the cyst, it must have escaped immediately with it. It is opposed to general experience for a cyst so tapped not to refill. To the absorptive influence of the acid on the solid portion of the tumour, indicated by its diminution during the three weeks it was taken preceding the tapping, may with fairness be accorded the change in its character, which averted the secretion of fresh fluid, and ended in the rapid disappearance of the disease.

CASE 11.—H. R——, female, married, residing at Chelsea, presented a mixed goitre of one year's duration, Sept. 7th, 1877. Blistering fluid was applied to the swelling, and she was given ten minims of dilute fluoric acid three times a day. On Oct. 5th she was so much better that she did not attend subsequently. This case was of a mild type, and illustrates the advantage of a combination of local treatment with the fluoric acid internally.

CASE 12.—C. K——, a female, aged twenty-eight, married, living at Old Ford, presented on March 12th, 1878, a goitre of five years' duration. The right lobe was of the firm, fibrous, and the left the soft or simple variety. On both sides the enlargement rose to the level of the hyoid bone. Girth 14⅜ in. At the above date she was given fifteen minims of dilute fluoric acid twice a day. On March 22nd it was increased to twenty minims. On April 9th the girth was 14 in. On April 30th the dose was increased to thirty minims, and on May 21st to forty minims. The girth was now 13½ in. On May 28th the entire tumour had subsided to the normal dimensions of the gland. Time, three months.

CASE 13.—E. B——, female, aged seventeen, on October 23rd, 1877, presented a small recurrent fibrous enlargement of the isthmus. She took fifteen minims of fluoric acid twice a day for three weeks, at the end of which time only a trace of the enlargement remained.

CASE 14.—L. R——, a female, aged twenty-nine, married, living in the Waterloo-road. She had been the subject of goitre since the age of eighteen. Commenced treatment in July, 1875. Came under the author's care in January, 1877, having received little or no benefit from the previous treatment. The tumour was very firm and large, dipping deeply into the neck, chiefly on the right side. The pressure on the œsophagus was such that she had been unable to swallow solid food for six months. Breathing much impeded; her general health was very bad, and she was excessively weak. She took tincture of perchloride of iron and cod-liver oil up to August, 1877, when a seton was passed perpendicularly through the entire length of the tumour. This was followed by a free discharge of the thin offensively smelling fluid, with very slow diminution of size, and the gland was extremely tender. This state of things continued till February, 1878, when she commenced taking fifteen-minim doses of dilute fluoric acid, which were shortly increased to twenty minims. On March 19th the seton was removed. There was a marked improvement in her health; she could swallow solids. The swelling was now about the size of a hen's egg, and very hard. On April 30th the dose of the acid was increased to thirty minims. The upper wound made by the seton had healed, but the lower one discharged freely. Tumour much smaller and less painful. In July she was taking fifty minims. This dose in September caused inconvenience and was reduced to thirty minims. In November there was a further diminution of the tumour and the acid was increased to forty minims. This dose at times caused gastralgia and faintness, on which account she was directed to intermit the medicine at intervals. In June, 1879, there was still some discharge, though the tumour was reduced so much that it occasioned no inconvenience. She was last seen in the spring of 1880, when a nodule about the dimensions of a filbert was all that remained. She was in robust health, and did not attend subsequently. Time of taking acid, about two years.

Case 15.—A. D——, youth aged fifteen years, had noticed his neck enlarging for a year previous to January, 1878. He was then living in Berkshire. His mother was goitrous. The tumour extended chiefly vertically, and was of the soft variety. He commenced the acid on January 21st, taking ten minims; this was followed by rapid increase, so that the growth, which was 13½ in., became in the course of a week 14½ in. He continued the acid for six months, attaining a maximum dose of forty minims. During this time the perpendicular dimensions of the swelling diminished, and the growth became normal, but the improvement was very slow. A later report, received about fifteen months from the commencement of treatment, states that the disease had nearly disappeared.

Case 16.—E. S——, a female, married, aged thirty-three years, living in Soho, presented in February, 1878, a swelling of medium hardness in one lobe, of the size of half a walnut. She began with fifteen minims of dilute fluoric acid, which were shortly increased to thirty-five minims. There was no improvement by August; on the contrary, the growth had enlarged considerably. After this trial of eight months without benefit the acid treatment was relinquished.

Case 17.—E. H——, a female, aged twenty-six. Seen Sept. 1878. The disease commenced when living in Essex, five years previously; she moved to Hackney three years since, and during this time the enlargement had much increased. She presented a fibrous goitre, chiefly of the right lobe, extending upwards and backwards. She suffered much from dyspepsia, and generally feeble health. Commenced with fifteen minims of dilute acid on Sept. 11th, and on Oct. 9th the dose was increased to thirty minims. This dose caused sickness, and was first reduced, and then discontinued. Recommenced, in January, 1879, with thirty minims, which in February were increased to fifty minims. Again the sickness returned, and the medicine was discontinued finally. The failure was probably in some degree due to the irritable state of the digestive organs. The dimensions were the same as at the commencement.

Case 18.—A. K——, a male, aged sixteen years, living in the Strand. Seen June, 1878. He presented a mixed goitre of one year's duration; girth 14½ in. Commencing with twenty-five minims of dilute fluoric acid, the dose was increased to sixty minims during the ensuing five months. No improvement occurred during this time. Failed.

Case 19.—Mr. A——, aged forty, was seen in consultation at the close of 1879. She had a large, firm, fibrous goitre of the entire gland of many years' duration. She was ordered to take half-drachm doses of fluoric acid in water. As she returned to the country I have not seen her since, but received from her medical attendant in October, 1880, a report to the effect that the acid was taken for about six months, and that "her neck has never been so small as now during the eight years I have attended her, notwithstanding she has had iodine, &c. Had she persevered with the fluoric acid I feel sure the result would have been complete."

Case 20.—S. C——, aged twenty-four, housemaid (Feb. 1880), states the enlargement has existed as long as she can remember. She lived in Essex till the age of fourteen, when she came to London, since which it has increased, especially during the last year. Her mother is goitrous. There is a fibrous goitre of isthmus and right lobe, very firm and large. Feb. 13th, commenced with twenty minims of dilute fluoric acid; Feb. 24th, increased to half drachm doses; March 2nd, to forty minims; March 9th, to fifty minims. Goitre smaller and softer. April 6th, increased to sixty minims; April 29th, to seventy minims. This was continued to September, at which time careful examination revealed only a trace of thickening behind the sterno-mastoid muscle. She did not attend afterwards. Cure.

Harley-street, W.

GONORRHŒA FOLLOWED BY ABDOMINAL TUMOUR; CONTENTS REMOVED BY ASPIRATOR; RECOVERY.

By WILLIAM ALEXANDER, M.D.,
SURGEON-MAJOR, ARMY MEDICAL DEPARTMENT.

Corporal O. L——, aged twenty, a strong healthy young man, but with a phthisical family history, was admitted to hospital on Aug. 18th, 1880, suffering from an attack of gonorrhœa. Ordered a saline cathartic, an alkaline mixture, and to remain in bed.

Aug. 26th: Urethral discharge ceased; the patient feeling unwell, and unable to eat.—27th: Complained of pain in left lumbar region; skin hot; the thermometer in the mouth registering 105°. Was ordered one ounce of diaphoretic mixture with one minim of tincture of aconite every hour, which reduced temperature.—28th: Skin still hot, and tongue furred.—29th: Had an attack of bilious vomiting; temperature 102°; no sore-throat or any pain except what he describes as a "horrid pain" in left lumbar region. Nothing can be detected to account for this condition; hot fomentations give no relief.—30th: Still in the same condition. Ordered a hot bath; diaphoretics with small doses of tincture of aconite.—31st: No improvement; tongue covered with a long white fur; pulse 88, soft and regular; temperature, morning 101°, evening 103·2°.

Sept. 1st: Much the same. Temp. 101°; bowels acted well. From this date till Sept. 6th the condition remained unchanged. A "horrid pain" in left lumbar region, a thickly furred tongue, a pulse varying from 75 to 88, and a temperature of about 101°, rising in the evening to 102° or 103°.—6th: Complained that the pain was extending round the back to the right side. On examining him on this date, detected a small immovable tumour two inches to the left and on a line with umbilicus, having a doughy feeling. Considered it an accumulation of fæces. Ordered castor oil, which was followed by an enema administered by a long tube.—7th: At evening visit found patient moaning and restless, bathed in perspiration, and calling out about the pain in his back; tongue hard and brown. From this date hypodermic injections of morphia had to be given to keep patient quiet.—8th: Asked Mr. J. Appleyard to see the case with me, the tumour being then prominent and immovable and the size of a large orange, and with the same doughy feeling. The nature of the tumour was discussed. There was no bruit, no pulsation; in fact, no indication as to its nature. To make assurance doubly sure, it was decided to clear the bowel by a strong purgative. Castor oil, with croton oil, was administered and followed by enema.—9th: The bowels acted freely, but without effecting any change in the tumour. Temperature, morning 100·6°; evening 102°.—13th: Tongue furred and brown; temperature, morning 100°; evening 102·6°. Detected an obscure feeling of fluctuation in tumour.—14th: A decided feeling of fluctuation observed. Temperature, morning 101·2°; evening 101°.—15th: Very weak; face bathed in perspiration. Pulse 76; temperature 101°. The fluctuation can be felt round the left loin to within three inches of the spine. In consultation with Mr. Appleyard, a small-sized needle was introduced into the most prominent part of the tumour in front and two inches to the left of the umbilicus, and seven ounces of healthy pus withdrawn by aspirator, which relieved him very much.—16th: Much easier. Pulse, morning 80; evening 80; temperature, morning 101·4°; evening 101·4°.—17th: General condition somewhat improved; some tenderness at the seat of puncture. The same needle was again introduced close to the former puncture mark, and seven ounces of healthy pus withdrawn by aspirator.—18th: Complained of great pain at the seat of puncture; to keep a recumbent position.—20th: The tongue cleaner than it has been since the commencement of the disease. Pulse 80; temperature 100°.—23rd: Pulse 80; temperature, morning 100°; evening 99·2°. Removed twenty ounces of healthy pus, inserting the needle close to the seat of the former puncture. The propriety of withdrawing from behind was discussed, but the idea was ultimately abandoned.—25th: Very weak. Pulse 84; temperature 98·4°.—26th: The fluctuation more evident posteriorly than it has been.

Oct. 1st: Twenty-two ounces of healthy pus were removed as before, the needle being withdrawn on the first tinge of blood being observed in the pus, and an abdominal bandage applied. After this, for three days, the temperature was normal, the patient improving in strength. When he was able to move a little it was found that the lower lobe of the left lung was quite consolidated.—5th: Some pain at the seat of puncture of a dragging character; pulse 84. Temperature, morning 98·4°; evening 103°. After this for several days, though feeling quite easy, there was a high evening temperature, varying from 101° to 103°.—11th: General appearance much improved, tongue clean, appetite good, and sleeps well. From this date a gradual and steady improvement set in, the tumour gradually becoming less and less perceptible to the touch, till it gradually disappeared. The health rapidly improved, and the weight increased at the rate of 4 lb. per week.

Dec. 15th: Feels perfectly well. No indication of any tumour in abdomen, and a faint murmur can be detected in the lower lobe of left lung.—21st: Respiratory murmur perfectly re-established at base of left lung. The man states he feels as well as ever he did, and presents all the appearance of good health. Discharged.

Throughout this protracted case the urine was free from albumen, but loaded with urates; and so long as the absorption process was going on there was a considerable rise of evening temperature, which may have been assisted by the rapid development of tissue. The general treatment was on the broad principles of medicine and the free use of stimulants, without which the patient would have sunk at the most critical period. I am greatly indebted to Mr. J. Appleyard, of Bradford, for his kind assistance throughout this remarkable case.

On March 1st the man was in perfect health in every respect.

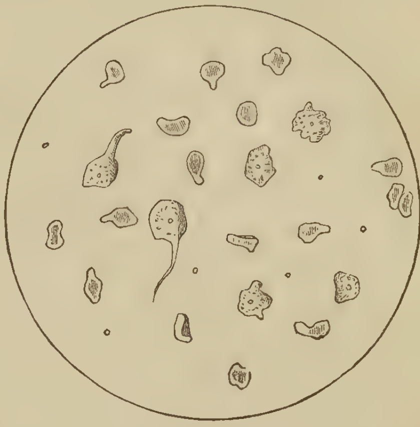
Bradford, Yorks.

THE BLOOD-CELLS IN ANÆMIA.

BY W. G. TACEY, L.R.C.P., &c.

THE recent published observations on the appearances of the blood-cells in anæmia by Dr. Bastian, Dr. Cavafy, and others have afforded to many a desire for further information and investigation on this very interesting subject. With this view I venture to offer a few observations upon two cases of anæmia kindly sent to me for examination; both were well marked instances of this condition, and of long duration. The blood in each case was microscopically examined under ⅛ objective immediately after removal from the finger of the patient, and was again examined eight hours afterwards under one of Zeis's high-power objectives. The white corpuscules were very abundant, more than the average size, and exhibited very feeble amœboid alteration in shape; but, after careful watching, I was at length able to distinguish decided pseudopodia in one or two cells, and more than once the prolongations reminded me of the filamentous protrusions of the Amœba princeps or the Actinophrys sol, as figured in Carpenter's "Microscope." If, according to Dr. L. Beale, these are vital movements, and the corpuscule possesses no cell-wall, vibratile filaments can be demonstrated by the aid of modified heat; or again, if, according to Cohnheim and others, the corpuscules are able to pass through the capillary walls (diapedesis), it does not appear so very improbable that these pseudopodia-like changes in the white blood-cells should occur.

With reference to the red corpuscules, considerable variations in the contour of these cells were evident enough; the general tendency seemed to be towards irregular curvation, and corresponded with the description communicated some few months ago by Dr. Finny and Dr. Churton.



In addition to this irregularity, I noted a slow oscillatory movement of these corpuscules, to all appearance identical with the molecular agitation usually seen in granular solids. If my observation is correct, and this motility is shown to exist, is the motion vital or physical? The red blood-cell is said to have no granular contents; therefore the movement cannot be included in the category of the so-called "Brownian motion."

On this occasion I also examined blood from a case of Bright's disease of some duration, and observed a similar want of uniformity in the outline of the red corpuscules; crenation was conspicuous by its absence. In this case the slow movement was evident, and could be seen several hours after removal from the patient. Here, again, the leucocytes were in abnormal quantity, but not so distinctive in size and number as compared with the abovementioned cases of anæmia.

Bradford, Yorks.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

WESTMINSTER HOSPITAL.

POPLITEAL ANEURISM, CURED BY THE APPLICATION OF ESMARCH'S BANDAGE.

(Under the care of Mr. MACNAMARA.)

FOR the following notes we are indebted to Mr. R. Sanderson.

C. T——, aged thirty-two, a fishmonger, who had been in the habit of drinking five or six pints of beer and smoking upwards of half an ounce of tobacco daily, was admitted on July 4th last. His general health had been good until about three weeks before, when, without any assignable cause, he began to feel great pain behind his left knee. His ankle and leg then commenced to swell, and after a day's work he noticed that the veins of the left leg were much distended.

On admission a pulsating tumour was felt in the left popliteal space, about the size of a hen's egg. The pulsation could be nearly stopped by pressure on the femoral artery.

The posterior tibial and dorsal artery of the foot could be felt pulsating.

Next day, at 3 P.M., Mr. Macnamara applied an Esmarch's elastic bandage from the foot to the lower border of the aneurism, and a second round the thigh above the knee, leaving the tumour uncovered. Owing to the patient being unable to bear the pain, ether was administered at 3.17 and continued till 3.55. Digital compression was then applied to the femoral artery, and the Esmarch bandage was removed. No pulsation was felt in the aneurism. At 5 P.M. the leg was flexed on the thigh, and, having been fixed in that position, compression of the femoral artery was discontinued. Slight pulsation was now felt in the aneurism.

On the 6th pulsation was more marked in the aneurism than on the previous evening.

On the 10th Mr. Macnamara, at 1.30, again applied Esmarch's bandage, carrying it up to the lower border of the aneurism, then a web elastic bandage was put on lightly over the knee, including the popliteal space and aneurism, and carried up to the lower one-third of the thigh. Ten minutes after the application of the bandage chloroform was administered, and the patient kept under its influence till 2.30. Digital compression having been applied to the femoral artery, the Esmarch's bandage was removed. On relaxing the compression a slight pulsation could be felt in the aneurism. Digital compression was kept up until 5 P.M. On being discontinued no pulsation was felt in the tumour. The leg was semi-flexed on the thigh, and the patient was kept in bed until the 19th of July.

No pulsation returned in the aneurism, a marked decrease in the size of the tumour could be felt every day, and the patient was discharged from the hospital on the 28th of the month.

He was seen six months after leaving the hospital. No perceptible remains of the aneurism could be detected, and the patient had long since returned to his work.

VICTORIA DOCK DISTRICT DISPENSARY.

SEVEN CONSECUTIVE CASES OF PLEURISY WITH EFFUSION; PARACENTESIS; REMARKS.

(Under the care of Mr. JULIUS CÆSAR.)

CASE 1.—Thos. M——, aged fourteen years, presented himself, complaining of a short, dry cough and shortness of breath. He had been under treatment elsewhere for two months for the same symptoms. On examination the left side of the chest was seen to be much larger than the right and measured one inch and a half more; dulness reached as high as the spine of the scapula behind, and to the third interspace in front. Respiratory murmur, vocal resonance, and vocal fremitus were absent. The heart's apex was pushed over to just inside the right nipple, all the signs of pleuritic effusion being well marked. The aspirator was used and thirty ounces of serum drawn off, when the patient complained of faintness, and the operation was stopped. The faintness soon passed off, and in a week he was able to resume his employment, that of an errand boy.

CASE 2.—A girl, aged seven years, complained of a pain in the right side, short, dry cough, shortness of breath, and feverishness. On examination friction sounds were heard over a small area at the angle of the scapula. A diuretic mixture was ordered and blistering fluid was painted over the side, followed by poultices. In four days more effusion was diagnosed. The same treatment was continued for a week, at the end of which time, the amount of effusion having undergone no diminution, tapping was resorted to, and eight ounces of serum were evacuated. In a week's time she was able to resume her attendance at school.

CASE 3.—A boy, aged three years, complained of pain in the right side, short cough, inability to lie on the affected side, shortness of breath, and feverishness. Examination revealed a small patch of dulness at the angle of the scapula, with diminished respiratory sounds, vocal resonance, and vocal fremitus. Two ounces of serum were drawn off, and in three days he was able to resume attendance at school.

CASE 4.—Male, aged three years, presented himself with a history similar in every respect to Case 3. A diuretic mixture, counter-irritants, and poultices were ordered and continued for ten days, but producing no beneficial effect, aspiration was had recourse to, and five ounces of serum were drawn off. Iodine liniment and a stout flannel roller were applied to the side. This treatment relieved all symptoms very much, but only for a few days, when his breathing became very much embarrassed. The temperature went up to 103°, and he began to have night sweats. Dulness now reached to within three fingers' breadth of the spine of the scapula behind, and to within two of the clavicle in front. All the symptoms pointing to empyema, tapping was determined upon, and fifteen ounces of thick pus evacuated. The iodine liniment and bandage treatment were resumed. The patient made a rapid and complete recovery.

CASE 5.—A tall and very anæmic girl, aged fifteen years, complained of all the usual symptoms, and presented most of the usual signs of pleuritic effusion. As her mother was at first unwilling to consent to tapping, tonics with iodide of potassium were administered internally, and counter-irritants and poultices were applied externally for a fortnight, but without benefit. The mother now consenting, the aspirator was used, and the fluid withdrawn. After this she improved rapidly, and was able to resume her occupation (that of a barmaid) at the end of a fortnight.

CASE 6 was that of a strong, healthy woman, aged twenty-six years, who, on presenting herself for treatment, complained of a stabbing pain just outside the right nipple, slight shortness of breath, short cough, and inability to lie on the affected side. Examination revealed friction sounds at the angle of the scapula, where there was slight dulness, with diminution of respiration sounds, vocal resonance, and vocal fremitus. Diuretic mixture and counter-irritants were ordered at the end of a week. Not having made any improvement she was ordered to wear a stout flannel roller, and to continue the other treatment for a week, at the end of which time, the amount of effusion not having diminished, tapping was resorted to, and twenty-nine ounces of serum withdrawn, after which she made a quick recovery.

CASE 7.—Male, aged twenty-one years. This case was in every particular similar to Case 6, except that a fortnight after the first tapping a second effusion into the same side—the right—took place, necessitating a second use of the aspirator. He was able to resume work in a week's time.

Remarks.—I think these cases are of interest, as showing, as far as things go—1st. The superiority of tapping, at least as regards time, over drugs. 2nd. That early tapping will effect an early cure. 3rd. That ægophony is rather a curiosity, in effusions from simple pleuritis, than otherwise. 4 That all cases of empyema do not require the use of injections for their cure.

LIVERPOOL NORTHERN HOSPITAL.

VESICAL CALCULUS; LATERAL LITHOTOMY; SUBSEQUENT DISCHARGE OF PUS FROM UMBILICUS; RECOVERY.

(Under the care of Mr. CHAUNCY PUZEY.)

THE following case seems exactly similar to one reported by Mr. Bryant, of Guy's Hospital, in THE LANCET for Feb. 26th of this year.

Thomas H——, a delicate, rickety-looking boy, ten years of age, was admitted on Jan. 28th, 1880. He was suffering from frequent painful micturition, the urine being loaded with phosphatic deposits and mucus, and having an alkaline reaction. On sounding, a large, rough calculus was at once detected.

On March 3rd, lateral lithotomy was performed in the ordinary manner, but on attempting the withdrawal of the stone it was found that in consequence of its size, and the small development of the child, extraction could hardly be effected without risk either of unduly bruising the neck of the bladder or of crushing the stone in the forceps. The right side of the prostate was therefore slightly incised with a hernia-knife, and then the calculus was readily extracted. It weighed within a few grains of an ounce, but was large compared with its weight, the main body of the calculus being composed of uric acid thickly coated with loosely arranged layers of phosphatic deposits. The boy suffered no pain or discomfort from the operation, but the wound was a long time in closing; the urine was generally turbid and alkaline, and the surface of the wound often covered with muco-pus and with phosphatic deposit. This state of affairs was to a certain extent successfully combated by daily washing out the bladder (by means of a catheter passed through the wound) with a weak solution of nitric acid. His general condition was decidedly improving. He had been in a miserable state on admission, and it appeared from his mother's statement that his urine had been thick and frequently ammoniacal for the past five years.

On February 18th some urine was passed per urethram, but the wound was not completely closed until five weeks after the operation. About this time his temperature, which had been very irregular, and generally above normal, began to run still higher, and, according to notes taken by Mr. Batty (one of the house-surgeons), on March 7th the boy complained of tenderness, on pressure, over the hypogastric and right iliac regions; there was also some tenderness in the situation of the right kidney; the urine was thick, and contained pus. On the 13th patient complained of increased tenderness in the parts above-mentioned, aggravated by any movement of the abdominal muscles, as in coughing. The abdomen was distended with flatus, and nausea and headache were complained of. The dyspeptic and tympanitic troubles were relieved by treatment; but the tenderness, swelling, and hardness of the abdomen increased both in degree and extent, being, however, all along much more marked in the right side of the abdomen, and the hardness never extending higher than the umbilicus.

On March 24th it was noted that just below the umbilicus there was a slight soft swelling, the navel itself being somewhat prominent and red. An abscess was evidently pointing here. The hardness remained in the hypogastric and right iliac regions and extended to this soft point at the umbilicus.—25th (9.30 A.M.): Two small opaque vesicles had made their appearance at the umbilicus, and at 2 P.M. they gave way, and about half a teaspoonful of thin pus escaped. Terebene oiled lint was applied to the wound and oakum poultice over this and the lower part of the abdomen.—26th: Abdominal tenderness less. Abscess had discharged freely during the night. Temperature normal for the first time since March 9th.

From this time the patient steadily improved. The abscess discharged freely, and, *pari passu*, the abdominal tenderness and hardness diminished.

On April 2nd the discharge had ceased, and on the 5th (two months after the oparation) the boy was allowed to get up for the first time, and shortly afterwards he was sent to Woolton Convalescent Hospital.

Remarks by Mr. PUZEY.—I ascertained that the boy was in good health two or three months ago, but have not seen him since he left the hospital. I suppose I am right in thinking that the case just recorded is a very rare one. Since it came under my notice I had made many inquiries, but I had not heard of a similar occurrence until I saw the case reported in THE LANCET of Feb. 26th; and it has been to me a subject of speculation as to what might be the explanation of this unusual course of events. Was it the result of some ulceration of the bladder, with slight leakage of urine through the opening, leading to urinary infiltration and abscess in front or at the side of the bladder, and travelling along the anterior to the urachus, to present at the umbilicus? Or might the urinary infiltration and abscess have resulted from the ulceration of some pouch formed by the prolonged pressure of the stone? In my case the history pointed to bladder symptoms noticed for five years before the operation. There is another possible explanation, which occurred to me whilst the boy was under observation, but of which I am more dubious since seeing the suggestion made by Mr. Bryant. In my case it was noticed that there was occasional tenderness in the region of the right kidney, and extending along the ureter to the bladder; it was also noticed that the urine sometimes contained masses of mucus and phosphates, and sometimes a marked quantity of pus, at other times it was comparatively clear. Was it possible that the valvular opening of the right ureter into the bladder was obstructed, giving rise to a saccular dilatation of the ureter just outside the bladder, and that thus the abscess arose? I have omitted to mention that there was no appearance of blood in the urine after the first two or three hours subsequent to the operation. There was no distinct trace of urine in the pus which came from the umbilicus. It will have been observed, as in Mr. Bryant's case, that the onset of the unusual train of events recorded coincided with or immediately followed the healing of the operation wound.

In a case of this sort, where fortunately no post-mortem examination has been called for, one can only record facts and form conjectures. Possibly some contributor to THE LANCET may be reminded of a similar case, where a post-mortem examination has made patent the cause of such a peculiar sequence to the presence of stone in the bladder.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Treatment of Varix.—Extirpation of Larynx for Malignant Disease.—Intra-cranial Disease, involving several Cranial Nerves.

THE ordinary meeting of this Society was held on the 25th ult., J. Lister, Esq., F.R.S., President, in the chair. A case of tabes dorsalis, in which the right sciatic nerve had been stretched three months ago by Mr. Adams, was shown by Dr. Buzzard.

Mr. J. R. A. DOUGLAS read a paper on cases of Varix, treated by a new instrument invented by him for obliterating the veins, called a vein brooch, which produces flat pressure on varicose veins and varicocele by means of a horn or steel spatula, with a grooved needle riveted at the eye end and fastened at the point. It is passed under the vein by a catch like a brooch or safety-pin, gives very little pain, and, unlike the old torsion of wire or silk ligature, produces no constitutional disturbance, but obliterates the vein with certainty and without subcutaneous division. He referred to another extremely simple instrument, invented by A. Baird Douglas. A flat-pointed steel pin passed to the head through a disc of india-rubber, then through the edges, and then through another disc of rubber holding the edges of a wound perfectly and tightly together without other ligature. The extreme tenacity of the rubbers prevents slipping, and can be passed on wire without moving in case of ruptured perineum, vesico-vaginal fistula, &c. Wounds heal by first intention, as the soft rubbers prevent the pin ulcerating out, as wire and silk ligatures do with a knot. These instruments are made by Messrs. Maw, Son, and Thompson. He claimed for the invention simplicity, easy application and removal, readiness of application, little pain or constitutional disturbance, and obliteration of vein. Notes of five cases were read. 1. A police-constable, aged forty-three, unfitted for duty in consequence of weakness and pain in right leg, due to varicose veins. Two brooches were applied under the vein in the thigh, which two days after was divided subcutaneously. The symptoms entirely disappeared. 2. A police-constable aged thirty-eight had diffused varix below knee for six years, and twice ulcerated leg. The saphena vein inside and under knee was large and full, and below a large bunch of varicose veins and open ulcer above ankle. One brooch was passed under large vein, which was not divided. Ulcer healed during the time he was in bed. 3. Man disqualified for militia on account of varicose veins. Operated upon with one brooch, and he was well in thirteen days. 4. Private patient aged forty, suffered with varicose veins and ulcer above ankle. The saphena vein was grasped, and the grooved needle of a horn brooch passed behind it. The brooch was removed the fifth day, and the varix disappeared. 5. A private in the Hussars, the subject of varicocele on left side, preventing him from riding, and unfitting him for service. The bunch of veins was grasped, and two horn and spring brooches passed behind them. They were removed in eight days, and the man recovered completely.—Mr. GOULD observed that in a case of amputation of the hip reported to the Society two years ago he employed suture pins with vulcanite pad at their head, and a soft rubber pad which was passed over the pin when *in situ*, a device similar to that of Mr. Douglas. He had since used them in other cases, and in one case intermediary hæmorrhage was checked by simply readjusting the rubber pad.—The PRESIDENT said the efficacy of the "brooches," which pressed only on one part of a vein in curing extensive varix of the lower limb was striking, and hardly to be anticipated.

Dr. WHIPHAM and Mr. PICK communicated a case of Extirpation of the Larynx for a Growth originally affecting the left ventricular band and vocal cord, which subsequently involved the whole larynx. The patient, a commercial traveller, aged thirty-nine, consulted Dr. Whipham on May 27th, 1876, on account of huskiness and a constant desire "to clear the throat," which had come on suddenly and without apparent cause. He had been previously free from all throat affection, and there was no history of syphilis. The man was very nervous, and it was not till June 8th that a view of the larynx was obtained. It was then found that a warty-looking growth rather larger than a pea arose from the anterior part of the left ventricular band and vocal cord. After repeated examination and the passage of brushes into the larynx, with a view of preparing the patient for operation, his nervousness was so far under control on July 29th that two small portions were removed by evulsion, with great relief to the huskiness. The case was constantly under observation, but no further operative interference was required until March 3rd, 1877, when three pieces of the tumour (which microscopically presented for the most part the appearance of papilloma, but in which at one or two spots there appeared to be a tendency to the production of epithelial cells) were removed by the forceps. The whole of the warty portion was removed at this time, but the vocal was thickened generally; the voice recovered tone to a great extent. Subsequently, however, it was found necessary to apply the forceps to a recurrence of the growth on several occasions—viz., June 16th, 1877; January 5th, 1878; March 23rd, 1878; April 19th, 1878; December 31st, 1878. Early in 1879 the patient had a severe attack of catarrhal laryngitis, and on June 23rd in that year he complained of having lately suffered from great dyspnœa, with tenderness over the thyroid cartilage and some external swelling in this situation. He was admitted into St. George's, and in the course of the following six weeks several pieces of the tumour were removed. Again in October, 1879, a large piece was taken from the larynx. By March, 1880, a great change had occurred in the state of the parts; the growth involved the whole ventricular band and vocal cord; the left ala of the thyroid cartilage was pushed outwards, and was tender; dyspnœa being at times urgent. Towards the end of April the dyspnœa threatened suffocation, and Mr. Pick, after examining the patient, performed tracheotomy, from which the recovery was perfect. During the next six months the disease progressed rapidly, the whole larynx being involved by the middle of October, when a large lobulated mass was felt in the position of the left ala of the thyroid cartilage. In the early part of November, 1880, some hæmorrhage occurred through the tube, and at the end of the year he was readmitted into hospital with a view to the performance of some operation. Shortly after his readmission this hæmorrhage recurred rather freely. After consultation with his colleagues on the previous day, Mr. Pick proceeded to extirpate the larynx. Having introduced a tampon cannula, Mr. Pick made an incision on January 16th, 1881, two and a half inches in length in the median line of the neck, and a second incision at right angles to it across the middle of the thyroid cartilage. On reflecting the skin the growth was found to involve the left ala of the cartilage. The thyroid cartilage was then divided vertically in the median line, and the two halves separated, when the whole larynx was found occluded by the growth. The left ala was removed, and subsequently the right also. The cricoid, with the remains of the arytenoids, were then freed from their attachments, and removed, and finally the epiglottis, which was involved in the disease, was cut away. The wound was carefully explored, and all traces of the growth as far as possible were removed. No vessel required ligature. The operation occupied three-quarters of an hour, and the patient was not much exhausted at its close. The wound was plugged with sponges. Slight hæmorrhage occurred after the operation, which was arrested by the introduction of an additional sponge. Nutrient enemata were ordered every four hours, and for the first two days the patient's progress was satisfactory. On the third day, however, his temperature rose to 103·2° F., and his skin became dry; his pulse ran up to 142. On the fourth day he complained of severe pain about the ensiform cartilage; his expression became anxious. Rapid exhaustion set in, and he died on the morning of the fifth day after the operation. At the autopsy, right pleurisy and pericarditis, presumably pyæmic, were the chief lesions found. Among the many points of interest in the case, the following were brought before the notice of the Society:—1st. That for three years the microscopic appearances of the growth were for the most part those of papilloma. 2nd. That the duration of the disease (four years) was rather in favour of its having been an innocent growth in the earlier stages, although microscopic examination showed that, even at the onset, there was, in one or two places, a tendency to epithelial proliferation. 3rd. That the above facts, and the limitation of the growth to the larynx, were favourable to the success of the operation of extirpation. 4th. That if the operation had been undertaken as soon as the malignant aspect of the disease became manifest success might have been the result. 5th. That the plan of dividing the thyroid cartilage and removing each half separately is preferable to the method adopted by Dr. Foulis of removing the larynx entire, and for these reasons: (1) that by separation of the alæ a good view of the extent of the disease is obtained at an early period of the operation; and (2) there appears to be less danger of wounding important structures.—Dr. SÉMON was gratified that Mr. Pick had found his modification of Trendlenberg's tampon cannula useful; and he drew attention to the liability to dyspnœa being caused by over-inflation of the tampon. This occurred in a case of thyrotomy he had recorded, and was attributed by him to pressure upon the tracheal branches of the vagus nerve. Similar attacks occurred in two cases by Dr. Bosworth, and also in one by an Italian surgeon, and another by an English surgeon. The dyspnœa at once ceased on allowing some of the air to escape from the tampon. In Mr. Pick's case there could be no doubt that the disease was epitheliomatous at the time of operation. Extirpation of the larynx was not necessary for papillomata, which could be removed by endolaryngeal operation or by thyrotomy. He believed that for a simple growth to become malignant there must be a constitutional tendency to malignant degeneration, which would manifest itself whether the growth had been interfered with or not. To show what may be done by persistent endolaryngeal operation, obviating recourse to the formidable operation of extirpation, he quoted a case recently published in the *Berlin. Klin. Wochenschrift.* It was a child, eleven years old, in whom a papillomatous growth had been removed by thyrotomy, subthyroid laryngotomy, and thyrotomy again with invariable recurrence; extirpation of the larynx was advised but declined; and for six months Dr. Bucher persistently treated it by endo-laryngeal methods, so that he succeeded in completely removing the growth. Fifteen months later the child was free from the growth. In fact, papillomatous disease does not give any indication for extirpation of the larynx.—Mr. PICK agreed that extirpation was not called for so long as the growth could be removed by the forceps. In this case it would have been better to remove the ala of the thyroid when the tracheotomy was done, for the growth had already perforated the cartilage.

Mr. SPENCER WATSON read a case of Intra-cranial Disease involving several Cranial Nerves. A married woman thirty-six years of age, who had suffered from miscarriages and a severe flooding after a confinement, was seized with severe neuralgic pain of the left side of the face, with loss of sensation in the same side of the face and ptosis, loss of smell, taste, and hearing of the same side. After the symptoms had persisted seven months twenty-grain doses of iodide of potassium were given three times a day, with the effect of rapidly relieving the pain in the parts and restoring smell, taste, and hearing, and partially restoring the paralysed upper lid and the paralysed ocular muscles. There was a relapse after the relief had persisted for more than a month, and the condition of the patient was still unsatisfactory at the last time of seeing her. The amount of iodide of potassium taken in a continuous course of thirty-one days' duration was between three and a half and four ounces.—Dr. BUZZARD said the case was one not uncommon in syphilis, where frequently several cranial nerves become involved. Sometimes with peripheral affection of the fifth there is also affection of the portio dura. The ulceration of the cornea in such cases is attributed by some to disturbed trophic influence; by others to the irritation of foreign bodies on the insensitive conjunctiva. In this case the cornea was not ulcerated, and it was interesting to find that the third nerve was paralysed, the ptosis probably preserving the cornea from irritation. He thought the iodide should be pushed, in spite of symptoms of iodism, and suggested that mercury should also be given. There seemed no doubt of the syphilitic nature of the disease.—Dr. WHIPHAM mentioned that iodism may often be prevented by freely diluting the mixture containing the iodide.—The PRESIDENT thought the iodide should be pushed farther. He was not aware of the fact stated by Dr. Whipham, and would like to know if the large doses of the drug acted when diluted as beneficially as without dilution.—Dr. WHIPHAM said that so far as his experience went the same beneficial effects were produced without the ill effects of iodism.—Dr. POWELL corroborated Dr. Whipham's statement. The value of diluting the iodide was taught many years ago by Dr. Hare; and his own (Dr. Powell's) impression was that it increased the efficacy of the salt.—Dr. CROCKER said that the troublesome coryza could be controlled by small doses of strychnia, a fact pointed out to him by Dr. Gilchrist. That arsenic will control the eruptions due to iodism was well known.—Mr. SPENCER WATSON said that he intended to continue the treatment, and to again give mercury (which was for a time given). The relief from pain produced by the iodide was very great. He believed corneal ulceration in paralysis of the fifth was simply due to irritation by foreign bodies; it could be prevented by simply keeping the eyelid closed, and in this case the ptosis acted beneficially. At the same time the turbidity of the vitreous pointed to trophic disturbance.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Cases of Disease of the Nose.—Traumatic Rupture of the Perineum.—Endocarditis with Embolism.—Opaque Optic Nerve Fibres.

AT the meeting on March 21st, Dr. Broadbent, President, in the chair,

Mr. SPENCER WATSON read notes of two cases of Disease of the Nose, which he could not place under any ordinary category. The first was that of a man who had suffered from pain in the nose since 1869. He was married, and had a family, but contracted syphilis twenty years ago. The nose was red as if from acne, but the nostrils were free in front and behind; the sense of smell was good, but the throat and fauces were congested. There were paroxysms of pain, so severe that Mr. Watson at first thought he had to deal with a case of hypochondriasis. There was no periostitis. The syphilitic history led to the prescription of iodide of potassium in full doses, and a speedy cure resulted. The second case was that of a clergyman, who for the two previous years had been subject to congestion and redness of the nose. There was no history of gout or rheumatism. The patient had lived for years in Demerara, and was of regular habits. He suffered, however, from habitual constipation. The attacks of redness came on at uncertain times. The administration of Carlsbad salts, and the application of ice to the nose did good; dry cupping was useful, and tobacco-snuffing lent considerable aid. Dr. Graves reports a somewhat similar case, not regarded as of gouty nature. He thought it was of a nervous character, and resembled hysteria.—The PRESIDENT regarded the first case as of undoubtedly syphilitic origin; the second was most probably a reflex nervous phenomenon.—Dr. ROUTH thought the second case comparable to one of congestion, such as is frequently followed by copious nasal discharges, of which he had seen several instances.—Mr. ED. OWEN thought the second case dependent on the chronic constipation; it might be simply of dyspeptic origin. He referred to the fact of nasal irritation in children suffering from intestinal worms.—Mr. WATSON, in reply, said that the snuff-taking produced no irritation, but simply kept up a slight discharge of mucus, which, in the dry condition, gave relief. The intestinal condition may have had some influence.

Dr. WYNN WILLIAMS read notes of a case of Traumatic Rupture of the Perineum in a girl aged five years, who had been impaled on the broken bar of an iron bedstead. The sphincter ani was completely torn through, and the mucous membrane was prolapsed. He proceeded at once to operative measures, paring the edges of the wound and performing the ordinary operation for rupture of the perineum. The result was perfect, and the girl, who is now some years older, has perfect control over the sphincter. In reply to Mr. Gould, he said that others thought she would have recovered the use of the sphincter, as she grew older, without operation.

Dr. GILBART SMITH read notes of a case of Acute Endocarditis with Embolism. F. R——, aged fourteen, admitted into the London Hospital on Feb. 8th. At the age of twelve she had rheumatic fever, but up to one month before admission was quite well, except for headache, which came on at intervals, with palpitation on exertion. One month before admission she began to suffer from vomiting after meals and headache; so that she was compelled to take to her bed fourteen days before. Five days previously she began to see badly, had difficulty in opening and shutting her eyes, and a profuse watery discharge, with scalding, came on. When admitted she was poorly nourished and suffered from conjunctivitis. The heart's apex beat in the fifth interspace below the nipple; there was a systolic bruit at apex, and a double basic murmur. Temperature 101·5°; pulse 96; respiration 36; tongue dry and furred; sordes on lips. During her stay in hospital her mental condition varied; she was generally irrational and delirious, with insomnia and headache. There was rapid emaciation; great pain in legs, preceded by blocking first of the vessels of right leg then of left. The left foot became gangrenous, and petechiæ occurred on the legs and lower part of abdomen. The eyeballs became prominent, and embolism of retinal vessels was also inferred, though this could not be verified owing to the condition of the media. There was increase of the splenic area and tenderness in that region. The pulse towards the end became very rapid, from 132 to 162; respiration frequent, generally about 48. Temperature fluctuated between 105·6° and 99°; generally being 101° to 104°. Albuminuria appeared ten days before death.—Post-mortem: Great wasting; gangrene of left foot; lungs normal; heart enlarged; large masses of vegetations springing from bases of aortic valves, extending over anterior mitral cusp; infarctions of spleen and left kidney; right kidney and liver congested; œdema of brain, wasting of convolutions. Dr. Gilbart Smith raised the question whether the symptoms were not those of a septicæmia rather than rheumatism, and pointed out that the form of verrucose endocarditis here present was not to be confounded with ulceritive or diphtheritic endocarditis, which is more usually accompanied by infective processes, leading to a pyæmic or typhoid condition. The inflammation of the eyes, with the prominence of the eyeballs, were considered to be due to embolism of the ophthalmic arteries, and consequent engorged state of the veins. Mr. Adams considered the ophthalmitis to be essentially pyæmic. The plugging of the arteries of the lower limbs was attributed to embolism, aided by the cardiac weakness; and the diagnostic significance of retinal and cutaneous hæmorrhages in valvular disease, with varying murmurs, was also alluded to.—Dr. MACDONAGH inquired if the case was one of endocarditis with rheumatic symptoms.—Dr. DOWSE asked if any thrombi were met with in the pulmonary artery or heart.—The PRESIDENT remarked, that in ulcerative endocarditis there would be no large embolisms, but more probably capillary emboli. The ophthalmic condition was of some interest. Had there been any variation in the pitch of the cardiac sounds?—Dr. GILBART SMITH, in reply, said that there was a distinct history of rheumatic fever and heart disease two years ago. He thought the emboli started from a chronic endocarditis, and, reaching the eye, had initiated a general septicæmia with acute endocarditis. The variation in the murmurs was a great help in diagnosis.

Mr. WORDSWORTH exhibited a remarkable case of Opaque Optic Nerve Fibres in a boy of about five years of age. The condition was confined to the left eye, and was of course congenital. On entering the eye the nerve fibres expanded into a dense white membrane, which completely surrounded the optic disc and extended irregularly in the fundis oculi for a distance of several diameters of the optic disc, and gradually shaded off into the transparent retina. Only slight indications of the limits of the optic entrance were perceptible, and the vessels passing through the nerve became obscured by the expanded fibre on leaving the limits of the nerve area, and were completely hidden until they emerged beyond the opaque fibre. The eye was myopic one-third to one-fourth; sight was very imperfect, and the "blind spot" of large size.

The Society then adjourned.

CAMBRIDGE MEDICAL SOCIETY.

Terebene as an application to Wounds.—Truss padded with India-rubber Sponge.—Large Gall-stone; how it may have escaped from Gall-bladder.—Scirrhous Cancer of the Male Breast; Eczema of the Nipple.

AT the meeting of the Society on Friday, March 4th, Mr. James Carter, F.R.C.S., Vice-President, in the chair,

Mr. STEAR advocated the Use of a Mixture of Terebene and Olive Oil in preference to Carbolised Oil as an application to Wounds, and more especially in cases of cancer and other foul-smelling sores. It was hardly inferior to carbolic acid as a disinfectant and deodoriser, and it had the advantage of being non-poisonous, of possessing an ozonising property, and of being pleasant to the smell. He showed also a "Salmon and Ody" truss, the pad of which was fitted with a covering of india-rubber sponge. The idea was taken from the practice of saddlers to use the same substance as a padding for riding-saddles and horse-collars, and it was found to prevent chafing.

Dr. LATHAM showed the broken pieces of a large Gall-stone, originally measuring 1⅛ in. in diameter, globular in shape, and weighing 104 grains, which had been passed along with a small facetted gall-stone, by a woman in the hospital, admitted for obstruction of the bowels. There was no history of pain arising from gall-stones passing into the bowel. The large globular mass seemed to be too large to have passed by the cyst and common bile-duct. Thinking that it might be an entolith, he had examined a portion of it for cholestearin (in the usual way, by extracting with absolute alcohol and filtering when hot), and he showed a test-tube containing a quantity of cholestearin scales, and the same under the microscope. The outer shell of the stone contained a considerable quantity of brown colour, and a part of the central mass was obviously crystalline. His theory was that it was a true gall-stone; that it had passed by a fistulous opening through the fundus of the gall-bladder into the adherent intestine (transverse colon); and that the chronic peritoneal inflammation which would have occurred in due course was the cause of the obstruction of the bowels.

Dr. HUMPHRY showed a large Cancer of the Breast, of typical scirrhous texture, which he had removed, along with a cluster of scirrhous axillary glands, from a man aged sixty-three. The tumour was a large indurated, heavy mass, three inches in diameter; its thickness, after removal, was found to be upwards of an inch and a half. The nipple corresponded to the centre of it, and was retracted, and the skin was adherent all round. Indurated lymphatic glands in the axilla could be felt. The patient had observed the tumour for about one year; no history of injury. Eczema of the nipple had existed both on the affected side and on the sound breast; the patient spoke of it as "scabbing about the nipple," which he picked with his fingers. His colleague, Mr. Wherry, had, at a former period, seen the eczema on both nipples; that on the sound side looked as if an excess of secretion had escaped and dried on the skin. The formation of cancer in the male breast was itself a puzzle. It was remarkable that the male breast should persist at all, and its chief interest to us is that now and then it becomes the seat of cancer. As to the operation, he had removed the tumour freely; there was much hæmorrhage, and feverish symptoms followed, but the patient was now doing well. He thought it a good rule, if there were no nodules in the adjacent skin, to make the incision go as wide of the cancer as possible. In this case there was a large wound, and he would formerly have allowed a large suppurating and granulating surface to form, in the belief that such slow healing reduced the liability to return of the disease. But more recently he had himself adopted the practice of Listerism, under which the wounds healed quickly, and it had not appeared that the liability to recurrence was greater after rapid healing than after suppuration and granulation. It was said that surgeons, as they advanced in life, became more reluctant to remove cancers, but he had become on the whole more willing to remove them, and to remove them freely. The operation was now attended with little or no pain, and with little danger, and if there was a fair prospect of removing the entire visibly diseased structure, he thought the operation should always be undertaken.—Dr. CREIGHTON, referring to the occurrence of cancer in the male breast, remarked that there were hardly any observations on the extent to which the structure of the breast persisted in the male after puberty. Its extent probably varied very much among individuals, as, indeed, the casual observations of the dissecting-room showed; and he was inclined to think that a predisposing cause of the formation of a cancer in the male breast was the persistence of a considerable amount (beyond the average) of breast structure and of corresponding functional tendencies.

Mr. SHANN brought forward a case of Floating Kidney in a woman.

Mr. WHERRY showed a fresh specimen of Scrofulous Testicle removed by operation.

Reviews and Notices of Books.

The Student's Guide to the Diseases of Women. By A. L. GALABIN, M.D. London: J. and A. Churchill.

WHEN reviewing the first edition of this work we pointed out its many excellences as well as some features that appeared to us to detract from its value. We can say that in the present edition the former have been increased and the latter lessened. In the present issue additions of new material and modifications in what was in the previous one have been made. Among the modifications we find less heroic treatment advised for certain cases of disordered function and imperfect development; even the treatment now recommended, however, is, in our view, far too active and frequent; for although we have no doubt that Dr. Galabin has a full and lively sense of the fact that there are cases of imperfect development and disordered function which it would be almost if not quite criminal to treat by local means, yet he does not convey this fact to the reader with that degree of clearness which is called for. Among the additions we notice the portion treating of the relative importance of displacements. The author having stated that there are two opposite views held with regard to this subject, says:—"The truth would seem to lie in the mean between these extreme opinions." The process of "splitting the difference" or "striking the mean" may be a good rough-and-ready way of arriving at an approximation to the truth in questions surrounded by passion and prejudice, but when the question is one of scientific evidence the method does not apply. Had Dr. Galabin given a brief summary of the evidence put forward for and against the importance of displacements, he would have done the student a permanent service, and had he, in addition, pointed out what is necessary to be done in order to establish the importance of displacements upon a solid basis, he would have armed the student with a means of estimating for himself the value of evidence whose quantity, whatever its quality may be, is almost measureless. We trust that in the next edition Dr. Galabin will see his way to carry out the above suggestion, and thereby enhance the worth of his already valuable work.

The Cure of Rupture, Reducible and Irreducible, also of Varicocele and Hydrocele, by New Methods. By GEORGE HEATON, M.D. Arranged and Edited by J. HENRY DAVENPORT, A.M., M.D. Harvard. Boston: H. O. Houghton and Co.

SOME weeks ago we noticed a book on this same subject by Dr. J. H. Warren, who indeed merely followed in the footsteps of Dr. Heaton. It will be remembered by some of our readers that Dr. Heaton visited this country several years ago, and demonstrated his operation for the radical cure of hernia. But shortly after his return to America he brought considerable discredit upon himself by keeping his practice secret, and it was only just before his death that he made it public. His operation for the cure of reducible hernia is fully described in the work before us. It consisted in injecting extract of quercus alba into the hernial canal outside the peritoneal sac, the object being to excite a very mild degree of inflammation or "irritation" in the tendons and fasciæ around the sac which form the barrier to the production of hernia, and so lead to their contraction. It is stated that, although the operation had been practised "many hundreds of times," it has never been attended with fatal results or complications exciting anxiety, and that when it fails to cure it usually gives such relief that a light simple truss is sufficient for the prevention of the recurrence of the hernial protrusion. A hundred and forty cases are briefly recorded in support of these assertions. Dr. Heaton was also in the habit of treating irreducible herniæ with more energy than is customary, for he appears to have always attempted to make them reducible. If taxis, repeated, and aided by position and anæsthetics, failed, he either broke down the adhesions with his finger pressed in through the skin, or enlarged the rings by a tenotome, or, as a last resource, opened the sac, freely divided adhesions, removed omentum, and reduced the intestine. Several cases thus treated are recorded, and Dr. Heaton asserts that these measures also never lead to a fatal result. Probably this subject will excite more sympathy than that of the cure of hernia by astringent injection, and it certainly is one that deserves more general attention than it has hitherto received. It is probable that the mortality attending operations upon strangulated hernia and inflamed peritoneum has prevented the adoption of measures in a great degree devoid of the special dangers of the former. Among others, Mr. Lister has recorded cases of irreducible hernia cured by operation, and we doubt not that this will be one of the most useful applications of intra-peritoneal surgery.

Transcendental Physics. An Account of Experimental Investigations from the Scientific Treatises of J. C. F. ZÖLLNER. Translated by C. C. MASSEY. London: W. H. Harrison. 1880.

Psychic Facts. A Selection from the Writings of various Authors on Psychical Phenomena. Edited by W. H. HARRISON. London: W. H. Harrison. 1880.

Animal Magnetism. Physiological Observations by RUDOLF HEIDENHAIN, M.D. Translated from the Fourth German Edition by L. C. Wooldridge, B.Sc. London: C. Kegan Paul and Co. 1880.

IT must not be supposed that the works above named are equally deserving of thoughtful study. The first two are in their way curiosities of literature, and of that pseudo-philosophy which has sprung up from the vagaries of the so-called spiritualist. The "experimental investigations" of Dr. Zöllner are chiefly directed to attempt a physical explanation of the clever legerdemain of the notorious Dr. Slade, who is held up for pity as one persecuted by the narrow spite of English scientists, to find more willing investigators in Germany and Russia. This book and the one next named may be said to embody the chief doctrines of "psychic force."

It is hardly fair, perhaps, to include Professor Heidenhain's *brochure* with the foregoing, for it is a work of a wholly different stamp, dealing with a different though cognate subject. The facts of hypnotism, spontaneous or induced, are daily receiving more attention than was vouchsafed to them a generation ago, when they were so mingled with deceit and trickery as to be for a time obscured and shunned. Professor Heidenhain is well known as an accomplished physiologist, and his writings have no need of the *imprimatur* of Mr. Romanes, who has edited this translation of his lecture, and who has already made known the results of Professor Heidenhain's work in an article in the *Nineteenth Century.* The author believes that the hypothesis that the "cause of the phenomena of hypnotism lies in the inhibition of the activity of the ganglia cells of the cerebral cortex" is a tenable one, "such inhibition being brought about by gentle prolonged stimulation of the sensory nerves of the face or of the auditory or optic nerve"; and he maintains that such an explanation has only been possible since our knowledge of nerve-function has been perfected by means of experimental physiology. In a recent contribution to our columns M. Richet has spoken in the same sense, and has advocated the further study of hypnotic phenomena as a means of increasing our knowledge of the mechanism of cerebral action.

A SALESMAN of Derby has been fined £130 and costs for exposing for sale meat that was unfit for human food.

THE CORNU AND CHOROID PLEXUS OF THE FOURTH VENTRICLE OF THE BRAIN.

To the Editor of THE LANCET.

SIR,—Whilst reading the report in your valuable journal of Dr. Moxon's highly interesting Croonian Lecture on the "Influence of the Circulation on the Nervous System," my attention was arrested by the following statement:—"Our anatomical works all speak of a sort of pouch from the side of the fourth ventricle, but none of them point out that this pouch is stuffed very full of tufts of bloodvessels in the form of choroid plexus." This is clearly an oversight on the part of the learned lecturer; for instance, distinct mention is made of this vascular fringe in Quain's Anatomy, vol. ii., p. 513, eighth edition; also by Professor Turner in his Introduction to Human Anatomy (p. 261). The statement is to this effect: Key and Retzius have recently described two additional communications, one on each side of the anterior part of the floor of the ventricle. Through these openings *vascular folds* of pia mater, named the *choroid plexuses* of the fourth ventricle, enter its cavity. These openings and choroid plexuses are well known to the students of the Middlesex Hospital, and are constantly demonstrated to them in the dissecting-room; indeed, there is a preparation to show this very point in the museum of the hospital. With regard to the vascularity of this plexus I was totally ignorant until the summer of 1879. At that time I was fortunate enough to obtain a successful injection of its villi in a fœtus at term. The injection was performed before the natural heat had abated, and proved, as one suspected, that the plexus was intensely vascular. I have still a specimen of it in my possession; it shows, in addition to the vessels, the delicate hyaline investment which covers the tuft of the capillaries like a mantle. The notion that I had fallen upon something novel was soon dispelled, for upon going more minutely into the literature of the subject the statements in Quain and Turner's works were quite sufficient to set the thing at rest. I should not have thought anything more about making this matter public but for the observation of Dr. Moxon with regard to them in his lecture.

I am, Sir, yours truly,
J. B. SUTTON,
Assistant Demonstrator of Anatomy,
Middlesex Hospital.
March 28th, 1881.

"HOMŒOPATHY OR—WHAT?"

To the Editor of THE LANCET.

SIR,—We, both Liberals and Conservatives, have heard with great regret of the illness of Lord Beaconsfield, and I am sure most of us have observed with pleasure that the Queen had suggested that further advice should be called in. This suggestion, as we know, was carried out, and the skill of Dr. Quain was soon placed at the disposal of the Earl. In the account given in to-day's *Times* of the consultation between the two eminent advisers of his lordship, it states, that "Dr. Quain expressed his approval of the treatment adopted by Dr. Kidd." Now, Sir, I was always under the impression that Dr. Kidd was a homœopath—indeed, the leading spirit of homœopathy in London; and that Dr. Quain was an allopath. How, then, are we to reconcile this agreement in treatment? "Is Saul also among the prophets?" Has Dr. Kidd altered the tenour of his ways, and gone over to the old school? Or does he *profess* homœopathy and *practise* allopathy? Or does he reserve homœopathy for his less eminent patients? Or has Dr. Quain—but no, the thought is too dreadful!

Yours faithfully,
A. GEORGE BATEMAN (Allopath).
Canonbury-lane, March 30th, 1881.

To the Editor of THE LANCET.

SIR,—In to-day's paper I see that Dr. Quain is reported to have met Dr. Kidd in consultation on the case of Lord Beaconsfield, and, further, that he approved of the latter's treatment. Is Dr. Quain aware that Dr. Kidd's name is in the Homœopathic Directory for this year, and that he was lately on the Council of the London School of Homœopathy? And what treatment from a professed homœopath could Dr. Quain endorse?—I am, Sir, yours obediently,

March 30th, 1881 JUNIUS.

THE LANCET.

LONDON: SATURDAY, APRIL 2, 1881.

THOSE who watch the progress of medical science can hardly fail to observe how it is influenced by the realistic tendency of modern thought, and to see that, largely under the guidance of German teaching, it has become essentially objective. General views, however well supported by analogy and logical deduction, have little value in comparison with that which is demonstrable, as if morbid anatomy, the scalpel, and the microscope were the only agents by which the problems of disease could be solved. Humoralism has given place to solidism, and the prevailing tendency is to localisation of disease at the expense of the importance once so freely ascribed to "blood conditions," "constitutional states," and "diatheses." To the older members of the profession it is indeed novel to hear, for instance, that cancer is a local affection, with "perhaps" and "in part" a constitutional origin, and that, as we are now taught, the diseased lung in a considerable proportion of the cases of phthisis is no longer to be regarded as the local outcome of a morbid constitutional state or diathesis, but as essentially a local disease, only differing from ordinary pneumonia in the fact that it involves the alveolar walls of the air cells as well as their cavities, and that we should regard the general symptoms and constitutional consequences as but the result of this local disease.

Under these circumstances it may be well for a moment to recall attention to the typical morbid states of the blood and of its germs, and at the same time see how far this modern pathology tends to support or set aside the germ theory generally. We would premise that by blood we mean not only the actual circulating blood, but its tributaries also, and that by the term "germ theory," which has, we consider, lost much in interest and attention by the various significations with which it has been employed, we mean the affirmation that several morbid states of the blood and many diseases of structure are caused by the action of germs: and as in some instances these are introduced from without, and are therefore foreign to the body they invade, whilst in others there is reason to believe that they are modifications of the organisms of the body itself, we shall treat of them separately, as respectively "disease germs" and "diseased germs."

The simplest and most familiar examples of blood diseases induced by the introduction of germs from without are supplied by the exanthemata. It is unnecessary to offer proofs that these are blood diseases and propagated by infection or contagion, whilst investigation has now demonstrated that the contagium in each, on its introduction, produces the particular disease of which it is the special cause, with all its specific morbid phenomena; that whilst so doing, and in its passage through the body, it manifests vital characters, especially that it increases and multiplies with intense fecundity; that it does not pass with fluid on filtering, and must therefore be particulate—in fact, that it must be a germ, and eminently endowed with germinal power.

Equally striking — in many respects more striking — examples are afforded by the allied specific fevers, inasmuch as in these generally more distinct evidence of the actual presence of the germs in the blood is shown, in that the disease itself is inoculable by blood of an infected subject. We take the exanthemata and specific fevers as our first examples, however, not simply because they and their phenomena are so familiar to us, and they have therefore received special notice and been the subjects of unusual observation and research, but because they afford us the opportunity of pointing out some remarkably interesting variations in the nature and mode of operation of the contagia or germs themselves. It must be familiar to all who have studied or attempted classification, how, whether in the animal or vegetable world, or in the case of diseases, the groups seem to arrange in circles, each radiating from a typical centre to a circumference at which it touches those of other circles most nearly allied. So it is with the exanthemata and specific fevers. From a central example—say small-pox, manifesting contagion and infection, and the immunity which one attack gives in an intense degree,—we pass gradually to those that possess these qualities less markedly; to those that are infectious but not inoculable, and to those that are inoculable but not infectious, till we reach those which are neither inoculable, nor infectious, nor prophylactic. So exactly with germ cells. Some seem to be imbibed from the air or carried into the interior with food, some to be inoculable by contact with unbroken tissues and delicate mucous membrane, some seem to require direct contact with the blood or denuded surfaces, whilst in some, again, inoculation with the blood of the infected patient is all potent, and in others only with the germs supplied from the special foci through which the poison seems to be eliminated, which facts have now been repeatedly demonstrated by experiment. Whether the germs thus introduced are of animal or vegetable nature it is impossible to say. The researches of CHAUVEAU and BURDON-SANDERSON, of OBERMEIER and MEIGART, and especially of Dr. KLEIN, have shown that peculiar organisms are met with, in several of these diseases, in such situations and under such conditions as to be presumably the actual disease germs; and that these peculiar organisms are, judging by some of their characters, of vegetable and fungous nature. It may be that there are vegetable germs as well as animal germs of disease; nor is there anything very imaginative in the supposition that this very difference in their nature may afford the reason why their actions and resultant morbid states so widely differ; why intermittent fever, for instance, is neither inoculable nor contagious, for it would seem but natural that whilst ague and others of the non-infectious class should be caused by organisms of vegetable origin, those which are communicated through infected blood and by contact only with very delicate or denuded surfaces, should be animal germs. There is moreover some evidence of the convertibility of these organisms from one recognised form to another, according to circumstances. BUCHNER of Munich has, by very ingeniously arranged experiments, succeeded in producing from the hay bacillus—which is incapable of growing in blood, by modifying the solutions in which it is cultivated and inducing it to form spores—a bacillus which, like the bacillus of anthrax, will not develop in hay infusions but will in blood, and which, possessing all the other properties, toxæmic and specific, of the bacillus of anthrax, gives rise on inoculation to all the conditions of anthrax—the splenic blood being peopled with the newly formed organisms, and communicating anthrax to healthy animals.

Some recent experiments of Wernich show that putrefaction, or the addition of putrefactive products to a cultivating solution containing bacteria, arrests their development and activity; whilst Pasteur, who has succeeded in cultivating the poison-germs which induce the peculiar disease of fowls called "fowl-cholera" in a neutralised solution of muscle, finds that these "microbia" are at once killed in yeast fluid, though the bacteria of "splenic fever" live and thrive in it. The repeated cultivation of these microbia, by impregnating fresh cultivating fluid with small portions of that previously stocked, in no way impairs their power, which is so intense that a minute portion of a drop invariably causes the disease, and death in two or three days, often in one; but it is quite possible to modify the potentiality of the solution, and so of its microbia, by variations in the mode of cultivation. Applying these observations, Pasteur shows that if he vaccinates, as he terms it, fowls with a solution of weak power, most of them live, and survive the disease, and, especially if again similarly vaccinated, may thereafter be inoculated with the most virulent solution with absolute impunity; in other words, that as vaccination renders the patient nearly always no longer susceptible to small-pox, so does "vaccination" with this weakened poison of fowl-cholera render the birds insusceptible of fowl-cholera disease.

These results of Wernich and Pasteur, moreover, seem to throw some light upon that special peculiarity of the exanthemata—that one attack generally gives an immunity for life; from those of Wernich we might infer that the poison affords its own antidote, in that as soon as it produces septic changes in the blood, these very changes destroy it; from those of Pasteur, that either the poison in its own elaboration produces some material which is inimical to its further development, or that it consumes all the special material requisite to its growth. To settle this question, Pasteur evaporated media in which the "microbion" had been fully developed until cultivation became impossible in the filtered liquid, and then added fresh cultivating fluid to the residuum, when development was at once fully re-established; the plain inference being that the arrest of development is not due to the introduction and presence of any deleterious matters, but to the abstraction of something necessary.

Passing now from the consideration of the specific fever, in respect to which we leave much unnoticed, we pause for a moment over the great examples of the day. To the clear philosophic deductions, the patient investigation and experimental research, and their masterly applications in practice, of Professor Lister we owe the grand results of antiseptic surgery. At home, abroad, no longer the recognised novelty, "Listerism" has become the recognised necessity of civilised surgery, for the voice of the surgical world proclaims its truth; and even those who hesitated to accept Professor Lister's theory and *rationale*—ascribing the success of his measures rather to extreme care and cleanliness—give willing testimony to the grand results of his practice. And what is antiseptic surgery but the rational application of the germ theory? Crowded wards, atmosphere loaded with the emanations from the sick, and from purulent and putrescent discharges, were seen to be the incentives to traumatic fever, pus formation, and delay in the healing of wounds. "Were septic elements more abundant in the surrounding media in such conditions?" Experiment proved they were. Means were adopted to destroy these and prevent their access to the wounded surfaces, and antiseptic surgery was at once a fact. So manifest, indeed, is the action of the presence of these germs that the surgeon is at once informed of the imperfection of his antiseptic measures by the rising temperature and commencing febrile excitement indicative of wasteful consumption and combustion, with pus formation, and can with certainty affirm that on inspecting the wound in such cases pus will be found, and with it, and in the dressings, the organisms supposed to be the septic germs in quantity. Could more striking evidence be imagined of the value of Professor Lister's antisepticism, or more direct of the importance of the action of disease-bearing germs? Space will not allow us to adduce similar evidence in respect of hospitalism, erysipelas, pyæmia, puerperal fever, &c., nor to do more than refer to the recent investigations of Dr. Greenfield on the woolsorter's disease, shown to be forms of malignant pustule and anthrax; the blood from the heart and spleen and juices of the bronchial glands of the patients being found to contain the typical bacilli, and inducing in other animals typical anthrax and death in a few hours; and especially to those of Tappeiner, who caused dogs to inhale in a lowered form, for a quarter of an hour daily, the sputa of chronic bronchitis; others the matter from a scrofulous gland; others, again, the sputa of a patient suffering from phthisis. In the first two sets of dogs no result followed; but in those made to inhale the sputa of phthisis, tubercles were found in the lungs whenever a period of nineteen to twenty-three days had been allowed for incubation—that is to say, before the dog was killed and examined. In this instance it seems obvious either that the sputa of phthisical patients must contain some contagium which induced the formation of tubercles in twenty-three days, or that the diseased cells, or germs imported from a phthisical lung by contact, induced, or by development and propagation formed, tubercle in a lung previously sound. The first assumption, in our present state of knowledge, seems unsupported; the second, *primâ facie* more probable, we think we shall be able to show receives material corroboration from the facts of "diseased germs," which we shall consider in another article.

SOONER or later we shall have to face the fact that it is no more possible to make a people healthy by Acts of Parliament than it is to render a nation religious, or inspire the aggregate intelligence of the multitude with sound principles of morality, by statutory enactments. In an economic sense, no doubt, the common-mind of a population is something distinct from the sum of its individual manifestations of consciousness; and therefore the nation, as a social organism, may reach a higher stage of development than has been attained by the average number of its members. This is particularly likely to be the happy result of intelligent progress in a country which has escaped the pestilent heresy that regards the *individual* instead of the *family* as the unit of the nation. Nevertheless, looking to the every-day workings of energy, of all kinds, in the midst of a community, and noting the operation of laws of association, action and reaction—as inexorable as the laws of Nature herself, though incomparably less rational,—in short, taking a "practical" view of this phase of sociology, it is impossible not to perceive that the final influence of legislation on progress can only be educational. It follows that the aim of the law-maker should be to formulate principles of policy rather than to define and control the details of personal conduct. There may be matters in respect to which the multitude need to be instructed through conduct, as children are taught, being trained to do certain acts, or to leave others undone, before they are in a position to understand the reason why; but affairs of this class and character cannot be numerous except in the earliest stages of a nation's history. The intelligence of a people rapidly outgrows this elementary grade of its development, and year by year the common-sense instinct more determinately asserts its right to be governed on obvious—that is, self-evident—principles. In patriarchal times, for example, it sufficed to enjoin the use of the mattock in carrying out an earth-system of sewage-disposal, to impose prohibitive measures of cleanliness, and even direct personal precautions, against disease, together with the avoidance of certain forms of flesh as food on account of the gross feeding of the animals from which it was derived, without in any instance attempting to popularise the wisdom and forethought by which these sound maxims of sanitary government were dictated. Later on, as general intelligence advanced, but attention was diverted from the simpler lines of social economy, public opinion broke from the bonds of tradition, and disowned and abandoned obligations and restrictions it failed to comprehend, and blindly and resentfully cast them aside as mere ceremonial observances incompatible with the higher grade of intellectual development to which it had attained. When this spirit set in, it ceased to be good statesmanship to regard the work of legislation in any other light than that of educational—or, as history has shown it to be, *re*-educationary—policy. The advanced sanitary system of the nineteenth century is little more than an extension and adaptation—not always an improvement upon the original form—of the system extant among the earliest communities, and specially embodied for the use of the people of Israel in the Mosaic code. The investigations of modern science tend to elucidate and enforce the provisions of the ancient system, rather than to justify the manner in which they have been set aside. Meanwhile the conditions of our social life and policy are, as we have said, such that it is only by such elucidation and intellectual enforcement the laws of health can now be effectively applied.

Sanitary reformers, in their enthusiasm, forget this practical phase of the question of progress. They argue, and declaim against Governments and the Legislature, as if the mere passing of a Bill through Parliament were a panacea for every ill to which a nation is heir. If this were the fact, the national health might be successfully promoted by agitation, and Acts of Parliament would come to be something more than legal facilities for the convenience of the well-disposed. As it is, the utmost service any statute can render the community is to afford such of its members as are in earnest an instrument to enforce the obligations set down. It is necessary—and the circumstances of the moment render it opportune—to call attention to this fact. It is true that we have large and very expensive organisations, such as the Local Government Department, the Metropolitan Asylums' Board, and Sanitary Authorities scattered over the country, which are especially constituted and maintained to set the law in motion and to quicken the dead letter of the Statute-book into a thing of life; but experience shows only too convincingly that incorporations of this class are apt to become inert, and in that event are sure to prove obstructive. Perhaps the most cranky and unworkable combination in the whole of the State machinery is the comparatively recent contrivance for local government purposes erected at Whitehall. To say that a deadlock has occurred is to understate the case. Not merely has progress been arrested, the wheels are hopelessly fixed, and the right honourable gentleman in charge of the apparatus is evidently at his wit's end and paralysed by dismay. It is not creditable that this should be so, but we cannot shut our eyes to the facts. The functions of the Local Government Board, so far as public health is concerned, are practically suspended. Perhaps two years hence, if we could only afford to wait, Mr. Dodson might have made up his mind in respect to matters of urgent concern. For the present, however, he is bewildered, and seeks refuge in "consideration," that common-place subterfuge of the mysterious and the incompetent. While Mr. Dodson is considering, small-pox may spread for want of means to isolate the sick, and the population may remain unprotected. The President of the Local Government Board is clearly unequal to his task—he has not the tact to rescue the rash but prematurely decrepit Asylums' Board from its legal troubles, as a stronger minister might easily do, and he has suffered himself to be over-ruled by the Treasury in respect to the question of funds to carry out the provisions of the Vaccination Acts, and to popularise, if he cannot enforce, revaccination. The supply of calf-lymph is probably not forthcoming simply because there were no funds available to defray the cost of providing it. Taking the situation as a whole it is humiliating, and we must add, disgraceful.

What is to be done? The only course open to those who have a practical interest in the cause of health, is to take the matter seriously in hand, and to do what the constituted authorities are, under diverse pretences, neglecting—namely, to put the law in motion. This is why we think it opportune to fall back on first principles, and to point out that, after all, it is to the *people* the appeal for energy must ultimately lie. The officials publicly charged with sanitary administration are not absolved from their duty, but the community is not doomed to tolerate preventable disease in its midst simply because its public servants neglect their plain duty. Self-help is possible, and self-help is the indispensable condition of complete success. The powers-that-be are inactive, but the principles embodied in our legal code are none the less effectual because they are not applied. Seeing that the issues involved in this question are those of life and death, it is strange that the public is not more deeply concerned. Small-pox is spreading, and the measures taken for the arrest of the epidemic are inadequate. In short, active precautions may now be said to have ceased, and the authorities answerable for this state of things are chiefly engrossed in paltry questions of responsibility and in mutual recrimination. If the community desires reform, it must take the matter into its own hands, and the inconveniences and sacrifices arising out of the situation will not have been endured without recompense if in the end it is brought forcibly home to the conscience of the nation, and learnt in the family circles of the population, that practical sanitation is an affair of Self-help.

THE annual report of the Inspector-General of Recruiting for the year 1880 affords a considerable amount of interesting information bearing upon the physical condition of the army and on the subject which has lately attracted so much attention—our boy recruits. The number of recruits who joined the service during the year was 25,622; this was 305 fewer than in 1879, but was more than sufficient to keep the force up to the establishment voted by Parliament for the year 1880-81, which was 178,430 men, while the actual number serving on the 1st of January, 1881, was 181,233. With a view, we presume, to facilitate recruiting, the standard of height for the infantry was lowered in June from 5 ft. 6 in. to 5ft. 5 in. During the year 42,668 recruits were primarily inspected, of whom 15,477 were rejected, being at the rate of 363 per 1000. This is considerably above the average, but the excess may probably be, to some extent, due to the opportunity presented by the large number of recruits for greater strictness in enforcing the requirements as to physical qualities. It is stated also that the regulations of the Army Medical Department for the examination of recruits were issued in a more complete form to all civil medical practitioners who were registered and authorised to examine recruits. That this, by inducing greater strictness on their part in the discharge of this important duty, may have contributed to the increased proportion of rejections, appears very probable from the fact that in the last Army Medical Department Report published—that for 1878—the proportion of recruits rejected on primary inspection by civil medical practitioners was only 149 per 1000, while that by army medical officers was 298. The means are not afforded in the report before us of ascertaining the practical result of this measure, for which we must wait until the Army Medical Department volume for 1880 is published.

With a view to show the effect of the present system of enlistment for short service upon the quality of the recruits, the Inspector-General has instituted a comparison as regards age, height, and weight, between those enlisted in 1874—the first complete year of the subdistrict system of recruiting—and those in 1879, the results for the latter having, we presume, been specially obtained from the Army Medical Department, as they have not yet appeared in any Blue-book. As regards age, the proportion of recruits under twenty amounted, in 1874, to 56 per cent., while in 1879 it was as low as 46 per cent. In 1865 the proportion under twenty was 55 per cent., so that it clearly appears there has been an improvement in 1879 under this head of about 10 per cent., as compared with previous periods. The proportion of recruits under 5 ft. 6 in. was 443 in 1874, while it was only 302 per 1000 in 1879; but the comparison as regards height is somewhat wanting in accuracy, for while the minimum for infantry was 5 ft. 5 in. throughout the first year, it was 5 ft. 6 in. during five months of the last. As the returns for 1879 are not yet published, we have not the means of making a strict comparison; it is, however, extremely probable that were we able to do so, the proportion under 5 ft. 6 in. would still be found lower in the latter year. On comparing the weight of the recruits enlisted in the two years, it appears that while in 1874 there were 434 per 1000 under 130 lb., in 1879 there were only 374 below that weight. There are no details given of the chest-measurements of the recruits, but as the minimum was raised in 1877 from 33 in. to 34 in. it may be fairly assumed that the average would be higher in 1879 than in 1874. It would thus appear that as regards age, height, and chest-measurement, there has been a marked improvement in the quality of the recruits in the last five years. But if the comparison be made with those raised in 1865—a date anterior to any of the changes in the organisation by which the average age of the soldiers has been so materially reduced—the improvement in the physique of the recruits will be found still more strongly marked. In that year the proportion under twenty years of age amounted to 549, under 5 ft. 6 in. in height to 400, and under 130 lb. in weight to 577 per 1000 inspected; so that in all these respects, but especially in height and weight—qualities which can be accurately measured,—there has been a very satisfactory improvement. The Inspector-General remarks that "we purchase this improved physique of the Army at the expense of rejecting annually a much higher percentage of the men who offer themselves as recruits." But we fail to see any disadvantage in this. If, as we have already shown, the service attracts so many young men that we are enabled to keep it even above the authorised establishment with this higher proportion of rejections, it is a fair inference that the improvement above noted is due to the circumstance that it is thereby possible to enforce a higher standard of physical fitness for service. The report shows, as regards the classes from which the recruits are drawn, that there has been an increase in the number of men raised from that of "mechanics employed in occupations favourable to physical development—as smiths, masons, carpenters, &c.," and of "shopmen and clerks," who are stated to make very excellent non-commissioned officers; while there has been a decrease in the class of "labourers, husbandmen, and servants," and of "manufacturing artisans." As might have been anticipated, there has been a decided increase in the educational acquirements of the recruits—a result doubtless due to the marked progress in the general population under the Education Acts. The preceding results show that the complaints made by general officers of the youth of the Army and the want of physique are due, not to a falling off in the quality of the recruits, or, as alleged by some, to a general deterioration of our population, but to the removal of the old soldiers by the expiration of the term of service of those enlisted under previous Acts, and by the transfer to the reserve of those enlisted under the Act of 1872, after completing their six years of service with the colours.

From a return appended to the report we find that the mortality of the army at home and abroad during the year 1880 amounted to 17·59 per 1000 of mean strength. This is considerably higher than the mortality in 1878, the year included in the last published volume of the Army Medical Department, but approximates closely to the average of the ten preceding years. The proportion discharged by invaliding during the year was 21·88 per 1000, being 6 per 1000 lower than in 1878, but almost identical with the average ofthe ten years. There is every reason to anticipate a reduction in the invaliding in each succeeding year by the operation of the transfer of men to the Reserve at a much earlier period than that at which they were formerly released from the service.

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ALL the preliminary steps for the Census enumeration of 1881 ought now to be complete. Before this issue comes under the eyes of our readers the Householders' Schedules should have been duly delivered by the large army of enumerators, and be already in the hands of the heads of families. The few simple particulars required by the Census Act, which are precisely the same as those asked for in 1871, should be entered in the schedule for each individual sleeping or abiding within any abode during to-morrow (Sunday) night, in order that the schedules may be ready for delivery to the enumerator, who will call for the same in the course of Monday next. Before nightfall on Monday next the first important stage of the Census of 1881 will have been completed, and, national curiosity having been excited, the results of the numbering will be awaited with a certain amount of expectancy, if not impatience. The Registrar-General's instructions to the various officers concerned in taking the Census contain what is called a Census Calendar, from which we may form some idea of the machinery by which the individual householder's schedule will be made to yield the final results of the national enumeration. On Monday night next about six millions of individual householders' schedules will have been collected by about 35,000 enumerators throughout England and Wales. These enumerators are allowed a week for copying the contents of these individual schedules into enumeration books, and on or before the 11th of April these books, together with the original schedules, should be delivered to the registrars by whom the enumerators have been appointed, and who are responsible for the efficient enumeration of their subdistrict. Before the expiration of another fortnight, that is, on or before April 25th, registrars should have forwarded all the original schedules to the Census Office in Craig's-court, and the enumeration books, together with all other census documents, to their superintendent registrar. These officers are in their turn allowed a week for revising the enumeration books, and the summaries of the same, and are instructed that on or before the 30th of the month part of the revised enumeration books should be forwarded to the Census Office, and that the remainder is to follow in rapid succession. Thus if the Registrar-General's programme be strictly carried out the staff of clerks in the central office at Craig's-court will be busily engaged before the end of the present month finally revising the enumeration books, which will previously have passed through the hands of the enumerator, the registrar, and the superintendent registrar. Between the end of April and the middle of June will be prepared the Preliminary Census Report for presentation to Parliament. This report, in addition to the now population of England and Wales, and of its counties, and registration divisions and subdivisions, will probably show the number of persons (distinguishing the sexes) enumerated in each borough, local government district, and other urban sanitary district. In this preliminary report no attempt will be made to show the ages, civil condition, or occupation of the people. This and other information will find place in the final Census Report, and will be published from time to time during the two years which will elapse before the information to be derived from the householders' schedules, now in the hands of heads of families, will be completed, and be fully available for the use of the public.

Annotations.

"Ne quid nimis."

THE ILLNESS OF LORD BEACONSFIELD.

A SINCERE feeling of concern for the state of the Earl of Beaconsfield pervades the community without reference to rank or politics. This has been rendered conspicuously apparent by the inquiries made at Curzon-street, personally by the Prime Minister, and the leading members of the Liberal party, as well as those of his lordship's own following. It is, of course, with the medical aspects of the illness that we are more particularly interested. A curious announcement has appeared in the daily papers to the effect that Lord Beaconsfield has not been treated "homœopathically," but "according to the regular practice of allopathy." The medical profession does not recognise any "pathy"! There is a system of medicine—based on the knowledge of Nature's order in health, the manifestations of disease, and the ascertained effects of remedies and methods of treatment—which is accepted and practised by the common consent of the profession. Without at the moment entering upon the ethical question raised by the consultations in this case, it may be stated that hypotheses of cure by similars and cure by contraries have no place in scientific medicine; and we hold that no member of the medical profession is justified in committing himself to a school which affects to adopt either of these principles as the basis of a systematic treatment of disease. Still less can any member of the profession be at liberty to adopt either of the two systems indifferently or at the pleasure or whim of his patients. What would be thought of a lawyer who adopted a private interpretation of the statute book, or of one who offered his clients a choice of two methods? Nature is not less inexorable in her demand for the intelligent submission of her disciples to the known laws of health and disease than are the Courts of Judicature. No law of Nature is of private interpretation. It must therefore be evident that the notification that Lord Beaconsfield has not been treated "homœopathically," but "according to the regular practice of allopathy," has no professional significance. The reports of Lord Beaconsfield's illness which have reached us seem to indicate a state not very difficult to recognise. He is probably suffering from an affection which the late Sir Henry Holland was among the first to describe—namely, that form of inflammatory congestion of the bronchial apparatus which occurs in connexion with the gouty diathesis, more particularly when the constitutional malady is not, as it were, focused and restrained by localisation in the usual form. The noble Earl suffers from a lack of nerve power—as distinguished from cerebral energy—which is by no means uncommon in men of Lord Beaconsfield's type. The intensity of his lordship's vital force has for many years been remarkable, but it has been mainly due to *mental* energy, called forth in response to mental stimuli. With an organism so energetic and thus vitalised, there must needs be a perpetual liability to the suppression or metastasis of diseases which require a somewhat high grade of local disturbance to reach their normal type; meanwhile there is necessarily much irritability and weakness. The difficulties attending the management of such a case are obviously great, and its vicissitudes many and various. We can only express an earnest hope that these difficulties may be surmounted, and that the Earl of Beaconsfield may be spared to resume the prominent position in the Legislature from which he has been so inopportunely displaced.

A CRITIC'S MORALITY (?)

A QUARTERLY publication called *The Modern Review*, in its issue dated April 1st, contains nine articles, all of which are duly authenticated and signed, save one. The unique exception is entitled "The Medical Profession and its Morality." It is not quite clear why the writer of this lucubration should have kept back his name, nor does the maudlin and impertinent apology of the editor furnish any explanation why his "esteemed contributor" should "prefer to withhold his signature." A writer so dead to even the forms of truth, honesty, and decency can surely have no occasion to respect either his person or his name. It would seem rather to have been mean, craven cowardice that prompted the discretion. Otherwise it is almost incredible that anyone should have deliberately published anonymously such odious and wanton charges in a magazine having all its other articles signed and acknowledged. Here are some "elegant extracts" from this reviewer's pages :—"Apparently there are cases where cure is not an object! Plumbers are popularly believed never to mend one hole in the leads of a house without making another. The gentlemen whom we call in to tinker our internal pipes and gutters, it is to be feared sometimes adopt similar tactics." "As a *profession* [the italics are *not* ours] the guilt and shame of the atrocious Contagious Diseases Acts lie at the door of the medical men of England, and it is their gross materialism, their utter disregard for human souls when lodged in the bodies of the despised and wretched which has made such legislation possible." "The profession has proved doubly treacherous to women." It is neither necessary nor dignified to heed such false, foolish, and hysterical charges. The gratitude, respect, and esteem of an intelligent and virtuous community afford a complete and final answer. The professional good conscience can therefore well afford to disregard the skulking diatribes of a "Modern Reviewer."

NON-COMBATANTS.

THE official despatches from the Transvaal, published in the *Gazette* of the 22nd ult., bear out fully the opinion we have repeatedly expressed of the injustice of classing medical officers with non-combatants in the distribution of rewards and honours. The late Colonel Anstruther, in his report of the action at Bronker's Spruit on the 20th December, says :—"It was exceedingly fortunate that Providence spared our only medical officer and his assistant-surgeon. Ward's work can hardly be described. It was endless for forty-eight hours; until assistance arrived he had not a moment to himself." We may add that Surgeon Ward's name appears in the list of the wounded. Sir George Colley also in his account of the fight at Ingogo, reported: "Surgeon M'Gann well maintained the distinguished reputation of the medical department for self-sacrificing exposure in attendance on the wounded until the arrival of the ambulances with Surgeons Ring and Landon; he was the only medical officer with the force, and laboured indefatigably with the wounded." *The Times*' correspondent, in his account of the action, says: "Where all were calmly courageous it seems invidious to make mention of any; but Dr. M'Gann, Army Medical Department, behaved splendidly. He never spared himself for an instant; whenever the cry was heard, 'Pass the word for the doctor,' he quickly made his way to the wounded men, making himself, for the nonce, the most prominent target for the Boer marksmen." Such are the men, such their deeds, and such the dangers to which they are exposed in the discharge of their important duties, whom the authorities at the Horse Guards persist in classing with non-combatants when rewards and honours are being conferred. We do not find that they so regard them when their services are required. Surely it is time that the War Minister should interfere to put an end to so glaring an injustice. We sincerely trust that Mr. Childers will take up the question, as we have little doubt if he does so his sense of what is right will lead him to make such arrangements as will put an end to so unjustifiable an anomaly.

THE PATHOLOGY OF CARBUNCLE.

ALL authorities have been for a long time agreed that the central fact in the pathology of carbuncle is death of a certain portion of tissue, but there has been, and is now, considerable difference of opinion as to whether it is death of a portion of the true skin, or of the cellular tissue, or of both, or of a gland. The clinical features of the affection, although well marked, are hardly sufficient to settle the point, and thus equally good surgeons have held these diverse views. Dr. J. Collins Warren, of the Harvard University, has devoted considerable attention to this subject, and has come to the conclusion that the pathology of carbuncle is closely connected with certain structures in the skin hitherto undescribed, which he has named the columnæ adiposæ. It is stated that in thick skin bearing only fine downy "lanugo" hairs, there are nearly vertical clefts and slender columnar spaces reaching from the bottom of the hair-follicles through the deeper parts of the corium into the subjacent panniculus adiposus. These spaces are filled with fat, bloodvessels, lymphatics, and usually also a coiled-up sweat-gland; and it is to these that the term columnæ adiposæ is applied. At about their middle, lateral horizontal branches are given off, which form a series of intercommunicating channels in the corium, which can be injected from the subcutaneous fatty layer. Close by the deeper end of each column a broad bundle of fibrous tissue passes from the corium through the fatty layer to the deeper fascia. The neighbouring bundles interlace in various directions; they connect the skin and deep fascia more or less firmly together. These columns are only found in connexion with hair-follicles, and in thick skin with downy hairs; in other conditions the follicles reach quite through the corium. The vessels, which all reach the cutis vera by piercing its deeper surface, are only found taking this course along these fat columns, and giving off lateral branches along its offshoots. In sections made through the margin of a carbuncle, Dr. Warren finds that the first change is an infiltration of the subcutaneous fatty tissue with wandering cells which creep up the columnæ adiposæ and along their lateral branches and secondary offshoots, and so ultimately infiltrate the whole thickness of the true skin, except a thin superficial layer, which being free from these channels does not afford the spaces along which the cells can wander. This is accompanied with swelling and elongation of the columns, and the destruction of their normal contents, and they now are visible to the naked eye as small prominent pustules, often with a fine downy hair attached.

But another origin has also been found for the small superficial pustules. The papillæ become infiltrated and œdematous, much swollen, and often balloon-shaped, with the narrowed end deep; they then project above the surface, their contents break down into pus, and quickly escape. Adjacent papillæ may unite, and so form rather larger pustules; and, on the other hand, the process may stop short of suppuration, and the inflamed tissue retrograde. Meanwhile the subcutaneous infiltration continues, extends, and intensifies, but cuts off the blood-supply without melting down the deep bundles of fibres passing through it, which therefore form the tough adherent sloughs at the bottom of carbuncles. The true nature of carbuncle may therefore be said to be purulent infiltration of the subcutaneous tissue, with secondary injection of certain normal cavities in the true skin, and inflammatory products, which compress the nutrient vessels and lead to suppuration and sloughing. The common situation of carbuncle and its altered character when attacking skin where the corium is very thin or the hairs long and stiff, show that the explanation of its peculiarities must be looked for in some anatomical arrangement. The marked relief obtained by incisions is fully explained by this pathology. Dr. Warren states that not only purulent infiltrations but new growths, such as sarcoma and nævus, spread up to the surface along these columnæ adiposæ, and that this condition may then be readily recognised by the naked eye.

THE CHAIR OF PATHOLOGY IN EDINBURGH.

Our Edinburgh correspondent writes:—For the Chair of Pathology in the University, which will be filled up in the course of April, the following candidates have come forward: Dr. Byrom Bramwell, late of Newcastle-on-Tyne, now Lecturer on Medicine in the Extra-Academical School here; Dr. Greenfield of St. Thomas's Hospital, Superintendent of the Brown Institute; Dr. Hamilton, at present Pathologist to the Royal Infirmary, who, as assistant to the late Professor Sanders, conducted the course of lectures during his illness, and who has conducted the class of Practical Pathology for the last few years; Dr. Rabagliati of Bradford; and Dr. Roy, formerly assistant in the University of Strasburg, &c. It is rumoured that the curators will select either Dr. Hamilton or Dr. Greenfield.

FIRE AND PANIC IN THE THEATRE.

The tragedy at Nice will recall public attention to the state of our own theatres for the moment, and then the ever-present danger will be forgotten again until some hideous holocaust, perhaps involving the loss of hundreds of lives, once more revives a problem which, being unable to solve, the authorities and the public seem equally anxious to shelve. The facts are simply these: there are not half a dozen theatres in the metropolis, and probably not more than a score in the country, from which escape in an emergency would be practicably possible. This statement is so opposed to the interests of lessees, so humiliating to those who have planned and superintended these constructions, and so discreditable to the licensing authorities, that it is quite sure to be contradicted or ridiculed. Nevertheless, it is simply and grimly accurate. There was something grotesque in the recent order to provide extra doors for use "in case of fire." Are those who legislate for the security of life under conditions of panic so ignorant of the nature of panic as not to know that its first effect is to obliterate all traces of transitory and recent impressions and to place the whole being at the mercy of impulse and habit? If a particular doorway is to be used as a means of exit in an emergency, it must be employed as a way of entry and exit on ordinary occasions. If it did not generally happen that the "extra" doors of theatres are locked when they ought to be open, it would still be absurd to rely on such exceptional means of escape. It would be altogether impossible that a fairly full audience could be got out of a London theatre without fearful casualties if panic prevailed. Some of the most frequented and fashionable theatres are the worst. Nevertheless, this state of things is tolerated, and a Select Committee has gone through the farce of examining a multitude of interested witnesses and framing a report full of the feeblest and most inadequate suggestions, while a Lord Chamberlain has issued a few puerile directions for the adoption of measures of no possible effect. It is useless to dwell on the matter. The community of playgoers elect to take their chance, and their entertainers and official protectors are content that they should do so. Who, then, has any right to complain?

PSEUDO-MEDICAL ADVERTISEMENTS.

The reference made in the course of the trial so generally described as the suit Lawson *v.* Labouchere, to the protest entered by The Lancet against pseudo-medical advertisements of an indecent class appearing in lay newspapers, recalls the following sentences which we penned in 1864–5: "The sin of this quackery shall not lie at the door of the medical portion of the press. Let us hope that the press generally will come to a similar resolution, and show the strength of it by foregoing the profits which accrue from advertisements, . . . which, indeed, are fast rendering ordinary papers unfit for introduction into families." Again: "No doubt to many a struggling journal the sums so received constitute an inducement which pleads very urgently for the continuance of a practice which is so largely lucrative. But if the attention of the general public be sufficiently awakened to the vile nature of this traffic this inducement will cease, for the loss of circulation and the loss of character incurred by journals which shall continue to defile their columns by the announcements will more than counterbalance the direct profits of the paid insertions. There is no reason that we can see why it should be considered much less disgraceful to print this sort of obscenity, than it would be to introduce it into written correspondence or ordinary conversation. The journalists who permit their columns to be so abused are undoubtedly the accomplices of those whom they freely denounce in their leading articles."

CINCHONA PLANTATION IN BOLIVIA.

The cultivation of the cinchona in the East Indies, which was originally undertaken on account of the prospect that the supply from South America would ultimately come to an end, is having a beneficial reaction, and in Bolivia, at least, energetic attempts are being made to keep up the stock which was in danger of a not distant extermination. The effort originated with private individuals in 1878; already (according to the report of the Dutch Consul) there are on the banks of the Mapiri at La Paz four or five hundred thousand young trees of two years' growth. In other places new plantations are springing up, chiefly on the mountain slopes, which are cultivated for three-fourths of their height, while the cinchona tree is found growing on the summit or in valleys and ravines. The tree was once abundant over the slopes, but has long since disappeared from them, under the wasteful system of destroying the trees. Even now the trunks of trees may be found rotting on the ground, the bark removed from the upper surface only.

The task of culture is an easy one in the original haunts of the cinchona. It only requires a few days in the year to clear the ground necessary for a cinchona plantation, to transplant the young trees from the nurseries, and to keep the ground free from weeds during the first and second years, and afterwards the trees may be left to themselves. But in the uncultivated tracts of land more capital and labour are required, although the expense of purchase is not great, since a tract of land fifty-nine miles long was sold for £100. The clearing away of the dense forest is the most troublesome part of the work. Banana trees are planted between the cinchona seedlings to give them shade for the first year or two, when the chief danger is from drought and ants.

It is estimated that these plantations may possibly be a source of danger to the cinchona cultivators of India if they are managed with energy, and that whether sufficient zeal will be forthcoming will depend on the cinchona bark maintaining its high price. If its price falls considerably, the cultivation of cocoa will be more profitable, and the supply of labour scarcely suffices at present for energetic attention to the two industries.

FLOGGING IN THE ARMY.

IT is with especial satisfaction we hail the abolition of flogging in the army. This is one of the reforms which the late Mr. Wakley set on foot, and in regard to which he was deeply in earnest. THE LANCET, as an organ of professional opinion, has always taken a prominent part in the movement. The "Hounslow inquest" will be fresh in the recollection of many of our readers; and it will not be forgotten that the inquiry, which elicited the most startling and significant facts, was adjourned ten times. The lash was then shown to be a weapon capable of inflicting formidable and even fatal injuries on the deep structures, while apparently doing little harm to the superficial. It was found to be a murderous and wholly misleading instrument of torture. The moral effect a punishment of this degrading character must needs produce on the mind of its subject is obvious to everyone who, not being the victim of red tape, has taken the trouble to think about the matter seriously and impartially. At last, then, flogging is at an end. It would have been wise and more gracious if the opposition offered to this necessary reform in high quarters had been withdrawn before public opinion compelled a submission which common sense had long dictated.

PASTEUR'S NEW DISEASE.

IN THE LANCET for Feb. 5th, p. 220, we called attention to the remarkable effects which M. Pasteur had obtained by inoculating rabbits and guinea-pigs with the saliva of a child which had died from hydrophobia. The animals, it will be remembered, died thirty-six hours after inoculation, and in their blood was found a bacterial organism, which was quite peculiar, which could be cultivated, and then produced, when inoculated into other animals, symptoms identical with those observed in the others. M. Pasteur did not assert that this was the special microbic organism of rabies, but he considered that his experiments and the microscopical characters of the organism warranted the assertion that the disease was not septicæmia, but a malady altogether new to experimental pathology. In order to ascertain whether a similar affection can be produced by the inoculation of the saliva of persons who have died from other common diseases, M. Pasteur has made some inoculations with such saliva, but without any results. But since the case of hydrophobia was in a child, M. Pasteur applied to M. Parrot for some saliva from children dying from diseases which are regarded as non-specific, and received some from the bodies of three children who had died the preceding day from broncho-pneumonia. In rabbits inoculated with this saliva there was found precisely the same organism as had been discovered in those which had been inoculated with the saliva from the case of hydrophobia. He thinks it certain, therefore, that this organism may often be found, and that it is one of those which have their habitat in the commencement of the alimentary tract. Hence, as he points out, it is not in any way connected with rabies, but it is a surprising fact there should exist in the saliva, at least of children, a special organism which is capable of causing so rapidly the death of rabbits and dogs, even when inoculated in very small doses. It is a fact of very great importance in the etiology of diseases which may be ascribed to microscopic organisms.

THE GENERAL MEDICAL COUNCIL.

WE understand that the General Medical Council is summoned to meet on April 26th, and the Executive Committee on the 12th. It is not easy for outsiders to divine what can be the justification of another meeting of the Council in less than two months after the last, when the Council came from the four winds, and at a great cost, for one day, to reinstate a few hundred deregistered dentists under the Dentists Act, very much at the bidding of counsel. Another meeting at a very inconvenient season does not necessarily therefore mean anything urgent, or any business in which the profession or the public can have much interest. *Nous verrons.*

HOSPITAL SATURDAY.

A GREAT effort is being made in Liverpool to make the Saturday collections, representing the interest of workmen in hospitals, more satisfactory than hitherto. It is thought if employers of labour would take the trouble to have the object fairly and systematically placed before their *employés* the object would be gained. Liverpool, in this matter, does better than London. But Liverpool is far behind Birmingham. In eight years the working men of Liverpool, with a population of 150,000 more than that of Birmingham, have contributed £16,738 14*s.* 10*d.*, against £29,815 9*s.* 1*d.* by the smaller population. The secretary of the Hospital Saturday movement in Birmingham modestly attributes the difference to more system rather than to more liberality. He says: "We find the largest contributions are received from those establishments where a systematic collection is made—that is to say, where a sum is set aside weekly. The men do not miss a penny a week, but 4*s.* 4*d.* out of one week's wages would be a very heavy tax on them." We cannot but hope that the working-classes, with their growing power of organisation, will, with or without assistance from their employers, see that this object is one deserving of systematic help, and one in which their credit is concerned. To set aside a penny a week for a worthy contribution to great national charities, existing chiefly for their benefit, is surely only a reasonable sacrifice.

ROYAL COMMISSION ON THE MEDICAL ACTS.

THE *Daily News* of the 23rd ult. had an article approving the determination of the Government to refer the investigation of the Medical Acts to a Royal Commission, and pointing out that everything depends on the composition of the Commission. Our contemporary says: "The earnestness of the Government will be judged by the composition of the Royal Commission. Successive Governments have been misled much in this matter through consulting only the General Medical Council, which is the very body and represents the very bodies under criticism. If the General Medical Council is to advise the nominations, we need not say that the Royal Commission will be a form, not to say a farce, and had better not be appointed." Our contemporary goes on to express confidence in the Government and its belief that the Commission will be one that will command the respect both of the public and of the medical profession. One thing is certain, that the public will not in this matter have faith in a Commission which does not commend itself to the medical profession.

THE RUSSIAN RED CROSS SOCIETY.

In an engagement with the Tekes on the 21st July (2nd August) last, Dr. Stouditsky, one of the medical men attached to the detachment from the Red Cross Society with the Transcaspian Army, was killed. He left a widow entirely unprovided for. The circumstances were brought to the attention of the late Emperor in a report presented to him on the 15th (27th) February last, and, in recognition of the services which had been rendered by her husband during the Transcaspian campaign, he was pleased to accord to Madame Stouditsky a life pension of 600 roubles.

A very large gathering of Guy's men from all parts of the country took place at the rooms of the Medical Society of London, Chandos-street, W., on Friday, March 25th, on the occasion of the presentation of a testimonial to Dr. Habershon and Mr. Cooper Forster. Mr. Lund of Manchester presided, and in the names of the subscribers, who numbered more than three hundred, presented to Dr. Habershon and Mr. Cooper Forster respectively a handsome silver épergne and an album, containing an address, followed by the names of the subscribers. Dr. Habershon and Mr. Cooper Forster were most cordially received, and the meeting passed off in the most satisfactory manner. A large number of those present then adjourned to the Langham Hotel, where Dr. Habershon and Mr. Cooper Forster were entertained at dinner.

Professor Helmholtz is announced to deliver the Faraday Lecture at the Royal Institution, Albemarle-street, on the occasion of the triennial festival of the Chemical Society to be held on the 5th inst. The subject will be "On the Modern Development of Faraday's Conceptions of Electricity."

The Managers of the Edinburgh Royal Infirmary have issued a report confirming the system of tutorial instruction as conducted in the medical and surgical wards. They practically continue to ignore the requirements of students in gynæcology, since they altogether abstain from making mention of that subject in their report.

On March 13th, 1881, Mr. Warrington Haward employed the rectal lever in a case of amputation at the hip joint. The following week Mr. Richard Davy used the lever as a valuable diagnostic agent, prior to deligation of the left external iliac artery.

The death is announced of Dr. Harkin, of Vanleekhill, member of the Ontario Legislature.

Guy's Hospital.—At a meeting of the Medical and Surgical Staff of Guy's Hospital, held March 14th, 1881, it was resolved :—"That the best thanks of the Medical and Surgical Staff of Guy's Hospital be offered to the members of the Norwich Medico-Chirurgical Society, for the vote of sympathy sent to them by the Society in January last. That the Society be informed that the staff of Guy's Hospital have never for a moment relaxed their efforts to accomplish the object they had first in view—viz., to place the medical staff in their right position as regards the management of the Hospital; and they are happy to state that all questions affecting the medical care and nursing of the patients are referred to a committee, on which the staff are now represented."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Chesterfield (*Rural*).—Dr. Angus Mackintosh's report for this district for 1880 is, as usual, noteworthy for the conscientious care with which it deals with the several duties which the medical officer of health has to perform in relation to the particular district. The death-rate was equal to 20·2 per 1000 inhabitants, the birth-rate to 48·0. Dr. Mackintosh directs particular attention to the effects upon the health and comfort of colliers on their return home direct from the pit in their begrimed clothes, contaminating the atmosphere of the dwelling with coal-dust, blackening and soiling whatever they touch, while as a rule their contracted cottages are destitute of that facility for cleansing persons and things which it is desirable they should have. He makes the following admirable suggestions to colliery owners:—"1. That large and commodious baths, with proper accommodation for changing clothes, should be provided in connexion with each colliery in the district, so that every collier on reappearing on the surface, and after divesting himself of his working habiliments, shall be thoroughly washed in warm water, not less than 120° Fahrenheit, and afterwards in cold. 2. That the collier shall always wear a clean suit of clothes on going to and coming from his work, and never take the working or pit-clothes home to his house. 3. That compliance with such rules should be made imperative by the employer on all men commencing work, and that all expense should be defrayed in the first instance by him."

Lytham (*Urban*), *Lancashire.*—Mr. William E. Pountney reports the completion of certain improvements in the drainage of this pleasant health-resort. The death-rate in 1880 was as low as 16·6 per 1000 inhabitants. Lytham, however, it would appear, still wants a sanatorium, and Mr. Pountney again urges the desirability of the sanitary authority providing one.

Handsworth (*Urban*), *Yorkshire.*—In an estimated population of 22,880, Dr. J. B. Welch reports for 1880 a birth-rate of 31·5 per 1000 inhabitants, and a death-rate of 12·5. Referring to infantile mortality, although he ascribes much of it to mismanagement, neglect, and improper feeding, he attributes also much to the influence of heat upon filthy surroundings, particularly the putrefaction of organic matters. Improvements seem in progress in the district in respect to the dealing with excremental matters, and we note that the sanitary authority has itself undertaken the removal of night-soil.

Thingoe (*Rural*), *Suffolk.*—Mr. Charles Scott-Kilner reports for this district in 1880 a birth-rate of 26·4 per 1000 inhabitants, and a death-rate of 15·2. He gives a curious instance of a case of diphtheria in a schoolboy occurring soon after an outbreak of sickness among fowls, which, if not diphtheria, closely resembled that disease. Overcrowding of cottages appears to have occupied the chief attention of the sanitary authority during the year.

Bakewell (*Rural*), *Derbyshire.* — Dr. Philip S. Fentem reports for the northern portion of this district in 1880 a birth-rate of 26·96 per 1000 inhabitants, and a death-rate of 16·01. Great care and labour were given by the sanitary authority to the abatement and prevention of nuisances throughout the year, and their requirements were carried out without the intervention of the magistrates.

Hartismere (*Rural*), *Suffolk.*—Dr. Edgar G. Barnes reports a birth-rate of 31·2 per 1000 inhabitants, and a death-rate of 16·8. The sanitary state of the entire district has improved. This improvement, Dr. Barnes says, "is shown not only in the smaller number of permanent nuisances requiring removal, but also by the greater care shown in preventing their recurrence by the inhabitants of the district." The report contains several instructive instances of the spread of infectious diseases from the carelessness of parents in regard to them. One is novel. Dr. Barnes found on visiting a cottage where scarlet fever existed a travelling draper there who had clearly been fitting convalescents from the disease with articles from his stock. He proceeded at once from this house to another house, uninfected, for the purpose of exhibiting this stock which had thus been exposed to infection.

Sunderland (*Port Sanitary Authority*).—Judging from his reports, Dr. Yeld must be regarded as a typical port medical officer of health. His report for 1880 is now before us, and, as previous reports, shows in the most effective way the sort of work which the port medical officer of health is called upon to do. The amount of shipping inspection got through in Sunderland is very large, and the influence of this inspection upon the sanitary condition of vessels since it was first instituted appears to be very gratifying. In 1876 not less than 60 per cent. of the vessels inspected were found in an insanitary condition; from this state there has been a steady diminution from year to year in the number, and in 1880 only 15 per cent. of the vessels inspected were found in an unhealthy state.

Liverpool (*Port Sanitary Authority*).—Liverpool appears to have been late in following the example of Sunderland, London, &c., in instituting a careful inspection of vessels. At least so we gather from a report of Dr. Stopford Taylor for 1880. It appears that the inspector appointed to examine and report upon the sanitary condition of vessels in the port only commenced his duties on the 6th September, and the report deals with data from that time to the 31st December. Dr. Taylor's statement in effect is that no difficulty has been experienced in carrying out the work of inspection, and that owners and masters have readily complied with the medical officer of health's requirements.

Wakefield (*Rural*).—Mr. Francis Henry Wood reports for this district in 1880 a birth-rate of 36·0 per 1000 inhabitants, and a death-rate of 18·0, the population being estimated at 34,583. Although no great results have to be recorded, a good deal of detailed sanitary work appears to have been done in the district.

SMALL-POX HOSPITALS: A NEW LIGHT.

Mr. Wynter Blyth, in his last published monthly report to the Marylebone Vestry—that for February—suggests a plan of hospital construction, prepared, he states, "with the very kind assistance and encouragement of Dr. Richardson," which shows, what we were not prepared to anticipate, that according to him it is necessary to reconsider some of the fundamental rules which have governed us for some time in designing infectious disease hospitals. It has come to be a rule among professed hygienists and medical men that the wards of a hospital erected for the reception of contagious or infectious disease should have per bed at least 2000 ft. of cubic space, and 144 ft. of superficial space if the requirements of the patient as to due ventilation are to be secured. But Mr. Wynter Blyth's suggestions to his authority imply that only 800 feet of cubic space and 53½ feet of superficial space are alone necessary even in the case of small-pox. There is nothing said in the report as to how this astonishing divergence of view from commonly accepted opinion has been brought about. On the contrary, this divergence is not deemed worthy even of comment, and the suggestion is made as if it involved nothing novel. Nay, indeed, it is stated that the measurements suggested "give sufficient space per head." Assuming that Mr. Blyth is right, here at least is a solution of the present difficulty in which the Metropolitan Asylums Board are placed. For, as in the small-pox hospitals of that Board an allowance per bed of 2000 feet cubic space and 144 feet superficial space is given, it is obvious that they may, according to Mr. Blyth's notions, place in their hospitals five patients for every two patients they now place there, and thus at once more than double their present accommodation for small-pox cases. But is Mr. Blyth accurate in his opinion? The question can scarcely be treated seriously. It is proper to mention that, in view of the Marylebone Vestry being called upon to provide hospital accommodation for cases of small-pox, Mr. Blyth states that he has already reported to the Sanitary Committee of the parish in the sense of his suggestion, and that his monthly report gives an abstract of his views only.

At a recent meeting of the guardians of the City of London the following resolutions were adopted unanimously:—(1) "That this Board is of opinion that no more payments should be made by the board of managers of the Metropolitan Asylums District towards the liquidation of the enormous amount (said to be upwards of £40,000) for law costs in the legal proceedings relating to the Small-pox Hospital at Hampstead, until the total amount be ascertained and communicated to the various parishes and unions comprised in the said Metropolitan Asylums District, with the fullest information and explanations that can be furnished of the whole matter, quoting by what authority and by whose advice the steps were taken for the defence of the action against the managers." (2) "That this Board protests against the contemplated action of the Metropolitan Asylums District managers as to taking further legal proceedings with regard to Hampstead Hospital."

Now that private enterprise is about to be handicapped in the matter by Government it would appear, strange to say, as if we were about to have a shower of establishments for furnishing calf lymph for vaccination. Dr. Cook is doing excellent work at Manningtree, Dr. Warlomont's agency at 3, Hemming's-row is prospering, and now Dr. Renner has opened an establishment at 228, Marylebone-road, not only for the supply of lymph, but also for the vaccination of children on appointed days and at a specified time from calf lymph.

There has recently been a correspondence between the guardians of Lambeth and the managers of St. Thomas's Hospital respecting the mode of dealing with cases of small-pox which may incidentally occur among the out-patients of the hospital, and a satisfactory arrangement has been made by which such patients may be removed to a hospital of the Asylums Board with the least practicable delay, diminishing the risk of contagion to other out-patients to the utmost, and obviating the danger to the public generally arising from the exposure of patients in the streets.

At a meeting of the Fulham Guardians on the 24th ult., the Clerk stated that there were forty-eight patients from the district in the small-pox hospital in the district, and that there were only three vacant beds there. A member took exception to the action of the committee of inhabitants to close the hospital, observing that if the hospital were closed there would be no accommodation for cases occurring in the parish. But another member explained that the committee only desired to exclude cases of small-pox from other districts of the metropolis.

In consequence of the approaching demolition of the Surrey Chapel in the Blackfriars-road, where the principal station of the National Vaccine Establishment has been held since the beginning of the century, arrangements have, we understand, been made by the Local Government Board for the continuance of the work of the Station at the Victoria Hall, Lancaster-street, Friar-street, Blackfriars-road, where Dr. Robert Cory will vaccinate as heretofore on Tuesday and Thursday of each week at one o'clock in the afternoon.

We are glad to notice proceedings taken by the local authorities against builders, both in Hornsey and Hammersmith, for improper work in new buildings affecting their stability and also sanitary condition.

Poplar is still in doubt whether it should use or not its hospital at West Ham for the reception of small-pox cases. The question has again been postponed.

Notice has been given to the Metropolitan Asylums Board of proceedings to be instituted for an injunction to be obtained against the Homerton Small-pox Hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Although showing a slight increase last week, mortality in the large English towns continues very low for the time of year. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5199 births and 3163 deaths were registered last week. The births exceeded by 13, while the deaths were 94 below, the average weekly numbers during 1880. The deaths, however, showed an increase of 162 upon the low number returned in the previous week, and were equal to an annual rate of 21·7 per 1000, against 23·0 and 20·6 in the two preceding weeks. The lowest death-rates in the twenty towns last week were 17·2 in Salford, 17·5 in Norwich, 17·6 in Nottingham, and 18·0 in Birmingham. The rates in the other towns ranged upwards to 25·0 in Leeds, 25·6 in Portsmouth, 26·2 in Plymouth, and 28·1 in Liverpool. During the first twelve weeks of the current quarter the death-rate in the twenty towns averaged 24·0 per 1000, against 25·6, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 311 and 287 in the two preceding weeks, rose to 321 last week, and exceeded any recent weekly number. These 321 deaths included 78 from whooping-cough, 56 from scarlet fever, 55 from measles, 51 from small-pox, and 37 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·2 per 1000 in the twenty towns, and ranged from 0·5 and 0·6 in Brighton and Nottingham, to 3·4 both in Portsmouth and in Newcastle-upon-Tyne. Whooping-cough showed the largest proportional fatality in Newcastle-upon-Tyne, Leeds, Sheffield, and Portsmouth; and scarlet fever in Bradford and Sunderland. Of the 17 deaths from diphtheria in the twenty towns 7 occurred in London, 3 in Portsmouth, and 2 in Bristol. The death-rate from fever (principally enteric) was highest in Portsmouth and Oldham. Small-pox caused 52 more deaths in London and its outer ring of suburban districts, one in Birmingham, one in Newcastle-upon-Tyne, and not one in any of the seventeen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased in the twenty-one preceding weeks from 77 to 853, declined last week to 820. The new cases of small-pox admitted to these hospitals during last week were 147, against 186 and 265 in the two previous weeks.

The deaths referred to diseases of the respiratory organs in London were 348 last week, against 384 and 345 in the two previous weeks, and were 122 below the corrected average number in the corresponding week of the last ten years; 217 resulted from bronchitis and 77 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 4·9 per 1000 in London last week; while the rate from the same diseases in Liverpool was 7·7, and in Salford 4·6.

The causes of 65, or 2·1 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·2 per cent. in London, while it averaged 2·9 per cent. in the nineteen provincial towns. All causes of death were duly certified in Portsmouth, Norwich, Plymouth, Leicester, and Nottingham; while the largest proportions of uncertified deaths occurred in Wolverhampton, Oldham, and Leeds.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 23·5 per 1000, against 23·4 and 23·1 in the two preceding weeks; this rate was 1·8 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 15·6 and 20·3 in Perth and Greenock, to 26·2 and 27·8 in Aberdeen and Leith. The deaths referred to the principal zymotic diseases in the eight towns, which were 82 and 97 in the two previous weeks, declined to 75 last week; they included 27 from whooping-cough, 14 from diphtheria, 12 from diarrhœa, 10 from scarlet fever, 6 from "fever," 6 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 3·0 per 1000, and was 0·8 above the average rate from the same diseases in the twenty English towns. The zymotic rate in the eight Scotch towns last week ranged from 0·0 and 1·1 in Perth and Paisley, to 3·4 and 6·1 in Glasgow and Leith. The fatal cases of whooping-cough in the eight towns, which had been 8 in each of the two preceding weeks, declined to 27 last week. Of the 14 deaths referred to diphtheria, 9 occurred in Glasgow and 2 in Edinburgh. The 12 deaths attributed to diarrhœa showed a decline from recent weekly numbers. The 10 deaths from scarlet fever included 5 in Edinburgh and 3 in Leith; and of the 6 fatal cases of measles, 3 occurred in Glasgow and 3 in Aberdeen. The deaths referred to "fever" showed a considerable decline from the numbers in recent weeks; and the death-rate from this cause in the eight towns almost corresponded with that which prevailed in the twenty English towns during the week. The deaths referred to acute diseases of the lungs, which had been 179, 168, and 164 in the three preceding weeks, further declined to 138 last week, and were equal to an annual rate of 5·5 per 1000, against 4·2 from the same diseases in London.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had slowly but steadily declined during the eight preceding weeks, showed a marked increase again last week. The annual death-rate last week was equal to 34·9, against 33·8 and 30·4 in the two previous weeks. During the past twelve weeks of the current quarter the death-rate in the city has averaged 38·4 per 1000, against 23·6 in London and 22.5 in Edinburgh. The 223 deaths in Dublin last week showed an increase of 29 upon the number in the previous week, and included 19, or nearly 9 per cent., which were referred to the principal zymotic diseases, against 23 and 11 in the two previous weeks. These 19 deaths from zymotic diseases included 12 from fever (typhus, enteric or typhoid, and simple continued), 2 from whooping-cough, 2 from scarlet fever, 2 from diarrhœa, one from diphtheria, and not one from small-pox or measles. The annual death-rate from these zymotic diseases was equal to 3·0 per 1000 in Dublin last week, against 2·7 in London and 3·3 in Edinburgh. The deaths referred to fever in Dublin, which had been 10 and 4 in the two previous weeks, rose to 12 last week; the annual death-rate from this cause was more than seven times as high in Dublin as the average death-rate from fever in the twenty large English towns. The recorded deaths from scarlet fever and whooping-cough scarcely differed from recent weekly numbers. The deaths of infants showed a marked further increase upon the numbers returned in recent weeks; while those of elderly persons showed a further decline, and were fewer than in any week since the first of the year.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DIPHTHERIA IN RUSSIA.

At a meeting of representatives of zemstvos held not long ago in Kharkow, the following particulars were stated as to the prevalence of diphtheria in Southern Russia. In the government of Voronege (population 1,930,859) the disease made its appearance in January, 1869, and during the eleven years ending 1880, 14,131 cases of the sickness had been reported, of which 5112 were fatal. Diphtheria appeared first in the government of Orel (population 1,532,034) in 1878. There are no data as to the number of cases which have occurred there, but 1302 deaths have been reported. The disease no longer exists in the province. The government of Kharkow was invaded in 1869, or rather the disease was then first recognised. It became epidemic in 1877, and 520 per cent. of the sick died. Diphtheria is still prevalent in the government, but in a less fatal form. Diphtheria appeared in the government of Kursk (population 1,076,988) at the beginning of 1877, and the epidemic was at its height there in 1880. In this year 11,546 persons were attacked with the disease, and 4041 died from it. In the government of Kherson (population 1,027,459) diphtheria has prevailed since 1873. To Jan. 1st of the present year there had been reported 25,980 cases, of which 9342 were fatal. In the province of the Don-Cossacks (population 896,870) diphtheria has not assumed an epidemic character, and the mortality from the disease has been insignificant. The figures as to the population of the several governments mentioned, including the Don-Cossacks, are from the returns for 1858.

NOTIFICATION OF INFECTIOUS DISEASES IN THE METROPOLIS.

The meeting of metropolitan representatives of vestries proposed by the vestry of Kensington for conference on the questions to which we referred in our impression of the 12th March, took place at the Town Hall of Kensington on March 23rd, under the presidency of Major-General Boileau. All the vestries appear to have been represented at the meeting, and the different propositions drawn up by Dr. Dudfield—namely, as to the desirability of a compulsory notification of infectious diseases in the metropolis, an amendment of Section 26 of the Sanitary Act, 1866, and the depauperising of the relief given by the Poor-law authorities to the infectious sick, were discussed and adopted unanimously. A resolution was also carried appointing a deputation to the Local Government Board to submit the conclusions arrived at by the meeting, and ask that the Government should give effect to them by legislation. In the course of the meeting, it is reported that Dr. S. Gibbon, medical officer of health of the Holborn district, maintained that the manner in which infectious diseases should be dealt with would be by drawing a *cordon* around every house where a case of infectious disease should occur. Dr. Gibbon does not seem to have explained that to do this effectually two-thirds of the population of the metropolis would be required to look after the other third.

THE PLAGUE.

The latest news from Turkey as to plague indicates that the disease is still extending in Nedjef and the vicinity. Kufa appears to have been deserted by its inhabitants, and the houses are being subject to disinfection.

In the Gambia, small-pox is stated to be prevailing among the black population; whilst the administrator of the territory reports that, in consequence of the cessation of yellow fever in Senegal, vessels arriving from St. Louis, Goree, &c., are not placed in quarantine at Bathurst if they bring clean bills of health.

A report of Surgeon Glazier on the history of trichinæ and trichinosis has been issued by the American Government. It appears that, judging from the statistics of the medical institutions in the United States where dissections are made, the disease is not common in that part of the world.

Fever having broken out on board the training-ship *Boscawen*, the crew have been sent either to their homes or to the *Warrior*.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Joseph Watts to be Brigade Surgeon, vice Sampson Roch, granted retired pay; Surgeon-Major St. John Stanley to be Brigade Surgeon, vice John Meane, granted retired pay; Surgeon-Major Charles Moore Jessop to be Brigade Surgeon, vice Charles Carroll Dempster, granted retired pay.

ADMIRALTY.—Surgeon Anthony Gorham, M.D., has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet, with seniority of 23rd ult. The following appointments have been made:—Surgeon Malcolm V. Stace, to the *St. Vincent*, additional, for service in the *Martin;* Staff-Surgeon Thomas L. Horner, to the *Briton;* Surgeon Alfred Patterson, to the *Mallard;* Surgeon Robert F. Yeo, to Malta Hospital, vice Ffrench Mullen; Surgeon Henry B. Collins, to Haslar Hospital, vice Yeo; Surgeon Francis G. Wright, to the *Briton;* Surgeon J. W. Tate, to be agent at Mullaghmore, vice O'Neil; Staff-Surgeon Joseph Wood, M.D., to the *Duke of Wellington*, in lieu of a surgeon, vice Horner; Staff-Surgeon A. Gorham, M.D., to the *Invincible*, in lieu of a surgeon, from date of promotion; Surgeon John Wood to the *Implacable*, vice Patterson; and Surgeon Joseph Crowley, to the *Audacious*, vice Wood.

MEDICAL NOTES IN PARLIAMENT.

Foot-and-Mouth Disease.

IN the House of Lords on Tuesday, Lord Spencer, answering a question put by Lord Lansdowne, explained the intentions of the Privy Council as to the orders relative to foot-and-mouth disease, which expired on the 31st ult.

In the House of Commons on Thursday, the 24th ult., petitions were presented in favour of the Alkali Works Bill from the Lancashire and Cheshire Associations, and against the Bill from owners and occupiers of cement works. For inquiry into the Indian Army Medical Department from L. F. Dickson and F. C. Barker.

On Friday, a petition for alteration of the Alkali Bill was presented from Macclesfield. Petitions were also presented as follow:—From the Irish Medical Association, against the Infectious Diseases Notification (Ireland) Bill; from Irish medical officers of health, for better observance of the Public Health (Ireland) Act, 1878; from dispensary medical officers, Ireland, for alteration of the law relating to vaccination in that country; and from Greenhithe, Brighton, and other places, for the prevention of vivisection. A return of deaths by starvation in the metropolitan district during 1880 was presented on the motion of Mr. John Talbot. Mr. Roger Leigh has, with Mr. Puleston, put down a notice of motion for the rejection of the Alkali Bill.

Fever Hospitals and Convalescent Homes.

Mr. R. Yorke asked the President of the Local Government Board whether, having regard to the statements made to him by a deputation on the 21st ult. on the subject of the prevalence of scarlet fever in the metropolis and the increase of centres of infection, owing to the absence of all provision for the reception of convalescents from that disorder, he would give that question his immediate attention; whether it was the duty of the Local Government Board to make provision for the establishment of convalescent homes in connexion with the fever hospitals of the Metropolitan Asylums Board; whether the existing state of the law admitted of that being done efficiently, and, if it did not, whether he would take immediate steps to obtain by legislation the necessary powers. Mr. Dodson would not fail to give attention to the matter. There was no duty imposed upon the Local Government Board to require the establishment of convalescent homes in connexion with the fever hospitals of the metropolis. Assuming that such homes could properly be considered hospitals for the sick, the Board would have a discretionary power in respect of them. Having regard, however, to the recent action which had been taken to suppress some of the small-pox hospitals, it was not likely that the Board would at this moment meet with much encouragement if it attempted to exercise such a power.

An Unfounded Charge.

In reply to Mr. J. G. Talbot, who put a question to the President of the Local Government Board respecting a charge made at a public meeting against the managers of the Metropolitan Asylum District of negligence in the management of the Small-pox Hospital at Fulham, Mr. Dodson said he was aware that a charge was made at a public meeting against the managers by a gentleman who stated in a letter that he had recently seen the nurses from the Small-pox Hospital at Fulham walking up and down the Seagrave-road in their working costumes among the children of his neighbours. He had since seen a copy of a letter written by the gentleman in question after attending a meeting of the hospital committee in which the whole matter was fully investigated. In that letter he expressed his satisfaction at finding that the persons whom he saw were not, as he imagined, nurses in the employment of the hospital. It was to be regretted that the same degree of publicity had not been given to this retractation as was given to the charge. Mr. Firth explained that he did not read the letter at length. It was one of many letters which were handed up to him as chairman, and it affirmed that the nurses of the hospital had been seen playing with the children in a particular street. An opportunity had not arisen of giving the explanation which was desirable.

On Monday, a petition against the abolition of vivisection was presented from British medical men in Rome. The second reading of the Alkali Bill was deferred to Thursday, as also was the Committee stage of the Blind and Deaf-mute Children Bill, upon which Mr. Paget has given notice of certain amendments.

Animal Vaccine.

Mr. P. A. Taylor asked the President of the Local Government Board whether it is a fact that there is no well-ascertained case of spontaneous cow-pox on record; whether it is a fact that the common practice for many years has been to inoculate the calf with the virus of human small-pox, thus causing, in the words of Sir Thomas Watson, "a vast amount of mitigated small-pox"; whether it is a fact that within the last few years the mortality from small-pox at the Hague and other cities in Holland and Belgium (whence he proposes to obtain fresh lymph) has been enormously large; and whether he will bring in a Bill to abolish compulsory vaccination. Mr. Dodson said he did not know what his hon. friend would consider a "well-ascertained case of spontaneous cow-pox," but cases of outbreaks of the disease amongst cows were specifically mentioned in the treatises on the subject, as well as in the evidence before the Select Committee in 1871. He was informed that it was not a fact that the common practice had been for many years to inoculate calves with the virus of human small-pox. He had no statistics as to the mortality from small-pox in Belgium, but in Holland the mortality in the epidemic of 1870–72 was very large indeed. There was nothing to show what proportion of the cases were vaccinated, and it must be borne in mind that neither in Belgium nor in Holland was vaccination compulsory. He had no intention to bring in a Bill to abolish compulsory vaccination.

On Wednesday, a petition for inquiry into the subject of butter adulteration was presented from the Grand Jury of Cork. Mr. Dwyer Gray moved the second reading of the Infectious Diseases Notification (Ireland) Bill, which was accepted by the Government, on the understanding that it might be amended in Committee; and the Bill was read a second time without debate.

The Hampstead Hospital Case.

On Thursday Mr. Firth asked the President of the Local Government Board whether the statement made at the last meeting of the City of London Union that the costs of the recent Hampstead Hospital case amount to £40,000 to £60,000 has any foundation in fact, and whether he has now ascertained what is the estimated amount of such cost; and whether there is any and what statutory authority enabling the Metropolitan Asylums Board to expend the money of London ratepayers in such litigation, or upon what ground such expenditure is approved by the Local Government Board. Mr. Dodson said he did not know what the costs of the Hampstead Hospital case amounted to, but there could be very little doubt that the statement referred to in the question was a considerable exaggeration. The Metropolitan Asylums Board were advised that they had what was called a good defence, and probably if they had not taken the steps they did they would have been held to be greatly to blame. M. Firth said he should repeat the first portion of his question, and was proceeding to say that "we had to pay the money," when he was called to order.

Cholera from Butterine.

Mr. O'Shaughnessy asked the President of the Board of Trade if his attention had been called to the fact that an outbreak of cholera which has occurred in the town of Chicago has been attributed by physicians of that town to the use of butterine, into the composition of which lard enters largely, and to the statement made by these physicians that the process of making butterine does not require so high a temperature as to kill the germ of disease in lard; and whether the Government will take measures of precaution, by inspection of butterine and other similar commodities into this country, to prevent the dissemination of disease by their use. Mr. Chamberlain replied that he had been furnished with a copy of an American newspaper, and in one amongst a number of anonymous paragraphs he found a statement similar to that conveyed in the question. The statement, however, did not give the names of the physicians to whom this opinion was attributed, and there was no means of ascertaining whether they were persons of authority. He believed the medical opinion in this country was adverse to the opinion those anonymous physicians had expressed. As to the last part of the question, he had no evidence whatever which was trustworthy to show that any diseases were disseminated by butterine or other similar commodities.

Bequests and Donations to Medical Charities. Sir H. Watson Parker, late of East Sheen, Surrey, bequeathed, at the death of his widow, £1000 to the Richmond Hospital, £500 each to the Cancer Hospital and the Consumption Hospital, Brompton, the Richmond Dispensary, and the Royal Kent Dispensary. The Cumberland Infirmary, the Cumberland and Westmoreland Convalescent Institution, the Carlisle Dispensary, and the Whitehaven and West Cumberland Infirmary receive each £250 under the will of the late Mr. W. M. Bell of Sackville-street, London. Major F. W. Cartwright bequeathed £100 to the Northampton Infirmary.

A member of the New York Legislature has introduced a Bill to inflict a penalty on the keepers of hotels and boarding-houses who use oleomargarine, or other imitations of butter, without prominently displaying an announcement that they do not supply genuine butter.

CATGUT LIGATURE IN THE TREATMENT OF ANEURISM.

To the Editor of The Lancet.

Sir,—Might I be allowed a few words in reply to Mr. Lane's letter in your last issue on the subject of the catgut ligature. It will be remembered that out of the three cases referred to by Mr. Lane the vessels in two instances were found patent at long intervals after the operation, while the third vessel was found closed. It would be quite out of place to rediscuss the general points suggested by these cases, and I would wish to allude merely to Mr. Lane's explanation of the unequal results. Mr. Lane says that it is clear to him "that the two failures arose from the ligature not being effectually applied." In these two cases a double hitch was used, followed by a single hitch; in the third case two single hitches were adopted. I quite agree with some of Mr. Lane's remarks anent the difficulties of the double hitch knot, and with those also made by Mr. Barwell in The Lancet for March 5th. It seems to me that the use of this knot may prove in some cases inefficient; and in a series of experimental ligations of arteries made in the post-mortem room I certainly failed in one case to divide the inner coats with this particular knot, and used a good deal of force to effect that end in other cases.

But this possible source of failure does not affect the present cases. I presume that the efficacy of a ligature regarded simply as a *knot* tied to close a vessel depends mainly upon two factors—firstly, the possibility of its not slipping when once tied; and, secondly, its power of dividing the inner and middle coats when drawn tight. Now, of the two knots in question, I should imagine that the double hitch knot was by far the less likely to slip, and yet this knot was applied in the two cases where the vessels remained patent. With regard to the other point, in one of these two cases the coats were divided; in the other they were not. So far as I can see, therefore, the question remains somewhat in the same position as before.—Your obedient servant,

Frederick Treves.

Gordon-square, W.C., March 29th, 1881.

THE BIRMINGHAM HOSPITAL FOR WOMEN.

To the Editor of The Lancet.

Sir,—I regret to say that no other writer has been so anxious as I have been to give to Dr. Keith the full credit which is due to him for our present low mortality in ovariotomy. But Dr. Keith's cases can hardly be called hospital cases—at least, he does not publish them as such,—and, therefore, I was not including his results in the comparison.

At present we nearly equal his last results, and in friendly rivalry I hope to excel them—and all the more credit to him.

I am, Sir, yours &c.,

Birmingham, March 24th, 1881. Lawson Tait.

UNQUALIFIED PRACTITIONERS AND PRIVATE DISPENSARIES.

To the Editor of The Lancet.

Sir,—In a recent number you drew attention to an inquest on a case in connexion with my dispensary. The accompanying extract from the local paper which first reported and commented on the case will show that the circumstances were strangely misrepresented. All the explanations which you say ought to have been forthcoming were fully and satisfactorily stated to the coroner at the inquest, though not reported, and all the arrangements which you very properly urge were in existence at the time, and are so now. The message to visit the patient was only delivered a few hours before her death; and the circumstances of the case being suspicious and mysterious it would have been highly improper to have given a certificate, even had I seen the girl myself. I am, Sir, yours truly,

March 23rd, 1881. A. Kisch.

⁂ We gladly insert the above letter, feeling satisfied that in this instance reasonable endeavours are made to have patients attended by the principal, or, in his absence, by a qualified friend. The publication of the extract would make too great a demand on our space.—Ed. L.

IRELAND.

(*From our own Correspondent.*)

THE Secretary of the Public Health Committee of the Corporation of Dublin has recently made a report on the system adopted at Steevens's Hospital for the disinfection of clothing, bedding, &c., used by patients suffering from infectious diseases. On the occasion of his visit to the hospital there were twenty-seven patients in the fever ward all suffering from scarlatina, and all of them members of the constabulary. Ten patients were in each of the two wards, the cubic space for each being under 600 ft. There was no convalescent ward, and acute and convalescent cases consequently occupied the same apartment. These constabulary patients on admission wear civil clothing, of which they do not possess more than one suit, but a loose overcoat is supplied by the constabulary authorities, and this is worn by the patients during convalescence; so that during the desquamative stage they must resume their civil clothing, and continue to wear it until their return to the constabulary depôt. It follows from this that the disinfection of these patients' clothing during their illness is rendered practically ineffectual, and that their garments are likely to carry infection to others. It is further stated that the attention of the governors of this hospital was several months since directed to the danger that must result from mixing infected with disinfected articles, and that the suggestion was disregarded. The Public Health Committee have strongly recommended the governors to provide proper measures of disinfection on their own premises, to separate infected from disinfected clothing, and not to permit the men to leave the hospital wearing the clothes which had been subject to the risk of infection.

Dr. MacCabe, Local Government Board Inspector, in a recent report on the condition of the North Dublin Union for the six months ending 31st December last, states that its crowded condition had probably exercised an unfavourable influence upon the sanitary condition of the workhouse during the period referred to. Typhus fever prevailed extensively amongst the lower classes of the city, and many destitute persons were admitted to the workhouse when suffering from premonitory symptoms of typhus. It frequently occurred that applicants for admission were not aware of their condition, and the symptoms they presented were not sufficiently advanced to warrant the medical staff in transferring them to a fever hospital until some days after their admission; and while such persons remained under observation in the workhouse it is probable that zymotic diseases were by them communicated to other inmates.

At the close of the past year there were 1022 inmates in the Richmond District Lunatic Asylum, and no increase in the accommodation for lunatics has been called for since 1874, during which year it was raised from 1040 to 1100 beds. The admissions in the past year have been 420, or 15 less than in 1879, but the number admitted for first attacks has been exactly the same in both years; whilst the admissions of relapsed cases have been only 65 in the past year, against 80 in the year preceding. One hundred and sixty-seven were discharged cured (or $39\frac{320}{420}$ per cent. of recoveries on admissions, and $11\frac{1091}{1419}$ on total number in asylum), and 81 improved, while the unimproved or incurable were 10. The mortality amounted to 138, all from natural causes, a number equal to $32\frac{360}{420}$ per cent. on admissions, and $9\frac{1029}{1419}$ on total in asylum. Thoracic affections formed a large proportion of the causes of death—viz., 66, while cerebral and cerebro-spinal affections produced but 24 deaths—a circumstance which has not escaped the notice of Dr. Lalor, the resident medical superintendent, who observes that with those labouring under a mental affection of which organic disease of the nervous centres is by many supposed to be the chief factor, the deaths from cerebral and spinal affections are comparatively few. The pathology of insanity, he adds, is, in truth, only in its infancy, and the part which the blood circulating in the brain plays in cerebration, and the variations produced in the phenomena of mind by diversities in the qualitative and dynamical conditions of that fluid, appear to him to present a large field for investigation, which has by no means been largely cultivated.

During the quarter ended December 31st last there were registered in the 801 registrars' districts in Ireland 27,582 births, a number equal to an annual birth-rate of 20·7 in every 1000 of the estimated population, and 22,226 deaths, representing an annual rate of 16·7 per 1000. The birth-rate in Ireland was under the average of the rate for the corresponding quarter of the previous five years to the extent of 2·9 per 1000 of the population; while the death-rate for the quarter was below the average of the fourth quarter of the five years 1875–9 by 0·3 per 1000.

PARIS.

(*From our own Correspondent.*)

THE protests against the dismissal of the religious communities from the hospitals have been met by a counter-protest from those who are in favour of the measure. This document is worded as follows:—"Monsieur le Directeur Général—At the present moment, when the question of the *laïcisation* of hospitals is attracting attention, we believe that we accomplish an act of honesty in stating the result of our experience. After having directed in other establishments services which were placed in the hands of the sisters, we are now attached to hospitals organised after the new system, which has been in vogue at Laennec for the last two years, and at La Pitié for six months; and we are pleased to acknowledge that we are satisfied with the intelligence and devotion of the *personnel* under our orders. It is therefore possible to affirm, from a knowledge of facts, that all the professional qualities necessary for the performance of their duties may be met with in lay superintendents and their subordinates." The signatures which follow are eight in number, comprising four professors of the faculty, MM. Verneuil, Peter, Brouardel, and Ball, and four *agrégés*, MM. Cornil, Damaschino, Le Groux, and Nicaise. Whether they will be able to rally any more adherents remains to be seen, but as yet they only form a numerically insignificant minority. The editor of the *Progrès Médical*, however (whose journal has become, with the *Tribune Médicale*, the official organ of *laïcisation*), is thankful for small mercies, and attaches the greatest importance to this new declaration, which is, indeed, probably the only justification the Assistance Publique can bring forward of the action they intend to pursue. Of course, the question of liberty of opinion is imported into the matter; and it is nominally for the sake of religious and political liberty that a competent staff of nurses, courageous enough to suffer for their faith, are to be replaced by more docile instruments. At the Municipal Council an appalling instance of the proselytising tendencies of the Sisterhoods was related by M. Quentin. At the Necker Hospital a nun was conversing with a young servant. "Do you go to the mass?" "No; my masters have forbidden me." The nun thought this was damnable, and tried to prevent the servant returning to her employers—tried to turn her from her duty. "We cannot permit this," added the speaker. Such an anecdote tells much more against the master who perverts a girl from what nine Frenchwomen out of ten would consider a religious *duty* than against the nun; and it affords a good idea of what such men understand by the religious liberty hereafter to be enjoyed in hospitals.

The annual fancy-dress ball for the patients of the Salpêtrière took place last week, and a full report of the proceedings was given in an evening paper, *Le Temps*. As on the last occasion, no attacks of any kind had occurred for some time past, the patients being too busy in the preparation of their dresses to carry on their usual performances. "Why," inquired the *Temps* reporter of Dr. Legrand du Saulle, "if the *fête* procures a month's repose, is it not adopted as a means of treatment—treatment by pleasure?" "The expense is too great," was the reply. The entertainment to-night costs more than a thousand francs!

Paris, March 30th, 1881.

EXTENSION OF RAINHILL ASYLUM.—At the forthcoming annual meeting of magistrates a motion will be submitted for the extension of Rainhill Asylum, to admit a thousand more patients, and £120,000 will be borrowed for the purpose.

THE six European countries which forbid the importation of American pork are Spain, Portugal, Italy, France, Greece, and Switzerland.

Medical News.

Indian Medical Service. — The following is a list of candidates who were successful at the competitive examination held at Burlington House on Feb. 14th :—

1. H. I. Griffiths.
2. F. D. C. Hawkins.
3. A. Milne.
4. J. A. Cunningham.
5. A. G. E. Newland.
6. H. C. Hudson.
7. P. Mullane.
8. A. Silcock.
9. R. I. Baker.
10. J. W. Rodgers.
11. R. G. Cooper.
12. M. B. Braganza.
13. H. W. Stevenson.
14. W. A. Corkery.
15. A. J. L. Patch.
16. R. Ross.
17. S. T. Avetoom.
18. C. A. Adams.
19. J. F. Maclaren.
20. J. K. Kanga.
21. E. R. Da Costa.
22. A. J. O'Hara.

Apothecaries' Hall. —The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on March 24th :—

Callaway, James, City-road.
Moore, Alexander Matthew, Newcross-road.
York, Thomas Hutten, Brady-street, Bethnal-gren.

The following gentlemen also on the same day passed the Primary Professional Examination:—

William Isaac Haddock and Frederick Lucius Nicholls, Charing-cross Hospital; Reginald Whiteside Statham, St. Thomas's Hospital.

A cottage hospital has been opened at Llandrindod Wells, Radnorshire.

Cambridge University. — On March 24th the degree of Bachelor of Medicine was conferred on Frank Montagu Pope, Magdalene.

The late Mr. Courtauld of Gosfield Hall, has, we are informed, left his medical attendant, Mr. Taylor of Bocking, Essex, the sum of £500.

Mr. C. E. Hobbes of the Alcester and Evesham Unions, has received, for the fourth time, the Government grant for efficient vaccination in his districts.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* The Lancet *before 9 o'clock on Thursday Morning, at the latest*

Bevan, W. Ll. P., M.B., C.M., has been appointed House-Surgeon to the Wallasey Dispensary [not the Dorset County Hospital, as announced in our last].

Blandford, J. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Norton District of the Stockton Union.

Carden, G. A., M.R.C.S.E., L.S.A.L., has been appointed Honorary Medical Officer to the Branch Dispensary of the Cheltenham General Hospital, vice Spurway, resigned.

Cathcart, C. W., M.B, F.R.C.S.E., has been appointed Lecturer on Anatomy in the Royal College of Surgeons, Edinburgh, vice Handyside, deceased.

Chapman, J. H., M.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Hospital for Incurables, Dublin, vice Peele, deceased.

Churchill, J. F., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Second District of the Amersham Union.

Davies, D., M.R.C S.E., L.S.A.L., has been reappointed Medical Officer of Health to the Bristol Port Sanitary Authority.

Fentem, P. S., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the Northern Division of the Bakewell Rural Sanitary District.

Hayward, J. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the All Saints' District of the Maldon Union.

Jeffreys, R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Bampton and Walton District of the Chesterfield Union.

Keene, F., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Aylesbury Rural Sanitary District.

Knox, J., M.D., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Southern Division of the Bakewell Rural Sanitary District.

McGeagh, W., M.D., M.Ch., M.R.C.S.E., has been appointed Honorary Assistant Medical Officer to the Ladies' Charity and Lying-in Hospital, Liverpool.

Meeres, E. E., M.D., M.R.C.S.E., L.S.A.L., has been appointed Physician to the Plymouth Public Dispensary, vice Thorold, resigned.

Malley, A. C., M.B., M.Ch., has been appointed Medical Officer for the Munslow District of the Ludlow Union.

Morcom, —, L.R.C.S.Ed., L.S.A.L., has been reappointed Medical Officer of Health for the Luton Rural Sanitary District.

Newsholme, A., M.B., M.R.C.S.E., has been appointed Surgeon to the City Dispensary, vice J. A. Kingdon, F.R.C.S., resigned.

Parsons, F. J. C., L.R.C.P.L., M.R C.S.E., L.S.A.L., has been reappointed Medical Officer of Health to the Bridgwater Port Sanitary Authority.

Births, Marriages, and Deaths.

BIRTHS.

Dawson.—On the 24th ult., at Hyde-park-gardens, W., the wife of Yelverton Dawson, M.D., of a daughter.

Lawrence.—On the 24th ult., at Chesfield, Hadlow, Kent, the wife of H. M. Lawrence, L.R.C.P.Ed., L.R.C.S.Ed., of a son.

Lukis.—On the 26th February, at Barrackpore, Calcutta, the wife of Surgeon C. P. Lukis, Bengal Medical Service, of a daughter.

Scott. — On the 28th ult., at Lancaster House, Lincoln, the wife of W. E. Scott, L.R.C.P. &c., of a daughter.

Wallace.—On the 21st ult., at Cleckheaton, Yorkshire, Constance, the wife of Edward J. Wallace, M.D., of a son.

MARRIAGES.

Bothamley—Dunn. —On the 26th ult., at St. Antholin's Church, Nunhead, William Parkinson Bothamley, M.R.C.S.E., L.S.A.L., of Donington, Lincolnshire, to Elizabeth Ann, eldest daughter of W. Dunn, Esq., of The Newlands, Peckham-rye.

Eddison—Dougill.—On the 29th ult., at the Parish Church, Almondbury, near Huddersfield, John Edwin Eddison, M.D., of Park-square, Leeds, to Elizabeth, eldest daughter of the late John Dougill, of Finthorpe, Almondbury.

Maxwell—Ritchie. —On the 21st ult., at 8, Whitehouse-terrace, Edinburgh, by the Rev. W. L. Riach, Charles M. Maxwell, M.R.C.S.E., L.S.A.L., of Broomieknowe House, Lasswade, N.B., to Rossie Milne, fifth daughter of the late George Ritchie, of Edinburgh.

Nesbitt—Gresham.—On the 23rd ult., at Derrylin, County Fermanagh, Dawson Nesbitt, M.D., of Cambridge-place, Hyde-park, to Emily, second daughter of the late William Henry Gresham, of Glenwood, Lucan, County Dublin.

Thom—Aitken.—On the 24th ult., at Oaklands Crieff, N.B., by the Rev. J. R. Omond and F. C. Monzie, Alex. Thom, jun., M.A. St. And., M.B. & C.M. Ed. (son of Dr. Thom, of Ivy Lodge, Crieff), to Helen, daughter of Mark Aitken, of Oaklands.

Vacher—Braidwood.—On the 30th ult., at St. Mary's, Hornsey-rise, London, Francis Vacher, F.R.C.S.Ed., Medical Officer of Health for Birkenhead, to Isabella, younger daughter of the late Rev. J. Braidwood, M.A. No cards.

DEATHS.

Levick. — On the 23rd ult., at West Ham, Essex, George Levick, M.R.C.S.E., L.S.A.L., in his 40th year.

Merriman.—On the 24th ult., at West Lodge, Putney-common, after a few hours' illness, John Merriman, M.R.C.S.E., L.S.A.L., Apothecary Extraordinary to the Queen, aged 80.

Webb.—On the 29th ult., at The Vicarage, Heckmondwike, Yorkshire, Edward Charles Webb, Surgeon, second son of the Rev. George Mower Webb, B.A., Vicar of Heckmondwike, aged 36.

Whately. — On the 24th ult., at Gainsborough, Torquay, Edward Whately, M.R.C.S.E., aged 61.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

Baillière, Tindall, & Cox, London.

Aids to Diagnosis. Part I.: Semeiology. By Dr. J. M. Fothergill. Part II.: Physical Diagnosis. By Dr. J. C. Thorowgood. pp. 75–61.

Aids to Rational Therapeutics. By Dr. J. M. Fothergill. pp. 121.

Fasting and Feeding Psychologically Considered. By L. S. Forbes Winslow, M.B. Cantab. pp. 63.

Bogue, David, London.

The Detection of Colour-blindness and Imperfect Eyesight. With Table of Coloured Berlin Wool and Sheet of Test Types. By C. Roberts, F.R.C.S.

Churchill, J. & A., London.

Manual of the Physical Diagnosis of Diseases of the Heart. By A. E. Sansom, M.D. Lond. Third Edition. pp. 300.

A Manual of what every Mother should know. By Ed. Ellis, M.D. pp. 129.

Dysmenorrhœa, its Pathology and Treatment. By Heywood Smith, M.A., M.D.Oxon pp. 122.

Lectures on Diseases of Bones and Joints. By C. Macnamara, F.R.C.S. Second Edition. pp. 551.

De la Rue & Co., London.

The Factors of the Unsound Mind, with Special Reference to the Plea of Insanity in Criminal Cases and the Amendment of the Law. By Wm. A. Guy, M.B. Cantab., F.R.S. pp. 232.

Fairfax Company, London.

Essays, Hints, and Observations on Personal Economy, Diet, and Hygiene. p. 120.

Johnston, W. & A. K., Edinburgh and London.

The Relations of the Abdominal and Pelvic Organs of the Female. Illustrated by a full-sized Chromo-lithograph of the Section of a Cadaver Frozen in the Genu-pectoral Position, and by a Series of Woodcuts. By Prof. A. R. Simpson and Dr. D. B. Hart.

Lewis, H. K., London.

Refraction of the Eye, its Diagnosis and the Correction of its Errors; with a Chapter on Keratoscopy. By A. Stanford Morton, M.B., F.R.C.S.Ed. pp. 57. With Diagrams.

LIPPINCOTT, J. B., & CO., Philadelphia.
- Fever: a Study in Morbid and Normal Physiology. By H. C. Wood, A. M., M.D. pp. 258. With 5 Plates.
- Medical Diagnosis, with special reference to Practical Medicine. By J. M. Da Costa, M.D. Fifth Edition, Revised. pp. 924. With Illustrations.

LONGMANS, GREEN, & CO., London.
- Transactions of the Obstetrical Society of London. Vol. XXII. pp. 315.
- Transactions of the National Association for the Promotion of Social Science. Edinburgh Meeting, 1880. pp. 880.

MACMILLAN & CO., London.
- Bovine Tuberculosis in Man: an Account of the Pathology of Inspected Cases. By Charles Creighton, M.D. pp. 119. With Illustrations.
- The School Cookery Book. Compiled and Edited by C. E. G. Wright. pp. 158.
- Collected Works of Francis Sibson, M.D. Edited by W. M. Ord, M.D. In 4 vols. Illustrated.

MARSHALL, JAPP, & CO., London.
- Vivisection Scientifically and Ethically Considered, in Prize Essay, by Dr. J. Macaulay, Rev. B. Grant, and Abiathar Wall. pp. 317.

MORTON & CO., Louisville.
- Aphorisms in Fracture. By R. O. Cowling, M.D. pp. 70.

MURRAY, J., London.
- The Cat: an Introduction to the Study of Backboned Animals, especially Mammals. By St. George Mivart, Ph.D., F.R.S. pp. 557. With 200 Illustrations.

OLIVER & BOYD, Edinburgh.
- Transactions of the Edinburgh Obstetrical Society. Vol. V. Illustrated.

PAUL, C. KEGAN, & CO., London.
- Concise Handbook of the Island of Madeira, with Plan of Funchal and Map of the Island. By J. M. Rendell. pp. 84.

PUTNAM'S SONS, New York.
- Clinical Lectures on the Physiological Pathology and Treatment of Syphilis. By F. N. Otis, M.D. pp. 116.

WOOD, W., & CO., New York.
- A Clinical Treatise on the Diseases of the Nervous System. By Prof. M. Rosenthal. With a Preface by Prof. Charcot. Two vols. pp. 278–277.
- A Treatise on Foreign Bodies in Surgical Practice. By Alfred Poulet, M.D. Two vols. pp. 320–271. Illustrated.
- A Treatise on the Materia Medica and Therapeutics of the Skin. By H. G. Piffard, M.D. pp. 351. With Illustrations.

The Coroner's Office: an Address by C. Bell. (Mead, New York.)—Revista Especial de Oftalmologia, Sifilagrafia to Dermatologia, y Afecciones Urinarias.—Neurological Contributions; by William Hammond, M.D., assisted by William J. Morton, M.D.. Vol. III. (Putnam's Sons, New York.)—The Scientific Roll; conducted by Alex. Ramsay, F.G.S.—Fraser's Magazine, March and April.—Girl's Own Paper, March and April.—Friendly Greetings, March and April.—Good Words, March and April.—Sunday Magazine, March and April.—De las Pneumoconiosis; por Rosalino Rovira y Oliver.—Monthly Homœopathic Review, March.—Maladies Cancéreuses; Observations par le Dr. G. Von Schmidt. (Berthier, Paris.)—Contemporary Review, March. (Strahan & Co.)—Archives of Laryngology. Archives of Otology. (Putnam's Sons, New York.)—The Veterinarian, March. (Longmans.) Notes on Books. (Longmans & Co.)—Silverlock's Medical Reference Book; edited by G. Brown, M.R.C.S.—The Practitioner.—Bulletin Récupitulatif de Statistique Municipale, Paris.—Sixteenth Annual Report of the Sanitary Commissioner with the Government of India, 1879.—The Weather of 1880; by Ed. Mawley, F.M.S. (Bemrose.)—Del Lattime; Considerazioni Pratiche del Dottor Paventa Francesco.—Congenital Syphilis of the Throat; by Dr. J. N. Mackenzie.—Twenty-five Consecutive Cases of Ovariotomy; by Dr. J. Homans.—Columnæ Adiposæ; by Dr. J. C. Warren.—Anales del Circulo-Medico Argentino.—A Review of the Facts and Records in connexion with Kitchen-boiler Explosions, &c.; by S. B. Goslin, F.M.S.—Freidrich Robert Wilms: in Memoriam, von P. Gueterbock.—Journal of Physiology.—Popular Science Monthly.—Annual Report of the Pharmaceutical Society of Victoria.—What Science is saying about Ireland. (Leng & Co., Kingston-upon-Hull)—Index Medicus, Vol. III., No. I. (Leypoldt, New York.)—Transactions of the American Ophthalmological Society.—Compulsory Medical Inspection of all Schools; by Dr. Roth.—Notes on Rickets and Rickety Deformities, by Dr. Roth.—Colorado for Invalids; by S. E. Solly, M.R.C.S. Eng.—The Natural History of the Cranes; by the late Ed. Blyth, C.M.Z.S.; greatly Enlarged and Reprinted, with numerous Illustrations by W. B. Tegetmeier, F.Z.S.—Some of the Unsettled Questions concerning Nasal Catarrh; by Dr. F. H. Bosworth. (New York.)—The Fungoid Origin of Epidemics; by Dr. M. W. Taylor.—Contributions to the Physiology and Pathology of the Nervous System (Part III.); by Dr. Isaac Ott.—Ueber das Verhalten des Malariafiebers in Pola; von Dr. A. R. von Jilek. (Wien.)—River Water: a Reply to Dr. Frankland; by C. M. Tidy, M.B.—Medical Reports of the China Imperial Maritime Customs; No. II., Special Series.—Malformations of the Œsophagus; by Morell Mackenzie, M.D.—The Northern Microscopist, April.—**La Bourboule Actuelle; par le Dr. Ad. Nicolas.** (Masson, Paris.)

Medical Diary for the ensuing Week.

Monday, April 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. The President (Dr. Broadbent) will exhibit a Patient suffering from Double Facial Paralysis.—Dr. W. H. Day, "On Tubercular Meningitis and the Mode of Treatment."—Dr. R. J. Lee, "On Cutaneous Diseases in Infants and Young Children."

Tuesday, April 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Carcinoma and Adeno-fibroma of Breast, Hyaline Myxoma, Odontoma, Nasal Epithelioma, &c. (card); Cranium and Brain of Hydrocephalic Adult; Case of Pulsation in Hepatic Region (living specimen); Aneurism of Pulmonary Artery (card); Dermoid Tumour of Soft Palate; Case of Lupus (living specimen); Abscess of Liver following Dysentery; Unreduced Dislocation of Patella (card).
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. William Westgarth, "On Trade Relations between Great Britain and her Dependencies."

Wednesday, April 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lectures: Dr. Southey, "On Bright's Disease."
HUNTERIAN SOCIETY.—7.30 P.M. Council Meeting.—8 P.M. Dr. Hughlings Jackson will exhibit Cases of Disease of the Spinal Cord.—Dr. Port, "On a Case of Disseminated Sclerosis."
EPIDEMIOLOGICAL SOCIETY.—8 P.M. Deputy Surgeon-General Joseph Ewart, "On Scrofula, Tuberculosis, and Phthisis in India."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by the President, Drs. Godson and Cory, and Mr. Alban Doran.—The Discussion on Dr. Barnes's paper "On Missed Labour" will be resumed, after which "A Case of Delivery through an Imperforate Vagina," by Dr. Heywood Smith, and other communications.

Thursday, April 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On Ornament."
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens.—Dr. Hughlings Jackson, "On a Case showing the state of the Discs ten years after recovery from Optic Neuritis." Mr. Waren Tay, "On a Case of Disease at Yellow-spot Region in an Infant."—Report of the Committee on Colour Blindness (presented by Dr. Brailey).
LINNEAN SOCIETY.—8 P.M. Dr. Cobbold, "On Parasites of Elephants."
HARVEIAN SOCIETY.—8½ P.M. Dr. T. C. Hayes, "On Fibrous Polypus of Uterus."—Dr. Cheadle, "On the Treatment of Empyema."

Friday, April 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lectures: Dr. Southey, "On Bright's Disease."
ROYAL INSTITUTION.—8 P.M. Professor Tyndall, "On Conversion of Radiant Heat into Sound."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. B. O'Connor, "On a Case of Syphilitic Psoriasis."—Mr. Rushton Parker, "On a Case of Arterial Hæmatoma of the Forearm."—Dr. Steavenson, "On a Case of Meningocele" (patient will be shown).—Mr. J. H. Morgan, "On a Case of Progressive Painful Inflammation of the Arteries."

Saturday, April 9.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Rev. H. R. Haweis, "On American Humorists."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 31st, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 25	29·40	N.W.	40	35	..	48	34	·04	Cloudy
„ 26	29·80	N.W.	36	33	..	46	30	..	Hazy
„ 27	30·04	E.	41	36	..	47	28	..	Bright
„ 28	29·90	E.	38	34	..	49	29	..	Hazy
„ 29	29 76	E.	40	36	78	57	31	..	Hazy
„ 30	30.06	N.E.	37	34	68	46	28	..	Hazy
„ 31	30·05	E.	40	35	81	48	34	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

FOOD AND DISEASE.

DR. SEATON, Medical Officer of Health for the borough of Nottingham, gave last week to the members of a local temperance society an interesting lecture on diseases spread by means of food. Such diseases he classed into the parasitic and the zymotic. He sketched the history of the trichina spiralis, and referred to the communication of Dr. Wortabet, published in THE LANCET of March 19th, as containing a striking illustration of the efficacy of thorough cooking of food in destroying the parasite. Dr. Seaton then alluded to the cases of pork infection that had recently occurred at Welbeck and at Nottingham. These had no relation to the disease of which he had been speaking—trichinosis. They were caused by most minute microscopic particles closely resembling other microscopic particles which during the last few years had been shown to be the cause of some of the zymotic infectious diseases, as, for instance, the relapsing fever of man, the anthrax of cattle, which, in the form of woolsorters' disease, affected man also. The lecturer set forth more in detail the relation of the spirilla to relapsing fever and the probability of its being connected with its causation. He also spoke of the identity between the bacillus anthracis and that of woolsorters' disease as a thing which, if not absolutely proved, was in the highest degree probable; and described the process of fermentation and the nature of disease germs (a subject treated of in another column).

DISPENSARY PRACTICE.

To the Editor of THE LANCET.

SIR,—I can fully endorse the opinions of L.R.C.P. relative to the above, but there are also other snares which the unwary purchaser should be guarded against. Many, if not the major portion of dispensaries, are started and pushed on by qualified men, ne'er do weels in the usual routine of regular practice, with the view of showing good receipts, and as soon as their desideratum is obtained, of selling them at the best marketable value. Such, oftener than not, rapidly fall off in receipts. I myself became entangled in partnership in a similar undertaking, and now find partner is oftener more fit to be doctored than to doctor, through a considerable *penchant* for alcoholic stimulants. The consequences likely to accrue from such conduct one does not care to contemplate, especially when a good sum has been paid down for the privilege of joining another in such rough-and-ready work as dispensary practice.

I am, Sir, yours faithfully,

March, 1881. L.R.C.S.I.

THE SO-CALLED SMALL-POX IN CHICKENS.

MR. WILMOT H. T. POWER, B.A., M.R.C.S., communicates to "Hardwicke's Science Gossip" the following note:—"In Mauritius large numbers of the chickens are reduced to mere skeletons, with a dry scaly eruption on the skin, leaving more or less bald patches, especially about the head and neck. I found this was due to the presence of lumbrici in such numbers that the interior of the intestines was so irritated as to be as red as a soldier's tunic; emaciation and eruption were due simply to starvation. At one station we kept our poultry in a large enclosure covered over with a net, and taking care none but clean water, and frequently changed, was given them. We had no disease, and fine chickens. About 100 yards off at a lighthouse, it was always present, but the poultry there drank from a very dirty small pool. I feel inclined to say Mauritius had degenerated from being the land of the dodo to the land of the lumbrici."

Mr. Partridge.—Thanks.

Norman.—No.

Mr. Jos. Moore.—It is purely a matter of agreement.

"THE CASE OF PROBABLE POISONING BY COLCHICUM."

To the Editor of THE LANCET.

SIR,—In a letter published in your issue of March 19th, Mr. Linnington Ash, referring to this case, speaks of muscular twitchings as "the distinctive symptom of the influence of colchicum." Will you allow me, through your columns, to ask Mr. Ash on what authority he founds this assertion? I find no mention of this symptom in such works on Toxicology as I have access to. I believe cases of colchicum poisoning not unfrequently end with convulsions immediately preceding dissolution; but, as a general rule, nervous symptoms of any kind other than these are rare. Mr. Ash, however, appears to found his opinion that this case was not one of poisoning by colchicum on the fact that no muscular twitchings appeared in the early part of the case.

Your obedient servant,

G. M. WASSE, M.R.C.S. ENG.

Knighton, Radnor, March 25th, 1881.

TREATMENT OF FRACTURED PATELLA WITH HIDES' PATENT PERFORATED FELT SPLINT.

To the Editor of THE LANCET.

SIR,—The success I have had with Hides' patent felt splint in the treatment of bow-legs in children has induced me to dip with it more deeply into surgery in the treatment of fractured patella as a fixture for the knee-joint. Although this fracture is not a very common occurrence, and seldom comes within the scope of the general practitioner, yet in hospitals it is common enough; and even there some difficulty exists in keeping the fragments in position, which in all cases is all that is necessary. Every surgeon knows very well the treatment recommended in this fracture, and I believe will admit the difficulty of producing a case of union, at most only ligamentous to a more or less extent.

I claim for Hides' patent splint an improvement (if only in comfort to the patient) on Malgaigne's treatment with hooks, which up to the present is the only sure means of keeping the fragments in undisturbed position, but without the pain and inconvenience of having four hooks inserted into the bones through the integument, a great discomfort to the patient, if not requiring removal altogether after a short time by the irritation they produce. Besides, Malgaigne's hooks if they can be borne are only useful in cases of transverse fracture. Should it happen to be oblique and partly vertical, in three portions they become perfectly powerless, in which case my treatment will answer quite the same.

This splint, when properly applied, should not be attempted for a week, or until the inflammation subsides, and then in two parts, anterior and posterior, meeting within half an inch at both sides. They should be shaped on a sound limb, about the same size, taking particular care while doing so that the felt in its soft condition is pressed with the two hands firmly around the patella, so as to drive the synovial fluid puffed out during extension back into the joint, when it will take the exact mould of the patella and retain it when cool. Should the splints not fit the knee for which it is intended, it should be warmed before a fire and held in its position on the knee for two or three minutes. When the parts are properly moulded and trimmed, it is only necessary to line them with coarse flannel or saddle lining serge, and have a one and a half inch strap with buckle attached above and below the knee, about six inches apart; then the joint will become firmly fixed, without undue pressure. The patella is surrounded as in a socket, with no possible chance of the fragments separating. Another great advantage is obtained by the even pressure on the quadriceps, the splint extending for at least six inches from the centre of the patella, thus preventing their action by nervous twitching during sleep.

The patient may get about after three weeks and walk with a fixed knee, continuing to wear the splints as long as may be considered necessary.

I am, Sir, yours &c.,

Chelsea, March 28th, 1881. HENRY FISHER, M.D.

DRUGGISTS' CHARGES.

THE *Bristol Mercury* inserts the letter of a physician to a London contemporary, who complains that a druggist had charged a patient—a respectable but poor married woman for whom he had prescribed gratuitously—eighteenpence for a box of ointment. The physician sees in such charges one of the great obstacles to the poor getting proper supplies of drugs, and therefore one of the explanations of their being driven wholesale to public charities. There is some truth in this. The charges are absolutely prohibitive in many cases, and just in those cases where the supply of drugs is most urgent—where drugs, in fact, come to be something very like food. But this is an old complaint, and the druggists are more conservative in their system of charges than medical men.

CHRYSOPHANIC ACID IN PSORIASIS.

To the Editor of THE LANCET.

SIR,—As I was the first investigator of the effect of chrysophanic acid in psoriasis, may I be permitted to offer a comment on the ingenious suggestion offered in your columns of last week by "A Student of Materia Medica." He suggests that the effect obtained in Professor Charteris's experiment with the drug shows that the drug acts constitutionally as well as locally, and thus seeks to explain why it is that in Professor Charteris's experiment the ointment cured also that half of the body to which it had not been applied. The suggestion is well worth considering; but I may remark that, although a "one-sided" application of chrysophanic acid ointment has been often tried, the effect noted by Professor Charteris had not, so far as I am aware, been observed before. Then, again, the constitutional effects of chrysophanic acid (administered, it is true, in persons not the subjects of psoriasis) have been carefully investigated by a very able and well-known observer, Mr. Ashburton Thomson, who administered the drug in doses of, I think, ten grains in one hundred cases, and who found it to act only as an emetic purge. Now, since I first brought under notice the remarkable effect of chrysophanic acid ointment in psoriasis it has been used all over the world and by the most competent observers, and its effects have been recorded in almost every medical journal, British and foreign, and no one has spoken of emesis or purging as having ever followed its external use.

Now, let it be supposed that some one should advance that the external use of tar in psoriasis should depend in some degree on its "constitutional" effects, then I could answer him I am in a position to say that I have administered tar internally *ad nauseam*, and even so long (a month or more) that I felt constrained to employ it no longer, and yet I have found that thus employed it has no influence whatever in the amelioration of psoriasis. I do not apprehend that chrysophanic acid administered internally would have any better effect on psoriasis. Still, so far as I know, the experiment has never been tried, and it is quite possible that it might succeed.—Yours obediently,

March 28th, 1881. BALMANNO SQUIRE.

To the Editor of THE LANCET.

SIR,—A Medical Student in Materia Medica, Glas. Univ., has drawn attention to an interesting point in a case of psoriasis, which Dr. Crocker brought before the Medical Society of London, which he had treated, one extremity with chrysophanic acid—one drachm to the ounce—the other with turpentine. We know that the system is affected by drugs—viz., by the inunction of mercury it is soon affected, but it is hardly probable that the small dose of chrysophanic acid that would enter the system from the inunction in Dr. Crocker's case would affect the system so much as to relieve the opposite extremity so thoroughly. It seems to me more likely that the turpentine relieved the eruption in his case, as I have repeatedly used the pure spirits of turpentine of the strength of one and two drachms to the ounce of vaseline with marked good effect in psoriasis; and the relief of the opposite extremity to that treated by chrysophanic acid was in all probability due to the turpentine. As Dr. Crocker justly remarks, almost any outward irritant will benefit the affection, but, at the same time, these cases require careful internal treatment; as in my experience they only return to us again after a longer or shorter period, for, as the patients often say, "it only drives the eruption in." There is no doubt whatever that chrysophanic acid is a valuable drug in carefully chosen cases of psoriasis.

I am, Sir, yours truly,

Sackville-street, W., March 29th, 1881. JAMES STARTIN.

To the Editor of THE LANCET.

SIR,—The point raised by a Glasgow Student in your last issue is, I think, worthy of attention. He informs us that Dr. Charteris believes that the acid acts constitutionally as well as locally, and he furnishes us with facts that seem to prove that theory. The theory is, I believe, erroneous, because during several years in which I acted as clinical clerk at the Western Infirmary and Dispensary for Skin Diseases, Glasgow, no such effects were observed.

Dr. McCall Anderson often presented the acid to one side of the body, while to the other thymol or other agent was applied, the result being that the side to which the acid was applied always improved much more than the other, which, indeed, in some cases did not improve at all. Thymol, it may be remarked, was shown to have a slight effect either when used alone or to one side of a patient to whom the acid was prescribed for the other side.

Dr. Radcliffe Crocker's case, in which benefit was derived from turpentine, is not thus to be explained, but it is probable that the turpentine has some curative effect.—I am, Sir, yours, &c.,

Southport, March 28th, 1881. CHARLES PEMBERTON, M.B.

MEDICAL CHARITIES AND PRIVATE PRACTICE IN GLASGOW.

To the Editor of THE LANCET.

SIR,—Kindly allow me space for a few remarks suggested by the experience of a few months' practice in Glasgow. I refer, first, to "medical charities," particularly out-door dispensaries. That dispensaries have a demoralising effect upon the industrial classes, and a prejudicial effect on private practice, I think that there is not much doubt. For instance, I was called upon by a tradesman's wife, with her daughter, who had an abscess in the thigh. I advised that it be poulticed for two days, when, very likely, I should have to open it. This was agreed to, but she wanted to know how long she should poultice. Instead of returning to me, however, which she could do in about three minutes, the two went to the dispensary of one of our infirmaries, which is about eight times the distance, stated her case, and that she had gone there to get the operation done free; but the surgeon, who possibly from his private practice is acquainted with the tendencies of such people, sent them back to me, remarking that I had advised quite rightly. On the following day they went to the dispensary of the other infirmary, and there the operation was performed. This was all to save a shilling, which could well have been afforded, several members of the family being pretty regularly employed. Very rarely indeed do we hear of a dispensary surgeon doing as that gentleman did. On the contrary, I know a woman who took her child to the dispensary. The surgeon on duty attended that child afterwards privately in the same case, and rendered his account, which was shown to me. This woman was well connected socially. The well-to-do tradesman, or his wife, the spendthrift, and the respectably-dressed stranger are classes well represented at the dispensary. They are encouraged to go there, and they tell you that they "see the head doctor at the infirmary," and "get advice free." We private practitioners well know how we are called upon by those who "have no money," those who "are to pay on Saturday," but who never again turn up, and by those (to whom we gladly give gratuitous advice)—the deserving poor. What are the true objects of "medical charities?" And why are we licensed to practise while we find our interest very frequently injured by the same class of medical gentlemen, if we are unfit to do all for our patients that may be done in the dispensary?

Secondly, your leading article in THE LANCET of February 26th, pp. 339-40, should, by certain readers, be considered along with the fact that the druggists are largely opposed in their business by medical men. In one street alone in Glasgow, for instance, there are eight drug shops, two only of which are druggist's shops, and this proportion does not vary much in many of the other localities. It is not uncommon to find the doctor himself, even on a Sunday, and sometimes during public worship, behind his counter ready to retail cigars, sweets, hair-oil, &c., so that, *primâ facie*, the druggist has some reasons why he should treat a patient when asked to do so. I speak of Glasgow and its suburbs alone, however. It would appear that medical men are too plentiful. The unkind and even dishonest treatment I received the other day at the instance of a medical gentleman of some standing, in the case of a patient I was attending, who asked and received advice of the former in opposition to mine, would lead one so to think. Can a remedy to the existing evils not be found, as now the question of medical reform is receiving attention, by lengthening the curriculum, and enforcing a higher standard of education, thereby improving the morals and professional accomplishments of the profession, while reducing its numbers relatively to the rapid yearly increase? Benefit would accrue to all concerned, not excepting the schools.—I am, Sir, yours, &c.,

March 2nd, 1881. R. W. E.

HOMERTON SMALL-POX HOSPITAL.

To the Editor of THE LANCET.

SIR,—The clerk who copied my statistical report concerning the Homerton Small-pox Hospital has made several mistakes in the latter portion, and I shall therefore feel obliged if you will print the following as a correction, beginning at the words "The cases," in col. 1, page 517: "The cases per 1000 population per annum in the ten years 1871–80 were as follows:—In the streets around the hospital 12·0, in those situated with a quarter of a mile radius in front and at the sides of the hospital 9·2, and in the other small houses 5·8 per 1000. The number of deaths from small-pox in 1861–70, after allowing for the deaths of residents removed to the Highgate Hospital, was 173, which gives an annual death-rate of 0·167 per 1000 population for the whole district. There were 15 deaths registered within the quarter of a mile radius, which, with 3 added for the proportion removed to the Highgate Hospital, gives 0·264 per 1000, against 2·45, or nearly ten times as many, in 1871–80 as in 1861–70. The proportion of deaths in the quarter of a mile radius in 1861–70 to the total deaths in these years was 10·4 per cent., whilst in 1871–80 it was 18·3 per cent. of the whole, or nearly twice as many, showing that the inhabitants of these streets suffered to a much greater extent as compared with the rest of the district in 1871–80 than in 1861–70.

I remain, Sir, yours faithfully,

JOHN W. TRIPE, M.D.,

Medical Officer of Health for the Hackney District.

Hackney, March 28th, 1881.

"HYGIENIC INFLUENCE OF HOUSE PLANTS."

To the Editor of THE LANCET.

SIR,—Will you allow me a remark on the above subject, on which there is a note in THE LANCET of March 19th. House plants may be of advantage to a phthisical patient in two ways—1st, directly by purifying the air; 2nd, indirectly, by indicating the purity or foulness of the air in which they are kept. It is a matter of everyday experience that many plants will not live on the products of gas and other combustion, nor will they thrive in dark and sunless aspects; and therefore the "enthusiastic floriculturist," while suiting his rooms to his plants, was doing unwittingly what was the very best thing for himself. I do not intend to deny any importance to the direct action of plants, but their indirect action should not be lost sight of, and in the case in point it is possible that as good results might have been obtained with the four children who died (provided they were in as good general circumstances as marriage at twenty-three years implies) if they had kept no plants at all, but merely paid scrupulous attention to the hygiene of ventilation and sunlight, or if they had been treated by a physician of whom it is related that on being called to a case of phthisis he used to begin treatment by breaking a pane out of the bedroom window with his stick.

I am, Sir, yours, &c.,

Torquay, March 22nd, 1881. A. HAIG, M.B. Oxon.

CAUSATION OF THE DIFFERENCE OF EARLY SYPHILITIC ERUPTIONS.

To the Editor of THE LANCET.

SIR,—I would be greatly obliged if you would publish this letter in THE LANCET correspondence column. I have for a long time sought to find whether there are any theories concerning the causation of the difference of the earlier syphilitic eruptions—why some should be papular and others erythematous. Is it due to idiosyncrasy or to variety of infection? By variety of infection I mean whether one form of rash has appeared more frequently from primary or secondary infection.

Again, does the difference in any way affect prognosis? Should any of your readers be able to direct me to any author who treats these points or can give his own knowledge, I for one, and I believe many others, would be glad to read his letter.

I am, Sir, yours truly,

March 27th, 1881. M.R.C.S.I.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—Will you allow me space in your valuable journal to draw the attention of subscribers to Epsom College to a very deserving case. In September, 1879, Mr. G. S. D. Harris, a much respected practitioner of Leighton Buzzard, died suddenly, leaving a widow and ten children almost totally unprovided for, seven of whom are very young and entirely dependent upon her. The fourth son, Hamilton George Harris, is a candidate for the coming May election for a foundation scholarship. This is his second and last chance, as his age excludes him from another election.

I had the pleasure of an intimate friendship with the late Mr. Harris, and can bear testimony to the assiduity and kindness with which he carried out a most laborious but poorly paid practice. He died literally in harness, a victim to hard work and insufficient opportunities for relaxation in the effort to maintain a numerous family. The case is known to several influential persons.

I shall be happy to receive proxies and furnish any further particulars on application.—I am, Sir, your obedient servant,

CHAS. GROSS,
Medical Superintendent, St. Saviour's
March 30th, 1881. Infirmary, Walworth.

Mr. A. Smith should consult some skilled ophthalmic surgeon, *not* an optician.

Mr. Boon (St. Kitts).—The paper has not come to hand.

Mr. Sinclair.—Opinions differ as to the effect of flowers in bedrooms. The question is not yet sufficiently discussed.

Dr. G. W. Balfour's letter will appear in our next.

ERRATUM.—In Mr. Lowe's letter, published in the last number of THE LANCET, the temperature stated to be sufficient to destroy adult septic monads was erroneously put at 104° Fahr. It should have been 140° Fahr.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Dr. Stephenson, Earlsland; Mr. Jessett, Erith; Mr. Atthill, Faversham; Mr. Dodd; Mr. Rendle, London; Mr. Wasse, Knighton; Mr. Lowndes, Liverpool; Dr. Handfield Jones, London; Mr. T. Green Birmingham; Mr. A. Smith, Liverpool; Dr. Fisher, Chelsea; Mr. A. Kisch, London; Mr. R. V. Ash, London; Dr. Drysdale, London; Dr. F. Taylor, London; Mr. L. Tait, Birmingham; Dr. Cassidy; Mr. Oswald, Camberwell; Mr. Steele, Walworth; Dr. Herchmer, Fort Saskatchewan; Mr. Wolverson, Alfreton; Mr. Pinkerton, Southport; Mr. Haward, London; Mr. Wheeler, Swindon; Dr. Cory, London; Dr. Uhthoff, Brighton; Dr. Tripe, London; Mr. Wright, Pendlebury; Mr. Gick, Dublin; Mr. T. P. Wright, East Bridgeford; Dr. Bampton, Plymouth; Dr. De Renzy; Dr. Banning, Dunblane; Dr. G. W. Balfour, Edinburgh; Dr. O'Hara, London; Mr. Ellis, Bristol; Mr. J. B. Sutton, London; Mr. Startin, London; Mr. Woodd, Penge; Mr. Barling, Birmingham; Mr. Flinn, Brownhills; Mr. F. Durham, London; Dr. M'Hattie, Antigua; Mr. Boon, St. Kitts; Dr. Goyder, Bradford; Mr. Gross, London; Mr. Moore, Winsford; Mr. Theodore Williams, London; Mr. F. Treves, London; Dr. Thorowgood, London; Mr. Hoff; Dr. Carrington, London; Mr. Malcolm Morris, London; Mrs. Southey, London; Messrs. Burroughs and Co.; Mr. Sinclair, Sydenham; Dr. Logan, Edinburgh; Mr. Richardson, Bryngwy; Mr. Macpherson, Middlesboro'; Mr. Lukis, Southampton; Mr. Denmar, Davos-Platz; Messrs. Woolley and Co., Manchester; Mr. Grace, Bristol; Messrs. Bennett Brothers, Salisbury; Dr. Blood, Kupunda; Mr. Vacher, Birkenhead; Surgeon-Major Purdon; Norman; A Subscriber; The President of the Incorporated Society of British Artists; One of Them; Iatros; M.R.C.S.E.; Allopath; Junius; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Clark, Folkestone; Mr. Harwood, Wakefield; Dr. Foster, Birmingham; Messrs. Bell and Co., Lancaster; Dr. Hincks, Hay; Mrs. Clarkson, Wakefield; Mr. Jeffrey, Epsom; Mr. Cousans, Lincoln; Mr. Foster, Kingston-on-Thames; Mr. Meredith, Huddersfield; Dr. B. Squire; Mr. Young, Chilton-Polden; Dr. Cooke, Manningtree; Mr. Turner, Worcester; Mr. Appleton, Stockton; Dr. Alderson, Hammersmith; Miss Surr, St. Annes-on-the-Sea; Mr. Smith, Ongar; Mr. Thom, Edinburgh; Mr. Weekes; Dr. Reid, Exmouth; Messrs. Keith and Co., Edinburgh; Mr. Slidall, Stornaway; Mr. Pratt, Swansea; Nemo, Wellington; K. C., Whitstable; X. Y. Z.; M.R.C.S., Great Grimsby; I. S. S., Rugeley; Doctor, Hackney; A. B., Newport; A. B., Sheffield; Princeps; Alpha; B. W.; Scarpa, Birmingham; Theta; M. E., Stoke Poges; E. M., Leamington; Registrar, Bath; T. G.; Fidelis; L. C., Willesden; K. A. F.; Delta, Cubitt-town; Medicus, Uxbridge-road; A. B.; K. K., Blakney; F. E.; Fides, South Lambeth; &c., &c.

Dunstable Borough Gazette, Traders' Times, Chard and Ilminster News, Derbyshire Times, Aberystwith Observer, Stratford Express, Paper and Print, Nottingham Journal, Birkenhead News, Medical Temperance Journal, Natal Mercury, Bradford Observer, North Wales Chronicle, &c., have been received.

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Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

BY WALTER MOXON, M.D. LOND., F.R.C.P.

LECTURE II.—PART I.

MR. PRESIDENT AND GENTLEMEN,—In my last lecture I endeavoured to describe means whereby the entry and exit of blood to and from the interior of the cranium are so arranged as to favour the maintenance of a constantly sufficient supply to the brain, whilst obviating ill results of undue stress of blood; I then passed on to the effects produced when great atmospheric pressure forces blood into the closed cavities which contain the nervous centres; and, finally, I digressed to point out the weakness in the circulation of the lowest part of the spinal cord which arises through its more precarious supply from above and want of reinforcement from below. Whilst upon the arterial supply to the spinal cord, it occurs to me to observe a point which has struck me forcibly in reading descriptions of experiments made for the purpose of tracing the course of fibres in the cord, because the mode in which the arterial supply may influence the results of such experiments seems apt to escape notice, and this may be a part of the reason why different observers differ in their results. Thus, for instance, in one of the experiments made by a great master in this branch of investigation, a comparison is set up between the effects upon the sensibility of posterior nerve-roots, when incisions are made near together across the posterior columns above and below a single pair of roots, and the effects produced when similar incisions are made far apart, including five posterior roots between them. When such incisions are close together sensation in the single pair of roots between is lost; when the incisions are far apart, the roots not only retain their sensibility, but appear rather more sensitive than natural. If we bear in mind the posterior spinal arteries, and the mode of their reinforcement by occasional branches on the nerves, we shall see that when the incisions are close together, the posterior spinal arteries above and below are severed, and the small segment drained of its blood, so that surely insensibility would arise from this cause alone. If, on the other hand, the incisions include as many as five nerve-roots between them, there is a very great probability indeed that a large reinforcing artery will enter the posterior spinal in so great a length, and thus maintain a blood-supply. But it may be asked, will such an explanation serve to show why the sensibility is increased? We must not, however, assume that evidence of unnatural tenderness is a proof of increased sensibility; this no doubt is not the case. I have now under care in Philip ward a man who has paralysis and insensibility to touch in his right leg, but nothing the matter with his left leg. In this man a pinch which causes only a smile when applied to his sound limb, produces a cry and a request against its repetition when it is applied to the limb which cannot feel a touch or localise the pinch. Hence signs of pain do not prove sense of touch, and the conductors of normal sensibility cannot be traced by signs of pain. In this man the skin of the affected limb is pinker and thicker than the skin of the sound limb. This far from unprecedented case shows that we may expect proofs of unnatural sensitiveness to coincide with considerable anæsthesia; and the unnatural sensibility to pain in the posterior roots may itself be taken as some evidence that the normal sensibilities of the part were reduced. In following out the points that have arisen with reference to the circulation of the spinal cord, I have digressed considerably from the main line of my argument, which is bent on inquiring into the soundness of the view which teaches that congestion of the brain is an essential or primary disease.

And now I will return to the effects of caisson pressure upon the brain, if one can so speak when we find that the pressure had no effects at all upon the brain except to give a general feeling of buoyancy, which was, I think, very properly ascribed to the greater quantity of oxygen that entered the blood under high pressure. The caisson pressure offers us an example of active and unobstructed congestion of the vessels of the brain with oxygenated blood, no complication with a venous state of the circulating fluid being present, so that it may be described as a forcible arterial congestion, without impediment to free exit of the blood—an active arterial congestion purely affecting the blood-supply, and free from complication with disorders of the nervous tissue.

The familiar phenomena of strangulation and of obstruction of the jugular veins causing forced delay of exit of the venous blood should not be allowed to complicate the question I am approaching. But as the sensations accompanying venous obstruction in the neck give rise to a very general bias in favour of the notion of cerebral congestion at large, it may be well for me to state the bearings of this subject on the special question whether congestion of the brain arises independently as a distinct form or as several distinct forms of disease. It would be scarcely possible for me to mention all the many modes in which venous congestion of the brain is constantly brought before us in forms more or less pure. Perhaps the subtlest of the causes of such congestion is that which has been well investigated in the study of school diseases. When children bend over low desks during their lessons, a proportion of them are observed to suffer from headache, and some become faint, and some bleed at the nose; and such results may be ascribed to cerebral congestion. But in using such an expression we must notice that the meaning of it covers at least three distinct things. The ill effects which come about through lowness of the desks in schools are set down in detail by Virchow—first, to the mental strain of the learners; second, to occasional check to respiration during close attention; and third, to obstruction of veins by bending the neck. But each of these things is quite different from the others in its mode of operation—widely different indeed; and each in its own way appeals for its special means of relief. Mental over-strain is cerebral exhaustion; lack of respiration is carbonic acid poisoning together with deficiency of oxygen; and compressed jugulars give delayed exit of venous blood and consequent venous congestion. The term "congestion of the brain" has been given in a general way to these rather complicated conditions, and there is no harm in such a use of the term, unless it induces us to forget the several distinct causes which combine to produce the ill results ascribed to it, and in the term "congestion of the brain" to lose sight of the mental exhaustion and carbonic acid poisoning. Indeed, if we wish to ascertain the effects of obstruction of the jugular veins and retention of venous blood, we must choose some more pure example of such obstruction. I will not enter more fully into the effects of impeded flow in the jugular veins than is necessary to define its relation to the "congestion of the brain" of authors with which I have to do. Such obstruction may be acute or chronic, and may vary in degree in either case from slight obstacle to absolute closure. Many observations of the extent of effects produced by check to the flow in the jugular veins have led me to the conviction that venous obstruction is borne with so much impunity when it is certainly present and severe that one must not suppose such obstruction to be inducing serious results in cases where evidence of its existence is wanting or trifling.

When speaking of obvious causes of obstruction to the current in the jugular vein, I refer in particular to cases of prolonged paroxysm of whooping-cough, or of the cough of emphysema, and to cases of tumour compressing or involving the jugular vein. When a person is in a seizure of either of the forms of protracted cough which I have mentioned, the evidences of venous obstruction and imperfect aeration of the blood become very apparent, often painfully so, and yet cerebral disturbances but very rarely show themselves. I have been impressed by the small number and slight degree of complaints of cerebral symptoms in such cases. Twice only have I known persons affected with old bronchitis, and habitually almost cyanosed, to stagger and fall in the extreme height of their paroxysms of cough. The description given by their friends was of extreme blueness and turgescence of veins when the staggering occurred, so that cyanosis must have largely shared in its causation. Everyone must have seen the veins rise on the forehead, and a dusky colour suffuse the face of persons coughing violently, when meantime nothing noticeable happened to the comfort of the brain. What I am seeking thus to establish is the proposition that congestive strangulation of veins is borne with impunity up to visible and obvious extents, and therefore symptoms cannot be ascribed to it when the visible and obvious conditions of venous overfulness are awanting. Also, I believe that general experience will be with me in recalling how, in examples of tumours in the cervical region pressing upon the jugular veins, and even involving and closing one of them, the comfort of the brain is surprisingly little invaded. One of the most clear-headed and intelligent patients I have seen had the neck enlarged so that shortly below the chin it exceeded the girth of the head and face, and these were livid with venous obstruction; yet she denied to my questions every sign of cerebral annoyance. When such ascertained venous congestion, producing obvious retention of blood, fails to cause serious symptoms, unascertained and unproven congestion cannot be called in as a supposition to explain serious symptoms.

I have so far endeavoured to adduce examples, first of extreme arterial intracranial blood pressure, and second of visible and obvious intracranial venous blood pressure, so that the absence of serious ill effects under conditions of ascertained great or evident blood pressure within the skull may be within our minds in approaching consideration of the disorders described under the name of congestion of the brain.

There is still one step remaining before I can proceed to the task of examining into the clinical symptoms described as due to this disease, and that is to make clear how far it is possible to show by post-mortem examination that a person has died from congestion of the brain. We must spend some time upon this question, because following and supporting the clinical descriptions of congestion of the brain we find a morbid anatomy of congestion of the brain. Just as after the clinical description of acute pneumonia, we find the morbid anatomy of acute pneumonia, and the morbid anatomy of acute pneumonia does verify and explain the presence and the symptoms of pneumonia up to a certain point, failing only in showing why that particular person died at that particular time, and leaving it to clinical observation to answer that question, which is the vitally important question in each case. The post-mortem examination of pneumonia never tells us why that particular death occurred, but it leaves us in no doubt about the characters of the case; one can be quite sure that pneumonia did exist. But will any morbid anatomy of congestion of the brain afford us the same kind of proof, or do anything of the kind? The question is, Can you in any individual case prove by post-mortem appearances that death was caused by congestion of the brain, or even that a state of congestion of the brain or overfulness of its bloodvessels preceded death? I believe these questions must be answered firmly in the negative. In establishing such a negative one has to meet with a very strong prejudice, rooted in the most tenacious grounds, the grounds of convenience and of ancient and universal acceptance. After examining a body dead from brain symptoms, when all you were able to see in your examination was only that the veins were very full of blood, it is very convenient to be able to say that death was caused by congestion of the brain, and it sounds much better skilled witness than to say that death was caused by insensibility; so that the doctrine of congestion of the brain is convenient, and the universality of its acceptance may be illustrated by the naïve earnestness with which authors of great works adopt it; one author of a great work says, on one page, that patients never die in the first stage of congestion of the spinal membranes, and on another page he says that post-mortem shows in the first stage redness of the membranes; but if they do not die how is the redness known? It is very difficult to deal with a delusion thus deeply rooted in faith and prejudice, a delusion which is so much favoured by occasional very striking appearances at imperfectly conducted post-mortems. Thus, in the Clinical Society's Transactions there is a very remarkable spinal case, probably a case of acute myelitis, but introduced to the Society as congestion of the spinal membranes, and, indeed, the membranes were seen to be frightfully congested. But Mr. Hilton pointed out long ago the necessity of observing whether the cervical veins are divided before you make a remark upon the congestion of the veins of the nervous centres; and, indeed, if we don't divide these veins we will be sure to see frightful congestion when we look at the membranes of the brain and spinal cord; but the observers of this case only opened the cranium and spine.

I mention these examples only to illustrate how readily the mind of a physician adopts on insufficient evidence the assumption of a congested state of the brain. But in some of our most justly and highly valued text-books we find amongst a series of excellent, learned, and ably written articles on particular diseases, that a long chapter on congestion of the brain finds a place, and this chapter gathers groups of symptoms of a disease called congestion of the brain, and collects signs of morbid anatomy of the disease so named, and this gathering of symptoms includes a sweeping together of all such things as are obscure and associated with stupor, and have an acute course, and the collection of anatomical signs includes a sweeping up of all the marks of change in the bloodvessels or texture of the brain, however evidently chronic and ancient. And the collection of chronic and ancient changes stands there to the gathering of acute and obscure symptoms as the morbid anatomy of a definite fatal disease—congestion of the brain.

And so in our great books we find this chapter on congestion of the brain made up of obscure fragments out of the history of all sorts of diseased states. In the work which contains the chapter we generally find that there was already a chapter on epilepsy, and another on sunstroke, and another on alcoholism, and then in the chapter on congestion of the brain we have a treatise on epilepsy that is not quite epilepsy, and sunstroke that is not quite sunstroke, and alcoholism which has changed so that it is now deserving to be called not alcoholism, but congestion of the brain. But when we ask for evidence that these hazy states of quasi-epilepsy, quasi-sunstroke, &c., are really due to congestion of the brain, we meet with a very difficult state of affairs, very prejudicial to clear dealing with the subject; I mean we are met with a foregone conclusion, a sort of traditional certainty about the matter, as if you ought not to ask for evidence. Believing as I do that there is no such fatal definite disease I find this a very unsatisfactory state of affairs, and I was very glad to see in a recent and very valuable work on medicine, that the author of that work, himself a pathologist of great experience in morbid anatomy, speaks thus of this topic of "congestion of the brain:"—"So many nervous phenomena are commonly referred to congestion or anæmia of the nervous centres that we can scarcely presume to pass over them in silence." One could have wished that the conviction thus evinced had led this distinguished physician to deal more summarily with a doctrine he thus confesses himself forced by common reference to touch upon.

As one finds categorical descriptions of a morbid anatomy of this disease, congestion of the brain standing on the highest authority in our text-books, I cannot ignore them, or merely say there are no such signs, but must deal with the several anatomical appearances which are advanced as showing post-mortem that the brain was congested during life, my position being that there is no valid evidence of the kind. So that I must now trouble you with an examination of the post-mortem appearances which are alleged to prove congestion of the brain. We find writers giving four conditions as showing congestion. I will take them *seriatim*. The first condition advanced is a swollen state of the brain, so that it seems, after removal of the calvaria, almost too large for the cavity which contained it. The dura mater seems tightly stretched over it, and on reflecting this the convolutions appear broad and flattened, and the sulci less obvious. Now here we have evidence of swelling of the brain. But as to our power of drawing any conclusion from such a swollen state, it is curious that the description makes no allusion to hypertrophy of the brain, which is treated of elsewhere in the same work, and is known only by its causing a general enlargement of the whole brain. I have never seen such hypertrophy, but the flattening described has very frequently come under my observation, and my impression is that in no instance did I ever meet with such flattening unless some obvious cause of expansion of the brain has been present, in the form usually of an increase of the intraventricular fluid, or else of apoplectic bleeding, or of tumour, in which case the swelling and flattening are more localised. The next evidence mentioned is the distension of veins and capillaries with blood; the veins are tortuous and varicose; the grey matter dark. Both this and the white matter show abundanse of bloody points and gorged vessels, and this description finishes by saying: "It is extremely difficult to draw the line, and say what is morbid and what is consistent with health." Now, it is better—nay, it is necessary—to say firmly that it is not only extremely difficult, but it is simply impossible, to draw the line, and say what is consistent with health. Indeed, by bringing in the idea of health when the person is dead we confuse the issue, and I should not mention this except to remark that the visible state of affairs at the post-mortem examination is the point that concerns the morbid anatomist, and not the inferential state of affairs during life and health. For this is not any longer at all in the question, which question is whether the mode of dying, the position of the body after death, or the manner of making the inspection will not determine the appearance of extreme overfulness of the vessels in the brain of the dead person independently of the conditions which were antecedent to all this and led to his having so to die. Can we infer from the amount of blood in the brain after death the amount during life? Perhaps one could not find a more decisive answer to this question than the answer given by Kussmaul and Tenner. These observers were investigating the effects of ligature of the cervical vessels, and it was most important for their purposes that they should be able to estimate the resulting anæmia of the brain by post-mortem examination. Their experiments were very numerous. They were testing the results of a simple mode of treatment of the brain; they had it in their power to place the bodies in any position they liked, or in any circumstances of temperature, &c., and they knew accurately the conditions actually allowed. This is what they say as the result of their investigations:—"We could never deduce any results from the post-mortem examinations undertaken with a view to determine the state of fulness before death of the most important parts of the vascular system—viz., the arteries and arterial capillaries, and even in the most favourable instances when similar inquiries were directed towards the veins, our results could only be looked upon as approximate. It appears, therefore, to us to be especially necessary to study carefully the state of the brain circulation in asphyxia, narcosis, intoxication, etherisation, &c., in the living animal according to Donders' method—that is, by insertion of a watch-glass into the skull."

Now, if this is the result when the conditions before and after death were determined and known, how can it be said that the amount of blood found after death in the human brain will show the amount present before death when the conditions before and after death were undetermined and unknown? Again, why should we take the amount of blood found post mortem in the brain as a criterion of the amount present there during the disorders that led to death, when the amount of blood present in other parts after death cannot be taken to indicate the amount present before the act of dying? It may be necessary here to examine the exact bearing of evidence in some cases where we appear to accept fulness of blood after death as evidence of fulness of blood before dying. Let us take the most striking example we can choose in which we might be led to suppose that we are in the habit of drawing such a conclusion, and thus do ourselves an injustice. Now, it is true that where organs are situated close to seats of long-continued and positive hæmal obstruction—as for instance, the liver, or stomach, or lungs—when seen after death from heart disease the amount of blood in the vessels of these parts forms a striking feature at the post-mortem examination. We observe great overfulness of the veins, and we know that overfulness existed during life. But it is not because of the amount of blood found there after death that we know there was so much blood there during life. For the amount of blood present post mortem is really only the result of the mode of dying. Death in mitral disease is due to stoppage of the heart under intense engorgement, so that the great vessels near the heart are very full in the moment of death; and remain so afterwards, in the ordinary position of the body, and from this cause there is much blood in the wall of the stomach, and meantime our knowledge of the ischæmic state produced by the cardiac obstruction makes us aware that the same condition existed during life, also the presence of excess of tough mucus or superficial ulceration may give evidence to the same effect. But as to the particular question whether a great amount of blood in the stomach wall after death will serve to show that there was a great amount of blood in it before dying. If we were asked that question we must, I believe, answer it firmly in the negative. Great amounts after death may have been preceded by great amounts before the person began to die, as heart disease shows us, but the stomach may be deeply congested by sudden disease or accident causing asphyxia merely as a manner of dying, so that you cannot, because the stomach is purple after death, say that it was so before dying commenced. The importance of this subject, in many aspects of medical practice, induces me to follow it out fully, because one finds it on all hands assumed, and by the highest authorities stated, that redness of the brain shows congestion, or even inflammation of it. Thus, in a very thorough and able article on tubercular meningitis, we find it said of the membranes of the brain that they show "that great sign of inflammation, redness," and even in works devoted specially to morbid histology the same fallacy is encouraged. Rindfleisch, speaking of acute hyperæmia of the brain, says: "A slight flush of the medullary substance, a faint tinge of red mingled with the usual grey hue of the cortex cerebri, must be taken as very significant indications; where even these are lacking we must not jump to the conclusion that they did not exist during life." Of course the question is not of jumping to negative conclusions, but founding sound positive conclusions, and nothing can be more misleading or wrong than such a statement as that a faint tinge of red mingled with the usual grey hue of the cortex must be taken as a very significant indication. One is tempted to think the author had not looked carefully into the variations of colour to be observed in brains as they ordinarily appear before the pathologist. Faint tinges of red are constantly to be seen in the brains of persons dead from indifferent diseases, and the blood is often very curiously and irregularly distributed under entirely indifferent conditions, marbling and mottling the grey matter with pink and purplish tinges. A section of the cortical grey matter, or more especially of the corpus striatum and thalamus, will convince anyone of this in almost any case. So also it is misleading to speak of "that great sign of inflammation, redness" as appearing post mortem. During life, redness, when associated with swelling, heat, and pain, is at one with these associates in proving the existence of inflammation; but after death the redness which was due to the enlarged scope of vascular play ceases, because vascular play has ceased with life. The consequence is not doubtful, and it is quite certain that after death the redness goes from inflamed and congested parts. Such serious issues may turn upon this point, that I think it very necessary to clearly recognise that no degree of redness, or pinkness, or overfulness of blood about the brain or its membranes can prove that there was any morbid state of the circulation within the head before the act of dying. Death by asphyxia increases the amount of blood in the head, but a dependent position of the head after death, if only for a short time, will cause a similar increase. It should be taught that it is a sign of ignorance to say in a coroner's court that congestion of the brain was found on post-mortem examination to be the cause of a person's death.

Passing on now to the next point advanced as morbid anatomy of cerebral congestion, one finds the description lays down tortuosity and varicosity of the larger veins of the brain as evidence of such congestion. Now, if by this is only meant the bending of the veins through overfulness, it is but a sign of overfulness, and Kussmaul and Tenner have disposed of overfulness for us; but if it is really meant that the veins are varicose, I think moderation of the description is desirable, at least in the several thousands of inspections conducted by me I never saw a varicose vein upon the brain. It is true that we often find the veins thickish and opaque near their endings, but the veins have their share in the general thickening of fibrous parts within the skull in old age. I will take this thickening along with *l'état criblé*, which is given as another proof of congestion of the brain; *l'état criblé* is a perforated look of section of brain usually in the corpus striatum, and due to cutting across of dilated channels, which are dilatations of the channels in which the arteries run. The thickish vein and perforated-looking appearance are signs of senile wasting of the brain such as results in elderly people from a hard life, and results sometimes in younger people from a still harder life in which they may have poisoned themselves with alcohol, or by too much continued stress of emotional existence have been their own poison to the same effect. In the process of ageing the brain shrinks, both as a whole, so as to leave space between it and the skull, and interstitially so as to allow spaces to form around its internal vessels, giving *l'état criblé* on section. The skull is thus not sufficiently filled, and then everything movable and within reach is drawn upon to fill the vacuum. The call tells first upon the cerebro-spinal liquid, whose function is to supplement the brain in filling the skull. But when the natural amount of this liquid is insufficient the blood must enter, and be retained to fill the rest of the space. But the excess of venous blood thus retained lends itself to encourage the growth of the lower forms of tissue, especially the connective tissues; so that, as a consequence, you get thickening of the membranes, and this appears especially in what I called the tidal area, where the locking system in the veins tells most effectively, and where Pacchionian glands in time appear, the vein walls thickening a little in the meanwhile. Even the cranium itself, having its dura mater kept full of blood, thickens inwards, so tending to reduce the cavity. But as to the question before us, which concerns itself only with the disease called congestion of the brain, what we have to see is that all these things are most gradual and slow effects of chronic shrinking of the brain, producing secondary effects most gradually and slowly. So that it all comes gradually about as a progressive system of events constituting the character of a period of life, and explaining the creeping approach of age, but in no way serviceable to furnish explanation of sudden insensibilities, and other phenomena described as acute diseases, under the title of congestion of the brain.

And, now, let us look at the remainder of the morbid anatomy advanced in support of the supposition that sudden serious illness is caused by rush of blood to the head. The description lastly sets down as such evidence a quantity of blood or hæmatin around the vessels, twisted and varicose capillaries, evidence of bursting of capillaries, orange-coloured spots and specks of crystalline hæmatoidin, and especial stress is incidentally laid on the observation of blood pigment around the vessels in the brains of excitable lunatics. Now, there is no doubt that blood pigment is very frequently met with about unsatisfactory looking capillaries when the brain of any adult is searched through with care. At least I was led to this conclusion when, during the first few years of my office as pathologist to Guy's Hospital, I used to take away about a cubic inch from the neighbourhood of the island of Reil in every brain I inspected. For after the vessels of these portions of brain were washed and examined, the result was such as to assure me that when anyone over twenty-five years of age replies in a satisfied way to an inquiry as to his health, he expresses the truth of the matter only so far as he is aware, and his answer overlooks the condition of a considerable number of the capillaries of his brain, much in the same way as it overlooks the state of his skin at some pimple or perchance the caries of some tooth. In fact, were a pathologist with a great microscope to spy through all our brains as we sit here in states of satisfaction, he would certainly see a great deal in the way of tortuous capillary and dots of yellow pigment—a great deal that under the microscope would look very alarming. But so constant are moderate amounts of the changes now in question that one cannot justly ascribe any peculiar significance at all to moderate degrees of them; and surely experience would suggest great caution in allowing importance to the observation of blood pigment in the brains of excitable lunatics. Because if the amount of pigment was little it is not more than other people have; but if it was much, then would not the question arise whether the excitable lunatics had struck their heads, or perchance received blows in the course of the care they required to have taken of them. Numerous broken ribs are not infrequent signs in asylum anatomy. A great deal of blood may be effused in the brain through blows from which people recover. A fatal hæmorrhage into the brain is nearly always a large hæmorrhage, and many people recover from blows which more or less approach a fatal result without reaching it. Those who recover must then have the moderate amounts of hæmorrhage. I have seen the middle and anterior lobes of the brain stuck fast to the skull and imbedded in old yellow pigment and hæmatoidin, showing that most extensive crushing of the brain had been survived. So that sharp blows or falls upon the head such as everybody not more than commonly fortunate has to suffer at least several times in his life are not without effect in doing more or less to throw out spots of blood here and there for future microscopic observation, to regard as evidences of congestion of the brain. But, besides accidental injury, there are other mischances to the blood through fever with purpuric tendencies, or through morbid states of the blood generally, and to these rather than to any such disease as congestion of the brain or determination of blood to the head, we must be prepared to ascribe those changes in the capillary vessels, and the little spots of blood pigment that are found on careful microscopic examination of the brain. They are the results of all the accidents, little and great, that have made their mark, large or small, on the brain in the course of its life. It must be remembered that blood pigment is probably never removed when once it has been formed, but it remains at the spot as a permanent register of the accident that produced it. I trust I have sufficiently shown that we have no anatomical grounds for believing that there is any malady whose cause is overfilling of the vessels of the brain with blood.

Gulstonian Lectures

ON

ANÆMIA.

Delivered before the Royal College of Physicians,

BY SIDNEY COUPLAND, M.D., F.R.C.P.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL.

LECTURE II.—PART II.

Idiopathic Pernicious Anæmia: Illustrative Cases—Analysis of the Different Forms of the Disease—The term "Idiopathic" not applicable to a considerable proportion—Preponderance in the Swiss Cantons (especially Zurich) largely dependent on Mode of Life—Influence of repeated Pregnancies, Gastro-intestinal Disease, Hæmorrhage, Malaria, and Nervous Disorders in determining a "Pernicious" Anæmia—Pathogeny: Is it due to increased Blood Destruction or want of Blood Formation?—Changes described in Blood and in Bone-marrow (Pepper, Cohnheim, Osler)—Its Relations to Leukhæmia, to "Pseudoleukhæmia," to Chlorosis.

I WILL now proceed to detail to you the leading features of cases of idiopathic anæmia which have occurred in the Middlesex Hospital during the past ten years. They are not numerous, and they do not comprise all the forms in which this condition occurs, but they will serve to illustrate my subject.

CASE 1.—This has already been published,[1] and I will content myself with a brief abstract of it. S. D——, aged twenty-seven, a pale, delicate-looking, but not emaciated woman, married five years, but childless, was admitted under the care of Dr. Greenhow on Sept. 7th, 1871, complaining of pain between the shoulders, palpitation, great weakness, vertigo, depression, and coldness of the extremities. The skin was as white as wax, and there was a faint jaundiced tint of the conjunctiva. The lips were colourless, and the tongue pale, clean, and moist. There was a loud double murmur over the præcordial region, having a friction-like character, and a maximum intensity at a point just inside and a little above the left nipple. There was no enlargement of the liver or spleen, but slight epigastric tenderness attributed to frequent retching. The pulse was 128, very weak, small, and compressible; respiration shallow; no cough; temperature 100·4° F. The urine was acid, of sp. gr. 1013, free from albumen or bile-pigment. Her history was as follows. There was no tendency to hereditary disease; she had had the usual diseases of childhood, and was always rather delicate and subject to palpitation. The catamenia appeared at fourteen, and since then she had had more or less menorrhagia and leucorrhœa. She never, however, had any serious illness till about a year ago, when she began to suffer from diarrhœa and vomiting, with occasional vertigo, but did not complain of pain after food, nor did she vomit blood or pass any per rectum. The palpitation now became worse, and was accompanied with pain between the shoulders. These symptoms continued for two or three months, when she got better; but three months afterwards was attacked in the same manner, with the addition of a slight yellow tinge of the skin and conjunctiva, and was again laid up for two months. After this a second remission occurred, and she remained comparatively well till two months before admission, when the old symptoms returned. The progress of the case was marked by increasing debility, constant nausea, and occasional vomiting. On Sept 20th there was some diarrhœa, but neither at this nor at any other time was blood observed in the motions. The pulse, respiration, and temperature remained much the same throughout, the latter never exceeding 102°, and only once descending as low as 98·8°. On October 3rd she vomited during the afternoon and frequently during the night. The sickness continued, and she sank exhausted on Oct. 5th. At the post-mortem examination minute ecchymoses were found studding the inner surface of the dura mater, and a small quantity of slightly turbid fluid coated the surface of a portion of the hemispheres and dipped in between the convolutions. The brain itself was completely bloodless. There were also ecchymoses on the pulmonary pleuræ, a few old adhesions, and some recent lymph on the right side, but the lungs were healthy. The pericardium contained three ounces of fluid and showed no traces of inflammation. Not more than an ounce of thin, pale, and watery blood could be obtained from the heart and large vessels, and that was perfectly fluid and did not coagulate. All the other viscera were examined, but showed only intense anæmia. Dr. King, in his comments on the case, raised the question of the anæmia being caused by a derangement of nervous function, supposing, from the analogies supplied by the act of secretion, that the sympathetic system directly controls the act of blood-formation. He draws a parallel between such cases and those of Addison's disease, where the symptoms are so similar (except the pigmentation), and where the existence of a nerve-lesion is more evident. It is interesting to find Addison stating that "in the case last examined the heart had undergone such a change" (he is speaking of its fatty degeneration), "that a portion of the semilunar ganglion and solar plexus, on being subjected to microscopic examination, was pronounced by Mr. Quekett to have passed into a corresponding condition." But I do not know of any other facts which can be called in support of Dr. King's reasonable hypothesis.

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[1] By Dr. R. King, Brit. Med. Journ., Nov. 25th, 1871, p. 613.

CASE 2.—Emma H——, aged twenty-nine, unmarried, a domestic servant, admitted under the care of Dr. Greenhow, April 20th, 1875. One of her sisters had died of consumption. She herself had enjoyed fairly good health till six weeks before her admission, when she began to feel very tired at her work, which was hard. She had also suffered from occasional vomiting and attacks of fainting, whilst becoming, in addition, paler, and attacked with shortness of breath on slight exertion. She was well nourished, but very anæmic, the skin having a somewhat tawny tint, especially about the neck, axillæ, and back. The mammæ were ill-developed. The heart's action was exaggerated, impulse diffused; visible pulsation of carotids; radial pulse, jerking, 120. A soft systolic murmur was audible at the base of the heart, and a well-marked bruit in the jugulars. There was slightly impaired resonance at the anterior apices of the lungs, and wavy respiratory murmur, but elsewhere the breath sounds were normal. No enlargement of liver or spleen. Urine: sp. gr. 1025, acid; no albumen. The blood showed a deficiency of red corpuscles, but no excess of leucocytes. The predominant symptoms were vomiting and diarrhœa, accompanied by increasing languor and debility. The temperature was irregular, the highest point reached being 102°, on the evening of admission, and the general range being between 100·2° and 99°, the evening temperature being mostly lower than the morning. The pulse ranged between 120 and 140, and was very feeble, during the last two days maintaining the more rapid rate, whilst the temperature fell to 97·8°. She sank exhausted on May 2nd. At the post-mortem examination the general surface and the mucous membranes were noticed to be extremely pale, the skin of neck, axillæ, and groins being of a pale-brown colour. The mammary areolæ were not pigmented, and no pigmentation occurred at the root of the nails. There was a fair amount of subcutaneous fat, and much in the omentum. The pleural and pericardial sacs contained dark-coloured serum. There were a few subpericardial ecchymoses at the back of the heart, which was fairly covered by fat, its muscular substance being pale and flabby. Both sides contained much thin fluid blood, whilst in the right ventricle a thin, pale, soft clot was met with, diminishing towards auricle and pulmonary artery. The lungs were pale and bloodless, slightly puckered and indurated at apices, the posterior part of each lower lobe being engorged with frothy serum. The liver and kidneys were anæmic, but healthy. Spleen small, pale, and tough. Suprarenals natural. Semilunar ganglia appeared healthy, but were not examined microscopically. In the stomach the mucous membrane in the pyloric region was thicker and firmer than elsewhere, white, perfectly smooth, and free from mammillation. The only remark I would make upon this case is that it might as well be described as a case of fatal chlorosis, which it resembled in the mode of its onset, and that the predominance of gastric symptoms was very marked, again suggesting a neurotic basis for the whole disease.

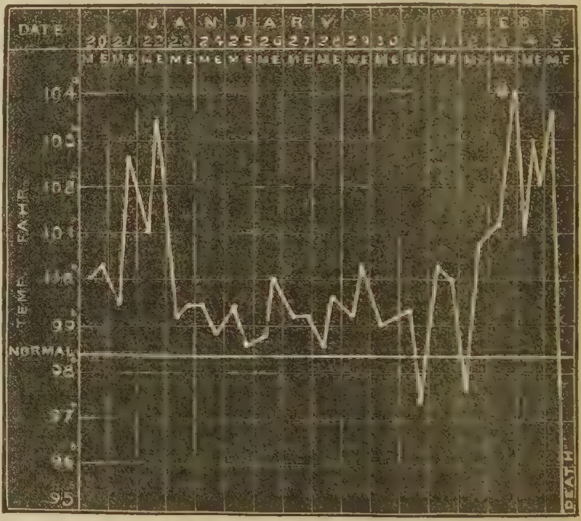
CASE 3.—Henry A——, aged forty-three, single, a potman, admitted under Dr. Cayley's care on Sept. 18th, 1878. His mother had died of consumption, but he had a healthy brother and sister. When ten years of age he was ill with rheumatic fever for eight weeks, and had been subject to rheumatic pains in all parts of the body. For the past three or four weeks he had, however, been getting more sallow and short of breath, and within the past week his feet began to swell. In spite of his occupation he drank moderately. When admitted he was extremely prostrate, but free from pain. His skin and mucous membranes were intensely anæmic, and there was considerable œdema of the lower extremities. There were bronchitic râles in the lungs. The heart was not enlarged, and no bruits were audible; spleen and liver not enlarged. There was some diarrhœa. The urine was of sp. gr. 1015, acid, but free from albumen. After a week's rest the œdema had almost subsided, the diarrhœa ceasing also. The temperature varied slightly, being often above 99°; on Sept. 26th it was 101·8° in the morning. On the night of Oct. 9th he was attacked with temporary aphasia and slight deviation of the tongue to the *left*, but no other paralytic symptom. The temperature was then 100°; pulse very weak, 120; heart's action tumultuous, and a systolic murmur appeared at the base. Next morning he could speak well, and the tongue was protruded straight. Temperature 101°; pulse 108. But the same afternoon he had a similar seizure, when his speech became indistinct, the tongue deviated to the left, and slight paresis occurred on the left side of face and left arm. Temperature 103°; pulse 120. The paretic condition passed away in a few days, but he became more prostrate and drowsy, and died on Oct. 13th. At the post-mortem examination no lesion was found in the brain, which was very anæmic. Hæmorrhagic foci were found in the retinæ. There were some old pericarditic adhesions, much fat on the surface of the heart, and extreme fatty degeneration of its muscular fibres. There were a few subpleural ecchymoses on the surfaces of the lungs, which were engorged in their dependent parts. The liver was paler than natural, spleen pale but soft; pancreas and suprarenal capsules healthy; the kidneys were rather tough. A transient hemiparesis was observed in one of Immermann's cases to which I have referred. In that case also no lesion was discovered in the brain. Possibly in both instances the cause of the nervous symptoms lay in an undetected minute hæmorrhage. In the foregoing case also the large amount of dropsy was unusual, and the kidneys were certainly indurated, but not wasted or fatty. There have been cases where it has been more difficult to decide whether one was dealing with chronic Bright's disease or anæmia simply, and on this ground I have excluded one case which occurred in 1876, of a man, aged fifty, whose symptoms were those of pernicious anæmia, but where the kidneys were more obviously diseased than in the present case.

CASE 4.—Caroline F——, unmarried, cook and housekeeper, was admitted under Dr. Cayley's care on June 2nd, 1879. Beyond an attack of "inflammation of the bowels" at the age of twenty-four, she had enjoyed good health, but for the past two years had been ailing, losing colour, getting thin, and suffering from shortness of breath for the past six months especially. She was considerably emaciated, feeble, and anæmic, but her appetite and digestion were good. Beyond unusual visibility of the cardiac impulse, there do not appear to have been any cardio-vascular signs. The anæmia certainly was most intense. On June 9th the hæmoglobin was estimated at 28 per cent., and the red corpuscles 550,000 per c. mm., or 11 per cent. of the normal. The temperature only rose to 100° and 100·4° on three occasions, being generally normal. There was diarrhœa with occasional vomiting, but neither occurred to a considerable extent; there were no retinal hæmorrhages. Under arseniate of iron she rapidly improved. On August 23rd, the number of red corpuscles was 37·7 per cent., and on September 22nd, the day before her discharge, 2,080,000 per c. mm., or 41·6 per cent. She remained fairly well for more than twelve months—namely, to Christmas, 1880, when her weakness returned. She began to suffer from shortness of breath, palpitation, and occasional vomiting, and was admitted again on March 2nd of this year, having kept her bed for two months. Her skin and mucous membranes are intensely pale, and she complains of great exhaustion, but has a fairly good appetite. The heart's impulse is diffused and thrilling, and a rough systolic murmur is audible at both apex and base, the second sound at the pulmonary cartilage being accentuated. There are also bruits in the carotids and in the jugular, there being further marked pulsation of the jugular vein. Pulse small and compressible; no retinal hæmorrhages. Urine: sp. gr. 1020, acid; free from albumen. The temperature has not risen above 99°, nor the pulse above 100. The case is still under treatment, principally good diet, rest, and arseniate of iron being prescribed. As yet not much progress has been made, for although on admission the red corpuscles numbered only 520,000 per c. mm., or 10·4 per cent. of the normal, and increased nine days later to 620,000, or 12·4 per cent., yet the percentage of hæmoglobin has fallen from 30 to 21. With the increase in the red corpuscles there has been a change in the number of leucocytes, which were to the red as 1 to 52 on admission, and on the 11th 1 to 124. This case must be regarded as one of idiopathic anæmia, although it is lacking in some of the distinctive features, especially the existence of retinal hæmorrhages. The chief point of interest is the improvement which took place during her residence in the hospital eighteen months ago, an improvement which was maintained for upwards of one year. The ultimate prognosis must be considered as uncertain.[2]

CASE 5.—Emil M——, an Italian boy, seven years of age, admitted under Dr. Cayley's care on January 6th, 1880. His father was alive and healthy; and he had one brother also very healthy. The mother had died of puerperal fever after her second confinement. This boy had never been a strong child, and had had scarlet fever four years ago. In the summer of 1879 he began to get very weak and continued in a weak state until Christmas, when he complained of headache, became listless, objected to move about, and did not care to play. At the same time he lost appetite and suffered from a slight cough. He was well nourished, but extremely bloodless, face of a waxy appearance, lips pale. Marked œdema of conjunctivæ. The heart's apex impinged in the normal position, and a soft systolic murmur was there audible. There was also a whirring bruit in the carotid, and a well marked hum in the jugular. There was a slight cough and some scanty moist crepitation at the bases of both lungs, where also resonance was impaired. There were also signs of some ascitic effusion. Urine: sp. gr. 1015, free from albumen. The pulse rate throughout was very rapid, from 140 to 160, and its volume small and compressible. The temperature was irregular, falling from 100·6° on the day of admission to 98·2° the next morning, and then varying between 98·4° and 99·8° until the 12th of January, when it rose to 102·6°, falling to 99·8°, to rise again to 102·6°, after which it oscillated between 100·6° and 100·2°, until his death on the 17th. Restlessness, varied by great drowsiness; frontal headache at times severe, and towards the close cramps in both legs marked the progress of the case, and vomiting occurred on the last two days. There was constipation; never any diarrhœa. There were extensive retinal hæmorrhages and swelling of the optic discs, and on the last day of life he became quite blind. Iron and its arseniate were the remedies employed, and transfusion was entertained but discarded, as the case seemed beyond recovery. At the post-mortem examination the heart was found to be advanced in fatty degeneration, the change being most marked in the left ventricle, the general wall of which was very friable and of a yellow-red colour, whilst the layer of muscular tissue immediately beneath the endocardium—both on the papillary muscles and the parietes—was speckled and streaked by whitish spots and lines. A few opaque patches occurred also in the mitral valve. Both lungs were engorged and purplish in their posterior two-thirds, numerous ecchymotic patches occurring beneath the visceral pleura, and in the substance of each organ; whilst the bronchi contained some blood-stained tenacious mucus. The spleen was pale, its follicles large, prominent, and white. Liver, large, firm; its lobules well-defined, the central part of each lobule appearing as a whitish-yellow ring, giving the organ a curious speckled appearance visible through the capsule. This was due to fatty degeneration. The kidneys were simply bloodless. This was a pure case of idiopathic pernicious anæmia, and is interesting on account of the extreme youth of the patient.

CASE 6.—Elizabeth Y——, aged twenty-one, unmarried, a nurse, admitted under my care on Jan. 20th, 1880. She had had no serious illness, but for some years had had very little colour and had gradually got paler. The catamenia, which commenced between the ages of fifteen and sixteen, became abundant and frequent in August, 1879; and at the same time she became gradually weak, suffered from giddiness, palpitation, and shortness of breath on exertion. She was well nourished, but extremely anæmic, and complained of great weakness and thirst. There was a marked thrill with the impulse of the heart, and a loud, almost grating bruit at the pulmonary cartilage. The apex beat was in the normal position. Temperature 100°; pulse 146. (See Chart 3.) The temperature rose to 102·8° in the evening of the 21st, and, with remission to 101° next morning, was 103·4° the following evening, the pulse still being very rapid, and the patient having sore-throat and headache. The red blood-corpuscles numbered 2,490,000 per c. mm., or 49 per cent. The catamenia, which had been flowing for ten days before admission, continued, passing into profuse hæmorrhage—so much so that in five days the corpuscles fell from 49 to 20 per cent. (Jan. 28th). Dr. Hall Davis was consulted, and, on the failure of plugging to arrest the flow of blood, the long continuance of which was assuming alarming proportions, endeavoured to check it by the injection of perchloride of iron, ergot being given by enemata, as it could not be retained by the mouth. She became drowsy and apathetic; the cardiac bruit increased in intensity; and, in spite of all efforts, continued to lose blood, a very marked rise in temperature being noticed as the anæmia became more and more profound. She died on Feb. 5th,* a petechial eruption appearing about the trunk and limbs shortly before death. There was a large amount of subcutaneous fat, and the dark-red colour of the muscles contrasted with the thin and watery blood. There were extensive subpericardial ecchymoses on the surface of the heart, the muscular substance of which, especially of the left ventricle, was very pale, speckled, and extremely fatty. There were purpuric spots also over the kidneys. The ovaries were rather large and fleshy, and contained cysts; in the right was a rather recent corpus luteum. The uterine mucous membrane was

CHART 3.



* Quinine, twenty grains.

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[2] This patient became rather rapidly worse and died on March 25th.

pale and smooth, a minute sessile polypus, the size of a pin's head, showing no evidence of ulceration, occurring at the entrance of the left Fallopian tube. The idea that this was the cause of the hæmorrhage was quite untenable. Indeed, the case might be interpreted as the development of the hæmorrhagic diathesis in a chlorotic subject. The chlorosis preceded the menorrhagia, which in its turn intensified the anæmia, and the uncontrollable loss of blood thus arising could not be repaired. Transfusion was clearly out of the question until that constant bleeding could be stanched.

As I have already remarked, the field of view has been so widely extended since the time of Addison that one is embarrassed by the attempt to analyse the cases which have been recorded as progressive pernicious anæmia. Some of these clearly belong to the category of Addison's cases, others obviously do not; so that in perusing them one is continually being confused by the assumption that we are speaking of the same things. Undoubtedly it will be a great gain when we can once and for all rid ourselves of the term "idiopathic" in medicine. There must be an underlying cause for every departure from the normal mechanism. But the time has not yet come. So far as I can gather, then, the term "pernicious" has been used in different senses, some simply employing it to serve as the expression of the severity of any case of anæmia, no matter how arising; others stamping it with a specific character, going behind the strict meaning of the word, and implying by it that it deals with a form of anæmia which is wholly peculiar, and only lately known. What wonder, then, at the mystery and obscurity which veil the subject? One by one the criteria attempted to be established between this form of severe anæmia and other forms nearly but not quite as severe, have been or are being broken down; the one that most resists explanation being the intractability of the disease to ordinary therapeutic measures. But there are problems concerned in it which remain to be solved. At present I think we are in a position to take this view, that to a considerable number of cases the term "idiopathic" is inapplicable, there being in other words a sufficiency of causes in operation to establish the anæmic condition, but that its *pernicious* and *progressive* characters are impressed on it by changes of which we know nothing, or nearly nothing. It may be urged that this is but begging the question and removing the idiopathic origin a step nearer. It is hardly so, for I think it justifies us in establishing such a classification as this:—

Anæmia	Symptomatic	Simple.
		Pernicious.
	Idiopathic	Simple.
		Pernicious.

Such a classification would be warranted by our present knowledge, and would differentiate between the two main forms of pernicious anæmia, destined like the simple forms, to be merged again into one, when etiology shall be perfected. "Idiopathic" and "pernicious" are not, then, alternative terms, although a large number of the latter fall under the former class. Out of the 110 cases whose records I have studied, in forty no cause has been attributed, or the record is silent on it; in others the alleged cause is too remote and too slight to have influenced the case at all, but the chief causes which are sufficient and which stood in sufficiently close relation to be regarded as causes were these:—1. Bad living and food in eleven cases, often conjoined with other more immediate influences, as pregnancy and lactation, or gastro-intestinal disturbance; the latter no doubt produced by these bad circumstances. It has been pointed out that the great prevalence of pernicious anæmia in the Swiss cantons, especially in Zurich, is related to the impoverished condition of the peasant folk, amongst whom the cases of the disease are most frequently met with. They live chiefly on potatoes and coffee, a diet not conducive to healthy blood, formation, and sufficient of itself to lead to anæmia, even of this fatal kind, and the supervention of further debilitating influences nearly sufficiently explains the occurrence of such anæmia. It is objected to this, that the same causes are in operation elsewhere without such results, and that an endemic influence is quite a gratuitous hypothesis. That when removed from such influences other subjects recover from their anæmia; not so these, who become progressively worse, uninfluenced by treatment. Looking, however, to analogies from other diseases, and our knowledge of etiology in general, it seems hardly warrantable to prolong a vain search after other causes in the face of such self-evident ones as these; and remarkable as is the fact of this limitation of fatal anæmia to small districts, it is not more remarkable than other facts concerning the geographical distribution of many diseases. 2. An even more potent cause, often associated with the first, is *pregnancy*, especially if the woman be submitted to the exhausting influences of rapidly repeated pregnancies. It was the starting-point of the pernicious anæmia in 20, or rather less than one-fifth, of the 110 cases. Abortion is liable to occur, and its occurrence is generally followed by the death of the parent, although there may not have been any great loss of blood. Sometimes repeated vomiting in pregnancy is followed by anæmia of this extreme kind, which may also supervene upon flooding in labour, prolonged lactation—causes often enough of a simple symptomatic anæmia, fortunately seldom of a pernicious. Menorrhagia is a sequel as well as a cause of anæmia, and one of the cases appears to have commenced at the menopause. 3. *Digestive* and *intestinal* disorders appear to be at the foundation of several cases, and this, independently of bad diet in many, but clearly the records show that dyspeptic symptoms, vomiting, and diarrhœa have troubled the patient at the very outset, before the subjective or objective symptoms of anæmia have developed. Frequently, as we have seen, the same gastro-intestinal symptoms appear during the course of a pernicious anæmia. Dysentery and typhoid fever may be followed by an anæmia which becomes pernicious in degree. 4. Malarial influences have been supposed to play a great share in determining the pernicious character, but it is singular in how few cases a distinct history of previous intermittent fever has been obtained, and many of the patients have not lived in malarial districts. Then there are cases in which the profound blood change has been set on foot by direct nervous shock, by fright, grief, or worry. In a word, the *known* etiological factors of pernicious anæmia are those of simple anæmia. The symptoms of pernicious anæmia are those of simple anæmia aggravated and intensified. The effects of pernicious anæmia are the same as those of simple anæmia, carried to an extreme degree.

If we turn now to those cases where it is impossible to detect with our present knowledge any etiological factors for the anæmic condition—if we deal, that is, with purely idiopathic cases,—we are bound to seek for causes within the organism itself. That search has been only in part successful. As in all cases of anæmia a cause must be sought in one of two directions, that of diminished activity of blood formation, or excess of activity in blood destruction, attention must be paid to each of these points, especially as regards the blood and the blood-forming organs. Of these I shall shortly speak.

The degree to which the hæmoglobin may be diminished has not been much estimated; but Quinquad found that when it reached 26·5 grms. per 1000 cc. of blood—i.e., about one-fifth of the normal quantity,—the case was invariably fatal, and then there is also a diminution in the solids of the serum. In this, as in other forms of anæmia, it has not been shown that there is any relation between the number of corpuscles and their richness in hæmoglobin. One of the cases I have related, it will be remembered, gave a diminution of corpuscles to 530,000 per c. mm., or 10·6 per cent., whilst the colour test for hæmoglobin showed that there was 30 per cent. of that substance. The case is proportionately grave, therefore, when the corpuscles and hæmoglobin are *pari passu* diminished. Quincke is inclined to doubt the value of observations on the amount of colouring matter in this disease, believing that some of it is in an inactive state, occurring as the detritus of the corpuscles. Most of his numerations are remarkably low—e.g., in four cases, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{15}$, and $\frac{1}{35}$ of the normal, the last being a case in which recovery took place, and the temperature chart of which is before you (No. 2). Many observers have met with variations in the size and form of the red corpuscles. Such variations include corpuscles larger than natural; others much smaller and spherical—the so-called microcytes, at first regarded by Eichorst as pathognomonic of pernicious anæmia, but since abundantly disproved, for they may be absent, and certainly occur in simple anæmia; and numerous smaller and misshapen bodies. Quincke laid especial stress upon alterations in shape; and I place before you a copy of his drawing which gives an illustration of the multiplicity of shapes and variations in size which the corpuscles may be found to undergo. Similar changes are described and figured by Dr. Finny, and have been observed in other cases, of which I may mention one, for the notes of which I am indebted to Dr. Pye-Smith. Irregular massing of corpuscles, rather than a tendency to form rouleaux; rapid appearance of crenation; pear-shaped, biscuit-shaped, globular forms; an excentric position of the depression on the surface of the globule, or the readiness with which the colouring matter accumulates in the corpuscle at one part, so as to give the corpuscle a nucleated appearance, are amongst the alterations observed after the blood is shed. They indicate a greater proneness to form-changes than in healthy blood, perhaps determined as much by altered quality of serum as by any integral change in the corpuscles themselves. At the same time the predominance of small forms and what appear to be broken fragments of corpuscular matter point either to an accumulation in the blood of imperfectly formed elements allied to M. Hayem's hæmoblasts, or, on the other hand, to evidences of the disintegration of the corpuscles.

Since neither the spleen nor lymphatic tissues show any evidence of change, the discovery of the blood-forming function of the bone-marrow by Neumann has naturally led to its examination in cases of pernicious anæmia, but with results both positive and negative. Dr. William Pepper of Philadelphia, in 1875, was the first to offer this explanation of this obscure disease, and described definite changes, chiefly of small granular cells in the marrow of the radius and sternum in one case. Cohnheim in the following year also described a condition of hyperplasia of the bone-marrow, fat being almost entirely absent, and the marrow of a red colour. Besides ordinary marrow and lymphoid cells he found a large mass of small red corpuscles, a few fully formed ones, and an abundance of nucleated red corpuscles of various sizes, some of which were found in the blood itself. The next most important contribution is that by a member of this College—Dr. Osler, of Montreal—who in two cases, one in conjunction with Dr. Gardner and the other with Dr. Bell, made a very thorough examination not only of the blood but of many of the bones of the skeleton. The marrow was of a violet-red colour and almost destitute of fat, containing besides the ordinary elements a large number of nucleated red corpuscles, similar to those described by Neumann as transitional forms between lymphoid cells and red corpuscles. Dr. Osler,[3] in examining the marrow of the long bones in fourteen cases of chronic disease, found evidences of a similar hyperplasia in only one case. Others have confirmed these observations; and others, again, have not been able to show any such changes in the marrow, whilst Eisenlohr,[4] finding that the alterations in the blood and marrow, similar to those described, were met with in a case of cancer of the stomach as well as in one of pernicious anæmia, is inclined to regard these conditions as dependent on the cachectic state rather than the cause of it, and a similar opinion has been expressed by others.

The question, however, cannot yet be entirely disposed of, and there is no *primâ facie* reason against a myelogenic anæmia sometimes occurring. If it do occur, then it points to defect in the normal evolution of the corpuscles, and we have the strange concurrence of appropriation of material by a blood-forming organ and development of the corpuscles up to a certain point, but no further. Meanwhile research is also being prosecuted in the other directions—viz., increased destruction of blood elements, Quincke finding large quantities of iron deposited in the liver, kidneys, and pancreas, in one or two cases of this disease; but his observations, as well as the solitary observation of Dr. Finny as to excess of iron in the urine, require further confirmation before being finally accepted. Further, I may remark that, in two cases of Quincke's, the total quantity of blood was estimated by a simple process of calculation of the corpuscular richness before and after transfusion, and it was found in these cases to have fallen to 5 per cent. and 4·34 per cent. of the body weight, the normal being 8 per cent.

In conclusion, one cannot fail to be struck by the broad resemblance in the midst of difference that exists between the course of a fatal idiopathic anæmia and leukhæmia and Hodgkin's disease (or pseudo-leukhæmia, as it is called)—a resemblance due to the factor common to all of them: the diminution of the oxygen-carriers of the blood. In leukhæmia there may be both an increased production of white corpuscles and an incomplete conversion of them into the red. In Hodgkin's disease, or pseudo-leukhæmia, there may or may not be any leucocytosis, but there is certainly deficient formation of red corpuscles; and in idiopathic anæmia there must be either such deficient formation or an excessive consumption of these same elements, so that there is no sharp line of demarcation between the two. Similarly in chlorosis we have a disease, the characteristic of which appears to be an imperfect evolution of the blood, and except in a few instances it does not seem possible to distinguish chlorosis from idiopathic anæmia. I must not, however, be contented with this mere assertion, and propose, therefore, to speak of chlorosis in its relation to idiopathic anæmia at the commencement of my next lecture, when I hope also to enter more fully into the effects of the anæmic state.

ON GASTROSTOMY.

WITH TWO SUCCESSFUL CASES, ONE FOR CICATRICIAL AND THE OTHER FOR CANCEROUS STRICTURE.[1]

By THOMAS BRYANT,

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THE case to which I draw attention is one upon which I performed the operation of gastrostomy on August 3rd, 1880, for cicatricial stricture of the œsophagus. The patient was a girl, aged twenty-two, named Lydia C——, admitted into Guy's Hospital under my care on July 15th, 1880. It seemed from her history that she had been healthy and steady up to January, when from some domestic trouble she, with suicidal intentions, took half a wineglassful of sulphuric acid. Medical advice was at once obtained, and an emetic was said to have been given, and after the lapse of a certain number of weeks the soreness of her mouth and pharynx disappeared. Difficulty of deglutition, however, was soon experienced, and steadily became worse, so that for some weeks before admission she had lived entirely on liquids, and these were swallowed with great difficulty. Indeed, it took her almost an hour to swallow half a pint of milk.

When the patient came under my observation she was pale, emaciated, and feeble, and although I made many attempts to pass a bougie or catheter down the œsophagus I never succeeded, the instrument invariably being stopped at the upper orifice of the œsophagus, behind the cricoid cartilage. Under these circumstances I determined to open the stomach, and operated on August 3rd. The operation was performed with the patient under the influence of the anæsthetic mixture and under the carbolic spray. It was commenced by an incision three inches long, running obliquely below the margins of the left ribs, and the skin and muscles were consecutively divided down to the peritoneum; all bleeding vessels were twisted, and capillary oozing arrested by a hot sponge. The peritoneum was then divided, and the left lobe of the liver, which became visible, was pressed upwards. The stomach was then readily found, and brought well forward to the surface of the wound. Great care was observed to keep the parts well sponged, to guard against anything passing into the peritoneal cavity. Two loops of fine carbolised silk were then introduced through the peritoneal covering of the stomach, about a third of an inch apart, and with these and a pair of tenaculum-pointed forceps the stomach was kept *in situ*. The ends of the loops were left long. The stomach was next carefully fastened by a series of interrupted sutures to the margins of the skin around. The sutures merely included on the one hand the peritoneal covering of the stomach, and on the other neither included the parietal peritoneum nor the divided muscles, but the skin alone. The stomach at this stage of the operation was not opened. During the next five days the patient was fed by nutrient enemata every three or four hours, and enough morphia was administered subcutaneously to give rest. The wound was covered with lint saturated with terebene and oil. No sickness, elevation of temperature, pain, or other trouble followed the operation, and on the sixth day the stomach was opened. The opening made was very small, not more than the eighth of an inch long. It was made by elevating the stomach by means of the two loops which had been introduced through the peritoneal covering of the stomach at the first stage of the operation where the ends had been left long, and cutting with a narrow tenotomy knife from loop to loop. The loops were then removed. The patient did not feel this part of the operation.

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[3] Gardner and Osler, Case of Progressive Pernicious Anæmia. Montreal, 1877.

[4] Deutsche Arch. f. Klin. Med., xx., 1880.

[1] Read at the Harveian Society, March 17th, 1881.

An india-rubber tube, with its end cut obliquely, was then introduced into the stomach through the small orifice, which it dilated, and some milk was poured into the stomach through a funnel. After this the patient was fed regularly through the artificial gastric orifice, and the case went on in all ways well. The girl in three months had gained 19 lb., or about a pound and a half a week. For some weeks after the operation she was fed upon minced meat and pancreas made into a pulp, and this thick food was readily passed into the stomach by means of a simple apparatus, which may be described as a small valveless Higginson's syringe, with one tube fitted with a funnel for the introduction of the food, and the other cut obliquely to facilitate its introduction into the stomach through the artificial orifice, the patient with her finger and thumb so nipping alternately the respective ends of the tube when the syringe is compressed as to prevent regurgitation.

I should say that this apparatus, which was made by my dresser, Mr. Studer, enables a patient to be fed on thick instead of liquid food. The patient has been able to take fluids by the mouth since the operation, and to swallow small crumbs of bread or sponge-cake, but I have not yet been able to pass any tube into or through the stricture. It is to be noticed that there has not been under any circumstances the smallest escape of the stomach's contents through the artificial opening, and this is demonstrated by the healthy aspect of the orifice and of the parts around. This happy result is doubtless due to the smallness of the orifice which I made, and the elasticity of the walls of the stomach; the artificial opening yielding readily to the introduction of the obliquely cut end of the tube, and closing on its removal by its own elasticity.

The advantages of this condition are obvious: the patient is saved the annoyance necessarily appertaining to the escape of the stomach's contents, as well as the local distress and irritation which the escape of gastric juice always causes. She is, moreover, able to take her meals standing or sitting with little trouble and without inconvenience; indeed, with all truth, it may be said that the patient is now, eight months after the operation, in the enjoyment of excellent health, and with the exception of the loss of some, though not all, of the pleasures of the table, there is nothing in her condition either to shorten life or to render it less valuable.

Remarks.—The operation of gastrostomy is applicable to two chief classes of cases—to those of stricture or obstruction of the œsophagus from cancer, and to those of cicatricial stricture. In the former class the operation is not curative, but palliative; it is undertaken mainly with the view of prolonging life, and secondarily as a means of diminishing the agonies of a death from starvation. In the latter class it is undertaken with the view of saving life. In the former class consequently the results of past experience are neither over-brilliant nor encouraging, since out of thirty cases tabulated by M. Verneuil up to 1879 twenty-two sank within the first week, and two alone survived the operation a month. One, however, was then living five months after the operation. It is to be remembered, however, that up to the present time the operation has almost always been postponed too long—that is, it has been only entertained when the patient was literally at death's door, and undertaken with the view of palliating the tortures of a death from starvation, and under these circumstances it is not to be expected that grand successes should be recorded.

Were the operation undertaken earlier better results would be obtained; and I have the records of an unpublished case of my own before me, which shall be appended to this paper, in which the patient survived the operation more than eight weeks; and my colleague, Mr. Howse, tells me that four cases upon which he has operated lived from five weeks to seven months. If, however, the operation were undertaken, as I hold it should be, as soon as the diagnosis of the case is made, and as soon as the obstruction is marked enough to prevent the deglutition of solid food, better results would be obtained; for by such a practice the patient would be in a better condition to undergo the ordeal, the stomach would be less atrophied, and consequently a better organ to deal with; the miseries of hunger would be guarded against, for they would be anticipated; and above all, the progress of the cancerous disease in the œsophagus would be rendered less rapid, and its disintegrating changes would be postponed, in the same way as surgeons now know by the operation of colotomy cancerous stricture of the rectum is relieved, and the changes in the cancerous growth are retarded if not prevented.

In the second class of cases where the operation had been undertaken for cicatricial stricture better results are to be told, for Verneuil's case lived seventeen months and died of some unknown disease. Trendlenberg's case was living three years after the operation. My colleague, Mr. Howse, had a case two years ago which still lives, and the present case promises to demonstrate still better the value of the operation, for the patient is not troubled, as all the others have been, by the escape of the contents of the stomach from the artificial orifice and the consequent local soreness and irritation which such an escape entails. And this leads me to make a few remarks on the operation itself. The incision I made, and believe to be the best, is an oblique one about three inches long and half an inch below the borders of the left ribs. The tissues should be divided carefully down to the peritoneum, and everything like bleeding should be stopped before the peritoneum is opened. The stomach as soon as caught should be brought well forward into the wound and held with a pair of tenaculum-pointed forceps; two loops of carbolised silk should then be introduced, about half an inch apart, through the peritoneal covering of the stomach and its subserous tissue, to indicate the spot at which, on some future day, the artificial opening is to be made. The stomach is then to be carefully stitched to both edges of the skin wound by a number of fine stitches passed through its serous covering alone, in the same way as Nélaton suggested in the operation of enterotomy for abdominal obstruction. There does not seem to be any necessity to include in these stomach sutures the divided parietal layer of peritoneum, the edges of which naturally fall against the wall of the stomach, which is well brought forward. The patient is then to be left alone, and fed by nutrient enemata, to allow the stomach rest and time to unite with the abdominal wound, and after the lapse of from three to five or six days, according to the necessities of the case, the stomach should be opened. In this case I completed the operation of opening the stomach on the sixth day. The full credit of this suggestion is due to my colleague, Mr. Howse, and I have adopted the practice in two cases after witnessing its benefit in several instances. I believe this method of operating has great advantages and tends to make the operation safer. The opening into the stomach should be very small; in the present instance it was no larger than the width of a tenotomy knife, and yet experience has proved that such an opening is elastic enough to allow of the easy introduction of a tube equal to three-eighths of an inch in diameter, and to prevent the regurgitation of even a drop of liquid from the stomach. The stomach having been opened the patient was fed at once, for the first few days with milk, eggs, and beef-tea, but later with beef and pancreas minced and cooked by a simmering process till the whole was almost liquefied. At first a tube and funnel were used, but later on the thick food was more readily introduced by a simple apparatus [shown and described]. The girl can now take liquids by the mouth, and a little solid. Still no tube can be passed or opening formed into which any probe can be passed. Under such circumstances there is but little prospect of her doing without artificial feeding.

By way of conclusion let me urge upon my medical friends to suggest a resort to gastrostomy in cancerous obstruction of the œsophagus so soon as the diagnosis is made, and there is practical difficuty in the deglutition of solid food, for by an early operation many more lives would be prolonged, and much misery saved. The progress of the disease, moreover, would be greatly retarded. Whilst in cicatricial stricture the operation should be resorted to only when all hope of the stricture being dilated has vanished, and there is no other alternative.

Cancer of Œsophagus; gastrostomy; death two months after operation from extension of the disease to the trachea, lungs, liver, and mediastinal glands.

(Reported by Mr. HIND.)

J. B——, aged sixty-one, a labourer, was admitted into Stephen ward on Feb. 25th, 1880, under Dr. Wilks' care. Patient has enjoyed good health; never drank much. Has had gonorrhœa, but not syphilis. Ten months before patient first noticed difficulty in swallowing solid food. It appeared to stick in the œsophagus on about a line with the upper end of the sternum. He subsequently was unable to swallow his food, and vomited it immediately. His appetite has remained good. He has not suffered much pain. On admission he has apparently lost much flesh; his skin is hot and dry. He has a circumscribed fluctuating tumour situated over the inner half of left clavicle, not infiltrating the skin; it is not painful, and the patient had never noticed it. A few small glands are enlarged at the lower part of the posterior triangle of the neck. About a fortnight ago an abscess formed on the dorsum of the left foot, which is very red and inflamed. Tongue moist, furred, and white. Teeth not good, only two left in the upper jaw. Bowels open.

Feb. 26th.—House-physician passed a bougie down the œsophagus, but it did not pass lower than on a level with the upper part of the sternum. To take one ounce of brandy three times a day, with eggs.—March 2nd: The tumour is 3″ long by 1½″ deep; feels elastic and soft, and at anterior end is soft and fluctuating. Deficient entry of air all over the chest; chest expands tolerably; no dulness; no signs of invasion of thorax by growth; breathing hoarse all over chest. The house-physician passed a large, then a small bougie, both to about 4½″ below epiglottis, corresponding to a point immediately above the sternum.—6th: Fluctuation of swelling; opened by Mr. Bryant, and four ounces of pus came away.—10th: One ounce of brandy to two ounces of milk as an enema.—11th: Mr. Bryant performed first part of operation of gastrostomy, as described in the last case. The wound healed kindly without any peritoneal or other complications.—16th: Operation completed; opening into the stomach a small one.—17th: Temperature normal; fed every two hours with four ounces of milk and an egg, and half an ounce of brandy occasionally.—18th: Injection every four hours; temperature normal; bowels open; tongue fairly clean.—19th: Abscess on foot opened.—22nd: Temperature normal; fed six times a day, two of which consist of milk and eggs, the remainder of meat; about four or five ounces of brandy; weighed 98 lb.—23rd: Leg put on back splint.—25th: Up in a chair in ward.—27th: Fed four times a day.—April 21st: Weighed 103 lb.—May 5th: Cough troublesome; weaker.—10th: Died.

Necropsy by Dr. Hilton Fagge.—Body much emaciated. A slight sore on one instep, and in the abdominal wall was a fistula to the left of the umbilicus from the operation of gastrostomy. The opening was in the centre of a small amount of scar tissue. It was the size of a No. 10 catheter, and above—that is, the upper margin had upon it an overhanging lip, which looked more like mucous membrane than skin or scar. The cranial bones were normal; no thickening. Dura mater and sinuses, arachnoid and pia mater, were normal. Arteries of head very atheromatous at base. The brain weighed 50 oz. In the head of the outer nucleus of lenticular ganglion upon the right side there was a small-sized cyst of an old apoplexy; its colour was brownish, and its lining membrane smooth, and in its walls were some small vessels. The smaller vessels in the interior of the brain did not look so very thick.—Spine: The spinal vertebræ had various nodosities upon their anterior margins at the line of junction with the intervertebral substances in the lumbar and dorsal regions.—Respiratory organs: Recent lymph over hinder part of left pleura. Both had in various parts, particularly over the hinder part of the lower lobe and in the outer part of the upper lobe, a considerable infection of the lymphatics with cancer. They stood out on the surface as interlacing lines of milk white or yellow colour, forming a rectangular latticework. There were, in addition, in some parts, flat plates of growth spreading in the pleura from these. The lungs felt very solid towards the root. On section they were seamed in various parts by thin lines of cancerously infiltrated septa. These had a head in appearance in various parts, and in the centre of the lung this condition was surrounded by a granular pneumonic lung, which it was difficult to say was not pneumonia. It may have been pneumonia mixed with growth. The heart weighed eight ounces and a half, and was quite healthy. The œsophagus was tightly strictured opposite the second ring of the trachea. There was very little thickening of its coats, but on slitting up the tube there was a jagged white growth in the mucous membrane, without any well-defined margin, and, in addition, a superficial ulcer in the mucous membrane, which ran up vertically in the covering of the thyroid and cricoid cartilage to the left side for more than an inch. The floor of this ulcer presented no cancerous attributes, but the edge of the ulcer was distinctly raised and everted with a soft fleshy growth. The trachea was not perforated, but its wall was extensively implicated. On looking at the mucous surface of the trachea the whole of it, down to the bifurcation, looked mottled and thick, and granular-looking tubercles of growth studding it all down, and from these parts the disease had invaded the external parts. The thyroid body was extensively infiltrated with a similar growth. The glands were affected, but they were not much enlarged. The actual stricture of the œsophagus was not more than half an inch in length. Above and below the parts were normal.—The liver contained three or four small circular, firm, cancerous nodules; in other respects the liver was healthy.—The intestine was in a very interesting condition. Throughout the whole length of the small intestines, but chiefly in the lower part, were ulcers which had rather thick edges, which tended to run round the bowel, and which exposed clearly in the floor the muscular fibres of the bowel. One of these had gone deeper, and by a second ulceration in the already ulcerated surface had all but perforated by a transverse slit, two-thirds of an inch long. The ulcers externally had a puckered aspect, but there was no material narrowing of the bowel, and one at least had very minute white grain-like bodies (? tubercles) in the subperitoneal tissue. I think it was an early tubercular affection of the lymphatics in the floor of a chronic ulcer. Near the cæcal valve the ulcers became more irregular and more superficial—not like any particular ulcer—and similar small superficial circular and oval ulcers ran down in the large intestine for some distance. But there was one additional peculiarity in the large bowel. The mucous membrane was smoother than usual, and sanded over with multitudes of small rough-looking grains, distinctly projecting from the surface. I hesitated to pronounce an opinion on its nature. They were too prominent, and abruptly so, for solitary glands. No lardaceous disease of liver or intestine.—Spleen: The capsule was thick. The suprarenal capsules were healthy.—The kidneys weighed eight and a half ounces. One kidney was very good. The other contained many cysts of small size, but its cortical structure was good.—Most of the joints showed osteo-arthritic changes. The toes were nodular at their edges. The knees had a large part of their surface from centre outwards devoid of cartilage, and eburnated; while at the margin of the cartilage there came a nodose edge of bone. The elbows were in a similar state. The synovial membrane in knees could hardly be said to be vascular. The shoulders were also affected, the left bicipital groove being markedly prominent from new matter under the muscular attachment of outer lip.—With regard to the ulceration of the intestine, I was in doubt as to its nature. The ulcer in some parts certainly involved part of Peyer's patches, and further they were well-defined, clean-looking ulcers, exposing the muscular coat without any granulations—in this resembling typhoid ulcers which had sloughed out, and not tubercular ulcers. On the other hand, the peritoneal aspect was in no other places in favour of tubercle. The stomach at the seat of operation was firmly united to the skin. No signs of peritonitis were present.

A CASE OF CYSTICERCUS CELLULOSÆ IN THE VENTRICLES OF THE BRAIN; SUDDEN DEATH.

By FREDERIC FLINT, M.D.

A boy in his seventeenth year, a pupil in a large boarding-school at Scarborough, apparently in good health, played on Thursday, Feb. 24th, at a well-contested game of football. On Friday at 10 A.M. he was no more. He took an active part in the game on Thursday, and thoroughly enjoyed it; in the evening he complained of headache, and went to bed early; he vomited once or twice during the night, but did not disturb another boy who slept in a separate bed in the same room. On Friday morning he did not appear at the breakfast-table, and the head-master of the school went immediately to see him. He then complained of his head aching severely, and of having vomited, and the terrible scene, which came to so speedy an end, began. The poor boy made several heart-rending, piercing cries, clapped his hands to the *back* of his head, and cried for pain there; his eyes became fixed as if he were going into an epileptic fit; he began to pick and pull rapidly at his eyes and mouth, then to scratch his skin violently as if he would tear his flesh off, especially about the inner part of the thighs and the pudenda, so that strong force was needed to prevent him doing himself injury. He then buried his head and body under the bedclothes, and in agony tried to bore his head into the bed. He several times drew his knees up to his chest, and violently thrust his limbs out again; there then followed severe shudderings of the whole frame, which, to use the expression of one who most patiently and carefully attended him, "seemed to make all the bones in his body shake together." After a piercing shriek, the case at this stage mercifully passed into coma, with stertorous breathing. At the time of my arrival his face was of a bluish, epileptical colour, the pupils widely dilated, the respiration gasping and at prolonged and lengthening intervals, and the pulse full and strong. While I was feeling the pulse and meditating on the case, in a few seconds it became flickering. I injected ether into the arm, but it had no effect on the pulse, and within two or three minutes of my arrival life vanished away. The whole duration of the seizure was about one hour. I ascertained that there was twitching of the small muscles of the face in the early stage, but it was not very marked; tears poured copiously down the cheeks during the greater part of the time.

On making closer inquiries into the previous history of the deceased, I was informed that he had been at the school for about five years, that he had always taken an active part in the school games, that he had been considered clever and of more than average mental ability, and that he had been of a very generous character, and a favourite with his companions. During the time he had been at school his health had been generally good, but during the latter part of the Christmas term, and since his return after the vacation, he had shown signs of being fagged by his work, and had complained of headache after much study and violent exertion, as after playing at football. During the holidays in endeavouring by skating backwards to pass under a bridge, which could be done only by stooping, he came into collision with the bridge and hurt his spine. This was supposed to account for the headache and complaints which he made after playing at football on his return to school, and he was advised by his associates to discontinue playing for a while. It was not, however, considered needful to take any medical advice about it. The boys also noticed that he had lately been somewhat irritable, and not disposed to give them much help on various occasions as he had previously done. I could not find out that he had ever complained of giddiness or had attacks of vomiting. I was told that about Easter (1880) he had had very severe neuralgia, which affected not only the face but the back of the head, and severely so; the facial neuralgia was relieved by the extraction of carious teeth, but the pain in the back of the head continued for some time, and only gradually subsided. Nitrous oxide gas was administered for the extraction.

As the real cause of death was unknown, apoplexy being so very unusual at such an age, it was considered necessary in the interests of all parties that there should be an inquest, and in this case an inquest proved helpful to the cause of science, for no one, I think, would have ventured to ascribe the death to a cysticercus, especially after he had heard of the skating accident.

An inquest being ordered I made a post-mortem examination of the brain the same evening. I found the coverings of the brain and the venous sinuses gorged with blood; the pia mater was intensely congested, and on cutting into the brain immediately beneath it there were numerous minute spots of hæmorrhage. On opening the left lateral ventricle I noticed it was distended with fluid, but I did not observe anything of special importance. I then opened the right lateral ventricle, and began to feel puzzled as to the cause of such a rapid and intense congestion of the brain. On searching the left ventricle more carefully I discovered what appeared to be a piece of elongated jelly. Wondering what it could be I put it into a glass of water, when it assumed a globular form, and I saw at once that I had secured a prize. I put it on one side for further examination, and searched the third ventricle and the passage to the fourth, but I could discover nothing more. As I was unaided, the time late, and the light only that of a candle, I did not venture to open the abdomen and intestines. This I afterwards very much regretted; but those who are acquainted with the difficulties in performing a post-mortem in a private house, and under the circumstances in which I was placed, will not be severe in blaming me. On examining the cyst I observed that in water it was of the size of a moderate-sized cherry, that it was translucent, and that there could be seen in the interior an opaque body. When placed on a saucer it looked very like a miniature jelly-fish of a light-brown colour, rather larger than a shilling, and in the centre of it there was a yellowish-looking spot, at which there appeared under a magnifying lens, to be some projecting hooklets. At the inquest I gave it as my opinion that the cyst which I exhibited was a cysticercus cellulosæ, and that it was the cause of death. It would be interesting to decide the exact position which the cyst occupied in the brain. I found it in the left lateral ventricle. I did not observe it at first sight, but after opening the right lateral ventricle on searching again in the left I discovered it, and it was then certainly not attached to any part. I think that it must have been about, and possibly engaged in, the foramen of Monro, and that in pressing on the corpus callosum and septum lucidum, to open up the right ventricle, the cyst was dislodged, and pushed into the position where I afterwards found it.

In Ziemssen's Cyclopædia there is reported a case which is very similar to mine. A boy, strong and hearty, had suffered from frequent headaches the year before his death. The headaches came on after violent bodily exertion, and were sometimes accompanied with vomiting, but were never so severe as to require medical attendance. One evening he had a headache, but he ate a hearty meal, and went to sleep. After a few hours he awoke with vomiting, delirium, and great restlessness. His speech was inarticulate; complete loss of consciousness and death soon followed. A cysticercus cellulosæ was found lying free in the aditus ad infundibulum. There were no teniæ in the intestine.

In the account given by Heller of the development of the cysticerci, the head of the worm is described as being downwards in the cyst, and it is stated that in but few cases does the tapeworm head escape externally while in its measly condition. How it could do so is not described.

As the case appeared to be a very interesting one, and as when I opened the cyst the worm appeared of a large size, I determined, instead of further dissecting the specimen myself, to send it to an expert; and as we have in the profession a man of European and world-wide reputation in such matters, I sent it to Dr. Spencer Cobbold, feeling sure that he would make it more interesting and instructive to the profession and the scientific world than I could do.

Dr. Cobbold very carefully examined the worm, and kindly made me a drawing of the head, and sent me a very interesting account of his examination. He stated that in his opinion the parasite was a cysticercus telæ cellulosæ hominis, and "that it is particularly worthy of remark that not only is this bladder-worm of most unusual size, but it is likewise of monstrous character. In place of four it is furnished with six cephalic suckers." When he examined the worm without a magnifying lens he expected it would prove to be an example of the cysticercus tenuicollis. "For," he writes, "it is altogether beyond my experience to have met with any pork-measle of the size of this human specimen." After examining the hooks, of which four or five still remained attached, with the quarter-inch objective he satisfied himself "that the hooks corresponded more closely with those of the ordinary pork-measle than with the hooks of the slender-necked hydatid. . . . . When fully unrolled, and the head everted, the specimen measured precisely two inches in length." Dr. Cobbold has already drawn the attention of the profession to this case in THE LANCET (March 12th), and will show the specimen at the Quekett Club meeting. In a subsequent note Dr. Cobbold states that the appearance of hooklets protruding through the cyst wall was deceptive, and that the head was still concealed in the receptacle when he examined the specimen.

A question of great interest now presents itself. How did this embryo find its way to the brain? As I understand it, such a case could not arise *directly* from swallowing a pork-measle; that as the pork-measle arises from the introduction to the pig's stomach of a mature egg or an egg-filled segment of the tænia solium, so the bladder-worm in man arises from the introduction to man's stomach of a mature egg of the tænia solium either from without, with food or drink, or from within by vomiting from the fully developed segments of a tapeworm in the intestine—i.e., by self-infection. No doubt this case is defective, as the intestines were not examined; I have, however, made careful inquiries, and I cannot hear that the youth ever made any complaint of having passed anything unusual by the bowel, and if the worm had been fully developed in his intestine there can be little doubt that he would have passed some segments, and that they would have attracted his attention. Heller, in Ziemssen's Cyclopædia, states that of von Gräfe's collection of eighty cases of cysticerci in the eye, only five or six patients had been previously affected with tapeworm. It would therefore appear that the embryos usually find access to the body in the food or drink. It would be practically useful to the profession and to the public if such an authority as Dr. S. Cobbold were to take advantage of the interest excited by this case to point out the many ways by which the embryos of the tænia solium may gain admission to the human body.

Scarborough.

THE TREATMENT OF PSORIASIS BY PYROGALLIC ACID.

BY GEORGE THIN, M.D.

THE first notice of the curative effects of pyrogallic acid as an external application in psoriasis is, I believe, to be found in a paper by Jarisch, which is known to me by an extract in Schmidt's Jahrbücher, 1880, No. 3. In this paper a ten per cent. ointment, to be applied twice daily, is recommended, the ointment to be kept in contact with the skin by a bandage in inveterate cases. Jarisch found its use attended with no inconvenience, and states that the discoloration of the skin which it causes is removable by benzole and by dilute acids. The utility of pyrogallic acid in psoriasis has been supported by the testimony of Kaposi, who has warmly recommended it, more especially for cases of psoriasis universalis.

Before trying it on my own patients I became, however, aware through a case reported by Neisser, to which I shall again refer, that its application to a large surface might be attended with danger, and feeling satisfied that it is never justifiable in the treatment of ordinary cases of psoriasis to subject a patient to any risk, however insignificant, I commenced by using it over a very small extent of surface at a time. A slight experience of this treatment was sufficient to satisfy me that we had become possessed of a powerful agent for the treatment of psoriasis, and one that is not attended by the inconveniences that are associated with the use of chrysophanic acid. I accordingly availed myself of a favourable opportunity for testing its action, as compared with that of some of the more commonly used stimulants which are applied to the skin in psoriasis, and now propose to record the results of the experiment.

A young gentleman, aged twenty, consulted me in March, 1880, for a psoriasis of long duration. He intended going abroad for a period of years, and was desirous of ascertaining the best method of keeping his disease in check without resorting to repeated courses of arsenic. He therefore willingly accepted my suggestion of trying the effects of different applications on different patches.

The disease first appeared on his elbows when he was five years old. When he was twelve the knees became affected. In his eighteenth year the disease became more general, patches developing on the legs, abdomen, back, and arms. When I saw him I found the knees and elbows affected with patches, varying in size from that of a shilling to the palm of the hand, on various parts of the body. They were mostly about two inches in diameter and rounded in form, and were well-marked examples of the disease, a slightly bleeding surface being left when the scales were forcibly removed. The other applications with which the pyrogallic acid was to be compared were frictions with soft-soap twice daily, the frictions on a number of selected patches being followed by the application of white precipitate ointment and *huile de Cade* respectively. A complete cure was not obtained by these applications on any one patch, although an apparent attempt at recovery followed all of them. Thus the elbow and knee of one side were treated by the soap frictions and white precipitate ointment, and those of the other side by soap and tar (*huile de Cade*), from March 19th to October 21st, continuously and actively, with great amelioration of the condition of the skin, but without a complete cure. Patches on the abdomen and back were similarly treated for a number of consecutive weeks, again with progressive amelioration, but the progress was so slow that, in deference to the wishes of the patient, the pyrogallic acid ointment was substituted. The pyrogallic acid was first applied to an oval patch on the left leg, which was about four inches long and three inches broad, an ointment composed of one part of the acid to ten of lard spread on lint, being laid on it twice daily. After three days' application the local irritant effects produced were sufficiently severe to induce me to discontinue the remedy for the time being. The treatment of the patch was resumed after some weeks with a weaker ointment, one part of the acid to twenty of lard. In six days the patch looked much better, and within a fortnight it was well.

In order to avoid any possible ill effects from the acid a few patches only were treated at a time. Those on the abdomen were attacked first, and then those on the back, and finally those on the limbs. The treatment was begun in the end of May, and by the end of July all the patches, except one or two on the back, had been cleared, and these soon yielded when they were taken in their turn. Finally, on October 21st, the elbows and knees, which had so long resisted the patient treatment by soft soap, white precipitate ointment, and tar, were attacked by the pyrogallic acid in the same strength of one in twenty, and were speedily cured.

The curative action of pyrogallic acid is due, I believe, simply to its irritant qualities, and to certain properties as an irritant in regard to which we are ignorant. The irritant effects are most conspicuous around the hairs, each hair-follicle being the seat of a small brown patch, which, when it is scratched off, often leaves an abrasion in its place. At one stage of its curative action the mode in which the psoriasis patch enlarges is well illustrated, the dull-brown epidermis which marks the extent of the diseased surface being bounded by a thin red margin. This thread-like border corresponds to the vascular congestion produced in the bloodvessels by the extension of the psoriatic epithelium.

Kaposi has treated patients who were subjects of universal psoriasis by an ointment of pyrogallic acid applied to the whole surface of the body, and remarks in his recent handbook regarding the "alarming appearance of strangury and excretion of olive green to tarry urine, with symptoms of moderate fever and prostration, by many patients whose whole bodies had been repeatedly covered by it." Neisser (in the *Zeitschrift für Klin. Med.*, i., p. 88) recites a case in which a patient died from its effects. The patient, a man afflicted with psoriasis universalis, after a warm bath with soft soap, had an ointment of pyrogallic acid applied to the left side of the body and to the surface of the chest. In two hours he became unwell, and had diarrhœa, and four hours later rigors, collapse, high temperature, and tremor set in. After a remission there was in forty hours a repetition of the attack, and he died comatose. There was anuria for the last twelve to eighteen hours. During the sixty hours of illness only 1600 cubic centimetres were secreted, the urine affording a marked example of hæmoglobinuria.

It is clear that the remedy is one to be cautiously handled, but it is equally clear that, used in the strength employed by me in the case which I have related, and used over a small extent of surface at a time, it can be employed not only safely, but conveniently and successfully.

Queen Anne-street, W.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—The Weekly Board have just presented their thirty-second annual report to the governors. During the past year the total number of patients attending the hospital was 12,976. The number of in-patients amounted to 1372; included in this number are 71 infectious cases treated in the fever wing. The average daily number of in-patients was 114. Cost per head £4 7*s.*; cost per bed occupied, £52 5*s.* 9*d.* Average stay in hospital, 33 days. Cost per out-patient, 2*s.* 3*d.* The income from all sources amounted to £7048 3*s.* 7*d.*, and the expenditure to £6924 8*s.* 4*d.*, leaving a balance in hand of £123 15*s.* 3*d.* During the coming summer it is intended, if the funds are forthcoming, to erect a new and detached mortuary and to renovate the sanitary appliances and drainage, as well as to paint and cleanse the interior of the building.

ORCHITIS AS A CONCOMITANT AND SEQUEL OF MEDITERRANEAN FEVER.

BY G. F. DUFFEY, M.D. DUB., F.K.Q.C.P.I.,
PHYSICIAN TO MERCER'S HOSPITAL.

UNDER the above heading Surgeon H. M. Ellis, R.N., Royal Marine Artillery, has recorded in a recent number of THE LANCET (Jan. 22nd, 1881, p. 161) some cases of particular interest. Independent observations of rare forms of disease are always valuable, especially when—as would appear to be the case in the present instance—the observer is unaware that the subject to which he calls attention has been previously studied and described by others.

Having had the honour of serving for five years at Malta with the 1st Battalion of the 24th Regiment, I had exceptional opportunities, of which I endeavoured to avail myself, of studying the forms of fever met with in that island. The special complication or sequela of which Mr. Ellis reports four cases I was, to the best of my belief, the first to give a detailed description of (*Dublin Journal of Medical Science*, Feb. 1872). I ventured to define the affection as "an inflammation of the testicle of a rheumatic character occurring sometimes during, or a short time after, convalescence from fever," and the description given by Mr. Ellis corresponds accurately with the symptoms observed in the cases, eighteen in number, on which my memoir was based.

The fact that several officers of the Army and Naval Medical Departments who have served at Malta have not seen orchitis there after fever, as well as my own experience, would make it appear that this complication has somewhat of an epidemic character; the tunica vaginalis testis, and not, as usual, the aponeurotic and muscular structures of the thighs or back, being, at certain seasons, or under certain unknown conditions, the seat of this "rheumatic" or "neuralgic" complication. Thus Senator (Ziemssen's Cyclopædia, vol. xvi., p. 20), referring to my observation as to the occurrence of orchitis during convalescence from endemic fever in Malta, asserts that it is quite possible that under special climatic conditions other febrile maladies besides scarlet fever, dysentery, and the puerperal state, during or after which polyarthritis is exceptionally prone to occur, may likewise predispose the system to become affected by rheumarthritis; the liability of the patients to become thus affected varying in different epidemics, but being also possibly due—apart from any *genius epidemicus*—to the state of the weather and other circumstances of a local order. Nearly all my cases occurred during the autumn and winter of 1867, while the men were quartered in an unhealthy barrack.

From the considerable experience I have had of the so-called "Maltese" or "Mediterranean" fever, I cannot agree with Mr. Ellis that it is of a remittent type, unless it has changed its character since 1871. In the paper above referred to I gave it as my opinion that there were two main forms of fever endemic in Malta—viz., ephemeral fever or febricula and enteric fever. Nothing that I have learned practically or read on the subject since has made me change the views I then expressed.

Reference to the literature of the subject shows that orchitis is not unknown out of Malta as an occasional complication of typhoid fever. Liebermeister (Ziemssen's Cyclopædia, vol. i., p. 181) states that in men orchitis or epididymitis sometimes supervenes during convalescence from this disease in a proportion, as far as he can judge, of one in 200 cases; and Hanot (*Archives Gén. de Méd.*, Nov. 1878) has reported four cases of orchitis in typhoid fever. In all these instances the right testicle, as is most frequently the case, was affected, and the complication occurred during convalescence from the fever. An army medical officer informed me some years ago that he had had orchitis after fever in India; he also suffered from "rheumatic" pains during his convalescence, but was unable to account for the orchitis until some years subsequently he casually read my paper, which, he said, exactly described his condition at the time.

Fitzwilliam-place, Dublin.

NOTE ON

THE TUNING-FORK IN THE DIAGNOSIS OF DISEASES OF THE EAR.

BY E. CRESSWELL BABER, M.B. LOND.,
SURGEON TO THE BRIGHTON AND SUSSEX THROAT AND EAR DISPENSARY.

IN a very interesting paper on Bone Conduction read by Dr. Knapp at a meeting of the American Otological Society in July last, and in the report of the discussion which followed,[1] I find no mention of a phenomenon bearing on this subject to which my attention was directed more than a year since. I refer to the effect of pressure exerted on the ear on the perception of the tuning-fork. On applying a sounding tuning-fork to the median line of the head, if one meatus be closed (either by inserting the finger into it or by pressing the tragus inwards), the sound of the fork, which on closing the ear lightly is heard loudly in the obstructed ear, if the finger be pressed inwards diminishes in the closed ear with the amount of pressure exerted, until the sound is heard only slightly or not at all louder in the closed than in the unclosed ear. The same takes place with the voice if any note be continuously hummed. In examining persons with normal hearing in this manner, I found that pressure has usually (though not invariably) this effect. In this experiment, the air in the meatus becoming condensed, doubtless forces inwards the membrana tympani and with it the ossicles. In the present incomplete state of our knowledge in regard to bone conduction, as to how far a direct transmission of sound waves through the cranial bones to the labyrinth can take place, or how far bone conduction reaches the labyrinth through the medium of the tympanic apparatus (vide Knapp and others, *loc. cit.*), this phenomenon admits, I think, of two interpretations. 1. It may either be considered due to the inward pressure of the ossicles, causing slight pressure on the labyrinth fluid, by which the functions of the labyrinth are temporarily interfered with; or (2) it may be attributed to the impediment to the vibrations of the ossicles (especially of the stapes), produced by their altered tension. In addition to either of these two causes (or possibly a combination of the two), the fact of the sound waves, which are reflected from the obstruction in the meatus, having to pass through a tympanic apparatus of which the tension is abnormal, probably weakens their effect on the labyrinth. The effect of pressure on the ear may perhaps be analogous to what occurs in those cases (of which several were referred to at the above meeting) in which bone conduction being abolished, it is more or less immediately restored when the tympanum is relieved by inflation or paracentesis. Opinions as to the cause of this phenomenon also varied. Practically it is well to be aware of this effect of pressure on the perception of the tuning-fork if closure of the ear be employed in conjunction with bone conduction as a means of diagnosis.[2] By showing the ease with which altered tension of the ossicles may affect the bone conduction, this observation may assist in explaining some of the exceptional cases met with in practice, in which, although the disease is apparently in the middle ear, the tuning-fork is *not* heard louder in the more affected ear. The whole question of bone conduction, however, needs a thorough reinvestigation, and this is especially required on account of its great practical importance in the diagnosis between middle and internal ear-deafness. The effect of pressure on the perception of the tuning-fork cannot fail to have been noticed before, but it has not, I think, received the attention that it deserves.

Brighton.

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[1] Some Remarks and Observations on Bone Conduction, Transactions of the American Otological Society, vol. ii., part 4, p. 407.

[2] Hinton (Questions of Aural Surgery, p. 61) cautions against using pressure in occluding the ear, unless it is expressly intended to note the effects of pressure, but does not mention what these effects are.

ARTS EXAMINATIONS.—At the recent preliminary examination for the diploma of Membership of the Royal College of Surgeons, which was conducted as usual by the College of Preceptors at Burlington House, there were 372 candidates, of which number 124 were rejected; the 248 successful candidates can at once commence their professional studies.

STRYCHNIA POISONING DURING THE FIFTH MONTH OF PREGNANCY; RECOVERY.

By ALBERT S. MORTON, M.R.C.S.

At 11 P.M. on Feb. 5th I was hastily summoned to Mrs. H——, who was said to have taken poison. On my arrival, at 11.20 P.M., I observed the following symptoms: Convulsions, risus sardonicus, opisthotonos, redness of face, dilatation of pupil, scratching the body and limbs, free perspiration, bleeding from the mouth, and a bitten tongue. The pulse varied frequently and suddenly, being sometimes normal as to beat, sometimes slower than normal, and at times nearly twice as fast as normal; it varied also as suddenly and remarkably in volume, being at times almost imperceptible, and at others normal or very full.

The convulsions came on five minutes after taking the poison, and continued during the space of two hours. During the first hour they occurred with more or less regularity every four or five minutes. Their strength may be judged from the fact that there was marked opisthotonos, and the tongue was bitten through. During the second hour the convulsions became less frequent, and at the end of the first hour and a half they appeared to have entirely ceased. Half an hour after this (that is at the end of the second hour) the patient asked for a glass of cold water, which I gave to her. On attempting to raise the glass to her mouth she had another severe convulsion, and dashed the glass out of her hand. During the intervals the patient was clear and collected, and then told me she had taken the whole of a large packet of Battle's vermin-killer dissolved in a tumbler of water (probably about three grains of strychnia).

The treatment consisted in the administration of twenty-grain doses of sulphate of zinc dissolved in eight ounces of warm water, and followed by warm water alone, until vomiting occurred. As soon as the sickness ceased the same treatment was pursued until four doses had been administered in all. I was obliged to pour the emetic down with a table-spoon, as the attempt to drink from a tumbler or cup appeared at once to induce a convulsion.

The patient told me during the intervals that her face felt stiff, that she could not swallow well, as her throat was also stiff, that she itched all over, that she had a burning sensation in her throat, and that she would not have taken the poison at all if she had known how painful it would be.

She has not yet had any signs of a miscarriage, and has made a most perfect recovery.

Kennington-park-road, S.E.

CASE OF REMOVAL OF LARGE CYSTOMA OF OVARY, FOLLOWED BY DISAPPEARANCE OF A UTERINE MYOMA.

By LAWSON TAIT, F.R.C.S.

The following case was under the joint care of Mr. Badley and Mr. Messiter of Dudley, with whom I saw the patient in consultation upon July 24th, 1879.

E. D——, single, aged thirty, had severe uterine hæmorrhage and had been noticed to be rapidly increasing in size. A tumour had been discovered by Mr. Badley about a fortnight previous to our consultation. At the time I first saw her we resolved the condition into the presence of two tumours, one cystic and the other, down in the pelvis, solid. On July 31st I performed abdominal section and removed without much difficulty the cystoma. The solid tumour in the pelvis proved to be a myoma in the posterior wall of the uterus, which I could not remove. She recovered from the operation without a bad symptom and went home on Aug. 15th. I saw her on October 10th of the same year, and found the myoma reduced to less than half the size it was at the time of the operation. She was married in December, 1879, and in October, 1880, came to me to know if she was pregnant. There was no difficulty in determining that she was about five months pregnant, and not a trace of the myoma was to be discovered. I am informed by Mr. Messiter that she has recently been confined without any trouble.

This is one of a number of cases from which evidence is accumulating in my hands to show that uterine myoma depends very frequently upon disease of the ovaries, and that removal of the diseased glands cures the myoma. In this case it is remarkable that removal of one ovary was sufficient to secure this desirable end, whilst the other remained sufficiently healthy to enable her to become a mother.

Birmingham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

ST. BARTHOLOMEW'S HOSPITAL.

[Ophthalmic Department.]

SYMPATHETIC PTOSIS, PROBABLY FROM DECAYED TEETH.

(Under the care of Mr. Power.)

E. C——, an unmarried woman, aged thirty-three, formerly a domestic servant, was admitted on Dec. 5th, 1880. She was the subject of marked ptosis in both eyes, the ciliary edges of the upper and lower lid being in complete and even apposition on both sides. There was no wrinkling of the skin or other sign of spasm of the outer portions of the orbiculares. She was quite unable to open her eyes, and when pressed to try to accomplish this there was usually marked spasm of the orbicularis oculi, together with contraction of the anterior bellies of the occipito-frontales muscles and horizontal wrinkling of the forehead. On opening the lids with the fingers considerable orbicular spasm ensued; but when this resistance was overcome the condition of the globe was found perfectly natural, its movements being more free, of normal extent, and visual acuity $\frac{20}{20}$. There was no sign of paralysis. The spasm of the orbicularis was most marked when the patient knew she was being observed, and when her attention was directed to it. She, however, complained of a "nipping" sensation coming on at irregular times, and referable to this spasm. This condition had only come on a fortnight before, but she stated that in 1879 the left eyelid was in the same condition, and got well in a short time. Her general health was good; catamenia regular, but painful. It was considered at first that this was a case of hysterical ptosis, and in support of this it was found that the patient did occasionally, when she thought herself unobserved, partially raise her upper lids. She was one day placed under the influence of chloroform, having been previously informed that on coming to herself she would find herself able to open her eyes. While under chloroform her eyes were bandaged. When she recovered consciousness she was assured that she was cured, and the bandages removed. On telling her to open her eyes, she did so widely for a moment, and then relapsed into her old condition. She was ordered shower-baths and tonics, and afterwards valerianate of zinc and assafœtida without any benefit. Her forehead and eyelids were then faradised for ten minutes every morning. This was continued for about ten days, and then abandoned because she refused to submit. The actual (benzene) cautery was applied momentarily to the superciliary eminences without effect. Strips of plaster were attached to her lids and forehead, and covered with collodion. This kept her lids open for a time, but the strapping becoming loose, the ptosis recurred, though to a trifling extent less than previously, for there was now a palpebral fissure of about one-sixteenth of an inch. Thinking the irritation of the stumps of numerous decayed teeth might be the cause of her complaint, Mr. Power ordered them to be extracted. This was accordingly done at two sittings, the patient being under the influence of gas and ether. The ptosis thenceforward steadily diminished in both eyes, but to a most marked degree in the left. Ten days from the extraction of her stumps—nine in number—the palpebral fissure was wide enough to expose more than half her cornea, and she could see to read and to find her way about without any bending back of her head.

EMBOLISM OF THE ARTERIA CENTRALIS RETINÆ.

(Under the care of Mr. VERNON.)

R. H——, aged seventeen, a well-nourished and healthy girl, awoke one morning with pain in her right eye, which she found was blind. She visited the hospital next day. The pupil of the right eye was dilated and insensitive to light, that of the left side reacted well. On ophthalmoscopic examination the optic disc was found to be hazy, its margins ill-defined, the retinal vessels exceedingly small, almost invisible at some spots, at others filled with small dark clots. On the following day effusion was noticed round the "cherry spot" at the site of the macula lutea. The effusion looked like a bluish-white mound, with a dark red centre. She had no perception of light in the right eye. The left eye was normal, and its pupil reacted well to light. The effusion round the yellow spot or disc increased for some days, and a small hæmorrhage appeared at the outer margin of the disc. The whole fundus appeared almost a facsimile of the picture in Liebreich's Atlas. This effusion gradually disappeared. The cherry spot first extended, so that at the end of the first week the white clot in the fovea had become obliterated. At the end of a fortnight the disc was very white, its vessels extremely small, the whole fundus dark, and a trifle hazy where the effusion had been. After three weeks she said she could appreciate light with her right eye; no further improvement, however, took place. Her blood was examined by Dr. Harris, and found normal. Three and a half years ago she suffered from rheumatic fever, followed in a month by chorea. She was then in the hospital, and on referring to the notes of her case it was found that there had been no cardiac affection. On examination, however, the first sound of the heart was found prolonged and rough at the apex and audible behind. Two years ago she had an attack of scarlatina, which was followed by chorea. Her catamenia were regular, and there were no symptoms of embolism in any organ but her eye. Neither did she at any time present constitutional symptoms of such an event, unless, indeed, adopting the theory of Kirkes, we look upon the two attacks of chorea as evidences of cerebral multiple embolism.

ECTOPIA CENTRUM; IRIDODONESIS; MYOPIA AND OLD CHOROIDITIS.

(Under the care of Mr. VERNON.)

F. P——, aged nine, a thin but well-nourished girl, of healthy appearance, was admitted complaining of dimness of vision. Her sight had never been good, but appeared now to be growing worse. The external parts of the eye and its appendages were natural. The pupils were dilated, and the irides trembled, especially at their upper parts, in a most marked manner on the slightest movements of her head. The anterior chambers were deep. On focal illumination the right iris was seen to be finely fringed at its pupillary margin, and one or two very fine darkish-coloured bands or filaments crossed the upper and outer part of the pupil in a direction downwards and inwards. The catoptric test gave three images, and it was not until direct examination was made with the ophthalmoscope that the crescentic edge of the partially dislocated lens could be seen crossing the upper and outer part of the pupil. The space between this and the iris was too narrow to permit of the fundus being examined through it, and it also accounted for the fact that the patient had no monocular diplopia or polyopia. There were large posterior staphylomata in both eyes. Her vision was, when unaided, only equal to the seeing of large objects and counting fingers at a foot and a half, and could only be improved by —8 D v —18 D in the two eyes respectively up to $\frac{20}{100}$. There was no history of injury or of any inflammation of the eyes. The cause of the dislocation was obscure. It might have been congenital, as in the cases recorded by Mr. Dixon in the London Ophthalmic Hospital Reports, vol. i., p. 55, and it further resembled these cases in the presence of myopia. On the other hand, the evidences of past choroiditis and the filamentous bands crossing the pupil suggested a pathological cause—viz., the weakening and relaxation of the ciliary processes by choroido-iritis, probably intra-uterine and syphilitic.

CUMBERLAND INFIRMARY, CARLISLE.

TWO CASES OF WOUND OF THE WRIST-JOINT TREATED ANTISEPTICALLY.

(Under the care of Dr. LEDIARD.)

FOR the following notes we are indebted to Wilfrid Wilson, M.B., and Archibald H. Veitch, M.B.

CASE 1.—Joseph H——, aged twenty-four, a dyer, was admitted on October 8th, 1880, suffering from a wound of the wrist-joint, which he had got when shifting a strap in connexion with a drum which works the beetles. His hand was caught by the strap and drawn into a pulley. The wound extended across the posterior aspect of the wrist. The tendons of the extensor communis digitorum, the extensor carpi radialis longior and brevior, the extensor indicis, and the extensor secundi internodii pollicis were torn away from their muscles and were hanging out of the wound to the extent of two inches. The other extensor tendons escaped. The joint between the radius and the first row of carpal bones was completely laid open, and the hand was dropped to a right angle. The cartilage of the scaphoid bone was lacerated and covered with dirt. The radial artery, as it lay between the extensor carpi radialis longior and the extensor primi internodii pollicis, was laid bare to the extent of an inch, but was uninjured. The amount of blood lost was small. The man was taken into the operating-room to have his hand amputated, but Dr. Lediard decided to make an attempt to save it. The wound was thoroughly washed out with 1 to 20 of carbolic lotion; the edges were drawn together with carbolised silk, and it was dressed with the ordinary antiseptic gauze dressing. A trial was made to unite the divided tendons, but the muscles were too far retracted. Evening temperature 100·8° F. On the 9th the wrist was dressed; the wounds were looking well. Morning temperature 99°, evening temperature 100°; the anterior splint was applied. On the 10th the morning temperature was 99·8°.—11th: Temperature normal. On the 13th the limb was again dressed; temperature normal.

After this date the wound was dressed weekly. The temperature remained quite normal.

On November 22nd the wound was quite healed, and the patient was discharged. He was able to extend both joints of the thumb, and the second and third phalanges of the fingers, but not the first phalanx. The mobility of the wrist was perfect. He went to work after providing himself with a leather support laced round the wrist and palm.

CASE 2.—Jane O——, aged fifteen, was admitted Dec. 1st, 1880, with wounds of the palm of the hand and anterior aspect of the wrist which had been inflicted about an hour before by a biscuit machine. There was a semicircular wound about an inch and a half in length over the lower end of the radius, penetrating deeply into this bone throughout its entire breadth, and dividing the radial artery. Immediately below this wound was another smaller one, which completely opened up the scapho-radial articulation. A wound over the ulna divided the ulnar artery. There was a deep circular wound in the centre of the palm, and between this and the wounds on the wrist a similar one, which divided the annular ligament, the central flexor tendons, and the median nerve. There were numerous small wounds on the fingers. There was a moderate amount of hæmorrhage. The radial and ulnar arteries were ligatured with catgut and the wounds were syringed out with 1 to 20 of carbolic lotion for half an hour. A few silk stitches were inserted, and it was dressed antiseptically. The wound was dressed daily, and the temperature remained normal till the evening of December 5th, when it rose to 101°; at the same time the patient complained of pain in the forearm. On Dec. 6th the morning temperature was 101°. When the wound was dressed the radial wound was inflamed, and redness extended up the forearm, owing to the discharge not having a free exit; the stitches were removed. On the 7th the morning temperature was 100°. The wound was again dressed. The pain had left the forearm, but persisted in the hand; sensibility to touch was absent in the hand, except in the fourth and half of the ring fingers. On the 8th the wound was dressed and the temperature was normal. On the 14th sensibility to touch was partially restored in the hand; the pain still persisted.

After this date the wound was dressed weekly. On the

20th several pieces of tendon about an inch and a half long came away from the palmar wound. On Dec. 28th sensibility was quite restored in the hand, and the pain had left the palm. On Jan. 23rd all the wounds were quite healed. The mobility of wrist was perfect. The patient had slight power of flexion in the fingers, most marked in the fore-finger. She was discharged Jan. 26th, 1881.

TOXTETH WORKHOUSE HOSPITAL, LIVERPOOL.

STOKES'S SUPRA-CONDYLOID AMPUTATION.

(Under the care of Dr. Lyster.)

For the following notes we are indebted to Mr. N. Roberts, M.B., C.M., house-surgeon.

T. N——, aged sixteen, was admitted on Dec. 20th, 1879, said to be suffering from erysipelas of the left leg. The previous history of the patient was that he had recently been discharged from a fever hospital, where he had been treated for typhus. He said that on admission into the fever hospital he had a little pain in this leg, which seems to have been due to a sore on one of the toes, resulting from the friction of a badly-fitting boot. It soon became evident, after admission into the Toxteth Hospital, that there was inflammatory mischief going on in the shaft of the tibia. Free incisions down to the bone were made, and the usual treatment for such a condition adopted with marked relief to the patient temporarily, but without materially affecting the progress of the disease, which now assumed a more chronic aspect than heretofore. Ere long it became evident that the bone was dead, and it only remained to wait for a separation of it from the living tissues, the boy being kept the while in as good a condition as good diet, cod-liver oil, and tonics could induce. By the month of May the condition of the leg was much worse, and it was telling so much upon the general health of the boy as to suggest operative interference. The whole leg below the knee was very much swollen, with a large number of sinuses leading down to the new bone, through the cloacæ in which the dead bone could be felt by means of the probe, but the soft tissues of the limb were so involved, and their vitality so low as, together with the general condition of the patient, to make sequestrotomy a doubtful procedure, and to suggest amputation as the proper course to be adopted.

The particular operation resolved upon was Stokes's supra-condyloid amputation of the thigh, which was performed by Dr. Lyster on June 3rd with highly satisfactory results. The operation was performed under strict Listerian antiseptics. The anterior oval flap containing the patella was easily obtained, and the cartilage of the patella was removed without much difficulty by the aid of the saw, supplemented by that of the bone forceps. The femur was divided three-quarters of an inch above the articular surface from the patella, the surface of section being the dense cancellated tissue of the end of the bone. The vessels were tied by catgut ligatures, and a somewhat troublesome capillary oozing was controlled by deluging the flaps with hot carbolised water. The anterior flap was turned down, so that the patellar surface, denuded of its cartilage, was closely apposed to the sawn end of the femur, which apposition was further secured by means of a strong catgut ligature through the dense structures about the bones. The wound was closed by catgut ligatures, drainage-tubes were introduced, and the usual antiseptic dressings were applied. The patient was put to bed, and a sixth of a grain of morphia injected subcutaneously. The patient slept for five hours that night.

On the following morning the temperature was 99·8°, and in the evening 100·2°.

On June 5th the temperature in the morning was 99·8°; evening, 99°. From this time forward the temperature never rose above 99°.

The dressings were changed the day following the operation and on three other occasions before they were altogether discarded, which took place June 17th, the wound having then entirely closed with the exception of a slight superficial abrasion, and this healed up in a few days. The stump was entirely free from pain, even on moderately rough handling, at this early date. Two months after the operation he left the hospital, having been kept for some time so as to get used to his wooden leg, the stump being as perfect as any stump could be, and his general health excellent.

Remarks.—A point of some interest in this case is that an intractable disease seems to have been lighted up in the bone by an attack of typhus, in a lad otherwise healthy. This is sufficiently out of the common to merit notice. On dissecting the leg, the entire shaft of the tibia was found to be necrosed and encased by the new bone, whilst the condition of the soft tissues showed that amputation was the only course that could have been pursued with any success.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Combined Carcinoma and Adeno-fibroma of the Breast.—Hyaline Myxoma of Breast.—Cranium and Brain from a Hydrocephalic Adult.—Dermoid Tumour of Soft Palate.—Lupus Erythematosus.—Squamous Epithelioma of Upper Jaw.

The ordinary meeting of this Society was held on the 5th instant, Dr. Wilks, F.R.S., President, in the chair. It will be seen that a great variety of specimens were shown.

Mr. Rushton Parker showed a specimen of Carcinoma and Adeno-fibroma of the Breast from a married woman, forty-two years of age, who came under his care in October, 1880. The growth had been noticed for three years. It occurred as a movable mass, the size of a walnut, in the upper part of the left breast; the nipple and lymphatic glands being free. He excised the growth, but as after removal it showed evidence of being cancerous, the whole gland was removed. The age of the patient and the size of the growth were in favour of its being cancer, nor was its duration inconsistent with this view; but its mobility was in favour of its being a chronic mammary tumour, and had the patient been under thirty it might well have been thought to be of that nature. In dissecting the breast from the subjacent fascia a small bursa was met with, into which projected a white nodule of adeno-fibroma. The structure of the main mass was that of adeno-fibroma, wavy fibrous tissue between acini and ducts; but in another lobe columns of aggregated cells within an alveolar stroma reproduced the characters of carcinoma. He supposed it was rare to find such a combination, but Langhans had recorded two cases; and he wished the specimen to be referred to the Morbid Growths Committee.

Mr. Parker then showed a specimen of Hyaline Myxoma of the Breast, which had been noticed by the patient for about seven or eight years. It attained the dimensions of a good-sized orange, and occupied the upper and outer corner of the breast. It was a lobulated, gelatinous, opalescent-looking growth, with a central cyst, and several smaller cysts with intracystic growths. Some of the lobes were of a yellowish-white appearance, others glistening. Microscopically it was a pure adeno-myxoma, and was peculiar in its hyaline character, differing from the more common variety of the softer chronic mammary tumours, with myxomatous stroma. He also showed some microscopical specimens of Adenoma of the Breast. One was from a patient sixty-three years of age, and showed fibro-alveolar arrangement with spaces containing sebaceous material varying in size from a pin's head to half the diameter of a pea. He remarked that increasing pathological knowledge showed that these growths were not so rare as used to be thought. Another specimen was of an intracystic protrusion from a simple cyst of the breast. It appeared as if a sort of hernia of the mammary gland substance had occurred into the cyst in consequence of a blow. He also showed section of an adenoma of the tongue. It grew at the back part of the organ in a young woman, and was a pure adenoma—a very rare disease. Another adenoid growth was one which grew between the skin and mucous membrane of the nose of a man sixty-seven years of age. It was of three or four years' duration, and exhibited round-celled infiltration between the acini.—Mr. Butlin said that the portion of the growth under the microscope in the first case was undoubtedly carcinomatous. A pure adenoma, such as one of Mr. Parker's specimens, was very rarely met with. The figure given by Rindfleisch of "adenoma" seemed to him to be carcinoma, for the acinus was filled with cells. In an adenoma the acini are lined by epithelium, and not filled with it as in carcinoma.

Dr. BRAILEY exhibited the Cranium and Brain of a Hydrocephalic Adult, which had been presented to the Museum of the Cambridge University, and dissected by Mr. Anningson. The subject was a woman, fifty-three years old, who died of pleuro-pneumonia. For the last nine years she had been an inmate of a lunatic asylum, and for some time past had suffered from attacks of vomiting and epileptiform seizures. The bones of the extremities and thorax were small and ill-developed, and there was a lateral curvature of the spine. She had possessed a certain amount of intelligence, being able to converse and sing hymns; and was of violent temper. The cranium measured twenty-seven inches in horizontal circumference, and was completely ossified; there were many Wormian bones. The brain nearly filled the cranial cavity; the third and lateral ventricles were greatly dilated, the commissures enlarged. In the posterior fossa, indenting the bone on the right side, was lodged a thin-walled membranous sac, with clear contents, measuring one inch across. It came close to the foramen magnum, and was attached to the dura mater. The points of interest in the case were the unusual longevity attained by the woman, the size of the cranium, its complete ossification, the patency of the aqueduct of Sylvius, the existence of a cyst beneath the cerebellum, and the fair amount of intelligence that the subject exhibited. Dr. Brailey referred to the well-known case of Cardinal, whose skull, thirty-three inches in circumference, is in Guy's Hospital museum, and to the specimen presented by Liston to the College of Surgeons, from a subject twenty-five years of age, the skull in that case being thirty-six inches in circumference with great development of Wormian bones. —Professor HUMPHRY, who had seen the specimen dissected, offered an explanation of the occurrence of the sac beneath the tentorium—the specimen in all other points resembling other specimens of hydrocephalus of the adult—the cranium being dilated everywhere except its basal part. The dilatation of the membranes of the brain leads to an elevation of the falx, which draws up the tentorium so that it may become quite vertical. This vertical position of the tentorium is to be seen in a specimen in the Cambridge Museum, so that the posterior cerebral lobes considerably overlap the cerebellum. The subtentorial space devoted to the cerebellum is thereby increased; and Professor Humphry had noticed that this was compensated for in the specimen above referred to by the development of connective tissue between the dura mater and arachnoid. In the present case the whole tentorium was raised, the lateral sinuses and torcular Herophili taking a higher position than normal; and he presumed the sac containing fluid was developed to fill up the space unoccupied by the cerebellum. It was a sort of lymph sac thus mechanically produced. —Dr. BACON, who had the patient under his care during her life, remarked that she had a fair amount of memory, could repeat hymns taught her in childhood, and could converse intelligibly. She had a very irritable temper, and great want of self-control. He remarked upon the diminished size of the rest of the skeleton, and upon the unusual age attained by the patient. Most of the cases recorded died before thirty years of age. There is one case recorded in the *Journal of Mental Science* for 1879, where the subject was thirty-eight years old, and whose skull measured twenty-four inches in circumference.— The PRESIDENT had some years ago published three cases in the *Journal of Mental Science*, one of which is also described in his work on "Rest and Pain" by Mr. Hilton, who ascribed the condition to closure of the fourth ventricle. Dr. Wilks himself thought that an excessive amount of fluid in the brain was often due to inanition, and occurred in rickety children with large heads and low mental capacity. The fluid was often reabsorbed; as, for instance, in a young man, now of good intelligence and normally sized head, who when a child had the characteristics of hydrocephalus and curved legs, so that he was thought to be rickety. The large head with overhanging forehead so common in the criminal classes could not be attributed to a greater increase of natural brain, but was probably due to fluid.—Professor HUMPHRY, in reference to a remark by Dr. Wilks, said that he certainly believed many people with large brains did not use them to their full capacity; but his observation was that our far-off ancestors had large brains which they did not seem to have used so much as they ought. He believed the cause of hydrocephalus to be due to a want of the normal balance between secretion and absorption of the fluid, the power by which the fluid is poured into the ventricles exceeding the resisting power of the skull, just as in a hydrocele the fluid is secreted in excess in spite of the resistance offered by the tunica vaginalis. But what it was that determined the balance being normally so accurately maintained was unknown.—Dr. LONGHURST asked whether the cyst interfered with the function of the cerebellum. — Professor HUMPHRY explained that it appeared to have been developed simply to fill space which would otherwise be unoccupied.

Dr. HALE WHITE showed a specimen of Dermoid Tumour of the Soft Palate, from a child three years of age who had had some difficulty in swallowing. The uvula was much hypertrophied, and lay in front of the tumour, which apparently sprang from the upper surface of the soft palate. The tumour was two inches in height, and had a wide base; it was freely movable, and was removed by Mr. Morrant Baker. It was found to be soft in consistency, except on one surface, where a plate of cartilage existed. Microscopically it reproduced all the cutaneous structures—epidermis, papillæ, corium, and fat cells, but no elastic fibres. There were also many hairs lodged in follicles, into each of which a single sebaceous gland opened. The plate of cartilage was invested by a dense layer of fibrous tissue; its matrix was very scanty and fibrillated, the outer layers of the cartilage being composed of nucleated stratified cells. Dr. White referred to a similar growth from the basilar process of the occipital bone, recorded by Dr. Abraham in the *Journal of Anatomy*, vol. xv., and to one on the palate of a new-born child described by Dr. Kidd in 1856. As to the origin of the tumour in the present case it might have grown in connexion with the Eustachian tube; but its epiblastic nature was sufficiently accounted for by its occurrence in front of the junction of the hypoblast and epiblast. It might be an instance of "reversion," for in the rabbit there occur in this region four tufts of hair—two above and two below.—Mr. RUSHTON PARKER had lately seen a similar dermoid growth removed by Mr. Bickersteth from the pharynx of a child, depending behind the soft palate.

Mr. MALCOLM MORRIS exhibited a case of Extensive Lupus. The patient was a woman sixty-four years old, who had enjoyed good health until 1858, when she became very weak, and remained so until 1860, when she had an attack of general dropsy, which gradually disappeared from all parts except the legs. About the end of that year a brown patch appeared on the front of the right leg, ultimately ulcerating. Other ulcers appeared—one on the calf being large and slow in healing. The skin in their vicinity became red and raised; and similar patches appeared elsewhere below the knee. During the next five or six years more patches appeared on other parts of the body, the left leg, and arms. In 1871 a small spot of like character appeared on the vertex of the scalp, slowly spreading towards the face, passing to the nose and cheeks, and destroying the sight of the right eye. For the last few years the disease has spread but little. At present there are two ulcers with sharply-defined healing margins on the right leg, the larger being on the side of the ankle. Cicatricial tissue covers the front of the ankle, the side and back of the leg. The foot, including the sole, is dry and scaly; and a similar hypertrophied condition of the skin occurs on the leg and thigh, terminating in an abrupt line (in parts slightly raised and red), about three inches from the hip-joint. Within the last few months three patches, red, tuberculated, and scaly, have appeared on the left leg; and others occur on each arm, on the head and face; in front of a line extending from one ear to the other the skin is replaced by scar-tissue, all the hair-follicles being destroyed except on a small area to the right of the middle line. The surface is smooth, shiny, and slightly scaly. There is some contraction, but the skin is not adherent to the bone. The disease extends over both sides of the face and neck—attacking the forehead, nose, and cheeks, and ending in an abrupt raised margin on either side of the chin. The left lower eyelid is drawn down and everted. Mr. Morris suggested that the disease of the head and face was lupus erythematosus, which rarely commenced so late as fifty-four. Mr. Tay reports a case where the disease began at fifty-one. The spreading ulceration on the legs indicated a different condition. Besides, lupus erythematosus invariably commences on the face, and the leg was affected many years before. Was this primary ulceration also lupus? The slow course of the attack and its superficial character were against the hypothesis of syphilis, of which there was no history.—Mr. HUTCHINSON said the case was one of a rare form of lupus, and mainly a superficial form; but he did not think it was erythematous lupus, its superficial character alone differentiating it from ordinary lupus, its tubercular character (e.g., on the arm), and the slow serpiginous ulcers on the legs being sufficiently typical. There was another rare form of lupus which, from its superficial character and slight discharge, much simulated eczema.—Dr. THIN some years ago saw a case of erythematous lupus on the forearm, spreading towards the shoulder, and limited by an abrupt line. He regarded Mr. Morris's case as one of lupus erythematosus, which he would distinguish from erythematous lupus. In lupus proper there was a tubercular formation due to aggregations of cells, which were not met with in lupus erythematosus, a specifically distinct affection both clinically and anatomically. The change in lupus erythematosus creeps along the papillary layer, but leaves unaltered the pars reticularis of the corium.—Mr. HENRY MORRIS said that there was now under his care in one of the cancer wards of the Middlesex Hospital a woman who had suffered from lupus for six or seven years. The disease had destroyed the lip, nose, both eyes and eyelids, and one ear, and had resulted in extensive cicatrisation. The whole of the area occupied by the ear was now a white cicatrix. Ulceration occurred at different times, and then healing took place. The disease was limited to the head and face, and was somewhat deeper than in the case exhibited, but it resembled that in its limitation on the scalp to its anterior part.

Mr. BUTLIN showed a specimen of Squamous Epithelioma of the Upper Jaw, removed from a man sixty-two years old, admitted into St. Bartholomew's Hospital in November, 1880, for carbuncles on the back. In December he complained of a sinus in the upper jaw, which had been discharging for some time before. On Dec. 29th Mr. Willett explored this sinus, which opened into the alveolus of the second right molar tooth, and was thought to be due to carious bone. Exploration of the antrum through this sinus showed that cavity to be partly filled with pus and blood, and to be lined by soft granulation-like material. There was no swelling; but the condition of the antrum was thought to be suggestive of malignant disease. At the beginning of February Mr. Butlin scraped out some of the contents of the antrum, and found in the scrapings altered epithelial cells and cell-nests. Accordingly, on Feb. 8th, he removed the whole of the maxilla, and found that the disease not only filled the antrum, but invaded the orbit and spheno-maxillary fissure, and had made its way beneath the temporal muscle. Yet the only external indication was a slight puffy swelling, which had appeared beneath the orbit in January. The growth was a pure squamous epithelioma, and was remarkable for its insidious character, and widely-destructive course within a comparatively short space of time. It belonged to the class of maxillary new growth called by Reclus "epitheliome terebrante" (*Progrès Médical*, 1876), and described by that writer as starting from the alveolar process. In each of Reclus's cases the disease was first thought to be caries, and ran a rapid cause. The disease probably starts from the alveolus of a tooth which has become carious, or from which the tooth has fallen out, and thence spreads into the jaw, and does not start in the antrum, which is lined by cylindrical epithelium. It was not, therefore, necessary to trace its origin back, as Reclus does, to an alveolar cyst, or to the remnant of the epithelial masses of the primitive tooth sac. There was no affection of the glands or other internal organs in this case. The only other instance in English literature is one described by Mr. Lawson at the Clinical Society in 1873, as a well marked squamous epithelioma, which Mr. Hulke suggested as beginning in the alveolar process.—Mr. RUSHTON PARKER did not think this form of disease very rare.

The following card specimens were shown:—Odontoma of Left Second Lower Molar, by Mr. Rushton Parker; Old Outward Dislocation of the Patella, by Mr. Charles J. Symonds; Sequestrum of Clavicle, Osteo-Sarcoma of Lower End of Femur, and Cancer of Mamma following Eczema of Nipple, by Dr. Macnaughton Jones (through Mr. Hutchinson); Epithelioma of Tongue; Gangrene of Lung after Excision of Tongue, by Mr. Royes Bell.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Pseudo-hypertrophic Paralysis.—The Digestion of Fats.—Disseminated Syphilitic Meningitis.

At the meeting on March 28th the chair was taken by the President, Dr. BROADBENT, who exhibited a man, aged fifty-one, who had been eleven years a soldier and subsequently followed the occupation of a gardener. At the present time he was a patient in St. Mary's Hospital. For two years he had a rolling gait, and gradually became unable to raise himself from the recumbent or sitting posture. The man presented all the characteristics of pseudo-hypertrophic paralysis. As he walked he swayed from side to side and was unsteady on his feet; in short, he exhibited just the condition of the children who were shown at the last meeting of the Society. The tensor vaginæ femoris was large and in an energetic condition; there was extreme lordosis. The calf muscles did not respond to continuous or interrupted currents. Dr. Broadbent asked what was the nature of this paralysis. It was not progressive muscular atrophy, nor was it an instance of the adult form of infantile paralysis; the lipomatous development so often associated with this kind of paralysis he did not regard as an essential feature. He would venture to remind the Society that at one time infantile paralysis was considered to be confined to children, but such is not now found to be the case.—Mr. ADAMS remarked that the case certainly simulated Duchenne's paralysis thoroughly both in attitude and movement, but it was against his experience to find the disease commencing so late in life. It is essentially a disease of children, a congenital affection.—Dr. GILBART SMITH said that in 1862 Trousseau had called locomotor ataxy Duchenne's disease, but now authorities seemed undecided as to what the term "Duchenne's disease" really referred.—Dr. MACKENZIE had a patient, an adult match-seller, with similar symptoms. He also regarded the fatty development as an accidental accompaniment, and as more apt to exist in Duchenne's paralysis of children than of adult age.

Dr. J. MILNER FOTHERGILL made some remarks upon the Digestion of Fats, and of the value of conveying them into the stomach in the form of an emulsion; he considered that the best emulsifying agent was bile, and that the small quantity of bile required for this purpose would not be irritating to the stomach.—Mr. DORAN asked if the distaste for fats in phthisical patients was not often due to the inability that existed to digest such foods.—Dr. THOROWGOOD hoped the result of the administration of these emulsions would be made known. He regarded with favour the combination of malt extract with cod-liver oil, which he has employed for some time.—Mr. OWEN had used an emulsion of oil and solution of potassium. Only a small quantity of the alkali was required, but he was not prepared to say that its administration was followed by any markedly satisfactory results.—Dr. FOTHERGILL, in reply, said that he had brought forward the whole question in a purely tentative manner, and hoped that as time went on some definite result might be obtained.

Dr. MACKENZIE read notes of a Case of Disseminated Syphilitic Meningitis, illustrating the value of Mercurial Treatment. The patient, after the customary prodromata, came under treatment for great tremor of the hands and legs, occurring on voluntary movement, pain in all the limbs, formication in the hands and feet, stiffness of hands and fingers, and pain in left side of head. She had a characteristic syphilitic tertiary eruption on the forehead and forearm. Iodide of potassium in ten, and, later on, in twenty grain doses, failed, even in combination with the internal administration of the perchloride of mercury, to ameliorate the nervous symptoms, though it sufficed to cure the syphilide. Mercurial inunction and perchloride of mercury, internally, were then employed with rapid relief to the symptoms; salivation was produced, and the mercury had to be suspended for a short time, but was resumed afterwards, mercurial inunction alone being employed cautiously and intermittingly, on account of the great susceptibility of the patient to its influence. All the symptoms gradually cleared off, leaving the woman weak. Fifteen months later the improvement had not only been maintained, but was greater. The case was brought forward to illustrate the value of mercury in such instances, mercury often acting more quickly and certainly than iodide of potassium; and, as in this case, when the iodide had failed to produce any favourable influence, inunction was the form recommended in syphilitic nervous affections, as by this means the largest quantity of mercury could be introduced into the system with the least disturbance. The first thing was to use it boldly, the next to continue its use sufficiently long.—Dr. DOWSE thought it strange there was no mention of retinal changes in Dr. Mackenzie's case; it was his experience that generally more faith was placed, and properly so, in the use of preparations of mercury than in those of potassium.—Dr. HERON asked why the author had chosen the perchloride of mercury before all the other preparations of the metal. Some practitioners went so far as to say that the perchloride was therapeutically useless; was there any family history of neurosis?—The PRESIDENT noted one peculiar and interesting character of the spinal affection—syphilitic myelitis, which here resembled very closely diffused sclerosis. It was the first time he had heard a simulation of these two important diseases. He would have begun with the iodide of potassium, but if the cure was delayed he would have prescribed mercury.—Dr. MACKENZIE replied that in the later stages of the disease mercury is required, then solution of the perchloride is of the greatest therapeutic value.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

AT a meeting of this Society held at University College on March 2nd, Sir Joseph Fayrer, K.C.S.I., M.D., in the chair, Surgeon-General Dr. John Murray read a paper on the "Influence of Fairs, Famines, Floods, and Seasons on the Development and Diffusion of Cholera in India," which was accompanied by several very elaborate statistical tables. Tables Nos. 1 and 2 illustrated the effect of fairs by showing the mortality caused by the epidemics which originated at Hurdwar in 1867 and 1879. No. 3 showed the mortality which follows the great fair at Allahabad in the eastern districts of the north-western provinces, Oudh and Behar. No. 4 related to the mortality in the delta of the Ganges after the cyclone wave of 1876. No. 5 showed the mortality from cholera accompanying the famines in Madras in 1866 and in 1875-6-7. These tables were so arranged as to contrast the mortality in the epidemic years with that in ordinary years, and also to show that in some years the disease was almost non-existent. An abnormal increase of the disease must be induced by some special cause; and those causes now under consideration range over a wide area, and involve a population of more than thirty millions under each head, and must therefore be of the utmost importance in the history of the disease. The statistical returns of the civil population show the course of the disease more clearly than the records of military hospitals, though the latter have been kept from the beginning of the present century. The period is longer, but the number under observation is comparatively small, and the disease is under the restraint of strict medical and sanitary treatment. The military also are exempt from the influence of floods and famines, and almost so from that of fairs, but the influence of season is common to all. In considering the subject of fairs the epidemics following the Koomke Mela at Hurdwar were minutely traced, accurate returns having been obtained from all the civil surgeons of the appearance and progress of the disease in their various districts in 1867, and in all cases the dates corresponded with the arrival of the pilgrims at the ordinary rate of travelling. In 1879 the dates coincided in all instances except in Scinde, where its arrival was accelerated by about two months, which may be attributed to the introduction of railway travelling, more than a hundred cases of the disease having been removed from the trains in a dead or dying condition. The great fair which is held in February at Allahabad is followed by an analogous diffusion of cholera. The fair is held six weeks earlier than that of Hurdwar, and the epidemic appears six weeks sooner. These reiterated facts prove the danger arising from these fairs, but their suppression cannot be resorted to by Government on account of the religious feelings of the natives. To control them and establish strict sanitary supervision is all that can be recommended, though less efficacious. Dr. Cuningham denies the transmission of the disease by the pilgrims, but rather considers it existed in some aerial form in the villages, and attacked the pilgrims who were peculiarly susceptible of its inroads; so that, instead of the pilgrims importing the disease which affected the inhabitants, the village infected the pilgrims. This opinion rests entirely on the theory that such aerial poison exists, of which there is no proof or probability. The next division of the subject referred to the severe epidemic which commenced two days after a cyclone wave overwhelmed the eastern part of the delta of the Ganges on October 31st, 1876. It proved fatal in the following four months, in the three coast districts, to 75,459 persons. The disease spread to the surrounding districts, and the mortality during the year amounted to 159,733. In Table No. 4 the year is counted from July 1st to June 30th, to show the course of the epidemic, which culminated in January, and rapidly subsided after February. The course of the disease in this epidemic appears to be an exaggeration of the usual course of cholera in the delta, which differs essentially from that in the other provinces of Bengal, Orissa, Behar, and Assam, and also from its course in the Upper Provinces, Scinde, Punjaub, Central Provinces, and Bombay, where the cold season is a period of quiescence, while it is at its height in the cold season in the delta of the Ganges. There was a partial cyclone wave on the southern coast of Chittagong in 1879, followed by a similar outbreak of cholera two days after the subsidence of the water. The influence of famine on cholera was shown in Madras, where there was a severe famine in 1866, when the mortality from cholera amounted to 197,977. A more prolonged famine occurred in 1875-6-7, when the mortality from cholera rose to 617,869. The course of the disease in both famines was identical, the mortality being greatest when the price of food was highest. It was little influenced by season, and was probably aggravated by the collection of crowds of starving people at the famine kitchens and its spread on their return to their homes. The influence of season is shown in the returns from the military and civil hospitals, which are epitomised in Tables 6, 7, and 8. They extend over a longer period—viz., from twenty-six to seventy-four years, but include a much smaller population. The season of the prevalence of the disease, as it appeared from the tables, differs essentially from that shown by the tables relative to the civil population in the epidemic years. In the military hospitals of the Upper Provinces and the Punjaub the greatest mortality is at the commencement of or during the rainy season—i.e., from June to September, whereas the greatest mortality amongst the civil population commences in April. By removing the epidemic years from the civil tables, the returns for the other years show a seasonal increase in the mortality coinciding with that in the military hospitals, but this is obscured by the excessive mortality of the epidemic years.

In the discussion which followed, the President, Dr. Norman Chevers, Dr. White, Dr. Duka, Dr. Dickson, Mr. Netten Radcliffe, Mr. Lawson, and Dr. Gordon took part.

A letter from Mr. J. Lawrence-Hamilton was read on the subject of artificial production of vaccine lymph.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on Wednesday, March 2nd, 1881, Dr. Matthews Duncan, President, in the chair,—

Dr. GODSON showed, for Dr. J. Dewar, a specimen of Interstitial Fibroid. The patient was a widow aged forty-three, sterile. Three years ago Dr. Dewar attended her for retroflexion. She wore a Hodge's pessary with advantage for some time; then it began to give pain, and had to be removed. About a year after she had an acute attack of pelvic peritonitis, which left the uterus fixed. She died rather suddenly from a second attack of peritonitis. The specimen showed a small fibroid in the anterior wall of the body of the uterus. The fundus was retroflexed, pointing downwards very markedly.

The PRESIDENT then delivered his inaugural address, which has already appeared in our columns.

Dr. BARNES read a paper on so-called "Missed Labour, with a case in illustration." The author commenced by stating that the term "missed labour" proposed by Dr. Oldham was not justified by the facts of that gentleman's case, which proved on autopsy to have been one of extra-uterine gestation. Discussing other cases of presumed missed labour, and accepting the arguments of Stoltz and Müller, the author affirmed that no authentic example of missed labour—this being taken to mean the prolonged retention in utero of a fœtus living at term—is yet known. He cited examples of the retention of the ovum which had perished in utero at a previable age for some time, and notably until the arrival of the natural term of gestation. He related a case which came under his own care. A lady aged thirty-nine had borne three stillborn children, the last of them five years ago, before consulting Dr. Veitch at Penang in December, 1872. Pregnancy dated from early in November preceding. The usual signs of pregnancy were manifested; she verified quickening, and up to the seventh month she felt movements of the child. About the eighth month, after a slight accident, a flow of blood came. Three weeks later another bleeding occurred, but no labour pains. Eleven months after the presumed date of conception she came to England. There was an impression that she might be suffering from fibroids of the uterus. She came under the author's care in December, 1873. Under chloroform, the cervix uteri having been dilated by laminaria tents, he felt what he took to be the interior surface of the uterus; the sound passed six inches. In January, 1874, some coloured discharges went on. Pieces of bone, which turned out to be bits of the spinal column, passed by the vagina. After dilatation by tents more bones were removed by fingers and forceps. In February this manœuvre was repeated, and by craniotomy-forceps the remaining parts of a fœtus, which appeared to have reached the eighth or ninth month of gestation, were extracted. Her health then improved, the discharges became less offensive, and the uterus gradually shrank as in ordinary involution, but more slowly, until it reached the common conditions of the non-pregnant state, and the patient perfectly recovered. The author submitted that this was a clear instance of the retention of a fœtus dying in utero at a viable stage for some months after the normal term of gestation had been reached, and that in this sense the term missed labour might apply. He cited the cases of Dr. M'Clintock and Dr. Hall Davis as corroborative.—Mr. SPENCER WELLS, who had seen the patient, asked if the case might not be explained on the assumption that the pregnancy was what had been called by some interstitial or mural, in which the ovum is arrested where the Fallopian tube passes through the uterine wall. He remembered that some attention had been given to this view at the patient's bedside, and thought that the subsequent history was quite consistent with this view. It was strengthened by a case he saw last year. A lady who believed she was in the fifth month of pregnancy was reduced to a state of extreme danger by constant pains and vomiting. Eminent men had said she could not be pregnant, because the cervical canal admitted the finger, and the sound could be moved freely to a depth of nearly five inches. Mural pregnancy was diagnosed, ergotine was injected into the substance of the cervix uteri; severe pains followed, and the expulsion of the fœtus, with perfect recovery.—Dr. ROPER thought that a reasonable explanation of these cases of so-called missed labour might be given from a point of view hitherto unnoted. He believed that most of them were originally uterine gestations, which during their course became partially, or wholly, extra-uterine in consequence of a degree of rupture of the uterus from external injury, or spontaneous giving way through degeneration of the uterine structure. The fœtus did not escape entirely, but to such a degree that ultimately a cyst was formed outside the uterus, the fœtus being partly within and partly without. The first symptoms were those of pain, coincident with some accident, and the pains of labour were always equivocal. The fœtus at this time died, and the pains subsided; then followed the history common to all—fetid discharge, putrilage, and bones. When an autopsy had been made an aperture had been found, connecting the cavities of the uterus and the cyst. The rigidity of the cervix in these cases was of interest, as illustrating uterine polarity. The fundus being injured fundal polarity was arrested, while cervical polarity remained in full force.—Dr. GERVIS, in corroboration of Mr. Spencer Wells's suggestion, mentioned a case of extra-uterine pregnancy, in which very unexpectedly, about the fifth month, delivery occurred per vias naturales. The practitioner in attendance, on introducing his hand, found a distinct cavity towards the left angle of the fundus, in which evidently the fœtus had lodged. He also referred to cases in which, when delivery was due, a few ineffective pains occurred, but delivery did not occur till three or four weeks later. He mentioned a typical case in which this occurred in successive pregnancies, with the result that instrumental aid was necessary, and the child was each time born dead. At her fifth confinement the effort of nature was supplemented at the ninth month, and a living healthy child born. In the sixth pregnancy there was again protracted gestation, and a stillborn child.

HARVEIAN SOCIETY OF LONDON.

AT the meeting of this Society held on March 17th, the President, Mr. Henry Power, in the chair, Mr. Bryant read a paper on Gastrostomy, which we publish *in extenso* elsewhere.

The PRESIDENT thought that in spasmodic stricture of the œsophagus this operation of gastrostomy would be useful, and related a case of a gentleman, aged fifty-six, spare and wasted, he took to Sir W. Fergusson many years ago. A large bougie was forced through the stricture into the patient's stomach, but he got worse and was nearly starved to death. Subsequently Sir J. Paget saw the case, but did not operate as he suspected cancer. Death soon afterwards took place. At the post-mortem no disease of any kind was discovered, and there was no stricture after death; in fact, it was a case of spasmodic stricture, which ended in death. Mr. Bryant's mode of operation would, he thought, have saved the patient.—Mr. W. RAYNER related a case of a gentleman who swallowed molten lead, and who recovered from stricture in the œsophagus after dilatation for two years by means of gradually increasing the size of the bougies.—Dr. CLEVELAND asked whether purgatives were given in this case.—Mr. BRYANT, in reply, asked Mr. Power whether chloroform had been given in his case.—The PRESIDENT thought not.—Mr. BRYANT related another case of cancer of the œsophagus in which he performed this operation. Two days after the operation the man drank off a pint of milk and swallowed some bread. Notwithstanding this he died seven days afterwards. The œsophagus was found to be completely divided in half by ulceration. The post-mortem, carefully made, failed to show how this result occurred. He thought gastrostomy was an operation justified in many cases, and insisted on the great importance of making a *small* opening.

Dr. GOWERS then read a paper "On the Nature of the so-called Tendon-reflex Contractions." He first briefly described and demonstrated these phenomena, and urged the use of the term "knee-jerk" instead of "patella-tendon reflex," an expression which was probably inaccurate. He pointed out a method by which this phenomenon, when it is in excess, may be conveniently demonstrated on a patient in bed—viz., by depressing the patella with the finger, and then tapping the depressing finger downwards; the quadriceps instantly contracts. The evidence in support of the commonly received view that the contractions are individually reflex from the tendons was then considered, and it was admitted that it proves that some reflex influence is concerned in their production. But it was pointed out how much there is in the phenomena which cannot be accounted for on the simple "tendon-reflex" theory. The phenomena of the clonus in thigh and calf were especially difficult to reconcile with this theory. The significance of the fact pointed out by Westphal that passive muscular tension is essential for the occurrence of the contractions was then insisted on, and it was demonstrated that a tap on the tendo Achillis is ineffective unless it increases its tension, and so affects the muscle. Moreover, in what the author had called the "front tap contraction," no stimulation of the tendon was possible. The most conclusive evidence was that supplied by Tschirjew, who divided all the nerves to the patella tendon, and still found that the tap upon it made the muscle contract. The evidence thus seemed conclusive that these contractions (including the knee-jerk) are not excited by stimulation of the nerves of the tendons, but that the stimulus originates in the muscle. Is not, it was then asked, the contraction local, as Westphal has always maintained? The evidence from the time-measurements of Burckhardt, Tschirjew, Brissaud, Waller, and the author were then considered, and regarded as strongly opposed to the reflex nature of the individual contractions, all known facts negativing the assumption that a reflex contraction could occur in so short a time as the 1-30th or 1-40th of a second. The discrepancy between the evidence on the one hand that the integrity of the reflex arc to, through, and from the cord is essential for the occurrence of the phenomena; on the other hand, that the individual contractions are of local origin, can, it was urged, only be reconciled by the theory that passive tension develops in a muscle by a reflex action, an extreme irritability to local stimulation, and perhaps also a slight tonic contraction. This view, originally put forward by the author as an explanation of the "foot phenomenon," is, he now believed, equally applicable to the knee-jerk. The afferent impulse from muscles when put into passive tension affects the consciousness, and may produce a true reflex action, but the interval before this reflex action the author had found to be three times as great as that before the local contraction, and equal to the interval before a skin-reflex (Burckhardt). It was urged, therefore, that it is most important to discard altogether the term "tendon-reflex." The phenomena are dependent on and indicative of a "muscle-reflex" irritability which has nothing to do with tendons. It was important, however, to employ a general designation which involved no theory. The common feature of these phenomena is that insisted on by Westphal, that passive tension is essential for their production, and it was suggested that they should be called *myotatic contractions* (*τατικος*, extended). The similar contractions occurring in the arm were then alluded to, and the paper concluded with an outline of the conditions in which these contractions become excessive or deficient.

The President, Dr. Dowse, and Dr. Cleveland spoke, and Dr. Gowers replied.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tom. XXIX. POL—PRO. With 93 Figures. Pp. 796. London: J. B. Baillière, Tindall, and Cox. 1880.

AFTER a delay which, though not long, is yet unusual with the successive volumes of this valuable and well-arranged work, the twenty-ninth volume has made its appearance. The chief articles are—Polypi, by A. Heurtaux; Pulse, by M. Duval; Lungs (Poumons), by Duval, Merlin, Balzer, Gauchet, Letulle, Dieulafoy, and Homolle; Professions and Occupations, and the diseases incident to them, by Proust; and Prostate, by Campenon. The minor articles are — Polygala, by Héraud and Barrallier; Polyuria, by Cuffer; Popliteal Region, by Schwartz; Porta (Vena), by Straus; Potassa, by Prunier; Pourriture d'Hôpital (Hospital Gangrene), by Rochard; Protoxide of Nitrogen, by Blanchard; Prurigo and Pruritus, by Hardy; and Pomades, Potions, and Powders, by Villejean. The *pièce de résistance* is the article Lungs (Poumons), which has been committed by the editor to no less than seven hands. M. Duval takes the Structure, the Physiology having been already discussed under the head of Respiration; M. Merlin takes Wounds; M. Gauchet, Congestion, Hyperæmia, and Œdema; M. Balzer, Embolism, Pneumonoconiosis, and Hæmorrhage; M. Homolle, Abscess and Emphysema; M. Straus, Gangrene; M. Dieulafoy, Cancer; and M. Letulle, Neoplasms, and Vegetable and Animal Parasites; and even then Pneumonia and Pulmonary Tuberculosis are considered under special titles.

The black colour of the adult lung is now believed to be attributable to carbon absorbed from without; but M. Duval adduces one or two facts in proof of this with which we were not acquainted. Chevreul, he states, established its carbonaceous nature by demonstrating its combustibility, whilst Traube in a charcoal burner recognised particles of vegetable carbon which, when examined microscopically, exhibited the forms of the cells and canaliculi of Pinus Sylvestris. Robin and Pouchet, again, have shown that true melanic granules are rendered yellow and coherent when exposed for a short time to the action of boiling liquor potassæ. His account of the anatomy of the organ agrees essentially with that which was given long ago in this country by Dr. Waters, the description of the epithelium being given in accordance with his own observations. In the section on traumatic pneumonia it is stated that Klebs and Socin have both shown that in cases of wounds of the lung the inflammation is limited to the part injured, and that in the case of bullet wounds in particular the pulmonary tissue surrounding the traject of the ball was simply hepatised to the extent of two or three millimetres. Balzer gives some interesting details in regard to fatty embolism of the lung, a condition that appears to have been first recognised by Zenker in 1866, who observed it in a man who had been crushed between two waggons, but did not fully appreciate the importance of his discovery. In the same year Wagner recognised the presence of fat in the capillaries of the lungs, Busch showed the constant connexion that exists between fatty embolisms and fractures or other lesions of the osseous tissue, and attributed it to the disintegration of the fat cells of the marrow of the bones, and he corroborated Wagner's statement that fat particles might become the foci of chronic suppuration. Microscopic examination of the lungs rarely enables the diagnosis of fatty embolism to be made, but sections stained with osmic acid readily enable it to be accomplished. The affection is characterised by dyspnœa, increased rapidity of pulse, and great debility. Mucous râles are heard, but percussion furnishes no sign, and hæmoptysis is rare. The only remedy for the disease is the instant amputation of the injured limb above the level of the fracture and at some distance from it.

The section on Gangrene of the Lung by Straus is very interesting. The diagnosis of the affection can scarcely be said to date back further than Laennec, for in the scattered and imperfect notices that appear in previous writers it is difficult to recognise the special characters of the disease or to distinguish the examples they relate from fetid expectoration in cases of dilated bronchi, pleural affections, and the like. Laennec's chapter on the subject receives high commendation, and his division of gangrene of the lung into circumscribed and non-circumscribed is followed. The right lung is more frequently affected than the left in the proportion of 3 to 2, and it is more frequent in males as compared with females in the proportion of 11 to 4. The disease rarely becomes arrested, and recovery may take place, the necrosed tissue being discharged by a bronchus. Its cause is almost always exposure to long-continued cold when the bodily powers are weakened. The symptoms are then given in detail. The treatment of the disease has of late years greatly improved; instead of the leeches and derivative measures employed by Laennec in accordance with the fashion of his day, inhalation of turpentine evaporated with water was adopted by Skoda, and more recently the disinfectant plan has been very thoroughly carried out with the aid of the pulveriser with success.

The article on the Prostate is remarkably complete. The structure of the gland is given, with sketches of the anatomical disposition of the parts at the ages of twenty-five and sixty-five respectively. M. Campenon doubts the influence of inflammation and other diseases of the bladder in producing prostatitis, and states that he has often seen severe and long-continued attacks of cystitis run through their whole course without the prostate becoming involved. On the other hand, the influence of urethritis and of excess in sexual intercourse is indubitable, especially if the patient has any proclivity to rheumatic, arthritic, or scrofulous disease. In describing the characters of both acute and chronic prostatitis, as well as those of abscess of the gland, the views of Sir Henry Thompson are very generally quoted with approval, and M. Campenon everywhere shows himself to be familiar with English surgery. Some interesting statistics are given in regard to abscess of the prostate. It appears that, excluding his cases of accidental death, about one in seven dies, and about one in seven recovers with a fistula. The causes of death, in the order of frequency, are purulent infection, septicæmia, exhaustion owing to prolonged suppuration, peritonitis by perforation and by contiguity, the last two being occasional only. The treatment both of abscess and of its effects is given in detail, but presents no novel feature. The thoroughly well worked-up sections on cancer, tubercle, calculus, and hypertrophy of the prostate render this article a complete monograph on this subject.

Anatomy of the Arteries of the Human Body, Descriptive and Surgical, with the Descriptive Anatomy of the Heart. By John Hatch Power, F.R.C.S.I. Third Edition, by William Thomson, A.B., F.R.C.S., Surgeon to the Richmond Surgical Hospital, &c. With Illustrations by B. Wills Richardson. London: Longmans and Co. 1881.

This is a handy volume, containing, in addition to the descriptive anatomy of the heart and arteries, directions for the operations of ligaturing the arteries, and an account of the anastomotic circulation by which the supply of blood to the part below is carried on. A short historical account of some of the operations with lists of the ligations of the more important arteries and accounts of cases of very special interest are given. Both the anatomical and surgical information is stated clearly and accurately, and the book will be useful to the practical surgeon. The illustrations are many of them familiar, but good. If to the account of the pericardium a description of the operation of paracentesis pericardii, with a discussion of the best site for the needle puncture, had been added, and the best places for, and plans of, applying compression to the various arteries had been appended, the work would have been made much more complete, and brought more thoroughly up to date. We would suggest these improvements in a subsequent edition.

L'Encéphale: Journal des Maladies Mentales et Nerveuses. Sous la Direction de MM. B. Ball et J. Luys. No. 1. Paris: Masson.

This new addition to periodical neurological literature makes its appearance under able editorship. Its title is borrowed from its English contemporary, and its characteristics are announced as impartiality, a practical spirit, and scientific scepticism—"the negative virtue which teaches us never to accept a fact without controlling it, an idea without discussing it, an hypothesis without demanding proofs." Of the original articles the first two are by Professor Ball on "Functional Cerebral Ischæmia," in which he propounds the theory of vascular spasm as the best explanation of certain transient paralytic symptoms, and a study of "Intellectual Impulsions." Dr. Luys follows with a contribution to the pathological anatomy and histology of idiocy. A long and interesting sketch of unilateral hallucinations is contributed by Dr. Regis. Dr. Chambard describes an extremely rare form of cerebral tumour—primitive epithelial carcinoma of the pia mater. Dr. Boye gives an account of the results obtained in the practice of M. Ball by the not altogether new method of combining familiar drugs in the treatment of epilepsy. A few abstracts, a series of clinical cases, analyses of the proceedings of the scientific societies, and some reviews conclude the number.

Pheasants; their Natural History and Practical Management. By W. B. Tegetmeier, F.Z.S. Second Edition, greatly enlarged. London: Horace Cox, *The Field* Office.

We are glad to notice the issue of a second edition of this beautiful work, which should be on the book-shelves of every sportsman, and is not without interest for students of natural history.

New Inventions.

A NEW SURGICAL POCKET CASE.

Messrs. Lawley & Son, 18, Farringdon-street, have submitted to our notice a new pocket case containing, in a small and tolerably portable form, all the instruments required by the student, surgeon, or general practitioner, for the performance of most minor operations and a few of the larger operations. The case contains several knives, scalpel, bistouries, lancets, and a small saw with movable handles, a director and ear scoop, a caustic holder, thermometer, male and female catheter, hypodermic syringe and bottle, probes, spatula, scissors, dressing, artery, and polypus forceps, a grooved needle, and other instruments. Indeed there are too many articles rather than too few. The absence of a fine trocar and cannula may easily be corrected. The arrangement is ingenious and the total cost comparatively small.

ABDOMINAL BELT.

Dr. Fisher's abdominal belt may be worn for support during pregnancy or with a pad for umbilical hernia. The advantages claimed for it are that it is cut in parts so as to fit the figure, and that it contains neither elastic nor whalebone.

FLESH RUBBERS FOR THE BATH.

Messrs. F. Newbery & Sons, of London, have submitted some specimens of Livermore's flesh-gloves and back rubbers for use in the bath. They are made in a peculiar way with india-rubber, and answer the purpose for which they are intended exceedingly well. One great advantage is that they take the soap and make a good lather.

INTERNATIONAL MEDICAL CONGRESS.

As the time of the meeting approaches the evidence of general interest in the Congress becomes increasingly apparent. In several of the sections the number of communications already promised is large enough to fill up the entire time likely to be at their disposal, and these by contributors whose high scientific character is sufficient guarantee for the merit of their intended papers. The choice of the Executive Committee of a representative of French medical science to give the fourth of the general addresses has fallen upon Dr. Maurice Raynaud, a distinguished physician and an accomplished orator, the author of "Le Médecine au Temps de Molière," as well as more strictly scientific works of high merit. In Paris a lively interest is taken in all that pertains to the Congress by a large number of the hospital physicians and surgeons, and a number of medical men from the provincial French towns and schools have expressed their intention to be present. The College of Surgeons have decided to give a conversazione in the Hunterian Museum on Friday, August 5th, and the preparations that are being made both in respect to public and private hospitality will not be unworthy of the occasion. The Society of Apothecaries of London have liberally granted the sum of £52 10*s.* to the funds of the Congress, and the College of Surgeons of Ireland the sum of £25; and it is hoped that all intending subscribers to the Congress will signify the amount they wish to give as soon as possible, as otherwise the Executive and Reception Committees are unable to finally decide upon the programme of entertainments, the cost of which for so large a number as that which is expected being necessarily large.

Mr. Whitfield Perkins, upon recently resigning the appointment of Assistant Medical Officer to the City of London Lunatic Asylum, Stone, near Dartford, Kent, was presented with many gratifying tokens of esteem by the officers and employés of the institution, including a pony carriage, a tea-pot, a coffee-pot, &c., subscribed for by the attendants and artisans.

THE LANCET.

LONDON: SATURDAY, APRIL 9, 1881.

WIDESPREAD astonishment and unfeigned regret have been occasioned by the announcement that Dr. QUAIN, an eminent physician of the orthodox school of scientific medicine, has been called in consultation at the bedside of the Earl of BEACONSFIELD, and consented to meet and act with Dr. KIDD, a reputed homœopath. The explanation offered is that Dr. KIDD had not been treating the noble lord on homœopathic principles, but "according to the regular practice of allopathy," whatever that may mean; and Dr. QUAIN, though he at first declined, having satisfied himself on this point, and taken the advice of "leading members" of the profession, was able to lay aside his scruples, and even to persuade himself that he "would not, under the circumstances, be justified in persisting in his refusal." The question which first suggests itself on receiving this account of the matter will probably be, *Who* are the "leading members" of the profession upon whose counsel Dr. QUAIN acted? It is not a little remarkable that no recent scandal has occurred, or mistake has been committed by any prominent member of the profession, without a similar expression of opinion from some unknown or unrecognised "authority," lending countenance and giving approval to the wrong done.

Who are the "leading members," the unseen censors of professional conduct and policy, whose advice in moments of difficulty proves so strangely at variance with the feeling and judgment of the great body of their brethren? It is time these mysterious counsellors should declare themselves; and, in the name of the profession, we now ask them to accept the responsibility, and if they can, to offer a satisfactory explanation of the counsel they have given, and the course they have approved. The next question will be, What sort of notion can the two physicians acting together in the case of the Earl of BEACONSFIELD have formed of the obligations which rest on every practitioner? They are both men of high reputation and acknowledged ability in their respective spheres of professional life. Nothing therefore which we may feel bound to advance in the frank discussion of this question can be held to have personal motive or incidence. The issue raised is not in any sense personal. The question is one of *principle*, not of men. Having made this clear, we repeat, What notion of professional responsibility can the practitioners thus unaccountably acting together seriously entertain?

There are three professions in the practice of which submission to the will or whim of an employer is impossible. The lawyer cannot construe an Act of Parliament in accordance with the views of his client, or, if he does, it is with the knowledge that his private interpretation will be set aside by any court of law which may be called upon to adjudicate. The divine may not so stultify the first principles of religion, as to adapt the doctrine he preaches to the desires or predilections of his congregation. It is equally impossible for the medical practitioner to submit his scientific judgment of the laws of health and disease, the principles and methods of treatment, to the whim or the prejudices of his patient. The physician who will undertake to treat the sick on either of two systems which are contradictory and mutually destructive is like the preacher who should offer his hearers a choice between the dogmas of Christianity and Mohammedanism, and agree to speak as the prophet of either indifferently.

If homœopathy be a *true* system of medicine, the regular system — which the homœopath stigmatises as "allopathy" — must be false. It is obvious, therefore, that a physician who is willing to practise either of these systems at the bidding of the sick person who seeks his services or on his own eclectic judgment, cannot be acting under a due sense of the importance of the work in which he is engaged. Consistent homœopathists will hold with us in this contention, and they will concede that it is only on the presumption of earnestness in our several divergent beliefs that we can agree to differ with anything like mutual respect. The "homœopath" who can reconcile it with his own conscience to practise what he calls "allopathy" when occasion offers — who, in short, is ready to become all things to all patients that he may win some— can be no true disciple of HAHNEMANN, who, as we pointed out in March, 1875, in connexion with a question arising at the Birmingham Midland Institute, insisted that homœopathy "must be *exclusive*," and that "all backward straying to the pernicious practice of the old school (whose opposite it is as day is to night) is totally impossible." And the practitioner of the regular school who is willing to aid and abet the errant homœopath in his excursions into the province of what we term orthodox medicine, cannot but be regarded by us as a paradox. The position occupied by Dr. KIDD is as strange as it must be unsatisfactory to members of the school with which he is most closely identified. The position taken up by Dr. QUAIN in this matter is at once inexplicable and embarrassing.

It is impossible to regard the consultations which have taken place, between two gentlemen representing antagonistic schools of thought, in the light of serious endeavours to arrive by scientific deliberation at a concerted judgment on the state of their distinguished patient, and the measures to be taken for his relief. One at least of the two must have been lukewarm in his allegiance to the principle on which he had consented to act in the treatment of this particular case, while the other could not fail to feel that he was working with a physician who belonged to a school whose every tenet is opposed to the principles of that which he claims to represent. What could the two men thus thrown together have in common? On what premisses can their argument have been based? The issues at stake were not of a nature to be jeopardised by any lack of concord or earnestness. Life and death may have been in the balance. How should these two physicians work together except they be agreed? Every practitioner must feel that what he does for his patient is to the full extent of his knowledge or belief the best that can be done, or he must defer to the judgment of a colleague in whose scientific attainments and clinical experience he has the utmost confidence. The status of the doctor and the rank of the patient cannot affect the issue raised. The *bona fides* of the consultants may not be called in question, but the considerations we urge are of the highest gravity, and they cannot either be gainsaid or lightly set aside.

The more strictly professional bearings of the case are not less disturbing. It has a painful interest for every practising member of the body to which we belong. If when the physicians concerned in a matter of this class are men of eminence, and the patient is a distinguished personage, rules of etiquette may be ruthlessly transgressed, it is idle to expect that these rules will be held binding upon practitioners of less note in regard to their ordinary *clientèle*. If homœopaths may at pleasure treat their patients "according to the regular practice of allopathy," and, *when* they do this, regular practitioners are at liberty to consult and act with them, this should be generally understood. It has hitherto been a custom of professional ethics that no sort of intercourse can be held with homœopaths, even when these gentlemen, in defiance of the rule laid down by their master, elect to practise "the old system." The fact that they for the nonce, or for some passing purpose, choose to pose as orthodox, has not been held to condone their error, or render them trustworthy associates for the scientific practitioner. If we are henceforth to recognise a Dutch-clock mode of practice this, we say, should be understood. The effect of such an understanding must, of course, be to foster the development of a class of men who will degrade the art of healing to the level of a service done "to please"; but if this effacement of scientific medicine is to be accomplished with the consent of "leading members" of the profession, common justice requires that the feasibility of such a concession shall be publicly announced and generally recognised. We cannot heap reproaches on the head of some struggling practitioner in an obscure district because he consorts with homœopaths acting or pretending to act "allopathically," while an eminent physician does precisely the same thing with the sanction of his esteemed and trusted brethren in London. The profession, as a whole, has a right to demand that "men of light and leading" shall be at least as punctilious in their own observance of the rules laid down for professional guidance as they expect average members of the medical body to be. We must be absolutely just, without respect of persons, either of physicians or their patients. Let it be settled once for all that there is a single code of ethics applicable to all classes of practitioners and governing their relations with patients, whether these be peers or peasants. It has hitherto been the boast of the medical profession that in the hour of sickness it recognised only humanity in need of succour. It will be a dark day for scientific medicine when this claim to independence and impartiality is waived, and the conduct of professors of the healing art towards each other and towards those who seek their aid comes to vary with the rank the physician and patient may chance to occupy.

Whether we look at this question from the public or the professional standpoint, it must be plainly seen to be one of grave import. There is, unhappily, no appeal except to the general judgment of the profession. The Royal College of Physicians has only too conclusively proved that it cannot be trusted with the decision of questions affecting the *morale* of the profession. If any expression of opinion were extorted from the feeble-minded corporation in Pall-mall, it would be either a condonation of the error into which a distinguished Fellow has fallen, or a stringing together of platitudes with which no sensible practitioner could have any reasonable concern. The profession must decide the question for itself, and in so doing we are persuaded it will be guided solely by the interests of right and fairness. The considerations we submit are, briefly, three. First, that a due sense of the responsibility which rests on every practitioner of medicine to treat his patient on principles in which he has faith and which he honestly believes to be principles of true art, must render it impossible to practise antagonistic and mutually destructive systems of medicine alternatively or indifferently. Secondly, that only men who are agreed and see together as to the fundamental principles of disease and its treatment can consult or act in concert. Third, that the rules which govern the professional conduct of practitioners among themselves and towards their patients must be absolute and apply with equal force to all ranks of the profession and of society. If these propositions are accepted by the judgment of the medical profession, it is easy to see what the decision in this case must be. Dr. QUAIN has violated a fundamental principle of professional conduct in acting with Dr. KIDD, an eminent homœopath, in treating the Earl of BEACONSFIELD "according to the regular practice of allopathy." This is the conclusion which is forced upon us, and it is one in which we believe the profession will feel compelled to acquiesce.

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IT is acknowledged to be somewhat of a hardship that the Universities of England do so little to facilitate and encourage graduation in medicine. Nobody who has the reputation of the medical profession at heart wishes to see graduation made too easy. A Doctorate in Medicine ought to mean something more than a common minimum qualification. It may be said that it has not always this significance, and it would not be inaccurate to say so. But there never was a time when it was so little fair or accurate, so to speak. A degree which does not imply some superiority in education or some additional severity in examination, is something very objectionable, and calling loudly for a remedy. But the remedy is not the degradation of the process by which the title of Doctor of Medicine is procured, but the improvement of it. And to do the British Universities justice, they are more alive to the responsibility of their degree-granting function than they have ever been before. Their degrees imply more, and are more difficult to attain, than in any comparatively recent time. In fact, the difficulty of obtaining English degrees in medicine is a ground of complaint. Degrees seem to be regarded by the Universities with rather too much reverence, as something to be reserved for transcendental philosophers and scholars rather than for men who devote their lives to the rough conflict with disease and death. Such is the impracticability of the conditions on which degrees are granted in England, that for the most part English practitioners have either to go without them, or to go to Scotland or Ireland or to foreign countries for them. This grievance is set forth very ably in a pamphlet with which we have been favoured, by JOHN EDWARD MORGAN, M.D. Oxon., and Professor of Medicine at the Victoria University, Manchester—a statement so able and suggestive that no part of it is indefensible except the apology with which it is introduced. Dr. MORGAN'S question is, Why are there no medical degrees? He shows that in Scotland there are 1889 medical men to whom the Scotch Universities have granted 1207 degrees; in other words, 63 out of every 100 Scotch practitioners have obtained Scotch degrees. In Ireland there are about 3398 medical practitioners, 930 of whom, or 30 per cent., have obtained degrees, chiefly Irish; while in England there are 14,102 medical men, of whom 717, or about 5 per cent., only hold English degrees. This is a very striking statement, and the more it is studied the more worthy of attention it will appear. It is undeniable that the possession of a degree is more or less of an advantage to a practitioner. It carries weight with the public, and is an indispensable condition of holding many medical appointments; yet in England it is very difficult to obtain one. The London University is not a teaching university as the Scotch and Irish universities are, and the teaching universities of England have hitherto shown little sympathy with, or aptitude for, teaching medicine. Dr. MORGAN, though an Oxford graduate, is justly severe on the English universities, and their "gross neglect" to consider the requirements of the medical profession, while heaping favours and degrees on those intended for other professions. Thus we find that during a long period of time Oxford and Cambridge have annually dispensed some 800 or 900 degrees to Bachelors of Arts, but on an average not more than seven or eight of those degrees are bestowed on students of medicine. Dr. MORGAN finds explanations of the neglect of medicine in the whole genius and arrangements of the old universities. The short terms and the long vacations are not adapted to the grave and arduous studies of medicine. Then he points out that the old universities are ill adapted as places for the study of practical medicine, though, with good teachers and liberal prizes for medical work and investigation, we think that much more could be done than is done in this way. Durham, though associated with the Newcastle School of Medicine, which has the advantage of an enormous field for medical and surgical study, has not yet devised means for conferring degrees on any considerable number of persons. Under these circumstances, Dr. MORGAN complains bitterly that the charter of the Victoria University does not confer the power of granting medical degrees. Medicine was included in its original scope, but it was withdrawn in deference to the strong opposition of those who feared to add another to the many competing licensing bodies. This fear was not unnatural in the present state of the law; but with an improved state of the law, with a reformed Medical Council having real powers, with a consolidation of the examining bodies, it should be easy both to stir the old universities into life and action, and to give to a young and promising university power, under strict conditions, to confer degrees in Medicine. Dr. MORGAN contends, too, that the character of the London University should be enlarged; that instead of a mere examining body it should become a teaching one, and make some contribution to that education of medical men which more than mere examination goes to fit members of the medical profession for that high position in society to which, according to Dr. MORGAN, they are destined as States become wiser.

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THE pathological relations of diphtheria and the discovery of a micrococcal organism in the false membrane have made it almost certain that the morbid poison which gives rise to the disease is a parasitic organism. The observations to which we lately called attention that bacilli were to be found during life in the urine of patients suffering from the disease, and after death in the kidneys, constitute another step in the demonstration. From a communication to the Paris Société Anatomique we learn that a French "interne,' M. TALAMON, has succeeded in cultivating the organisms from eight cases. In the condition of complete development they presented a characteristic mycelium and spores. The former are tubes with partitions, at intervals, from two to five thousandths of a millimetre in length. These, under favourable circumstances, elongate and bifurcate, the bifurcations being characteristic in consequence of their incurved branches, like the sides of a lyre. In other conditions the mycelia do not become elongated, although they multiply so as rapidly to cover the surface of the cultivation liquid; they remain short and assume irregular forms, and give rise to numerous straight rods. The spores are of two kinds, round or oval, which may be termed the spores of germination, and rectangular spores or conidia. The latter characterise the species. They form small rectangles of various sizes, their length being sometimes fifteen thousandths of a millimetre. They may be isolated or united in festoons or zigzag chains. At first homogeneous, they soon become filled with small round granules, highly refracting, and of the size of ordinary micrococci. The round or oval spores are those which, by their elongation, constitute the mycelium. They appear as clear points, from three to five thousandths of a millimetre in diameter, in the middle of a mass of granular material. M. TALAMON has inoculated this organism into the mucous membrane of the mouth or nose, or has given it with the food, in six rabbits, two guinea-pigs, four frogs, a fowl, and four pigeons. The rabbits died at the end of six, eight, ten, and eighteen days. That which died soonest presented an enormous swelling of the neck resembling the œdema of the neck in diphtheria, and due to a serous infiltration of the connective tissue, and the culture of this serosity showed the same organism with the characteristic conidia. The rabbit which died at the end of eighteen days presented a bilateral fibrinous pleurisy, with effusion. The effusion and pleuritic membrane also yielded, on culture, the organism which had been inoculated; and it could be recognised, either by simple microscopical examination or by culture, in most cases in the liquid contained in the pericardial and peritoneal cavities, and often in the kidneys. The organism was never obtained by cultivation of the blood contained in the heart. The liquid either remained clear or presented only ordinary bacteria. In the four pigeons M. TALAMON succeeded in producing characteristic false membranes. He first scratched the mucous membrane of the mouth with a bistoury, and then placed some of the cultivated organism in the interior of the mouth. At the end of twenty-four hours a thick membrane lined both sides of the mouth, the tongue, the false palate, and the back of the pharynx. It was yellowish-white in colour, and was formed, like the diphtheritic membrane in man, by epithelial cells, fat, micrococci, and bacteria. There were very few of the rectangular conidia, but these were abundantly obtained from the membrane by cultivation. Two of the pigeons died at the end of three days. In one the entrance to the larynx was covered by false membranes, and the trachea was full of a thick mucus from which the organism was obtained by cultivation, as also from the pericardial and peritoneal liquids, but not from the blood. The third pigeon remained ill for eight days, and then the false membranes became separated and the animal recovered. At this point, unfortunately, the experiments have been for the present arrested. They were carried on in the laboratory of the Hôtel Dieu, and some of the physicians, fearing lest some of the organisms might contaminate their patients, stopped the observations. We are promised a resumption of the inquiry at an early period. The facts ascertained are of the greatest importance, and seem to open out an entirely new field of investigation as to the etiology of the disease, since M. TALAMON hints that he possesses a clue as to the source from which the organism is derived in the case of human infection.

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THE Report of the Medical Officer of the Local Government Board for the year 1879 has just been issued from the Parliamentary press. The delay in appearance we apprehend must be attributed to the illness and retirement of Dr. SEATON, the changes in the Medical Department rendered necessary by this event having no doubt temporarily disturbed the usual course of its proceedings. The report of the present Medical Officer opens with a graceful expression of regret offered on the part of the "immediate colleagues" of Dr. SEATON at his loss from the Department—a regret presently heightened by his death, which quickly followed upon retirement. Perhaps no subject connected with preventive medicine has been so largely before the public during the past ten years as vaccination, and certainly since the days of JENNER no man has done so much to promote vaccination in this kingdom as EDWARD CATOR SEATON; yet he passed to the grave without any honourable recognition by the Government whom he had so long and faithfully served, and wellnigh unnoticed by the public, who benefited so largely by his great services to them, and who while he was dying were loudly proclaiming the benefits they had derived from him, heedless of the benefactor. "O stormy peple, unsad and ever untrewe," as CHAUCER hath it. In consequence of the delay in the appearance of the report much of the contents of the volume have necessarily been anticipated. Thus, Mr. POWER'S report on an outbreak of "fever" that proved to be of the nature of trichiniasis on board the Reformatory School ship *Cornwall*, Dr. THORNE THORNE'S report of an extensive epidemic of enteric fever at Red Hill, Caterham, and other adjoining places, Dr. AIRY'S report on an outbreak of scarlatina at Fallowfield, near Manchester, and the report by a Committee of the Pathological Society of London on the infective diseases known as pyæmia, septicæmia, and purulent infection, an inquiry carried out by the Society under an engagement entered into with the Local Government Board, all are reproduced in this volume, but all were published separately at the time they were made and were dealt with in the columns of THE LANCET. Mr. POWER'S report, however, obtains a new interest as it appears here. At the time when the report first appeared doubts were entertained as to the precise nature of the nematoid parasite which he had found in the body of the sole patient who had died from the supposed "enteric fever" on board the *Cornwall*. It now appears that this question was submitted to Dr. CHARLTON BASTIAN, F.R.S., and Mr. POWER'S report is followed by one from this gentleman, showing that the nematoid discovered belonged to the Anguillulidæ, genus *Pelodera*, and he has named it *Pelodera setigera*. This determination adds a new and greater interest to Mr. POWER'S report, and Dr. BASTIAN offers some observations on the subject of great value. Of the new matter in the volume we may note a report of series of a careful observations on the results of vaccination by Dr. CORY with animal lymph obtained from Dr. WARLOMONT, of Brussels, and of which Dr. BUCHANAN says: "That in some respects they differed from those which he habitually obtains with long-humanised lymph; that there was no reason for preferring the results of the calf lymph; and that the humanised lymph had, in its arm-to-arm transmissions, the advantage over the calf lymph of showing greater uniformity of action." Other new matter is found in reports by Dr. KLEIN on the lymphatic system of the skin and mucous membrane, and on the results of certain experiments made by him on the inoculation of bovine animals with small-pox; and a continuation of Dr. THUDICHUM'S researches on the chemical constitution of the brain, in view of the determination of some questions in the chemical pathology of that organ. Dr. BUCHANAN, in his own report as Medical Officer, offers brief but suggestive comments on these reports, and details equally briefly the general proceedings of the Medical Department during the year to which the report refers. The brevity of his observations gives rise, indeed, to the main point of criticism to which his report is open. The suggestiveness of several of his observations gives us a desire to have more from him, and we should be disposed to complain were it not that we have in remembrance that it was just in this somewhat abruptedly curtailed fashion of annotation, as it were, that JOHN SIMON commenced the famous series of reports of which this forms a continuation. We are inclined, therefore, to regard this brevity, however much we may regret it for the moment, as a good augury for the future, and to buoy ourselves up with the belief that it is merely the indication of a mental habit which will bear fruit in the future not less famous than that which characterised the reports of the first holder of the office which Dr. BUCHANAN now fills.

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THE question of competitive examinations for public appointments is one which deserves the serious consideration of all who are interested in the welfare of the young. It is no doubt a matter of importance that the appointments in our public offices and in our Army and Navy should be filled by well-educated young men competent to discharge the duties, physical and mental, which devolve upon them, and likely to remain efficient in both respects for a reasonable period, unforeseen accidents excepted. To ensure these conditions it appears requisite that they should have been well taught those branches of knowledge which are required of them, and that their education should have been so conducted as not to have injured their bodily health or overstrained their mental powers in the preparation for the competition on which their subsequent career may depend. We greatly fear that these indispensable conditions are too often lost sight of by the authorities on whom rests the responsibility of conducting the examinations, and that, as a result, youths come up crammed but not educated, and with constitutions often seriously damaged by overwork. Young men entering the service under such conditions are not likely to prove efficient for any length of time, either mentally or physically. The knowledge—if it deserves that name—which has been driven into them by the crammer is too often lost with even greater rapidity than it has been acquired, and the remembrance of what they have gone through gives them a distaste for mental work which prevents any exertion in the direction of self-education. A clerk under such circumstances degenerates into a bad copying machine; while an officer in the Army or Navy turns out a useless encumbrance, not to be relied on in an emergency. We are far from saying that this is applicable to all who go successfully through a competitive examination, for we have known very many who have entered the public service as a result of preparation honestly made, and in whom the effects of such a course were manifest throughout their subsequent careers. But we cannot disguise the fact that there is a large amount of very unsatisfactory work, the outcome of which is injurious alike to the public and to the successful competitor. We have been led to make these remarks by the receipt of a Parliamentary paper entitled "Regulations respecting Naval Cadets." In future, appointments to naval cadetships are to be made by limited competition. The candidate must not be less than twelve nor more than thirteen and a half years of age, and must be found physically fit for the Navy by a medical examiner. Let us now see what he is required to know in order that he may be entered for training on board the *Britannia*. In the preliminary examination are comprised—arithmetic, including proportion, vulgar and decimal fractions; algebra, including fractions and simple equations with one unknown quantity; geometry—definitions, postulates, axioms, and subjects of the first twenty-six propositions of Euclid's Elements; English—writing from dictation, reading with intelligence, and parsing easy sentences; French—translating, by aid of a dictionary, French into English, and English into French, reading, parsing, and speaking; Scripture history. If the boy is successful in passing this examination—and to do so he must obtain at least four-tenths of the marks assigned to each subject,—he is then examined on any two he may select of the following subjects: elementary mathematics; miscellaneous questions in arithmetic, algebra, including quadratic equations, and geometry to the end of the first book of Euclid's Elements; Latin—reading, parsing, and translating, by aid of a dictionary, Latin into English, and English into Latin; geography and English history, outlines. We should like to know the opinion of any good master, accustomed to boys of that age, as to the probability of their really having acquired such a knowledge of these subjects as they would be likely to retain, and turn to use in their subsequent career. We entertain strong doubts of their ability to do so, and feel satisfied that many boys must break down in the attempt. It is intended that so many candidates shall be nominated that not more than one-third of those examined will be entered. Now, we would ask, is it fair to the boys to require them to work up for such an examination with the certainty that two-thirds of them must fail to obtain the object of their labour? Is it just to their parents to put them to the expense of educating their boys for a special profession with such odds against them being permitted to follow it? Is it humane to make the subjects of a competitive examination so much above the ordinary capacity of boys at that age as to render it probable that many of them may break down in preparing for it, and receive no compensation for perhaps a lifelong injury? The authorities appear either to have forgotten the age of the candidates in laying down the subjects for examination, or to have made it unduly severe to deter numbers of otherwise eligible boys from endeavouring to enter the service. We sincerely trust that the Lords of the Admiralty will reconsider the whole matter, and adopt a standard of qualification for admission more suited to the physical capabilities of boys. Mr. BRASSEY knows what the requirements of the service are, and we trust he will, from motives alike of fair play and humanity, take up the subject with a view to placing the whole question on a more reasonable footing in the interests equally of the Navy and of the ambitious youngsters who long to adopt it as their career.

Annotations.

"Ne quid nimis."

THE ROYAL COMMISSION ON THE MEDICAL ACTS.

WE have good reason to believe that our arguments have prevailed, and that the Government has abandoned the idea of a Commission on Medical Acts in which medical men should be conspicuous by their absence. Having determined to include medical men, it is next most important that the selection should be such as to elicit the truth as to the existing bodies which regulate the medical education and conduct the medical examinations of the country. The medical men to be chosen should be such as to represent not merely the Medical Council and the medical corporations, but the general body of the profession, who are most familiar with the wants of the public and with the existing defects in medical legislation. It would not be fair to medical men favourable to reasonable changes either to leave them out or put them in a minority—as against the champions of existing arrangements. We have throughout believed in the earnestness of the Government in this matter, and our faith serves us still. We look confidently to a Commission so composed as to command the respect of the medical profession and of the public.

MYOPIA IN SCHOOLS.

THOUGH it is desirable that public attention should now and then be directed to questions of the hygiene of vision, it is hard to believe that the risks and dangers, as well as the alleged frequency of grave ocular defects, have not been somewhat exaggerated. Awhile ago the schoolmaster was sent abroad, rod in hand; now it is the oculist that is playing the part of "bogey." The public have barely recovered from the scare of the perils to which they are alleged to be exposed in consequence of the prevalence of colour-blindness among engine-drivers, signalmen, pilots, and others, before they are startled by the information that our public schools "are manufacturing a race of shortsighted people." There may be, and doubtless is, some modicum of truth in this opinion recently given by an ophthalmic surgeon respecting the boys at Wellington College; but the statement that the public schools are manufacturing a race of myopes is not true to anything like the same extent as that matrimony is doing so. Myopia, and the tendency to myopia, are usually inherited, and it is not an uncommon thing to find a large family of children all inheriting myopia from one parent; but few persons would on this account alone recommend universal and perpetual celibacy. Myopia may, no doubt, be developed, and the tendency to myopia may be aggravated by neglect of the known physiological conditions of healthy vision, and it is therefore incumbent upon all persons concerned in the construction of school buildings, and upon those who have charge of the education of children and youths, to take care that these conditions are strictly observed. As regards our public schools and universities, however, it should not be forgotten that shortsightedness is a fashionable complaint. Myopia has been said to be an affection of those who read much and think little; it fairly belongs, therefore, to the present age.

CONTINUED ILLNESS OF THE EARL OF BEACONSFIELD.

THE Earl of Beaconsfield has, during the week, passed through a series of sudden and seemingly critical changes of condition. The gout has been, from time to time, apparently localised, and the bronchitic symptoms have been temporarily relieved; but the periods of respite have not been long, although they have, doubtless, afforded the system an opportunity to recover itself after each attack, so that, on the whole, the strength of the sufferer has been maintained. A very serious paroxysm of the associated congestion and spasm occurred in the early morning of Thursday, and the danger to life appeared so imminent that, at the personal request of Dr. Quain, Sir William Jenner visited Lord Beaconsfield. It is needless to say that Sir William simply acted in the emergency with Dr. Quain *only*, and did not take part in any general consultation. It is difficult at the time when we write to add much to the statement made last week; but considering the length of the illness, and looking to the fact that the severity of the attacks does not abate, the out-look cannot but be regarded as more than commonly threatening. At the same time it is a favourable feature in the case that the noble lord has taken a fair amount of nourishment, and in the intervals of his more urgent sufferings exhibited considerable cheerfulness. The discouraging circumstance in the clinical aspect of the case is the non-development of the local disease, and consequent perpetual dispersion of the poison throughout the system. It is now, moreover, late in the progress of the case to hope for relief from localisation! The strength of the patient is seriously exhausted. Meanwhile we would cherish the maximum of reasonable hope.

AN APOLOGY FOR THE OPIUM TRADE.

DEPUTY SURGEON-GENERAL W. J. MOORE discusses at some length the opium question, with particular reference to the case of China and our trade, in the *Indian Medical Gazette* of September and October respectively. The papers are very interesting and contain a good deal of information. The author regards the use of opium in China and other countries as very comparable to the use of alcohol in this country. He is disposed to extenuate its injuriousness and to magnify its uses. The Chinese take it, almost need it, he argues, on account of their poverty. It reduces waste of tissue, and it gives a more pleasant aspect to a life of monotony and poverty. In excess it is undoubtedly injurious, and may merit the strong censure that philanthropists have indulged in, but "it is not more injurious than alcohol in excess," and opium taken in moderation is not injurious. Seeing that the Chinese will have opium, they had better have the better sorts that we supply from India than the worse native forms of it. There is no stronger moral reason for opposing the opium trade than the trade in alcohol. The fact that some Chinese "take opium in excess is no moral reason why trade should be restricted further than by the imposition of Custom dues." The *tu quoque* retort upon all European philanthropy in regard to this question is, we think, rather too strongly used. We do not desire to be narrow or too austere in our views, but we scarcely see the necessity for medical men to become the apologists of such customs as the use of opium. If it be true that it is made necessary by the social condition of the people, so much the worse for the social condition. It is not worse as a national habit than the use of alcohol by European nations—which we very much question—even then two blacks do not make one white. It is only fair too to British philanthropists to say that those who oppose the opium trade oppose the alcohol trade. An enormous amount of quiet scientific opinion is expressed against our national use of alcohol, which is telling slowly upon sensible people in all ranks of life. But we may still have a word to say against the use of opium by other nations. The duty of medicine, as we take it, is not to find apologies for the bad habits of nations, but to try to bring national habits into conformity with the laws of health. The opium trade is another question, and it has two sides, but, from our point of view, we cannot recommend even a poor Chinaman to begin the use of opium in the hope that he will do it moderately. It is not likely either to lessen his poverty or assuage his misery.

SYPHILIS AND LOCOMOTOR ATAXY.

IN a communication to a recent number of the *Centralblatt für Med. Wissenschaften*, Erb has published an additional and important series of facts regarding the relation of syphilis to locomotor ataxy. They are in perfect agreement with the results which he has previously published, and with those brought forward by Dr. Gowers in our columns (THE LANCET, January 15th, p. 94). Of one hundred consecutive cases of tabes, only twelve gave no history of a chancre or secondary symptoms. In fifty-nine there was a history of secondary syphilis, and in twenty-nine of a chancre without secondary symptoms, making a total of eighty-eight in which there was either a venereal sore or constitutional syphilis. Of the twenty-nine cases with a chancre only, eleven were known to have been so treated (with mercury or iodide) as to make it probable that the sore was a hard one. The interval between the primary sore and the first symptoms of the ataxy was ascertained in eighty-eight cases, and it was between three and five years in seventeen cases, between six and ten years in thirty-seven cases, between eleven and twenty years in twenty-four cases, and more than twenty years in ten cases. In order to ascertain the truth of the objection that the large percentage of cases of ataxy with preceding venereal sores or constitutional syphilis is due simply to the commonness of the latter, Erb has investigated the history of four hundred individuals over twenty-five years of age, who were under treatment for diseases which were not suspected to have any relation to syphilis. The percentages of each hundred agreed very closely, and that for the whole four hundred was—a history of a chancre only, 11 per cent.; a history of secondary syphilis, 12 per cent.; and no history of either chancre or constitutional syphilis in 77 per cent. Thus, 23 per cent. had had a chancre or constitutional syphilis, while among the ataxic patients taken from the same social classes the proportion was no less than 88 per cent. Erb concludes that these figures justify the assumption that there must be an etiological connexion between syphilis and locomotor ataxy.

THE DEADLY EAST WIND.

FROM the earliest times the east wind has been proverbially stigmatised as inimical to life in all its forms, and generally disastrous in the influence it exerts on living organisms. Authorities differ as to the precise cause of its destructive properties; but all agree in describing the wind as peculiarly acrid and withering. It is dry itself, and seems to extract the moisture from every tissue with which it comes in contact. Of all winds, that which blows from the east is the most likely to check the insensible perspiration, to chill the surface, and to produce "cold." It is even possible the wind may be laden with germs which produce a specific effect on the lining membranes of the air-passages. However that may be, there is the strongest reason to believe that the terminal filaments of the nerves distributed in the skin are mechanically compressed by the contraction occasioned by this "eager and nipping air." Those who are well able to resist the onslaught of other winds cower before the east, while the sick grow worse while it blows, or are unable to rally in such a way as to shake off the incubus of disease. In respect to no inclemency of the weather is it more necessary to fortify the body, through the mind acting indirectly through the nervous system, than this common enemy from the east. To give way to mental depression in the struggle is to yield ground. The man who fears that he will "take cold" is almost sure to do so. Conversely, a "good heart" is as trusty a protection as a warm "comforter"; albeit, no one should scruple to have recourse to extra clothing while the wind blows from the east, and particularly when it remains long in that quarter. Few but the most sturdy can hold out against a prolonged assault.

MR. WHARTON JONES, F.R.S.

THE profession will learn with regret that Mr. Wharton Jones has retired from his connexion with University College and Hospital as Professor of Ophthalmic Medicine and Surgery, and as Ophthalmic Surgeon, respectively. The connexion thus severed has extended over thirty years, and covers the student life of several generations of medical practitioners. Those who cherish an affectionate and respectful remembrance of the days when the name of this distinguished ophthalmologist was a household word throughout the schools of the United Kingdom and on the Continent, cannot yield to their juniors in the esteem which is felt for Mr. Wharton Jones. We trust that, though the fulness of years and that natural yearning for rest which comes in the autumn of a busy life, have compelled this retirement from collegiate and hospital work, Mr. Wharton Jones may long be spared to use his ripe knowledge and experience for the advantage of the profession and the public.

MISSED LABOUR.

AT the March meeting of the Obstetrical Society a paper was read by Dr. Barnes on Missed Labour, in which the author entered exhaustively into the subject. Full details of a case which had occurred under the observation of Dr. Barnes himself were given, and in which gestation had been greatly prolonged. The discussion upon it was adjourned till last Wednesday. Such cases have a pathological as well as medico-legal interest, for the possibility of the retention of the fœtus within the body of the mother for months or years after the full period of gestation has elapsed has bearings of the greatest importance from a social point of view. Though such occurrences are rare, yet there are several such cases on record, the genuineness of which cannot be doubted; and the possibility of the accident—for such it must be regarded—is beyond dispute. It happens, however, it appears, only when the fœtus is dead. In the recorded cases there appears to be usually a history of some accident or injury, and upon this fact, together with the observations made post mortem, Dr. Roper based an ingenious theory—namely, that cases of missed labour are cases in which rupture of the uterus had taken place and the child had escaped through the rent into the surrounding tissues or abdominal cavity. In the case observed by Dr. Barnes, he seems to have convinced himself that the fœtus was in the cavity of the uterus by the introduction of the hand into that cavity; but though such an observation made by such an observer is of the greatest value, it cannot take the place of examination after death. The theory of Dr. Roper is not incompatible with Dr. Barnes's observation, and the question cannot be settled but by careful post-mortem investigation.

DR. ACLAND ON ALCOHOL.

DR. ACLAND, at the special request of the Oxford Ladies' Diocesan Branch of the Church of England Temperance Society, lately delivered an address at the residence of the warden of Keble College, on the invitation of the Hon. Mrs. Talbot. Dr. Acland presented to his audience one aspect of the pathological argument against the excessive or frequent use of alcohol. He was on firm ground in charging alcohol with the frequent causation of cirrhosis, especially in the form of spirits, and *à fortiori* when these are taken neat and without food. Of the thirty-six patients that Frerichs observed suffering from cirrhosis, twelve confessed to drinking brandy in excess, and several others were suspected. It is only fair, however, to say, in Frerichs' own words, that in a large number of cases it would not be right to attribute the disease to abuse of spirits. In some of these cases it is quite possible that a tendency to the disease has been inherited. Dr. Acland did not tell his fair audience how far they might go in the use of "a little wine" without incurring the terrible consequences which he portrayed. Ladies, though they have taken a very creditable share in the reform of the drinking customs, have yet a lingering preference for the stronger wines, notably for a little "red port," though their sedentary lives make this a very bad wine for them. If they could be induced to take as favourable a view of light wines as physicians take, an important advance would be made in the direction of physiological temperance.

ARMY MEDICAL SCHOOL, NETLEY.

THE forty-second session of the Army Medical School was opened on the 4th inst. by Professor Aitken, F.R.S., who, in the presence of his colleagues and the staff of the Royal Victoria Hospital, gave the introductory lecture, taking for his theme the progress of medicine in the last twenty years. It is hardly necessary to say that the learned lecturer handled his subject with the fulness of knowledge and clearness of expression to be looked for from an author and teacher of his now European reputation. Forty surgeons on probation for the British Army, and twenty-two candidates for commissions in H.M. Indian Army, listened with marked attention to this instructive lecture, so well calculated to stimulate the minds of young medical officers to prepare themselves for "honourable mention" in the record of the medicine of the future. It was with much regret we noticed the absence of naval uniforms on the benches of the lecture-room at Netley. This is a mysterious subject, on which we shall only observe that, judging from the qualifications of young medical officers for the public services, as indicated by the marks both of the London and Netley examinations, no class stood more in need of a course of special instruction than the young men who of late years have entered the medical service of the Royal Navy.

INDIGNITIES OF THE CENSUS PAPER.

EITHER the actual framers of the Census forms had an original notion of the duty devolving upon them, or their instructions were extraordinary. In the direction for the enumeration of occupations the professions are thus strangely indicated :—"Physician," "Surgeon," "Dentist," "Oculist," "General Practitioner," &c. The idea of placing an "Oculist," who must by law be a qualified surgeon, below a "Dentist," who for anything known to the law may be a registered blacksmith, would be simply grotesque but that it is significant of the ignorance or error which prevails in official circles. It may be interesting to the authorities to know that the result has been that ophthalmic surgeons generally have declined to describe themselves as "oculists," and the returns will, therefore, be valueless in so far as this point of information is concerned. Like blunders have, we believe, led to similar vitiations of the Census in other respects.

A SUBSCRIPTION LIST has been opened for the purpose of perpetuating by a substantial testimonial the recollection of Mr. Frank Buckland's services to Natural History and Fish-Culture, and generally of affording to the public an opportunity of paying a tribute of respect to his memory and appreciation of his life-long work. It is intended to expend a portion of the sum subscribed upon a bust of Mr. Buckland, to be placed in the Museum at South Kensington, with the collection which he so generously bequeathed to the nation. It is further hoped that the amount collected may be sufficient to supplement the income of Mr. Buckland's widow by an annuity of £100. Should there be any surplus after the purchase of the bust and the annuity, the Committee propose that it should be applied to promoting the welfare of the fishermen of this country—an object which Mr. Frank Buckland had so much at heart. Subscriptions will be received by Messrs. Cox and Co., Bankers, Craig's-court, Charing-cross, and at 34, Portland-place, by the Hon. Secs., Mr. T. Douglas Murray, and Lieut.-Col. E. S. Bridges.

IMPERFECTION of vision in railway *employés* has formed the subject of legislation in the Massachusetts Representative Assembly, to which the Railway Committee has reported a Bill to the effect that "No railroad company shall employ any person in a position requiring the distinguishing of form or colour signals, unless such person within two years next preceding has been examined for colour-blindness and other defective sight by some competent person, and has received a certificate that he is not disqualified, by reason of any defect of vision, to perform the duties of such a position."

A SUCCESSFUL case of colotomy has been performed at Malta, in a case of malignant disease of the rectum, the operator being Surgeon-General W. A. Mackinnon, C.B., the principal medical officer of the station. We are informed that this is the first occasion on which this operation has been performed in the island.

THOSE of our readers who are contemplating a visit to Boulogne during the Easter holidays should take the precaution of being revaccinated, as small-pox is understood to be very prevalent in the French watering-place, and the authorities are, to put it mildly, not over-anxious that the fact should be known.

AN effort to amend the present mode of administering the relief which the Surgical Aid Society has to offer was, at a meeting of the committee at the City Terminus Hotel on Monday, unsuccessful. A resolution with the above object was rejected by 37 votes against 8. Still we are of opinion that, by the society's rules, a great deal of unnecessary worry and trouble is demanded of applicants, in order to obtain the help which the institution was established to afford.

AT the Royal Institution on Wednesday the Faraday Lecture was delivered by Professor Helmholtz, who took for his subject the "Modern Development of Faraday's Conception of Electricity." The discourse was, as was to be expected, a masterly exposition of the direction and scope of the discoveries and experiments of the great chemist, the admirers of whom will welcome the publication of this lecture in a complete form.

WE regret to learn of the early decease of a very promising young French surgeon, Dr. W. H. E. Gregory of Bordeaux. Dr. Gregory was of English descent, but had resided at Bordeaux all his life, and at the time of his death was *prosecteur* at the medical school of that city. He recently brought out a small work on External and Internal Urethrotomy, in which he attempted to prove the great value of the former, and the dangers of the latter, operation.

A SPECIAL meeting of the Epidemiological Society will be held at University College on Wednesday, April 13th, at 8 P.M., when a paper will be read by Surgeon E. G. Russell, M.B., B.Sc., entitled "Certain Points in connexion with Malarial Fevers in India."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Diphtheria (Dr. AIRY).—In February of last year, Dr. Airy received instructions from the Local Government Board "to visit some of the subdistricts, in which it appeared, by the Registrar-General's Returns for the fourth quarter of 1879, that there had been strongly localised outbreaks of diphtheria, in order to inquire as to the behaviour of this disease among small communities." The result of this inquiry is now before us, and includes an investigation of thirteen local outbreaks of this disease in various parts of the kingdom. Although this carefully conducted investigation has led to no new light being thrown upon the malady, it has contributed a good deal to a clearer insight into questions previously debated, and has proved very suggestive of directions of further research. Dr. Airy has considered the results of the inquiry as they bear upon topography, the duration, extent, and novelty of the epidemic in the locality affected, the concurrence or recent prevalence of other diseases in the locality, the local and personal conditions predisposing to diphtheria, the communicability of the disease, &c., and on each of these subjects his observations deserve attentive consideration. He offers also certain suggestions and inferences on the origin and ultimate pathology of the disease. As to the former question, he thinks the inquiry leaves no escape from Dr. Sanderson's conclusion, "that unless it be supposed that the material cause of diphtheria is from time to time generated *de novo*, it is *capable of existing and moving from place to place independently of its subjects.*" As regards the second question he has the following observations :—"The supposition that diphtheria, in the origin of an outbreak, is caused by an organism that haunts air, or water, appears to me to conform most closely to the requirements of observed fact. It is quite reasonable to suppose that such an organism, having a subsistence dependent upon seasonal conditions, should have its own special season of maximum growth and reproductive power; that it should be capable of infecting water or milk; and that it should affect preferentially a particular character of soil, such as clay, and avoid the smoky purlieus of a town. The preference of diphtheria for dwellings in exposed and elevated situations is difficult to explain on any theory, except that of exposure to the wind and to whatever the wind may carry. (For valuable arguments and suggestions in support of this theory I would refer to Mr. A. Wynter Blyth's paper cited above.) Such facts as that of the immunity of town children attending a country school could be understood, if we suppose that the country children, taking another direction, breathed air containing an organism which the town children escaped. Possibly the 'progressive development of infectiveness' observed by Dr. Thorne at Llanrhaiadr might correspond (as Dr. Thorne has himself suggested) to progressive development of the organism towards the attainment of full reproductive power. Such an organism might be expected finally to yield itself to microscopic identification in its (supposed) native haunts."

Enteric Fever at Pemberton and Orrell (Dr. AIRY).—This report by Dr. Airy is directed to the elucidation of a serious outbreak of enteric fever at Pemberton and Orrell, in Lancashire, in the autumn of 1880. Abundant evidence was found in the state of privy nuisance, and doubtful condition of water-supply as to excremental pollution, to account for much prevalence of enteric fever in the localities; but it was found impracticable to disentangle the influences of these several sources of the disease in the production of the particular outbreak, or determine the probable mode in which the gravity of the outbreak had been brought about.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Doncaster (*Rural*), *Goole* (*Rural*), *&c.*, *Combined Districts.*—Dr. Mitchell Wilson's reports for the several sanitary districts entering into the combination for which he is medical officer of health contains much of interest. These districts include Doncaster, Goole, and Tadcaster *rural* districts; and Goole, Selby, and Tickhill *urban* districts. They contain an estimated population of over 83,000, and had in 1880 a death-rate from all causes of about 19·0 per 1000 inhabitants. Dr. Wilson has some useful remarks about the influence of *dampness* of houses upon the health of the inmates, and points out how this dampness is apt to occur in rural districts from the floors of the cottages being placed on undrained ground, from the absence of any damp-proof course in the house-walls, and from the want of any pipes to carry off rain-water from the roofs. "Landlords," he writes, "far too often look upon the latter as a convenience only useful for the tenants in collecting soft water, instead of considering the bad effect on the foundation and walls of the house." Dr. Wilson is inclined to believe from his observation of typhoid fever that it is directly infectious, or at least that direct infection plays a part in its dissemination, and he draws attention to attacks of a febrile indisposition, which were different from the ordinary attacks of typhoid fever both in point of duration and intensity, but which are observed occurring at the same time and under similar conditions as typhoid. He observes: "An interesting point in connexion with these mild febrile cases is, have the dejecta the power of conveying to other persons the infection of true enteric fever? If so, and occasional cases seem to point in that direction, they will supply the link which is so often missing in tracing out the sequence of outbreaks of this fever." Dr. Wilson has also some suggestive observations on the application of by-laws in rural districts, and the present anomalous state of the law on the subject. A series of recommendations for securing the healthiness of houses, issued with the sanction of the Goole Rural Sanitary Authority, is stitched up with the reports.

Reigate (*Urban*).—Estimated population, 1880, 18,800; birth-rate 27·2 per 1000 inhabitants; death-rate 14·7. Mr. Jacob comments on the very low mortality of this urban district during 1880, a mortality which would have been designated as low even in a rural district. The district was, moreover, remarkably free from most of the dangerous zymotic diseases during the year. Not a single case of typhoid fever was reported at Redhill, showing how completely that portion of the district had shaken off all traces of the epidemic which accidentally visited it in the previous year.

Eccleshill (*Urban*), *Yorkshire.*—Estimated population, 1880, 7000; birth-rate 36·0 per 1000 inhabitants; death-rate 17·0. Mr. John Pitney Aston, in reporting upon the state of his district in 1880, by no means confines himself to the bare account of its health-condition, but endeavours to make his report interesting by giving to it, not unsuccessfully, certain literary graces. These, however, we must put aside, contenting ourselves with noting a progressive improvement in the mortality of the district during the past three years; the local peculiarity of three main sewers converging to *blind* terminations within fifty yards of the Mechanics' Institute, which we presume represents the intelligence of the town; and certain observations on privies. Mr. Aston is eloquent upon the ill-chosen position of these conveniences in many country houses and country places and the discomforts arising therefrom, and further, he says of their construction:—"Instead of being a bright, cheerful, little chamber, where you might pass five or ten minutes with a certain amount of comfort, and moralise on things in general, it is a cold, damp, repulsive room, which gives you the shivers to look at." This is in the right vein.

Epsom (*Urban*).—Estimated population, 1880, 7550; birth-rate 24·2 per 1000 inhabitants; death-rate 13·2. Mr. Jacob gives an interesting account in this report of a circumscribed outbreak of typhoid fever, probably caused by the entrance of sewage into the well of the town water-works through an overflow pipe which passed from the well into the town sewers. During a heavy downfall of rain the sewers are apt to become overcharged, and a fortnight or so before the fever appeared this had happened, and the water had risen in the manholes of the sewers to a height of seven feet above the level at which the overflow pipe from the well leaves it. It is tolerably certain that at this time there must have been a flow from this pipe of the contents of the sewer into the well, and Mr. Jacob shows that the circumstances of the fever, its mode of occurrence, and limitation of prevalence might very well be accounted for on the supposition that sewage had in this way become mingled temporarily with the well-water. The overflow pipe was at once closed and this source of danger removed.

Romford (*Rural*).—Mr. Alfred Wright reports for this district in 1880 a birth-rate of 34·9 per 1000 inhabitants, and a death-rate of 18·7. In considering the health-condition of the several parishes entering into the district he writes favourably of all except Barking and Ilford. Barking does not appear to exhibit many indications of sanitary improvement, and the newer and higher portion of the town is described as having no system of drainage, the sewage being discharged into private cesspools; and, as to Ilford, it is stated that although a system of drainage does exist, it is so imperfect "as really to be worse than none at all."

Whitechapel (*Metropolis*).—Mr. John Liddle reports that the death-rate of this district in 1880 was 24·3 per 1000 inhabitants, as compared with 26·0 in the preceding year. The tabular statements of sanitary work performed during the year show an astonishing amount of detailed supervision and inspection exercised by the officers of the sanitary authority. Mr. Liddle's annual report for 1880 appears as a part of his report for the last quarter of that year. In this last-named report he has some weighty observations on the want of more stringent regulations in the construction of houses.

TRICHINOSIS.

The Local Government Board for Ireland have recently issued a circular calling attention to the disease which has been attributed to the consumption by human beings of the imperfectly cooked flesh of pigs infested by trichinæ and similar parasites. It is upon the imported flesh of foreign pigs that special precautions should be taken, and the circular points out that the only means of avoiding disease in man from diseased pigs is by very thorough cooking. The Board also remind the sanitary authorities of the powers which they possess under sections 132-136 of the Public Health (Ireland) Act, 1878, in relation to the sale of unsound, diseased, or unwholesome meat, and suggest that they should enjoin their medical officer of health and sanitary sub-officers, to use special vigilance in carrying out the provisions of the above sections referred to.

On the 23rd ult., a meeting of representatives of the sanitary authorities of three counties was held in the County

Hall, Denbigh, to consider the action of Mr. Murray Browne (Local Government Board Inspector) and the Local Government Board in thrusting upon them a scheme for combination to appoint a single medical officer of health, against the wishes of the several authorities proposed to be united, and also against the opinion of the county (Denbighshire). Objection to the action of the Local Government Board seemed to be taken by the various speakers almost as much on account of the manner in which that Board had brought forward its proposal for combination as against the principle. It was determined to send a deputation to Mr. Dodson to make known to him the objections of the several authorities to the scheme, and, we may add, their determination to resist it.

Colonel Bolton, R.E., the water-examiner, reports that during the month of February the water in the Thames, at the intakes of the metropolitan companies taking supplies therefrom, was bad in quality from Feb. 1st to the 6th; from the latter date to the 23rd somewhat improved, but indifferent in condition; afterwards good to the end of the month. The water in the River Lea was generally good throughout the month. Most of the water, however, was delivered to the consumers clear and effectually filtered. Messrs. Crookes, Odling, and Tidy report that "the water supplied during the past month (February) was wholesome, of good quality, and well oxygenated."

A striking illustration is reported from Fulham of the danger of the spread of the disease arising from keeping small-pox cases in private houses. An instance is recorded of an unreported case there, from which contagion of the disease was conveyed to and infected twenty-seven other cases.

At a special meeting of the St. Pancras vestry on Monday, a motion affirming the expediency of providing a small-pox hospital for the parish was agreed to. The report of the Sanitary Committee recommended a site at Finchley; but it was decided that preference be given to a plot of ground adjoining the workhouse and the St. Pancras-gardens.

An outbreak of scarlet fever is reported to have broken out at the Fulham Small-pox Hospital. Eleven of the nurses have had to be removed to the Stockwell Fever Hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Mortality in the large English towns, although showing a slight further increase, continues considerably below the average for the season. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5531 births and 3191 deaths were registered last week. The births exceeded by 345, while the deaths were 66 below, the average weekly numbers during 1880. The deaths, however, showed a further increase of 28 upon the low numbers returned in recent weeks. The annual rate of mortality, which had been equal to 20·6 and 21·7 in the two preceding weeks, further rose to 21·9 last week. The lowest rates in the twenty towns were 13·6 in Leicester, 17·2 in Sheffield, 17·5 in Norwich, 18·5 in Bradford, and 18·9 in Newcastle-upon-Tyne. The rates in the other towns ranged upwards to 25·6 in Hull, 26·2 in Bristol, 28·4 in Oldham, and 28·8 in Manchester. During the thirteen weeks ending on Saturday last the death-rate in the twenty towns averaged only 23·9 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 287 and 321 in the two preceding weeks, were 315 last week; these included 66 from whooping-cough, 60 from scarlet fever, 55 from small-pox, 50 from measles, and only 28 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·2 per 1000 in the twenty towns, and ranged from 0·5 and 0·7 in Birmingham and Plymouth, to 2·8 and 5·4 in Liverpool and Wolverhampton. Whooping-cough showed the largest proportional fatality in Portsmouth and Liverpool; and scarlet fever in Wolverhampton and Sunderland. The 20 deaths from diphtheria in the twenty towns included 10 in London, 2 in Portsmouth, 2 in Birmingham, and 2 in Liverpool. The highest death-rate from fever (probably enteric) occurred in Wolverhampton. Small-pox caused 60 more deaths in London and its outer ring of suburban districts, one in Newcastle-upon-Tyne, and not one in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 853 and 820 in the two preceding weeks, rose last week to 899, a higher number than has been under treatment in these hospitals since 1877. The number of new cases of small-pox admitted to these hospitals during last week was 256, against 265 and 147 in the two previous weeks. The Highgate Small-pox Hospital contained 87 patients on Saturday last, against 74 at the end of each of the two preceding weeks; 33 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London were 358 last week, against 345 and 348 in the two previous weeks; they were, however, no less than 131 below the corrected average number in the corresponding week of the last ten years, and included 221 which resulted from bronchitis and 88 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 5·0 per 1000 in London last week; while the rate from the same diseases was 7·0 in Liverpool.

The causes of 88, or 2·8 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths was equal to 2·1 per cent. in London, while it averaged 3·4 per cent. in the nineteen provincial towns. No uncertified causes of death were recorded last week in Portsmouth, Norwich, Leicester, or Nottingham; whereas the proportions of such deaths was largest in Hull, Leeds, Bradford, and Salford.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week declined to 20·7 per 1000, from 23·1 and 23·5 in the two preceding weeks; this rate was 0·2 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 16·9 and 17·0 in Paisley and Dundee, to 22·3 and 33·1 in Glasgow and Perth. The deaths referred to the principal zymotic diseases in the eight towns, which were 97 and 75 in the two preceding weeks, declined to 69 last week; they included 19 from diarrhœa, 16 from whooping-cough, 12 from diphtheria, 10 from measles, 7 from scarlet fever, 5 from "fever," and not one from small-pox. The annual death-rate from these zymotic diseases was equal to 2·7 per 1000 in the eight towns, which was 0·5 above the average rate from the same diseases in the twenty English towns. The zymotic death-rate in the eight Scotch towns ranged from 0·0 in Perth and 1·1 in Paisley, to 3·0 in Glasgow and Aberdeen and 3·6 in Edinburgh. The 19 deaths referred to diarrhœa showed an increase of 7 upon the number in the previous week, and considerably exceeded the average number in the corresponding week of recent years. The fatal cases of whooping-cough, which had been 31 and 27 in the two preceding weeks, further declined to 16 last week, of which 6 occurred in Glasgow, 5 in Dundee, and 3 in Edinburgh. The 12 deaths referred to diphtheria also showed a decline from recent weekly numbers, and included 9 in Glasgow and 2 in Edinburgh. The 10 deaths from measles, on the other hand, exceeded the numbers in recent weeks; 7 occurred in Glasgow and 3 in Aberdeen. The deaths from scarlet fever, however, further declined from 13 and 10 in the two previous weeks to 7, of which 6 occurred in Edinburgh and 1 in Leith. The 5 deaths referred to "fever" also showed a further decline, including 3 in Glasgow and 1 each in Edinburgh and Greenock; the death-rate from this cause in the eight towns was identical with that which prevailed in the twenty English towns during the week. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had steadily declined from 179 to 138 in the four preceding weeks, were 146 last week, and equal to an annual rate of 5·8 per 1000, against 4·1 from the same diseases in London.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, although again excessive, showed a decline last week. The annual death-rate, which had been equal to 30·4 and 34·9 in the two previous weeks, declined again to 30·8 last week. During the thirteen weeks ending on Saturday last the death-rate in the city, however, averaged 37·8 per 1000, against 23·4 in London and 22·3 in Edinburgh.

The 197 deaths in Dublin last week showed a decline of 26 from the number in the previous week, and included 15, or nearly 8 per cent., which were referred to the principal zymotic diseases, against 11 and 19 in the two previous weeks. These 15 deaths from zymotic diseases included 7 from fever (typhus, enteric or typhoid, and simple continued), 3 from scarlet fever, 2 from diarrhœa, 1 from small-pox, 1 from diphtheria, 1 from whooping-cough, and not one from measles. The annual death-rate from these zymotic diseases did not exceed 2·3 per 1000 in Dublin last week; it was 2·6 in London and 3·6 in Edinburgh. The deaths referred to fever in Dublin, which had been 4 and 12 in the two previous weeks, declined again to 7 last week; the annual death-rate from this cause was, however, nearly six times as high in Dublin as the average rate from fever in the twenty English towns. The fatal cases of scarlet fever were slightly more numerous than those in recent weeks; while those of other zymotic diseases show but slight variations. The deaths of infants were fewer than in any recent week; those of elderly persons, however, considerably exceeded the number returned in any of the four previous weeks.

THE HEALTH OF BERLIN IN 1880.

Berlin is the only European city that, besides London and Paris, can boast of a population exceeding a million. According to the Prussian census, the preliminary report of which has just been published, the population of this city, which was 969,050 on Dec. 1st, 1875, had increased to 1,122,385 at the recent census on 1st Dec. last. This is equal to an increase of not less than 15·8 per cent. in the five years, a rate of increase, however, which was considerably exceeded in several of the other large Prussian towns. The mean population of Berlin during 1880 is calculated at 1,107,100, and from a return recently issued from the City Statistical Bureau, it appears that the birth-rate during 1880 was equal to 39·8, and the death-rate to 29·7 per 1000 of this population. The birth-rate exceeded by 3·7, and the death-rate by so much as 7·5, the respective rates that prevailed during the year in London. This difference between the death-rates of London and Berlin signifies that in equal numbers living there were 134 deaths in Berlin last year to each 100 that occurred in London. Considerably more than 8000 persons died in Berlin during the year who would have survived if the death-rate had not exceeded that which prevailed in London. It is evident that a large proportion of this high rate of mortality is due to excessive infant mortality, which is of a remarkable character. According to the return before us more than 42 per cent. of the total deaths in the city last year were of infants under one year of age, while an additional 17 per cent. were of children aged between one and five years; thus, 59·5 per cent. of the total deaths were of children aged under five years. Berlin infant mortality, that is, the deaths of infants within one year of age, was equal to 314 per 1000 of the births registered. In London infant mortality last year, measured in this manner, did not exceed 158 per 1000. An infant born in Berlin, therefore, appears to have but half the chance of completing its first year of life as an infant born in London. The fatality of zymotic diseases was in the aggregate very large compared with that in London. Only 9 deaths were, however, referred to small-pox, and the fatality of measles and scarlet fever was not excessive. Fever fatality accounts for but a small proportion of the excess; no more than twenty-one deaths from typhus are reported, and the death-rate from enteric fever was scarcely more than twice as high as that which prevailed in London. Diphtheria is endemic in Berlin, as in so many other European and American cities, and caused no fewer than 1198 deaths last year, representing a mortality more than seven times as great as that in London, after due allowance for the difference of population. The main excess of zymotic fatality in Berlin was, however, due to diarrhœal diseases, which caused 5953 deaths in the city during the year, or more than 18 per cent. of the deaths from all causes; these were equal to a death rate of 5·4 per 1000 of the population, while the death-rate from the same causes in London last year did not exceed 1·1 per 1000, although diarrhœa fatality was exceptionally high in England in 1880. The excessive fatality from diarrhœal diseases in Berlin last year began in May and lasted till October. Further particulars of this remarkable diarrhœa fatality, especially the age distribution of the children who succumbed to the disease, would be full of interest in view of the Local Government Board investigation concerning infantile diarrhœa in England, which is now being conducted by Dr. Ballard.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

PORT INSPECTION IN BRITISH INDIA.

The Indian Merchant Shipping Bill, 1881, now under the consideration of the Government of India, provides for the appointment of port inspectors, and among other duties it prescribes that "the inspector may medically examine all or any of the persons on board" the vessels he inspects, and that "he may require and enforce the production of the log, and any other books or documents which he thinks necessary for the purpose of inquiring into the health and medical condition of the persons on board," &c. In the statement of "objects and reasons" attached to the Bill, it is observed of the port inspector that "this officer, in addition to performing the duties at present performed by the health officer (for the performance of which duties he is by the Bill invested with certain legal powers), is entrusted with the duty of inquiring into any legal complaints which may be made on the arrival of a ship in port by any of the crew against the master, or any others of the crew." The port inspector is to be required to perform important medical duties, but it does not appear that he must necessarily be a medical man.

THE PLAGUE.

The latest news of plague from the East announces the appearance of the disease in the city of Maragha, province of Azerbijan, Persia. It is reported that from the date (unstated) of the appearance of plague in Nedjef to 26th March, 1881, 49 cases and 24 deaths had occurred in that city, and 24 deaths from plague in Kufa.

Dr. Vacher has been lecturing at Birkenhead about "health and cleanliness," and he appears to have drawn some forcible lessons from the filthiness of habits of our ancestors in its bearing upon the great epidemics of plague and sweating sickness in the earlier periods of history of the kingdom, and the gaol fever and ship fever of more recent times. Judging from the abstract of the lecture given by the local press, it was too full of interest not to excite a hope that it will be given to the public in a complete form.

A systematic attempt is about to be made to improve the sanitary condition of the lodging houses of Oxford. The keepers of such houses have been informed that an engineer has been appointed to visit their establishments and make a thorough inspection of the premises at the cost of the University. Certificates will be furnished with respect to lodging houses whose sanitary arrangements satisfy the inspector.

THE SERVICES.

THE TRANSVAAL WAR.

Letters from the front have reached us, with some accounts of the medical arrangements of the field hospitals and plans for the relief of the wounded in the actions at Ingogo and Laing's Nek. At the Ingogo fight, which was quite unexpected, and for which therefore no field hospitals or dressing stations were ordered to accompany the column, the troops expecting merely to escort a provision convoy from Newcastle, Surgeon J. McGann, with five stretchers, twenty bearers, and some light equipment, was detailed for duty with the force. Surgeon-Major Babington, the senior medical officer with General Colley's army, immediately that heavy firing was heard in the Ingogo direction, despatched ambulances, ox waggons, a water cart, and stretchers, with a plentiful supply of medical comforts and surgical dressings, to the scene of action under the charge of Surgeons Ring and Landon. The party were, however, stopped by the Boers, who threatened to fire on them if they proceeded, and it was not till 4 o'clock next morning that they were able to reach the battle-field. Dr. McGann took on forty-two severely wounded men, with one officer, Lieutenant Parsons, R.A., to Newcastle, Surgeon Kirwan being despatched from that place with waggons to bring in the remainder. The wounded were treated in tents and empty buildings; hot soup, beef-tea, brandy, &c., being administered on arrival to all who required them; the wounds were dressed without delay, and several capital operations performed. The medical officers and men of the Army Hospital Corps worked indefatigably to ensure the comfort of the sufferers, many of whom having been exposed on the Ingogo plateau all night, with no shelter but a blanket from the cold wind and ceaseless rain, were in a very depressed and miserable condition. A convoy of wounded from Laing's Nek on February 8th was intercepted by the Boers on their way to Newcastle, the mules and oxen were seized and driven off, and the supplies of blankets and equipment looted. On receipt of this news at Newcastle, the senior medical officer, Dr. Stokes, promptly sent out medical comforts and necessaries by native runners, and at daybreak despatched four teams of mules to bring in the waggons; the party arrived safely in the afternoon of that day. At Newcastle the Base hospital, although filled with wounded from the recent actions, has met all requirements; but to make way for other possible casualties the Principal Medical Officer had ordered a convoy of men fit to travel to proceed to Pietermaritzburg, and so relieve pressure. The camp at Mount Prospect is kept in very good sanitary condition, the water supply is ample and good, procured from a mountain stream, great care being exercised to prevent its pollution by dead oxen or other animals being thrown into it. The camp refuse is burnt daily, the latrines are carefully attended to with dry or fresh earth, and the trenches and pits filled in as soon as they are within a couple of feet of the surface. Up to date of our correspondent's letters the rations had been very good, fresh meat issued daily, with preserved vegetables and lime juice. The rains had been very heavy, and of almost daily occurrence, but in spite of the discomforts of wet tents and clothing the general health of the troops was excellent. Surgeon W. E. Saunders has been appointed secretary to Deputy-Surgeon General Holloway, C.B., the Principal Medical Officer of the Transvaal field force.

GENERAL COLLEY'S DESPATCHES.

In a general order issued at Mount Prospect, Feb. 9th, the late General Colley refers to a medical officer as follows: "The Major-General feels sure the force engaged yesterday will join with him in specially recognising the distinguished conduct of Lieut. Parsons, R.A., and of Surgeon McGann, whose unremitting attention to the wounded under a heavy fire did honour to the branch of the profession to which he belonged."

The following officers of the Bombay Medical Service have been selected for promotion to the new rank of Brigade Surgeon:—Surgeon-Majors Bruce, Cook, Pinkerton, Joynt, Cruikshank, Colston, Carter, Langley, Blanc, and Dymock. The last officer will be supernumerary to the establishment for Bombay, which has been fixed at nine.

Surgeon-Major W. H. Bean, M.D., Madras Medical Service, has been promoted to the rank of Deputy Surgeon-General from the 28th March, vice Deputy Surgeon-General J. Wilson, retired.

Surgeon-Major Knaggs has been appointed to the medical charge of the Hill Station of Chaubutia, Bengal.

Surgeon-Major J. A. Anderson has embarked at Jamaica in medical charge of the 2nd West India Regiment, ordered to the Gold Coast for service in view of an Ashantee disturbance.

Admiralty.—Staff-Surgeon Charles John Fennell has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of March 31st, 1881.

University College Hospital.—The annual meeting of the friends of this hospital was held on the 2nd inst. under the presidency of the treasurer, Mr. Prevost. The total receipts for the past year had been £28,637, against £21,344 in 1879; the expenditure for 1880 was £28,024. The complete set of medicinal baths had been found of great use, not only to the patients of the hospital, but to those of private practitioners, for whom to a limited extent they were available on payment of fees. The dinner this year, it was announced, would be held at Willis's Rooms in May, and would be presided over by Prince Leopold.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

The applications for space already received leave no room to doubt that the forthcoming exhibition will be one of great importance, interest, and magnitude. Almost exactly a quarter of a mile of frontage has been applied for by some of the leading British and foreign instrument makers, pharmacists, opticians, and makers of sanitary apparatus. The committee have, nevertheless, deemed it advisable to extend the time for receiving applications from Great Britain and the Continent till the 16th of this month, the date which had been already named for the final reception of applications from America and the Colonies. Medical and sanitary literature will form an important feature in the show, and more than one of the leading medical publishers has applied for a considerable frontage. Diagrams and specimens of atlases will be hung upon the walls, and these, as well as the books, cannot but prove of interest to our foreign guests, many of whom are engaged in the business of imparting to students a systematic knowledge of their profession. Many applications have been received from individual members of the profession who wish to exhibit instruments, apparatus, statistical diagrams, &c. The fee for exhibiting a single article is almost nominal, and carries, we believe, with it a season ticket for the exhibition. These "single articles" will be an attractive feature, and we trust that members of the profession will make every use of this opportunity of imparting the results of their inventive faculties to their brethren. Another important element will be an attempt to represent visually the leading features of some of the health resorts of Great Britain and the Continent. Maps, plans, bird's-eye views, and tabulated statements of the leading features of health resorts (such as aspect, height above sea-level, nature of soil, population, means of sewerage and water-supply, special features, such as mineral springs or baths, arrangements for the accommodation and amusement of guests, &c.) will be displayed upon the walls, and we understand that one of our leading railway companies is taking steps to represent in this manner the health resorts to which it gives access. One of the difficulties which the committee foresaw in organising an exhibition like the present was the repression of the popular—not to say "quack"—element, and the mere advertiser. This difficulty has not yet arisen, for, with scarcely an exception, the applications for space have come from old established firms of acknowledged respectability, and the necessity for refusing space, on the grounds of the trivial or unsuitable nature of the proposed "exhibit," will probably be very small. The extension of time for making applications will certainly be appreciated. It will definitely come to an end, however, this day week (Saturday the 16th), so that those who have not yet secured their space must make application to the secretary, Parkes Museum, University College, without delay.

THE NAVAL MEDICAL SERVICE.

The *London Gazette* of Tuesday, April 5th, 1881, contains the following:—At the Court at Windsor, the 1st day of April, 1881. Present, the Queen's Most Excellent Majesty in Council.

Whereas there was this day read at the Board a Memorial from the Right Honourable the Lords Commissioners of the Admiralty, dated the 30th of March, 1881, in the words following, viz.:—

"Whereas we have had under our consideration the Regulations governing the position of Medical Officers of your Majesty's Navy, and whereas we are of opinion that it is desirable to effect certain modifications and improvements therein with a view of placing such officers in the position we consider it advisable should be granted to them, we would humbly submit for your Majesty's approval the following regulations for the remuneration, position, advancement, and retirement of the aforesaid officers, and we would submit that such regulations should take effect from 1st April, 1881, and be applicable only to officers on the Active List of the Royal Navy at that date, except that as regards surgeons entered since 1st January, 1881, we would submit such regulations be in force from the date of entry.

"*Numbers.*—1. The Active List of Medical Officers not to exceed—Inspectors and Deputy Inspectors-General of Hospitals and Fleets, 16 (of whom not more than four to be Inspectors-General). Fleet Surgeons, Staff Surgeons, and Surgeons, 400.

"*Promotion.*—2. An Inspector-General of Hospitals and Fleets to be selected from amongst deputy inspectors-general who have in that rank three years' foreign service; or four years' mixed service, of which not less than two to be abroad; or five years' home service in such appointments as preclude foreign service, and provided that they have not refused to go abroad if called upon.

"3. A Deputy Inspector-General of Hospitals and Fleets to be selected for ability and merit from amongst fleet surgeons.

"4. (*a*) The rank of Fleet Surgeon to be granted to Staff Surgeons on completion of twenty years' full-pay service, if recommended for advancement by the Medical Director-General, subject to our approval. (*b*) Power to be given to us to make, at our discretion, special promotions from the rank of Staff Surgeon to that of Fleet Surgeon in cases of distinguished service or conspicuous professional merit, such promotions to be exceptional, and not to exceed the rate of one in any two years. The total number at any one time of Fleet Surgeons holding that rank by such special promotions not to exceed six. (*c*) Officers who have been specially promoted to the rank of Staff Surgeon for distinguished service or conspicuous professional merit, to be eligible for promotion, if recommended by the Medical Director-General, to the rank of Fleet Surgeon after eight years' full-pay service as Staff Surgeon.

"5. (*a*) Rank as Staff Surgeon to be granted, subject to our approval, to surgeons at the expiration of twelve years from the date of entry, provided they are recommended by the Medical Director-General, and have passed such examination as may be required after completion of eight years from date of entry in the rank of Surgeon. (*b*) Power to be given to us to make, at our discretion, special promotions to the rank of Staff Surgeon, in cases of distinguished service, or conspicuous professional merit, such advancements to be exceptional, and not to exceed the rate of one a year. No officer to be so promoted unless he passes the examination prescribed for other Surgeons, but in such a case the requirement of eight years' service to be dispensed with. The total number at any one time of Staff Surgeons holding that rank by such special promotions not to exceed eight.

"*Relative Rank.*—6. Existing regulations to remain in force with the following exception—viz.: In all matters wherein the Army and Army Administration are concerned, Fleet Surgeons to rank with and as Brigade Surgeons.

"*Full Pay and Allowances.*—7. The undermentioned scale of full pay to be substituted for that now in force:—

Rank.	Daily.			Yearly.		
	£	s.	d.	£	s.	d.
Surgeon—						
On entry	0	11	6	209	17	6
After 4 years' full-pay service	0	13	6	246	7	6
„ 8 „ „	0	15	6	282	17	6
Staff Surgeon—						
On promotion	1	1	0	383	5	0
After 4 years' full-pay service in rank	1	4	0	438	0	0
Fleet Surgeon—						
On promotion	1	7	0	492	15	0
After 4 years' full-pay service in rank	1	10	0	547	10	0
„ 8 „ „	1	13	0	602	5	0
Deputy Inspector-General	2	2	0	766	10	0
Inspector-General	2	15	0	1003	15	0

"8. The allowance of 5*s.* a day in addition to full-pay at present granted to the Fleet Surgeon of a flagship bearing the flag of a Commander-in-Chief on a foreign station to be given to the senior medical officer of such ship, whether a fleet or staff surgeon, and an allowance of 2*s.* 6*d.* a day to the senior medical officer (being a fleet or staff surgeon) of the ship of a commodore or of a senior officer commanding a foreign station. Allowances to be granted as follows to officers giving the course of instruction to surgeons on first appointment to the Naval Service:—To a medical officer of Haslar Hospital, conducting the course, £150 a year. To a junior medical officer of the same hospital, assisting him, £50 a year. No other alterations to be made in the allowances of medical officers.

"*Half-pay.*—9. The undermentioned scale of half-pay to be substituted for that now in force.

Rank.	Daily.			Yearly.		
	£	s.	d.	£	s.	d.
Surgeon—						
Under 2 years' full-pay service	0	6	0	109	10	0
After 2 „ „	0	7	0	127	15	0
„ 4 „ „	0	8	0	146	0	0
„ 6 „ „	0	9	0	164	5	0
„ 8 „ „	0	10	0	182	10	0
„ 10 „ „	0	11	0	200	15	0
Staff Surgeon—						
On promotion	0	12	0	219	0	0
After 2 years' full-pay service in rank	0	13	0	237	5	0
„ 4 „ „	0	14	0	255	10	0
„ 6 „ „	0	15	0	273	15	0
Fleet Surgeon—						
On promotion	0	17	0	310	5	0
After 2 years' full-pay service in rank	0	18	0	328	10	0
„ 4 „ „	0	19	0	346	15	0
„ 6 „ „	1	0	0	365	0	0
Deputy Inspector-General—						
On promotion	1	5	0	456	5	0
After 2 years' full-pay service in rank	1	7	0	492	15	0
„ 4 „ „	1	9	0	529	5	0
Inspector-General	1	18	0	693	10	0

"*Retirement.*—10. Compulsory retirement to be as follows:—

Inspector and Deputy Inspector-General of Hospitals and Fleets	At the age of 60, or at any age if he has not served for 5 years	To be retired irrespective of age if found physically unfit for service.
Fleet Surgeon, Staff Surgeon, and Surgeon	At the age of 55, or at any age if he has not served for 5 years.	

"11. Voluntary retirement and withdrawal to be allowed as follows:—(*a*) Every officer to have the option, subject to our approval, of retiring after twenty years' full-pay service on the scale of retired pay, provided in paragraph 12, or on the scale of gratuities provided in that paragraph, if he is not eligible for retired pay. (*b*) At the expiration of eight, twelve, or sixteen years' full-pay service every officer to be permitted, subject to our approval, to withdraw from the Naval Service, receiving a gratuity on the scale laid down in paragraph 12. The name of an officer so withdrawing will be removed from the lists of the Navy, with which all connexion will then be severed. (*c*) Voluntary retirement and withdrawal to be allowed, as a rule, only when an officer is unemployed or serving at home.

"12. Gratuities and retired pay on the undermentioned scale to be granted on retirement and withdrawal:—

	Gratuities.			Daily.			Yearly.		
Surgeons and Staff-Surgeons—	£	s.	d.	£	s.	d.	£	s.	d.
After 8 years' full-pay service	1000	0	0						
„ 12 „ „ „	1500	0	0						
„ 16 „ „ „	2250	0	0						
Fleet Surgeons—									
After 20 years' service				*1	0	0	365	0	0
„ 24 „ „				*1	2	6	410	12	6
„ 27 „ „				*1	5	0	456	5	0
„ 30 „ „				*†1	10	0	547	10	0
Deputy Inspector-General				1	15	0	638	15	0
Inspector-General				2	0	0	730	0	0

* To obtain this rate an officer must hold the Commission of Fleet Surgeon.

† Or on compulsory retirement at the age of fifty-five.

"13. An officer retired with less than twenty years' service, on account of disability contracted in, and attributable to the service, to receive the half-pay of his rank, or with our consent, a gratuity on the scales given in paragraphs 12 and 14 (*b*).

"14. An officer retired with less than twenty years' service, on account of disability contracted in, but not attributable to the service, to receive—(*a*) If he has over eight years' full-pay service, either a gratuity on the scale given in paragraph 12, or half-pay, according as we think fit. (*b*) If he has less than eight years' full-pay service, such gratuity as we may think fit, not to exceed the rate of £125 for each year of full-pay service.

"15. Under circumstances other than those specified in paragraphs 13 and 14, an officer retired with less than twenty years' service to receive a gratuity, on the scale laid down in paragraph 12, if he has eight years' full-pay service, and on that provided in paragraph 14 (*b*) should his full-pay service not amount to eight years. Half-pay or retired pay not to be allowed,—except that every officer on the Active List on 1st January, 1881, if compulsorily retired, shall be allowed, at his option, to receive half-pay, but subject to the provisions of Orders in Council for reduction of half-pay and retired pay.

"16. The power vested in us of granting reduced rates of half-pay and retired pay in cases of misconduct, to be extended to the award of gratuities on retirement, and the gratuity awarded in such case to be reduced to such amount as we think fit.

"17. An Officer retiring after 20 years' full-pay service to be eligible if recommended by the Medical Director-General for special reasons on account of distinguished or meritorious service, for a step of honorary rank, such step to be awarded at our discretion, and not to confer any claim to increase of retired pay or widow's pension.

"18. All retired Officers to be liable till the age of fifty-five, to be called upon to serve in time of declared national emergency in a rank not lower than that held on retirement. This liability not to exist in cases of withdrawal on the conditions specified in paragraph 11 (*b*).

"*Definition of Service.*—19. Service to reckon as follows:—(*a*) When borne on the books of any of your Majesty's ships or vessels, or when employed in Naval Hospitals or other Civil establishments at or under the Admiralty to be full-pay service for all purposes, but subject to the provisions in paragraph 2 as regards promotion. (*b*) Service under any other department which may be declared by us, with the consent of the Lords Commissioners of your Majesty's Treasury, to be for this purpose Naval Service, and Service on Commissions or Committees on Naval matters of importance to be full-pay service for such purposes, and to the extent to which it has hitherto reckoned as service under the provisions of Art. 216 of the Regulations of 1879, and those of Orders in Council of 22nd February, 1870, 18th May, 1870. (*c*) Time on half-pay to count as one-third service for increase of retired pay, but not for any other purpose.

"*Widows' Pensions.*—20. Where an officer retires or withdraws on a gratuity, his widow and children to have no claim to pension or compassionate allowance. 21. The undermentioned articles of the regulations and provisions of Orders in Council to be cancelled except as regards officers retired before 1st April, 1881. Queen's regulations and Admiralty instructions 1879. Articles 215 as regards medical officers; 219 the whole; 241 paragraphs *a* to *d* inclusive. 265, the whole. Appendices XX. and XXIII., as far as relates to full-pay and half-pay of medical officers. Order in Council 22nd February, 1870. Section V. the whole. Section VIII. the whole as far as relates to medical officers. Section IX. the whole as far as relates to medical officers. Section X. the scale of retired pay, and paragraphs 2 and 3, as far as medical officers are concerned. Section XII. as regards medical officers. Order in Council 4th February, 1875, the whole. We would represent to your Majesty that the Lords Commissioners of your Majesty's Treasury have assented to the above proposals."

Her Majesty having taken the said Memorial into consideration, was pleased, by and with the advice of Her Privy Council, to approve of what is therein proposed. And the Right Honourable the Lords Commissioners of the Admiralty are to give the necessary directions herein accordingly. C. L. Peel.

NOTIFICATION OF INFECTIOUS DISEASES BILL (IRELAND).

To the Honourable the Knights, Burgesses, and Commons in Parliament assembled.

The petition of the President and Council of the Irish Medical Association humbly sheweth:

That your petitioners are the executive of an association devoted to representing the opinions and interests of the medical profession in Ireland, and includes amongst its members a large proportion of the legally qualified medical men in practice in Ireland. That your petitioners have fully considered the notification of Infectious Diseases (Ireland) Bill now standing for a second reading in your honourable House, and have obtained the opinion of a large majority of the medical practitioners of the City of Dublin upon the chief proposals contained in said Bill, which opinion has been expressed by a majority of nearly two to one against any proposal which would require the medical attendant to notify in writing the occurrence of infective disease either to the sanitary authority or to the house occupier.

Your petitioners confirm the opinion thus expressed, and consider that the provisions of said Bill are not calculated to effect with certainty the discovery of infective disease in those instances in which concealment is most probable, while they will, if passed into law, impose upon the medical profession new functions inconsistent with the efficient performance of their duties towards their patients, and seriously prejudicial to their interests as practitioners.

That your petitioners apprehend that if, as would occur under the operation of said Bill, the visit of the physician be followed by the immediate enforcement of sanitary precautions, a great inducement will be created, in all instances in which it is desired by the house occupier to avoid the application of the sanitary law, to omit sending for a medical attendant, or to defer doing so until the disease had reached a stage in which its treatment would be difficult and ineffective. Your petitioners, therefore, anticipate that the number of undetected cases of infective disease might rather increase than diminish under the operation of the proposed law, while in many instances the chances of restoration of the patient to health would be greatly prejudiced.

Your petitioners humbly submit that the professional and monetary relations existing in Ireland between the physician and his patient are altogether different from those which exist in other divisions of the kingdom, and furthermore, that the methods of application of sanitary law in Ireland are not fairly comparable with those which exist elsewhere; and your petitioners therefore submit that a system of notification of infective disease applicable to England and Scotland may prove altogether unsuitable to Ireland, and they are of opinion that any enactment which requires the medical attendant in Ireland to give a written certificate of the disease from which his patient is suffering will be inoperative in many instances, and will tend to increase the evil which it purports to remedy.

Your petitioners are furthermore strongly of opinion that in respect of the fee proposed to be paid for such notification, the penalty imposed for omission to notify, and in other details, the said Bill is altogether objectionable.

Your petitioners, therefore, humbly pray that your honourable House will not pass said Bill.

(Signed) J. Chapman, President.
R. Browne, Hon. Sec. of Council.

ABERDEEN UNIVERSITY.

The winter session at Aberdeen concluded on Friday last, when Lord Rosebery, Rector of the University, attended and presided at the ceremony of graduation in Arts, and addressed the graduates in felicitous terms. His Lordship on this occasion was accompanied by the Countess, and there was a large attendance of the general public and much enthusiasm displayed by the undergraduates. In concluding the winter session in the medical school Professor Struthers referred to the change in the order of the examinations just effected by an order of the Queen in Council, approving of certain alterations on the Ordinance of the Scottish Universities Commissioners regulating graduation in Medicine in the University. The examinations in Botany and Natural History would now take place at the end of the summer session preceding the second winter session, instead of at the more advanced period of the curriculum, which had been found to interfere with the more strictly professional work. The examination in Materia Medica would now take place at the end of the third, instead of prematurely at the end of the second year, when the student could hardly be expected to understand therapeutics.

Dr. Struthers warmly congratulated the students on the better direction which these changes would give to their medical studies. A change is also made on the relation of the examinations in Anatomy. Instead of the examination in Elementary Anatomy at the end of the second year, and in Advanced Anatomy at the end of the third year, the terms to be used in future would be Anatomy, and Regional Anatomy, which would give a better direction to both the earlier and later parts of anatomical study.

Dr. Struthers referred also to the propriety of obtaining a larger number of bursaries and scholarships for the medical side of the University, which is but scantily provided with these rewards, while in the Faculty of Arts there are 240 bursaries and various well endowed scholarships. The students of medicine in Aberdeen had now grown to be a large body, no less industrious and no less deserving than the students in the sister Faculty, and he saw no reason why scholarships and large rewards should be attached to the study of Latin and Greek and not to such studies as Chemistry, Anatomy, or Physiology. He trusted that intending benefactors of the University would keep in mind where there is plenty and where there is need.

MEDICAL NOTES IN PARLIAMENT.

Means of Exit from Theatres.

IN the House of Lords on Tuesday, Lord Kenmare, replying to an inquiry by the Duke of St. Albans, said that the theatres had better means of exit than any other public buildings in the metropolis. In that respect they had been improving, and the improvements were being continued. He would lay on the table a return relating to this subject.

In the House of Commons on Thursday, 31st ult., a petition was presented from Charles Colsten for inquiry into the East India Army Medical Department. The Alkali Works Bill was read a second time. Mr. Warton gave notice that on Friday, April 8th, on going into Supply, he would move a resolution in favour of suppressing trade combinations, which had for their object the undue increase of the price of food. Mr. Errington and Mr. Dillwyn put down amendments for committee on the Alkali Bill.

On Friday, Sir Herbert Maxwell brought forward his resolution against the importation of spurious butter, which was opposed by the Government on the ground that the compounds imported under the name of butter were not hurtful. The chief feature of the debate was a remarkable speech by Dr. Lyon Playfair in support of the position taken by the Board of Trade. The resolution was rejected by the narrow majority of 14—75 to 59. Sir J. M'Garel Hogg, Chairman of the Metropolitan Board of Works, gave notice that in Committee on the Alkali Bill he would move a clause to exclude any works within the metropolis from the operation of the Bill. Mr. Cochrane Patrick gave notice that in Committee of Supply he will move to reduce the English medical relief grant by £20,000, doubtless with the object of renewing the Scotch demand for an increased medical grant in that country.

On Monday, a petition was presented from Fife and Clackmannan for extension to Scotland of the system of coroners' inquests.

On Tuesday, a return was presented of the number of examinations held in London for appointments to the Army Medical Service. Mr. Chamberlain, in reply to a question by Mr. Dixon Hartland, as to a recent seizure of 200 putrid American hams in the Central Meat Market, said he believed the ordinary law was sufficient to meet such cases. He saw no necessity for asking the American authorities to prohibit similar exportations, believing that the influence of the consignee upon the consigner would be more efficacious.

On Wednesday, Mr. Litton's Lunacy Law Assimilation (Ireland) Bill was read a second time, and committed for Wednesday, 1st June. Sir Hervey Bruce will move that the Bill be referred to a Select Committee; and Mr. Warton has put down a notice that he will move the rejection of the Bill. Mr. Dillwyn gave notice that in Supply he will move to reduce the vote for Broadmoor by £500.

Small-pox.

On Thursday, Mr. Dodson, in reply to Sir S. Waterlow, said his attention had been for some time anxiously directed to the prevalence of small-pox within the metropolis. The Government had no power to make special arrangements for the care of patients suffering from that disease; but the Local Government Board had not refrained from impressing upon the several authorities who were liable to provide accommodation for small-pox patients, whether they belonged to the pauper or non-pauper class, the necessity of making every arrangement in their power; and he was glad to say that arrangements were being made to supplement the hospital accommodation.

Glanders.

Mr. Mundella, in reply to Lord C. Hamilton, said there had no doubt been an increase in the number of cases reported of horses with glanders in 1880 as compared with the number in 1879, but it was believed that that was due to the more rigid enforcement in the latter year of the Act of 1878, and not to the greater prevalence of the infection. It was a fact that drinking troughs were one source of spreading the infection; and it was also true that horses infected were for the most part worked during the night hours, probably on account of the facility the darkness afforded of avoiding detection, but it must be remembered that when they were detected the penalties were more severe.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I have no fault to find with Dr. Bramwell's quotation; it is quite correct, but by no means warrants his conclusion. I still maintain that "the so-called basic murmur of chlorosis is never arterial." That, however, is not quite the same as "*denying* that the inorganic murmurs of chlorosis are *ever* arterial." In my sixth chapter, first edition, I am occupied solely in discussing the *primary* murmur of chlorosis, and having given it as my belief that *this primary* murmur is "*never arterial*," but always strictly cardiac in character, being produced by regurgitation through the mitral valve, due to dilatation of the heart, I hold that, both logically and pathologically, I left it to be inferred that the *ultimate result* must be a systolic arterial murmur. When Dr. Bramwell, therefore, states that I deny that such a murmur can ever occur, this only shows that he has completely misunderstood me. In a subject of so much importance I think he was bound to use the utmost care not to misinterpret my views, if they were worth quoting at all; and I also think that I do not ask too much of a *teacher* of medicine, that besides the usual text-books he should also be acquainted with at least so much of the literature of the subject he is writing about as is to be found during the last five years in the pages of the journal he writes in.

Hayden and Fothergill are anew imported into the controversy, but as the opinions they have expressed are quite beside the mark, I do not require to enter the lists against them. I have said that the separation between the systolic and the diastolic closure of the segments of the pulmonary valve, caused by the increase of the arterial blood-pressure within the pulmonary circuit, supplies what seems to me to be the only rational explanation of a reduplicated second, having due regard to all the facts of the case. Dr. Bramwell asserts that this explanation cannot be accepted because some professor of physiology, whose name he does not give, Dr. Fothergill, and he himself, regard this systolic closure as soundless. Ceradini has, however, stated it as a matter of fact, that the systolic closure of the arterial valves is attended by an audible snap; it is with him, therefore, and not with me, that this part of the controversy must be settled. I am, Sir, yours obediently,

Edinburgh, March 28th, 1881. GEORGE W. BALFOUR.

REMARKABLE CASE OF EARLY MATERNITY.

To the Editor of THE LANCET.

SIR,—On August 8th, 1871, I attended Mrs. F. M——, a joiner's wife, during confinement, and delivered her of a female child. There was nothing remarkable about the infant until it was twelve months old, when it commenced to menstruate, not very regularly at first, varying from one month to six weeks between the periods; the last two years the catamenia have been very regular indeed, never more than three weeks elapsing between the periods. They ceased on June 22nd, 1880 (her mother's statement), when she became pregnant. There is nothing very remarkable in appearance about the child. The hirsute growth over the pubes and in the axilla is profuse, the breasts are large, and at present gorged with milk. She is a very active, hard-working girl, and has for the last year done all her mother's washing; in fact, the night before she was confined I saw her myself hanging the day's washing on the clothes-line in her father's garden. Her labour pains did not continue over six hours from first to last. I administered chloroform, and kept the body well supported with bandages during labour.

The child was a large one, and weighed 7 lb. It has since died in convulsions; its left foot had only three toes on it. This young mother is now nine years and eight months old, and must have been pregnant two months before she reached the age of nine. Yours obediently,

Henry Dodd, M.R.C.S., &c.

Rillington, York, March 24th, 1881.

GLASGOW.

(*From our own Correspondent.*)

The Faculty of Physicians and Surgeons of Glasgow has had under consideration a proposal to institute an examination for the higher of the two qualifications, both registrable, which it grants. This proposal was rejected at a recent meeting, mainly by the vote of the older and more conservative Fellows. The grounds on which the suggested change was advocated were that at present there is no high qualification in surgery obtainable in Scotland, that it is illogical that the Faculty should demand an examination for its lowest diploma, and yet grant its higher one by ballot and purchase, and that it would be better to retire gracefully from its present position now than to be forced from it a short time hence under pressure from without. The principal argument urged in favour of the existing arrangement was the statement that candidates for the Fellowship must not only pay £50 and risk a ballot, but must also already be in possession of a registrable qualification, examination being thus rendered unnecessary. This question, it is believed by those who profess to be able to discern the signs of the times, is one which will again force itself on the attention at no very distant date.

The following appointments have been made by the Glasgow University Court:—Dr. H. C. Cameron of Glasgow to be examiner for the next four years in Surgery and Clinical Surgery; Dr. D. Fraser of Paisley, to be examiner for the same period in Medicine and Clinical Medicine; Dr. A. Macalister, of Trinity College, Dublin, to be examiner for the same period in Physiology and Pathology.

Dr. A. Wallace has been appointed to the chair of Midwifery in Anderson's College, rendered vacant by the death of Dr. J. G. Wilson. Dr. S. Sloan stood second in the estimation of the Trustees, Dr. W. L. Reid third.

At the meeting which closed the winter medical session at Anderson's College, a few days ago, the Chairman referred to the wonderful prosperity of the College during the past few years, and read some statistics which, as they are the only trustworthy evidence on this point which has hitherto been obtainable, are worth quoting. The number of students attending the medical classes of the college in the session 1877–78 was 70; in 1878–79, 86; in 1879–80, 91; in 1880–81, 110. These are large numbers for an extra-mural school, and they indicate a high and well-deserved degree of prosperity. All that is now wanting to complete information is that the other extra-mural schools should publish similar statistics.

PARIS.

(*From our own Correspondent.*)

The report of the Commission appointed by the Academy of Medicine to study the question of compulsory vaccination was read by M. Blot, in the name of his colleagues, on the 29th of March. M. Blot began by stating that it is unnecessary to bring forward any further proof of the value of vaccination—the events of 1870–71 have amply demonstrated this point. The only objection to the practice of any importance is the danger of inoculating syphilis with vaccinia; but even this eventuality, which science has reduced to a minimum, is rendered impossible by the use of animal vaccine. It has been said that compulsory vaccination is an infringement of the liberty of the subject; but M. Blot considered that this liberty ends where common interests begin. The privilege of disseminating disease is certainly contrary to the public welfare, and inasmuch as all other hygienic measures—such as isolation, disinfection, &c.—have proved insufficient to prevent the spread of small-pox the Government is justified in imposing such prophylactic means as have remedied the evil in other countries. The conclusions of the report, which have been adopted by eleven out of the twelve members forming the Commission, are as follows:—

"Considering that vaccination is, with rare exceptions, an inoffensive operation, when performed with care upon healthy subjects; and that, without vaccine, other hygienic measures, such as isolation and disinfection, are in themselves insufficient to prevent small-pox; that the belief in the danger of vaccination and revaccination during epidemics is unfounded; and that, lastly, revaccination, the necessary complement of vaccination, should be practised at least within ten years after a successful vaccination, and repeated as often as possible, when not followed by characteristic cicatrices—on these grounds the Academy is of opinion that there is urgent need in the public interest of a law rendering vaccination compulsory. As regards revaccination, it should be encouraged in every way, and required by public services (*règlements d'administration*) as far as it is within their power."

The twelfth member of the Commission, M. Depaul, states that he is perfectly agreed with his colleagues on all the questions which are dealt with in the report, and that he is prepared to vote for all the ideas there expressed, except the conclusion rendering vaccination compulsory. According to him the rights of a father of a family are paramount over those of the State, and the father, or mother, or the natural guardian of a child should be free to vaccinate it or not, as he may have confidence or not in the utility of the practice. Not only, says M. Depaul, is compulsory vaccination vexatious, it is also inapplicable. Those who have taken the trouble to inquire into the matter know that in England and Germany the law on the subject remains a dead letter. It exists, but it is not enforced. Everything should be done to encourage vaccination and revaccination, but there should be no obligation. What is required is money. Hitherto the Government has done almost nothing, the sum expended on vaccination in the whole of France only amounting to 240,000 francs (less than £10,000), which represents five francs per thousand of the population, and from three to four centimes (one-third of a penny) for each vaccination. With a proper expenditure an efficient service might be organised, a number of vaccinating centres created, and human lymph supplemented by an animal supply. Lastly, it would be as well to pay an adequate fee for the operation, to those who perform it, instead of, as is now the fashion, praising the zeal and devotion of the country practitioner, but leaving his labour unrewarded. The adjourned discussion, which took place yesterday afternoon, brought forward MM. Fauvel and Jules Guérin, the former in favour of the views of the Commission, and the latter naturally against them. Not that M. Guérin is an opponent of vaccination; on the contrary, he declares it excellent, and uses all his endeavours to promote it. But the practice being looked upon as dangerous by some, he considers that a compulsory law would weigh on their consciences in obliging them to further an operation of which they disapprove. Under these circumstances the Academy cannot refuse to take such objections into account, and must not, he thinks, risk its scientific prestige by pronouncing in favour of compulsion.

Paris, April 5th, 1881.

The Levee. — The following members of the medical profession were presented at the Levée held on Tuesday at St. James's Palace by the Prince of Wales:—Surgeon-General A. Shatton; Surgeon-Majors Allen, J. Candy, M.D., and H. F. L. Melladew; Surgeons C. J. Addison, W. J. Baker, W. G. A. Bedford, H. J. Barnes, A. P. Hart, F. A. Harris, C. B. Lewis, E. L. Maunsell, J. H. Nicholas, H. S. Parker, R. Porter, D. L. Porter, T. H. Parke, W. W. Pope, W. F. Spencer, M.D., W. C. Wise, M.D., and C. L. Young; Dr. Halford, of Melbourne; and Fleet Surgeon C. Strickland.

Royal College of Surgeons in Ireland.—The prizes at the termination of the winter session in the Medical School have been awarded to the following:—First year: first prize, gold medal and £10, Michael T. Yarr; second prize, £10, W. D. Waterhouse. Second year: first prize, £12, Austin M. Cowper; second prize, £8, Myer M. Dutch. Third year: first prize, £10, Whitby B. Stokes; second prize, £5, Langford Simms; third prize, £2, G. W. Elsner.

Medical News.

Royal College of Surgeons of England. —The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

J. N. Kaye, Edgar Beaumont, and Herbert Child, Leeds School of Medicine; Rudolph J. Maas, McGill College, Canada; John Kæser, Basle, Switzerland; Bryce Gordon, Medical College, Bombay; Henry G. Beyer, New York and Leipzig; James Limont, Edinburgh; David C. M. Lunt, Frederick W. Bennett, Lewis Brown, Gilbert L. Barrett, William A. Evans, Robert Jennings, John H. Jones, Harry F. Wylde, Ernest S. Reynolds, John Stevenson, and William E. Wilson, Owens College, Manchester; John H. Potter, Sheffield; Robert S. Coulthard; Edgar H. Hughes, Harold Simmons, and William C. Lysaght, Bristol; Arthur Overton, William O. Travis, and Arthur W. Davison, Liverpool; Isaac Hartley and Arthur Hepworth, Newcastle-on-Tyne; Charles J. Evers, Birmingham; Leonard H. Armstrong, Cambridge; Robert H. Peck and Robert H. Martin, University College; Frederick W. Hatchett and Ambrose E. L. Charpentier, St. Thomas's Hospital; Percy H. Mander and Charles B. Waller, Westminster Hospital; George Thomas and William J. Black, Owens College, Manchester; James T. Lilburne, Cambridge; Joseph A. Hutchinson, Newcastle-on-Tyne; Herbert J. Robson, Leeds; Haward A. Bredin, Liverpool; Hugh C. Thurston, Bristol; John W. Bentley, Owens College, Manchester; Francis J. C. Mason, St. Bartholomew's Hospital; George W. Hill, St. Mary's Hospital; William C. Parsons, London Hospital; Thomas Greaves, New York and King's College, London; Arthur W. Ogle, Middlesex Hospital; Walter B. Platt, Berlin and Vienna.

Apothecaries' Hall. —The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on March 31st:—

Locke, George, Aylesbury.
Morris, Gerald de Courcy, M.D. New York, Albany-street.

The following gentlemen also on the same day passed the Primary Professional Examination:—

William Edward Dawson, London Hospital; Arthur Lumley Tireman, Guy's Hospital.

Mr. William Soper has resigned his post as member of the Stockwell Hospital Committee.

Dr. A. B. Garrod, F.R.S., and Dr. J. L. Sullivan have been elected Members of the Royal Institution.

The Governors of the Royal Berkshire Hospital have decided to expend £16,000 in altering and enlarging the building.

Mr. George P. Dale, F.R.C.S. Eng., of Falconer House, Scarborough, has been placed on the Commission of the Peace for the North Riding of Yorkshire.

Mr. Albert Napper, late of Cranleigh, so well known in connexion with the establishment of cottage hospitals, has received, on the occasion of his leaving the town, a gratifying proof, in the shape of a purse of £242, of the esteem in which he is held by his friends and neighbours.

A sum of £120,000 is to be raised on mortgage of the county rates for the purpose of erecting additional buildings, capable of containing 1000 patients, at the Rainhill Lunatic Asylum, Lancashire.

Mr. Charles Brook, Surgeon to the Lincoln County Hospital, has made a donation of £50 to its funds, "in token of his appreciation of the great excellence of the nursing in that institution at the present time."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the lates*

Atkinson, F. H., L.F.P.S.G., has been reappointed Medical Officer for the Bennington and New Leake Districts of the Boston Union.

Barry, E. F. S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Visiting Physician to Kanturk Union Workhouse, vice O'Shaughnessy.

Bathe, A. J., M.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Assistant Medical Officer to the Greenwich Union Infirmary, vice C. H. Hartt, resigned.

Cheshire, H. F., F.C.S., has been appointed Public Analyst for the Borough of Hastings, vice Ashenden, resigned.

Coombs, S. W., F.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer of Health to the Claines Local Board, Worcester.

Critchett, G. Anderson, M.A., M.R.C.S.E., has been appointed Ophthalmic Surgeon to St. Mary's Hospital, vice Wharton Jones, resigned.

Dinwoodie, W., M.D., M.Ch., has been appointed Medical Officer for the Elsdon District of the Rothbury Union.

Fenn, E. L., M.D., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for In-patients of the Richmond Hospital, vice Dunn, resigned.

Fox, T. C., M.B., M.R.C.S.E., has been appointed Physician to the Skin Department of the North-West London Free Dispensary for Sick Children, Edgware-road.

Gibbes, H., M.B., L.R.C.P.L., has been appointed Curator to the Anatomical Museum, King's College.

Greasley, C., L.F.G.S., has been appointed Medical Officer for the Yoxall District of the Lichfield Union.

Hartt, C. H., L.R.C.S.I., L.K.Q.C.P.I., & L.M., late Assistant Medical Officer to the Greenwich Union Infirmary, has been appointed Medical Officer to the Central District of Greenwich.

Hawkins, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Fourth District of the Ware Union.

Hepburn, A., M.R.C.S.E., M.S.A.L., L.S.A.L., has been appointed House-Surgeon and Secretary to the Chelsea, Brompton, and Belgrave Dispensary, vice A. Buchanan, M.D., resigned.

Kirby, T. C., L.K.Q.C.P.I. &c., has been appointed Consulting Physician to the North-West London Free Dispensary for Sick Children, Edgware-road.

Mall, H. C., M.B., C.M., has been appointed Assistant House-Surgeon to Leith Hospital.

Maturin, L., L.K.Q.C.P.I., has been appointed Temporary Superintendent of the Kilmainham Fever Hospital, Dublin.

Shaw, C. K., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer of Health for the Hastings Urban Sanitary District, vice Ashenden, resigned.

Stuart, S., M.D., L.R.C.S.Ed., has been appointed Assistant Medical Officer at the Liverpool Workhouse.

Wadd, F. J., M.B., C.M., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for Out-patients of the Richmond Hospital, vice Fenn, appointed to the care of In-patients.

Whitham, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Adlington Local Board District; also Medical Officer for the Rivington District of the Chorley Union.

Wood, W. J. H., L.R.C.P.Ed., L.R.C.S.Ed., M.R.C.S.E., has been reappointed Medical Officer for the Skirbeck District of the Boston Union.

Births, Marriages, and Deaths.

BIRTHS.

Biggs.—On the 28th ult., at 93, Northcote-road, S.W., the wife of M. G. Biggs, M.R.C.S.E., of a son.

Buck.—On the 3rd inst., at Camden-road, the wife of Alfred H. Buck, M.R.C.S.E., L.R.C.P., of a daughter.

Deane-Butcher.—On the 30th ult., at Friar-street, Reading, the wife of W. Deane-Butcher, M.R.C.S.E., of a son.

Eager.—On the 3rd inst., at The Limes, Woking, the wife of T. Cawley Eager, M.D., of a son.

English.—On the 5th inst., at Fulham-road, S.W., the wife of T. Johnston English, M.D., of a daughter.

Gibson.—On the 4th inst., at Stanley House, Blackstock-road, Finsbury-park, the wife of J. C. Gibson, M.R.C.P., L.R.C.S., & L.M. Ed., of a daughter.

Hyatt.—On the 31st ult., the wife of Brownlow North Hyatt, M.R.C.S.E., of Shepton Mallet, of a son.

Jordison.—On the 5th inst., at Malpas, Cheshire, the wife of Christopher Jordison, of a son.

Kay.—On the 26th ult., at Bentley Cottage, Bentley, Hants, the wife of William Kay, M.R.C.S.E. (prematurely), of a son.

MARRIAGES.

Gray—Mountford.—On the 31st ult., at St. Luke's, West Holloway, Wellington Gray, Surgeon-Major H.M.'s Bombay Army, to Jane, only daughter of William Mountford, Esq., of Shipston-on-Stour.

Jones—Hicks.—On the 2nd inst., at St. John's, Notting-hill, William Jones, L.R.C.P., L.R.C.S., L.S.A.L., of Edmonton, to Emily Elizabeth, eldest daughter of George Hicks, Esq., of Royston Villa, Bayswater.

Pye—Kidston.—On the 1st inst., at 27, Blythswood-square, Glasgow, by the Rev. James Black, D.D., Walter Pye, F.R.C.S., of London, to Anna, daughter of J. B. Kidston.

Wherry—Cust.—On the 2nd inst., at St. Botolph's Church, Cambridge, by the Rev. W. M. Campion, D.D., Rector, Hon. Canon of Ely and Rural Dean, George Edward Wherry, M.C. Cantab., F.R.C.S., to Albinia Lucy, eldest daughter of Robert Needham Cust, Esq.

DEATHS.

Dove.—On the 31st ult., at St. Stephen's-square, Bayswater, William Watson Dove, L.R.C.P.Ed., late of Alexandria, eldest surviving son of the late Charles Kemp Dove, Postmaster-General of Bengal, aged 33.

Gamble.—On the 21st February, on board H.M.S. *Trojan*, lat. 6.57, long. 14.3 west, Ernest Langwith Gamble, M.R.C.S.E., L.R.C.P., L.S.A.L., second son of the late Richard Gamble, of Grantham, aged 25.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, April 7th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
April 1	29·86	E.	40	38	83	53	33	..	Hazy
„ 2	29·82	E.	42	38	89	52	36	..	Cloudy
„ 3	30·09	E.	41	35	88	46	34	..	Cloudy
„ 4	30·06	E.	41	31	82	48	29	..	Fine
„ 5	29 80	E.	39	35	70	50	32	..	Cloudy
„ 6	29.80	E.	41	37	83	56	35	..	Overcast
„ 7	30·04	E.	42	38	76	68	33	..	Fine

Medical Diary for the ensuing Week.

Monday, April 11.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M. ; on Tuesday, 9 A.M.

Medical Society of London.—8.30 P.M. Mr. George Lawson will read a short paper showing the evil results which follow Partial Operations in cases of Cancer of the Breast.—Mr. Reginald Harrison (of Liverpool), "On Acute Prostatitis."

Tuesday, April 12.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Royal Medical and Chirurgical Society.—8.30 P.M. Mr. C. Higgens, "On a Case of Vascular Protrusion of the Eyeball."—Mr. Arthur E. Barker, "On Nephrectomy by Lumbar Section."

Wednesday, April 13.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital. — Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital. — Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations, 2½ P.M.

Royal Microscopical Society. — 8 P.M. Messrs. W. H. Shrubsole and F. Kitton, "On the Diatoms of the London Clay."

Thursday, April 14.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital. — Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Friday, April 15.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Saturday, April 16.

Royal Free Hospital.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Medical Education in the United States.

The result of an experiment with the object of improving medical education in the United States may not be without interest for medical teachers in this country. It appears that the faculty of the Bellevue Hospital Medical College introduced, for the session 1880-81, important changes in the curriculum of instruction and in the requirements for graduation. The preliminary term was abolished, and the regular winter session was extended to six months. Attendance upon three winter sessions was made obligatory. Students were required during the first two years to attend all the lectures, didactic and clinical, and at the end of the first and second years to pass examinations in chemistry, anatomy, physiology, materia medica, and therapeutics. An examination in these branches having been passed, the third year was to be devoted to the practical departments of medicine, surgery, and obstetrics. The experience of the session of 1880-81, however, has led the Faculty reluctantly to the conclusion that to persist in the requirement of attendance during three courses would be to run a risk which they do not feel justified in incurring, and they accordingly announce that after the present session attendance during a third course will be optional. The non-success of the change is attributed by the college authorities, rather inconsequently, we think, to the apathy of the profession. The *Boston Medical and Surgical Journal* has some remarks of wholesome criticism on the want of courage on the part of the Bellevue Faculty and their readiness to take alarm at the prospect of failure before the experiment has been fairly tried.

Mr. G. S. Wilkins.—"Fomites" is the plural of "fomes" (fuel, anything that retains heat).

L. F. P. S.—The appointment is strictly in the hands of the guardians.

A CASE OF SUCCESSFUL REVACCINATION AFTER NATURAL COW-POX.

To the Editor of The Lancet.

Sir,—On March 22nd I revaccinated M. H——, a servant in the neighbourhood, who had been successfully vaccinated when a child, one mark remaining, and afterwards when in Ireland she caught cow-pox while milking a cow, and it was only out of deference to the wishes of her mistress that she submitted to be revaccinated.

I inserted the lymph (humanised) in three places, telling her at the same time that I scarcely expected any result, as she had already had the disease. On March 29th she presented herself to show me the result, and, to my astonishment, I found that all three insertions had taken perfectly, and had resulted in good Jennerian vesicles, surrounded by a well-marked areola.

On inquiry she told me that she had had the same symptoms as when she had the cow-pox—viz., headache, nausea, and vomiting on the fourth and fifth days, together with loss of appetite and general malaise, but that now she felt much better. I hitherto understood that one who had had natural cow-pox was insusceptible to vaccine lymph from the human subject, and for that reason I write to ask of your numerous readers if they have met with similar cases.

I will only add that it is with great regret that I notice a growing prejudice against vaccination, which I by no means share, but, on the contrary, I have seen good proof of its capability of either preventing or modifying an attack of small-pox.

I am, Sir, yours respectfully,

St. George's-road, S.W., April 5th, 1881. J. H. Battye, M.D.

ALEXIS ST. MARTIN.

MANY of the readers of THE LANCET will recollect the remarkable case of this patient, whose chest was shot away, leaving a large opening into the stomach, and the observations on digestion made by the late Mr. Beaumont, of Toronto, and by physiologists in this metropolis. The poor man has just died, in great distress. For the sake of science it is to be hoped his stomach has been preserved, and may find a place in the museum of the College of Surgeons.

Junius.—The question is one of considerable difficulty and delicacy. The intermarriage of cousins is a subject which has not yet been adequately discussed or fully investigated, although a great deal has been written on it. In the case submitted, supposing there is a hereditary taint in the family, it would certainly be intensified, and the difference in age would probably contribute to that untoward result.

One of Them.—We regret to learn that the statement referred to was incorrect. We have every reason to believe it was made in good faith. It does not appear worth while now to reopen the question.

TRANSVAAL WAR—NATURE OF THE BULLET WOUNDS INFLICTED BY THE BOERS.

To the Editor of THE LANCET.

SIR,—I should, in conjunction with many of your readers, feel interested in any account which the surgeons with our Transvaal forces could afford of the nature of the wounds sustained by those slain or injured in battle. The curiosity aroused on this score is considerable, for rumour says that the bullets used by the Boers were of a kind forbidden by the Geneva Convention, being long in proportion to their rather narrow diameter from side to side, and hollow. Through this peculiarity of shape a horrible wound is the result. The projectile enters, making a small hole, but immediately flattens out like a medal, and at its exit leaves a large ragged opening. The question is, is the rumour correct in respect to the use of such bullets? If so, a few surgical accounts would be desirable.

I am, Sir, yours faithfully,

London, March 28th, 1881. H. R. OSWALD, M.B.

FUNGOID ORIGIN OF EPIDEMICS.

DR. MICHAEL W. TAYLOR has been lecturing before the Keswick Literary and Scientific Society on the Fungoid Origin of Epidemics. The lecture has been published, and the society may be congratulated upon the opportunity which has been afforded them of listening to so admirable an account of the present state of the question, both in its scientific and practical aspects.

Surgeon-Major John E. Purdon.—We think an article of the kind mentioned would be hardly suitable for our pages.

Mr. Thos. Horne.—The letter has unfortunately been mislaid. Will our correspondent kindly repeat his question.

Scrutator.—As the letter has already been published, we regret that we cannot depart from our rule by reprinting it.

PROFESSIONAL COMPETITION.

To the Editor of THE LANCET.

SIR,—Will you permit me to place before the profession, through the medium of your journal, the following letters, which have been sent by a neighbouring surgeon to the committee of one of my clubs. The only remarks I desire to be allowed to make upon them are: (1) the word "candidate" in the application implies a misapprehension on the part of the writer, there being no vacancy—real or contemplated; (2) I have held the appointment seven years, my house is about half a mile from the ironworks, and I live in the midst of the workmen, whilst the volunteer for the appointment lives two and a half miles away.

I am, Sir, yours obediently,

Alfreton, March 28th, 1881. THOS. WOLVERSON.

[COPY.]

Alfreton, March 15th, 1881.

DEAR SIR,—Will you kindly place the enclosed application before the Committee of the Alfreton Ironworks Sick and Accident Club.—Yours faithfully, T. L. ROBERTS.

To the Secretary.

Alfreton, March 15th, 1881.

GENTLEMEN,—I beg leave to offer myself as a candidate for the appointment of surgeon to the Alfreton Ironworks on the same terms as at present. In case I do not get the whole appointment, may I be allowed to attend those men who may give me their votes?

I am, yours obediently,
T. L. ROBERTS.

To the Committee of the Alfreton Ironworks Sick
and Accident Club.

EXAMINATION AT THE ROYAL COLLEGE OF SURGEONS.

AT the Primary or Anatomical and Physiological Examination for the Membership of the College, which was commenced on Friday last, there were 214 candidates, against 173 in the corresponding period last year. The following were the questions submitted to the candidates at the written examination on Friday last, when they were required to answer four, and not more than four, out of the following six questions on anatomy, between 1 and 3 o'clock:—

1. Describe the second cervical vertebra.
2. Describe the greater and lesser sacro-sciatic ligaments. What foramina do they respectively assist in forming? What structures pass through these foramina?
3. Describe the rectus abdominis muscle, and the sheath within which it is contained. How is it supplied by bloodvessels and nerves?
4. Describe the parotid gland and its duct. Enumerate the structures with which they are in relation.
5. Describe the lateral ventricles of the brain.
6. Give the dissection necessary to expose the course and distribution of the posterior interosseous nerve.

The following were the questions on Physiology, to be answered between 4 and 6 o'clock:—

1. Describe the minute structure and the action of the auriculo-ventricular and semilunar valves of the heart.
2. What is the normal temperature of the human body? Within what limits does it vary physiologically? How is it kept within these limits?
3. What are the functions of the roots of the spinal nerves? By what experiments have these functions been determined?
4. Describe the minute anatomy and the mode of action of the œsophagus.
5. What is the evidence of the existence of a respiratory centre in the medulla oblongata? How is this centre excited to action?
6. Describe the varieties, the microscopic appearances, and the uses of yellow elastic tissue, and state where these varieties are chiefly found.

As usual lately the provincial students were allowed to offer themselves the first three days.

COTTAGE HOSPITALS.

K. Z.—Cottage hospitals are highly approved, but they should be carried on jointly by the medical practitioners of the locality, and all financial matters should be worked independently by a lay honorary secretary. The medical staff ought to have nothing to do with the collection of subscriptions, but they would do well to retain the administrative government of the hospital in their own hands.

MEDICAL MEN AND RAILWAY COMPANIES.

To the Editor of THE LANCET.

SIR,—I shall feel obliged by an expression of opinion as to who is liable to pay my fee for attendance under the following circumstances:—On the 10th of August last I was summoned by an official of the London, Chatham, and Dover Railway Company to be in attendance at one of their stations to meet a certain train, a telegram having been received that in consequence of a passenger having died in the train on the journey from Ramsgate the attendance of a medical man was required. I attended immediately, and on my arrival at the station found that the train had just started. The station-master, however, stopped it, and requested me to accompany the deceased to Holborn. This I did, and superintended the removal of the body, which was done by one of the company's own vans. I was conveyed to and from Holborn without payment of fare. I of course considered that my services were rendered to the company. Upon making application for my fee of one guinea, which I consider moderate for two hours' work, I am informed by their secretary that the company do not consider themselves liable. They, however, sent an inspector to the relatives of the deceased, who procured from them the sum of ten shillings, which he brought to me as payment in full.—I am, Sir, yours, &c.,

March 23rd, 1881. M.D.

"SOME OBSERVATIONS ON BRITISH MINERAL WATERS AT THE PRESENT TIME."

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. F. William Smith, is moving in the right direction. The valuable mineral waters of Great Britain are in danger of being neglected in favour of the by no means more efficacious Continental waters. I would ask him to add to his list the waters of the Dunblane Mineral Springs, Perthshire. At the beginning of the present century these springs were very fashionable, and the waters proved to be extremely beneficial. The water is saline, and allied to the Airthrey waters. In order to develop the use of the springs they have been recently acquired by the Dunblane Hydropathic Company, and a suitable pump-room has been fitted for their use.

I am, Sir, your obedient servant,

March 29th, 1881. R. M. J. BANNING, M.D.

APPOINTMENTS AND REAPPOINTMENTS.

Medical Officer of Health.—Our correspondent who appeals for sympathy on the score that, having done his duty well and apparently to the satisfaction of the sanitary authority he serves, the time of his re-election approaching, and he having reason to believe that he would be re-elected, the authority have thrown the election open to the world, has not quite realised the fact that so long as the sanitary authority are acting within their legal rights, appeal to either public or professional opinion is hopeless, and can only end in injury to himself. It is distressing to think that the *esprit de corps* of the profession is so imperfect that members can be found who will take advantage, to the prejudice of a brother member, of opportunities such as those given by the sanitary authority in question, but the fact must be recognised.

SIMULTANEOUS ARREST OF RESPIRATION AND THE HEART'S ACTION DURING THE ADMINISTRATION OF ETHER.

To the Editor of THE LANCET.

SIR,—During the past few months there has been considerable correspondence in the medical journals upon the relative merits of chloroform and ether in the production and maintenance of anæsthesia. Whilst the matter is still an open question with the profession, I am of opinion that not only should deaths occurring during the administration of these anæsthetics be recorded, but also all cases in which any untoward accidents has occurred, and those cases in which death has been averted by mere good fortune.

The following case happened to me a few days ago. Though recovery took place, I must confess it was a very near shave of being a great deal worse. I am the house-surgeon (the only one) of a provincial infirmary. On March 10th an old man of seventy presented himself with a dislocation of the left shoulder. It appears the accident occurred to him some five weeks before, and the surgeon who attended to him had never reduced the luxation. The man was fairly robust, with moderately firm muscles. It is an understood thing in this institution that the house-surgeon should not administer anæsthetics when alone except in cases of emergency. Not being a written rule, and at times very difficult to carry out, it has been constantly ignored. On this occasion, failing to reduce the shoulder by ordinary methods, I had the man put in bed, and gave ether from an Ormsby's inhaler as modified by Clover. Two nurses were at the bedside with me. The patient was unconscious, with relaxed muscles in four minutes; breathing and pulse both regular when I ceased to apply the inhaler; the shoulder was easily reduced by placing the heel in the axilla. A nurse took charge of his arm to prevent any movement during the period of recovery. I placed myself at the head of the bed watching the respiration and pulse at the temporal artery. Soon after the pulse and respiration ceased simultaneously, immediately previously having been regular. The patient became quite leaden in colour. I at once seized the arms and carried out artificial respiration by Silvester's method. I despatched one nurse for the battery and the other for a jug of water. As ill-luck would have it the battery was then in use in the out-patient room, and the jug on the ward-table was empty. These circumstances caused delay. I continued the respiration; water was dashed over the head. Just after I had the satisfaction of seeing a spasmodic gulp made by the man. The battery was now applied to the diaphragm region. Another gulp followed, and gradually recovery and consciousness took place. This case has been a warning to me. Though I have administered both ether and chloroform many times and often by myself, I have never fortunately had an accident. Should this note meet the eye of any house-surgeons, let them be only too careful not to relax their vigilant watch over the patient until perfect recovery has occurred, for in this case the accident did not occur soon after the commencement of the administration, but at the time when we were expecting the patient to waken, and some five minutes after the inhaler had been removed.

I am, Sir, yours faithfully,

March, 1881.

R. H. F.

CAMBRIDGE UNIVERSITY.

OWING to great pressure on our space we are compelled to defer until next week the notice we had prepared of the important statutes made by the Cambridge University Commissioners, and submitted for the approval of Her Majesty on the 1st inst.

M.R.C.S.—The "internal capsule" is the tract of white matter between the optic thalamus and the lenticular nucleus of the corpus striatum, and is composed of fibres passing from the lower part (crusta) of the cerebral peduncle.

Dr. Macewen (Glasgow).—We shall be glad to receive the paper.

Dr. Caton.—We shall be glad to see the "parts" as issued.

Mr. H. G. Sutton.—The great majority of the profession are in accord with our correspondent in the matter.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fenwick, London; Mr. Fletcher, Warrington; Mr. Pearson, London; Mr. Spratt, London; Mr. Craigie, London; Mr. Tripp, London; Messrs. Boyle and Son, London; Mr. Sawyer, London; Dr. A. Mackintosh, Chesterfield; Mr. Leeming, Kendal; Dr. Decroix, Paris; Dr. J. W. Bramwell, Newcastle-on-Tyne; Dr. Fisher, London; Mr. Sutton, Sittingbourne; Mr. B. Squire, London; Mr. Barnard; Mr. P. Thornton, London; Dr. Mahomed, London; Mr. Mackellar, Poona; Mr. H. J. Newman, London; Dr. Whamond, Jarrow-on-Tyne; Mr. Vitali; Dr. Macewen, Glasgow; Mr. E. W. Wallis, London; Mr. Tacey; Dr. Struthers, Aberdeen; Dr. Crocker, London; Mr. James, Ramsgate; Dr. Alford, Taunton; Dr. Jepson, Stone; Dr. Maclean, Netley; Mr. Reckitt, Wainfleet; Dr. Tomkins, Manchester; Mr. Westley, Cheltenham; Dr. Battye, London; Dr. Thomas, Glasgow; Mr. Calley, London; Messrs. Leader and Sons, Sheffield; Mr. Whitford; Miss Gray, Belfast; Mr. Gutteridge, Maldon; Mr. Hunt, Hull; Dr. Law, St. Leonards-on-Sea; Dr. Charteris, Glasgow; Mr. T. Horne, Sandwich; Mr. Collinwood, Corby; Mr. Walker, Dundee; Mr. De'Ath, Buckingham; Mr. Colston, New Whittington; Dr. Lees, Glasgow; Mr. Gick, Dublin; Dr. Goldschmidt, Madeira; Dr. Browne, Dundalk; Dr. Wise, Geneva; Dr. Caton, Liverpool; Mr. Edlin; Dr. Macdonald, Beith; Scientific Medicine; X. Y. Z.; L. F. P. S.; M.D.; M.R.C.S.; K. Z.; Broughton; Junius; A Retired Surgeon; The Editor of "Land and Water;" The Directors of the Art Furnishers' Alliance; S. H. W.; General Practitioner; J. H.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Lewis, Eastbourne; Dr. Johnson, Leith; Mr. Heely, Kennington; Mr. Lamb, Burford; Mr. Cusack, Cahir; Messrs. Bell and Co., Lancaster; Dr. Ramsey, Great Shalford; Messrs. Porteus and Co., Glasgow; Mr. Mosse, London; Mrs. Byrne, Weston-super-Mare; Messrs. Markland and Davey, Leeds; Dr. M'Calsey, East Ilsley; Mr. Hackett, Leeds; Mr. Rucker, Bayswater; Mr. Willey, Halesowen; Mr. Kemm, Corsham; Dr. Albrighton; Mr. Musson, Ashford; Dr. Burr, Liverpool; Mr. Thorpe; Dr. Talbot; Mr. Smith, Poplar; Mr. Hopkins, Bath; Mr. Macdonald, Dumfries; Mr. Nettle, Liskeard; Mr. Arnold, Chesham; Dr. Diser, Kenley; E. H., Merton; R. N. C.; Negotium; M., Brompton; Medicus, Camberwell; Z., Sheffield; C. J. W., Chatham; Omega, Llanelly; Harris; J., Edinburgh; Wiltshire; L. M.; Registrar, Bath; G. F. W. B., Leeds; Enquirer; F. B., Gainsboro'; Maidstone; Box, Stratton-on-the-Fosse; Nucleus, Liverpool; Sigma, Roath; K.C.B.; Dr. J.; L.R.C.P., Leamington; G. A. G.; &c., &c.

Japan Weekly Mail, Coffee Public-house News, Education, Journal of the National Chamber of Trade, Wareham Advertiser, The Analyst, Daily Courier, Middlesex Chronicle, Lincoln Gazette, Daily Free Press, La Emulacion, Building and Engineering Times, Scotsman, Welshman, Anglesey Reporter, Animal World, Birmingham Medical Review, Bristol Evening News, &c., have been received.

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Croonian Lectures
ON THE
INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

BY WALTER MOXON, M.D. LOND., F.R.C.P.

LECTURE II.—PART II.

If, indeed, we cannot prove by post-mortem examination that a person has died from congestion of the brain, the evidence which would lead us to declare the existence of such a state during the person's life ought to be the more conclusive. Let us now inquire if this is truly the case. I have already asked your attention to the degree of turgescence of the veins of the head and face, indicating a like degree of pressure within the veins of the cranium which is met with frequently under various circumstances, and which does not give rise to serious or important symptoms; strangulation becomes very decided and obvious before any serious cerebral effects result from it. Hence we must not suppose or assume its presence unless we can see the veins evidently turgid, and although total stoppage of the jugular veins by ligature will produce speedy death, yet inasmuch as we thereby deprive the brain of its blood circulation so that life ceases with the cessation of vital changes in the respiratory centres, we have here a set of consequences which ensure death apart from pressure of venous blood upon the brain. Indeed I have never met with any example in which venous pressure upon the brain, as distinguished from the effects of carbonic acid poisoning, has produced grave symptoms. And I advanced the example of caisson pressure as affording an instance of extreme degrees of intravascular pressure of blood upon the nervous centres, uncomplicated with a venous state of the blood, and it was shown that under a pressure of three atmospheres continued for as many hours, no unpleasant results were experienced, so far otherwise, indeed, that the labourers worked more buoyantly in the denser air. It was when the pressure was taken off that trouble came. As one more example to show how well an obvious amount of arterial pressure is borne by the brain, let us take the case of unusually violent action of an hypertrophied heart. It is not, of course, to be supposed that in all or most cases of cardiac hypertrophy an excessive action of the heart would tend to congest the brain, because for the most part the heart enlarges in order to overcome an obstruction at its orifices or an obstruction in the capillary system. In these cases the hypertrophy does but follow after, and usually far after, the requirement which it subserves, and the large labouring heart is all too feeble for its extra work. But we meet occasionally with more rare examples wherein a large heart certainly does appear to exert an exaggerated force throughout the vessels. A striking example of this is in the clinical ward at Guy's Hospital, in the case of a man of early middle age who has regurgitant aortic valves and a very greatly hypertrophied heart, which raises the præcordial region, and in its beating shakes forcibly the lower part of the chest. The innervation of the heart is here deranged as if by a touch of exophthalmic cachexia superadded, for the heart's action is very rapid, and digitalis in any doses I dare give shows no power of reducing its frequency. The effect of all this in the temporal and radial arteries is remarkable; they are bent into a meandering form and are tense to touch, each beat of the heart making them spring rather sharply. Those who witnessed the force evidently at work within these arteries, and conceived the same action as going on within the cranium, formed the impression that the arterial strain must be excessive there, allowing all that the bend of the carotid canal could do to moderate the distension of the arteries in their transmission through the base of the skull. Yet this man said that his head was quite free from unpleasant sensations, and when I induced him to cough and otherwise to use strong pressure of his expiratory muscles so that the veins rose in his neck, the heart beating meantime still more strongly and quickly with his exertion, no ill effects occurred in the way of morbid sensations in the brain. This example is not a very rare one, although the coexistence of rapid action of the heart with great hypertrophy and absence of evidence of aortic obstruction offered a combination calculated to put great stress upon the interior of the vessels, and the strain was visibly great in the superficial arteries. Indeed, under similar circumstances, especially in cases of exophthalmos, we witness an extent of more or less violent and certainly obvious over-action in the cervical vessels, producing no noticeable discomfort in the brain, and certainly nothing in the nature of serious and important symptoms.

So that, as we pass to consider what clinical evidence there is to show that serious and important diseases are due to cerebral congestion, we do so having first recognised that visibly forcible arterial action does not produce these symptoms, and visibly great venous congestion does not produce them, and post-mortem evidence is incapable of proving that cerebral hyperæmia was present before the act of dying. Still pursuing the question before us, the next thing will be to learn what evidence is offered in the symptoms ascribed to cerebral congestion to show that fulness of the cerebral blood-vessels causes the attacks described under that name. If we look at the descriptions of the supposed disease, we find it has all the advantage of being well portrayed by the best describers, including a most trustworthy and universally trusted authority upon the subject of brain diseases in general, so that we may fairly assume that all that can be said for the disorder is well and fully said. The disease would merit such treatment if it is indeed capable of appearing in no less than four distinct and very widely diverse manifestations, and if in each of these it may constitute an obscure and rapidly fatal malady. The symptoms of such a disease must merit the closest attention, and so I may ask you to let me now give a full account of the symptoms described as those of one of the forms of congestion of the brain; it is called the convulsive form, and these are the symptoms given: "There are usually the premonitory signs of congestion, but these may be very slight. There may be no forewarnings, and the patient may be seized during sleep or while making some unaccustomed effort. When the attack occurs during sleep, it is difficult and sometimes impossible to say in what manner it commenced; but when it has come on while the patient is awake, and friends are around him, it has been usually observed that much discomfort has preceded it for a few seconds, minutes, or hours. A tight cravat worn while making undue exertion, a sudden alarm, or an indigestible meal rapidly swallowed, may be the immediate antecedents. The patient more or less suddenly becomes confused, then apparently half unconscious, makes some unintelligible sounds, turns red and then blue in the face, staggers for support, looks round him wildly and imploringly, and then sits down or falls down convulsed, and a paroxysm epileptiform in character supervenes. From this he recovers partially, exhibiting great confusion of mind, headache, muscular feebleness, and sometimes partial paralysis of one side or of one limb. The attack is occasionally followed by quasi-maniacal excitement lasting from half an hour to three or four hours; after which the patient becomes exhausted and falls into a heavy sleep. From this state he may recover, or during sleep a second or third attack of convulsions may come on. When congestion of the brain has assumed this convulsive form, the patients, so far as my own experience extends, have usually been in middle life and have recovered. But in other cases, when the age has been further advanced, the attacks have recurred more frequently, the intervals between them have become of shorter duration, and the patients —less sensible and less reasonable after every paroxysm— have presented the appearance of those whose attacks have been apoplectiform at their commencement." This description, coming from the pen of a masterly describer, puts vividly before us the condition depicted, but that condition appears so exactly like epilepsy in a plethoric person that one is rather puzzled to detect a difference between this convulsive form of congestion of the brain on the one hand and epilepsy in such a person on the other, and one gladly turns for guidance to the directions for diagnosis, which tell us that "from epilepsy the diagnosis may be made by a consideration of the previous history; in the one there have been the premonitory symptoms of congestion of the brain; in the other no such phenomena have presented themselves;

in the former the patient is usually of middle or advanced age, in the latter he is young and is either under twenty years of age or has not far exceeded that period of life; in the one the period of most marked congestion is at the moment of seizure, in the other congestion of the face and head is most marked as the attack is passing off; in the former there may be some moaning sound, in the latter the epileptic cry; in the one there is the sudden onset of an acute disease, in the other the attack of a chronic malady." Thus it appears that the points of distinction in the attack are the middle or advanced age of the patient, the comparison of the colour of his face in the beginning and in the subsequent course of his fit, and the moaning sound in congestion as compared with the "epileptic cry" in epilepsy.

As to the latter point we, however, find the same distinguished authority speaking thus, in an admirable description of epilepsy itself: "Others do not cry, but emit a moaning sound, which is, as it were, squeezed out of them by the quasi-tonic contraction of the muscles of the chest." So that the moaning sound does not help us if we bear in mind the account of true epilepsy. Again, as to age, the same full and excellent account of true epilepsy informs us that a considerable proportion of first attacks occur about the fortieth year of life; so that the age of the patient would appear to be no valid criterion, and then the only thing remaining is the play of colours in the patient's face during the fit. Thus the convulsive form of congestion resolves itself into an attack which is exactly like epilepsy, except in the plethoric appearance of the patient. But are we, then, to suppose that plethoric persons don't have epilepsy? If this is not the supposition, how are we to deal with the case of a red-faced person who should have a true epileptic fit? How should we distinguish between such an attack and an attack of congestion of the brain? One looks in vain through the description for any criterion. There are all the stages of epilepsy—the bluish tinge appearing on the red of the face, the groan, the fall, the struggle, the stupor, and even the final, perhaps almost maniacal, excitement at the close. Even the tight cravat and the full meal which appear in the description of congestion do not really help us, because the true epileptic might have on a tight cravat or might have had a full meal. The evidence, then, of congestion of the brain is utterly worthless, unless you assume that plethoric persons do not have epilepsy, and that after a full meal or in a tight cravat epilepsy is not epilepsy. But the question whether such persons have epilepsy is not even raised by the description which changes the whole fundamental pathology of the seizures, because the sufferer's face is red, and he has just had his dinner. I have quoted from the writings of one who is so entirely master of the subject of nervous diseases that the evidences in favour of congestion of the brain would certainly all be fully and fairly stated in his description of it. Yet, surely, we have seen but very trivial ground for raising the convulsive form of congestion of the brain as a distinct kind of disease; and we further have even some proof of a positive kind to show that you cannot judge of the amount of blood in the brain by the amount of blood in the face. At least in sleep we know the brain to be pale. Yet in sleep the face is more congested than it is under ordinary conditions when awake. If you look at a sleeping person you may commonly observe everywhere about the head signs that would show congestion. The contracted pupils, the suffused conjunctiva often causing an excess of secretion from the mucous surface, or the well-known puffy state of face and eyelids found in the morning in cases of Bright's disease and other conditions. The reddened and perspiring state of the skin, conspicuous in many people in deep sleep, and often wetting the pillow in phthisis. Yet, in spite of all these signs of congestion outside the cranium, the brain within it is shown to be pale in sleep. So far, then, from redness of face proving congestion of the brain, the best known instance bearing on the question shows the brain to be paler when the face is more congested than the average.

The importance of the question whether, as asserted in some text-books, disease and death are really due to a rush of blood into the vessels of the brain, or whether, as I believe, no serious symptoms or ill results are produced by blood rushing into or pressing within the bloodvessels of the brain, will, I trust, justify me in pursuing the examination of the asserted symptoms of cerebral congestion, still searching for evidence that these symptoms are due to congestion of the brain. Yet as to the form of the disease that is called apoplectiform cerebral congestion, I will not go into detail, because the kind of attack of sudden insensibility which has long been known by this name has been so thoroughly treated of by the late Professor Trousseau, and by him was so entirely well proved to be really epileptic, that I need only refer for evidence to Trousseau's lecture upon the subject. In that lecture he says: "During the first years of my practice I saw a pretty large number of cases of apoplectiform congestion; but for a long time I have not seen any. Yet other medical men see as many as before. Let us therefore inquire on whose side the error lies." And then he gives proofs of the epileptic nature of such attacks, which I think so convincing that they need only to be read to clear up any doubt upon the matter. It is perhaps due to Professor Trousseau's influence that the most modern English teaching is coming round to the same view, as shown in the most recent and one of the best of our text-books, in which we find it written: "The true apoplectic attack in which the patient falls down suddenly comatose is now generally admitted to be epileptic." As a small further contribution to the previous evidence upon the epileptic nature of apoplectiform cerebral congestion, I will only point to one feature in descriptions of the attack, and that is, "the pulse at the moment of attack is sometimes suspended at the wrist." Of course it is plain that suspension of the pulse would not be likely to produce congestion of the brain, and, indeed, it is clear that suspension of the pulse must cause anæmia of the brain. But I will bring forward some facts in my next lecture which will, I trust, show that suspension of the pulse accompanies and marks the onset of attacks of epilepsy, and is the cause of paleness of the face in the epileptic onset. I need hardly say that the question at issue is one that practically is important. For if the attack is epileptic it calls upon us for remedies and regimen such as reduce the general excitability of the nervous system, and especially for specifics such as potassium bromide. But if the attack is indeed congestion of the brain, then it calls upon us for local treatment of the head more or less of the nature of depletion.

If we seek in the two remaining forms for evidence that the disease is really due to congestion of the brain, we are met with proof to show that the contrary is really the case. The characters of the third or "febrile form" are those of an attack accompanied by marked elevation of temperature and general pyrexia, dull oppressive headache, &c. Recovery is said not always to be observed. "The distress may persist, there may be alternately convulsions and delirium, or there may be changes from over-excitement to drowsiness, the latter gradually becoming relatively more marked until the patient passes into a state of stupor from which he may never rally." Now, if such a group of symptoms were to come upon a healthy person it is a fair question whether the medical attendant would be well advised in resting satisfied with an opinion that the case is one of congestion of the brain. If the attack ended fatally would he not have to inquire which of the eruptive fevers, or what form of blood-poisoning, had seized and killed the patient without allowing time for the development of the distinguishing characters of the attack? In every case in which I have known a healthy person fall into febrile coma, that person has proved to be suffering from a definite disease which needed to be discovered. For example, a little girl at Tottenham, having precisely these symptoms, was said to die within twenty-four hours of "congestion of the brain." Scarlet fever appeared in her sisters within twenty-four hours more, showing what was the matter. A man approached very near to death, being quite comatose, with elevated temperature; he then developed a most profuse urticaria, and forthwith recovered; had he died we should not have known better, perhaps, than to have called his disorder cerebral congestion. Such instances might be multiplied indefinitely. I am ready to admit that such a term as congestion of the brain is useful to the practitioner in some of his difficulties, and so far as it is understood to signify only that the case to which it is applied is cerebral and obscure, there is no harm in it—nay, there is a certain advantage in its indefiniteness—whilst it meantime does not usually carry an unduly sudden or alarming impression to the minds of the patient's friends. But, for all this, it is surely undesirable to make this conveniently vague term take a place in strict medical teaching, and to use it there as covering several widely diverse, disordered states, which can be only very vaguely portrayed even by our best clinical describers, seeing that there must arise a great temptation to stop at this idea of congestion of the brain when further inquiry would have shown the real nature of the case. It is true that we are compelled to use some terms to give expression to all that we can know of obscure disorders, and it might be thought that "congestion of the brain" stands thus on a par with "sciatica" and "colic." But there is a wide divergence between these, at first, apparently parallel examples. When a person has pain in the course of his sciatic nerve we search for aneurism or other tumour which might cause the pain, and if we do not find any such cause we say the case is one of sciatica. Even here there is a danger of our too easily taking up with the easier diagnosis of sciatica, a danger which not unfrequently induces the practitioner to overlook an organic cause of pain. However, there is nothing wrong in describing pain in the course of the sciatic nerve as sciatica, since the term means only sciatic nerve pain. Likewise, in the case of such an expression as colic, the term applies without doubt, whatever be the nature of the colic pain. The term involves no supposition of a definite cause of the complaint, and there is nothing positively misleading in the use of it. But in the example of "congestion of the brain," employed in a similar vague way, there is this important difference, that the term does signify a fulness of and pressure of blood within the cerebral vessels, which fulness and pressure may not exist, and I think I have shown probably do not exist. So that whereas in any prepossession with the idea of sciatica we only incur the risk of sometimes failing to reach the whole truth of individual cases, we are probably entirely wrong at all levels when we use the term congestion of the brain. Again, this term does not only apply to one definite kind of pain like sciatica and colic, but it is made to include convulsive disease, apoplectiform disease, febrile disease, and mental aberration, thus extending its shadow and obscurity to confuse a very large part of the otherwise clear history of diseases of the brain.

We could not perhaps have a better example to show how far the description of these diseases as congestion of the brain is correct than we meet with under the form I am now discussing—the febrile form of cerebral congestion; for we see the whole group of symptoms described as the febrile form of cerebral congestion appear as "cerebral rheumatism" in rheumatic fever. Now, in cerebral rheumatism with its perfectly characterised febrile congestion of the brain, we happen to have very decisive evidence that there is no congestion of the brain, but the exact opposite of this. Ten years ago one did not know what to do with the rapidly fatal brain symptoms which occur in some cases of rheumatic fever. I tried bleeding, and large doses of brandy and large doses of quinine, but all the patients died. The plan now successfully adopted is well known. I first practised it in 1870, and an account of the case was published by Mr. De Liefde, then house-physician. I mention it because of the somewhat rude thoroughness of the treatment. The patient had passed through the stage of muttering, delirium, and was settling into insensibility, when at a temperature of about 106° he was put at once into cold water at 60°. The result was that this almost comatose and dying man shortly became as sensible as any of the bystanders. Now the effect of such a sudden plunge into cold water must be to drive blood from the surface of the body to the deeper parts, including the brain. Indeed, the treatment is the extreme reverse of that putting of the feet and hands into hot water, which is recommended for cerebral congestion. Yes, doubtless rightly, and if you placed the feet and hands in hot baths, you must tend to draw blood away from a congested brain, and *per contra* by placing not only the feet and hands but the whole body in very cold water you must tend to do the opposite of this and drive blood to the brain. But in this case in which every symptom described as cerebral congestion was at its highest degree and on the point of a fatal issue, the extreme reversal of the treatment for congestion, this driving of blood to the brain wakes up the man in the most magical manner.

Thus the third form of so-called cerebral congestion belies this view of its nature by passing off under treatment, which must add to any congestion really existing in the brain. Let us now look at the last of the forms of so-called cerebral congestion, that noted as delirium. The description is of a patient of advanced age, who after some hours or even days of undue taciturnity becomes cheerful, or gay, or hilarious; he talks loudly and incoherently, but rarely exhibits any violence. He gets out of bed, wanders about his room or ward, opens drawers, puts on his dress, and is bent upon doing something which he cannot explain, or which if expressed in words is unnecessary, unaccustomed, and absurd. He is under a delusion of no fixed character, and can usually be directed and controlled without much difficulty. This being the description of the ailment, it may be well to see how far it is a good thing to teach it as a sufficient view that such symptoms are due to congestion of the brain by giving shortly the history of a case of the kind. Not many months ago I was asked to see an elderly man whose relatives were said to be quite worn out with taking care of him on account of his insane conduct. The medical gentleman in charge of his case said that the disorder was congestion of the brain, a bodily disease, and not mental, so that he refused to certify to the patient's insanity. When I saw the man I found a state of affairs completely justifying this view according to those who teach of a delirious form of congestion of the brain. Mr. P—— was fifty-nine years of age. The poor fellow had been knocked down and robbed two years before, and of late he had shown great depression of spirits. Then he grew excited and talked, and was pleased at the idea of going home. He got out of bed and wandered about his room, and opened drawers, and dressed himself in the middle of the night, and wanted to go home through the second floor window or over the balustrades of the stairs. But there was no fixed character in his delusion; sometimes he was content to stay where he was under the idea that the Queen had made all the days Sundays now. He was generally submissive too and managed without any difficulty except the fatigue of constantly watching him. He had his wandering attacks almost nightly between September and December. This man's disorder corresponded in all points exactly with the so-called delirious form of congestion of the brain. So that the medical practitioner in attendance, trusting his look, was justified in saying that the man had congestion of the brain and not insanity. But meantime this madman was endangering his own life very seriously, and causing the gravest overstrain to the members of his family, who were unequal to the care of him. Certificates were immediately signed and he was put into comparative security, from which the entirely baseless theory of congestion of the brain was keeping him through the accurate knowledge the doctor had of his teaching. I think one may say, without prejudice, the utterly baseless theory of congestion of the brain. Such excitement does not show congestion of the brain. The best marked cases I have seen of this kind of insane delirium have occurred in heart disease. "Yes," it may be said, "exactly the condition to congest the brain!" But no one would say that if he were to bear in mind the kind of hydraulic difficulties that affect the circulation in heart disease. It is true that in heart disease you have congestions enough. But the congestions occur in the dependent parts of the body, because the inanimate power of gravitation takes hold upon so much of the blood as a weak heart cannot drive, and draws so much blood downwards; but in doing so it draws away from the head and other upwardly-disposed parts of the body, which are thus kept empty in proportion as the dependent parts are full. And, indeed, in a severe case of delirium which occurred in a man with cardiac dropsy in Philip ward of Guy's Hospital I put the matter to a severe test. The miserable man, after weeks of breathlessness and sleeplessness, became insane, with the symptoms I have read to you as those of cerebral congestion. I had his pillows taken away, and kept him asleep with chloral for three days; at the end of that time he was allowed to wake, and he was then quite sane again, and he afterwards recovered so far as to lose his dropsy and leave the hospital. I believe that if I had kept his head high he would have died. The symptoms were those of an exhaustion in an anæmic brain.

Indeed, the circumstances in which cerebral excitement appears are so far from being of a kind to show an exaggeration of the powers of the circulation that, from this point of view, we can only wonder how it has come to pass that excitement of mind occurring in the aged, the exhausted and the dying, is as generally interpreted as signifying an excess of circulation in the brain. The reason, doubtless, is on account of the natural way in which we infer from the violences set up by a disturbed mind that a like violence must be at play in the brain as the organ of the mind. It is so natural to suppose that activity of the eye, and tongue, and hand must mean activity of the circulation which feeds the nervous centres of the eye, and tongue, and hand. It is thus that the sight of overactive mental states brings to the medical mind the idea of too great fulness of the bloodvessels as naturally as the sight of the diurnal course of the sun in the sky brings to the popular mind the idea that the sun goes round the earth. In either case it is only by further consideration that the fallacy of evidence so apparently obvious is made certain. Reflection will show that the activity of these delirious persons may be negative, because it may take its rise through a want of the adjustment of balance of self-restraint which a good circulation in a healthy brain gives rise to. And the aged and exhausted state of the sufferer point directly to such a negative cause. Whilst the treatment also must recognise the negative condition, and do all that can be done to feed the brain and support the system. The decisive style employed by specialists in brain disease in their pathological descriptions has done much to encourage the widely spread delusion as to congestion of the brain. The diseases such as acute mania, for which they seek the anatomical causes, offer a most impressively violent and active behaviour of the brain, and so little appears post-mortem, except perhaps a full condition of bloodvessels, that the temptation to dwell upon this state of fulness and make much of it has proved irresistible even when a reasonable doubt of the importance of congestion has forced itself upon their notice. Thus one of the least conventional of brain specialists, Griesinger, after allowing that in his first edition the significance of hyperæmia had been greatly exaggerated, goes on nevertheless with really unabated confidence to assert the usual fallacies. First he says, that from the changes found after death, increased fulness of the vessels during life is to be assumed. "To this, therefore, a certain connexion with the morbid state is to be ascribed." An obvious fallacy, if by a certain connexion he means a causative connexion, and unless he means a causative connexion his remark has no meaning at all. He then goes on to give the usual worthless account of redness, &c., of the brain, which I have already sufficiently discussed, and ends by saying, "this hyperæmia may easily pass into actual inflammation," a thing which it is utterly impossible that any one could know. The fact is that the notion of a flooding of the brain with blood is always ready for use, so that it can be drawn upon by anyone in difficulties for an explanation. And thus if the alienist needs something to stand for a cause of violent mania, it is congestion of the brain. If the practitioner in charge where head disorders do not include madness wants an explanation of seizures that are the exact reverse of mania—fits in which, instead of violence, you have oppression and stupor,—he has it, it is congestion of the brain. If the question is of some "wiry old person"—the expression is not mine—whose circulation is, one would think, too poor to congest anything, if this old person shows negation of brain activity, still it is congestion of the brain. If a person has drunk enormous quantities of alcohol, and is comatose, this, too, is congestion of the brain; and if he has been out in the sun and has a cerebral seizure, this too is congestion of the brain.

I suppose there must be a certain satisfaction in exchanging the obscurity that beclouds our ideas of disorder of the nervous system, of whose order we know so little, for a disturbance of the hydraulics of the blood, about which we can know much more. Even though the result is only a translation of the terms in which the symptoms are interpreted to the mind, rather than an explanation of the symptoms. There is, indeed, no true explanation attempted, for no one who asserts that congestion of the brain causes mania is able to say at all what causes the congestion of the brain.

I have thus far endeavoured to establish these propositions :—First, that atmospheric pressure so great as to force blood into the vessels of the brain more thoroughly than could be done by any intrinsic forces of the circulation does not produce cerebral symptoms. Second, that strangulation and carbonic acid poisoning lend no support to a supposition of independent congestion of the brain. Third, that morbid anatomy is unable to show any evidence of general overfilling of the bloodvessels of the brain. Fourth, that in the diseases described as congestion of the brain clinical evidence of overfilling of the cerebral bloodvessels is utterly wanting, and that the state of circulation present in these disorders can be shown in typical instances to be the reverse of an overfulness. From all this it follows that there is no pathological justification for our setting up congestion of the brain as a distinct kind of disease, nor for our pretending to explain cerebral symptoms by the assumption of congestion of the brain. For the forcing of blood into the brain whilst the blood is good and properly aerated, and is within its vessels, affects only favourably the functions of the brain as far as our evidence goes. I cannot quite tell where or how the idea arose, but it appears to have been very anciently and naturally supposed that when the senses are lost or submerged this can only happen through their being drowned in the blood. But the example of sleep is contrary to this rough notion; for since Mr. Durham twenty years ago showed that the brain is pale in sleep, and other experimenters have confirmed the observation, we have a daily occurring analogy in every living person which would lead us to expect insensibility to occur with a pale brain, rather than with a brain loaded with blood. Again, fainting teaches us the same lesson : we see in fainting the senses pass into abeyance through bloodlessness of the brain. On the other hand, I do not know of a single proven example in which the senses are lost by pressure of blood within the vessels of the brain. If you object to this that strangulation gives such an instance; it must be remembered, on the contrary, that strangulation involves a stoppage of circulation and of all vital changes in the brain; and again that it must be very thorough to cause unconsciousness. So that strangulation has no bearing as a fulness of the vessels of the brain, whereas the caisson pressure gives us the most absolute proof that immense pressure of blood into the cerebral vessels only increases the comfort of the brain, and in fact shows that the brain is glad of blood, and the more the better, so long as it is good and does not burst the vessels. I shall now endeavour to point out that bursting of the vessels occurs only in relatively bloodless brains; and so apoplexy has no bearing in favour of congestion of the brain.

The theory of congestion of the brain has been taken from a too simple and superficial notion of the relation of the brain to its blood supply. If we take a primitive view of this matter and suppose the skull to be a closed cavity containing more or less blood, our course of thought would naturally run much in this way. Persons seized with sudden unconsciousness and dying are found to have an escape of blood within the brain which compresses it; and other persons attacked in a practically identical way show no such escape of blood. It is, then, in the absence of reasons to the contrary, easy and natural to suppose, as an explanation of all this, that in the cases where bleeding occurs the blood before bursting the vessels was pressing very severely inside them, and was distending them and filling the skull over-full, and squeezing the brain very effectually. With such an idea in the mind, it is further easy to think that when no bursting of the vessels occurs, this squeezing of the brain by blood in the vessels would cause the same results as the pressure of blood escaping from the vessels when they burst; and from this point of view it is even possible to regard the bursting of a vessel and the bleeding into the brain as a thing of secondary importance, and to believe that the apoplexy is really set up when a certain engorgement under pressure is reached, which pressure may or may not burst a vessel; but whether it does or no matters little, for the pressure on the brain is the same whether the blood is in or out of the vessels, and, indeed, this opinion has been held and openly stated. But such a line of reasoning overlooks or under-estimates the efficiency of the means whereby the cerebral circulation is relieved, and it overlooks the nature and consequences of arterial tension. And especially it overlooks the fact that apoplexy, when not the result of aneurisms of the cerebral arteries or of embolism of those arteries, is nearly always the consequence of the high arterial tension of Bright's disease, and is almost limited to cases of granular kidney and of hypertrophy of the heart.

I do not think that the considerations that arise from what we know of sanguineous apoplexy have been reflected upon the naïve and simple but plausible conception of congestion of the brain as this conception was formed by our predecessors. For with what we now know of the circulation, arterial, capillary, and venous, we may prove that the notion of a filling of the vessels of the brain with blood so that they compress the brain is unfounded so far as sanguineous apoplexy is concerned. The relations of apoplexy to Bright's disease, and through Bright's disease to high arterial tension, throw significant light on the whole of the subject, and prove that the bursting of a small cerebral artery and the consequent bleeding does not arise from any general vascular fulness in the cranium, but from tension in the arterial system only, which tension leads to the rupture of the vessel. Now, high tension in an artery means resistance to the flow of blood from it into the capillaries, and diminished flow through them into the veins. Hence we see that the high tension in the artery, which eventually bursts it, takes its rise in a cause which prevents supply of blood to the capillaries and veins, so that the higher tension in the arteries indicates a cause excluding blood from the far more capacious veins, and hence, in proportion as the blood is disposed to burst the artery, in just such proportion is the venous system underfilled. And, in fact, it thus happens that instead of blood bursting out in apoplexy through a general overfulness of vessels in the skull pressing on the brain, the vascular system, as a whole, is underfilled. And this is not a merely theoretical view, although I think the theory itself will stand any examination. But, in fact, before the consideration of the question from a theoretical point of view offered me this explanation of observed facts, I had observed that those brains in which apoplexy occurs carry signs of old anæmia, and indeed present the appearances characteristic of atrophy from deficient supply. I am not here speaking of apoplexy from such accidents as aneurism or embolism, but of ordinary apoplexy in elderly subjects ; and I believe it will be found true that the symptoms which give warning of coming danger, the giddiness and transitory numbness, &c., are evidences of capillary and venous anæmia of the brain, which is starving under the resistance offered to the entry of a due amount of blood. Thus, so far from an apoplexy being significant of a general filling to the bursting-point of the intracranial vessels, causing such a fulness under pressure as would compress the brain, it is only in the arteries which are small, and not capacious, that any excess of blood or rather excess of tension in the blood is present ; and the idea of a cranium crammed with blood which if it did not burst the vessels would equally squeeze consciousness out of the cerebral texture may be regarded as altogether mythical.

Gulstonian Lectures
ON
ANÆMIA.

Delivered before the Royal College of Physicians,

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LECTURE III.—PART I.

Idiopathic Anæmia (continued). — Chlorosis: Reasons for and against its separation as a Distinct Disease — Congenital Defects (Vascular Hypoplasia, Virchow) cannot be at the root of all Cases—Its obvious Relations to altered conditions of Life and Work—Relations to Menstrual Irregularities—Symptoms those of Anæmia—The Blood in Chlorosis—Effects of Treatment. — Cardio-vascular Symptoms of Anæmia: Cardiac, Arterial, and Venous Murmurs; their Mode of Production—Anæmia as a Cause of Heart Disease (Goodhart).

MR. PRESIDENT AND GENTLEMEN,—In my last lecture I endeavoured to show that pernicious anæmia must be considered as the outcome of a severe anæmia, whether symptomatic or idiopathic, its progressive course and frequently fatal issue being induced by changes of which there is yet but little evidence either in the normal formation of the blood or in its destruction; and I propose to-day to speak in the first place shortly about Chlorosis, which I believe to be a form of anæmia depending on similar changes, and therefore to be considered as falling under the head of idiopathic anæmia. I know that this is contrary to prevalent teaching, and perhaps may be regarded as a retrograde step, for the tendency is undoubtedly rather to analyse diseases than to effect syntheses of conditions which have a superficial resemblance. But where the distinctions are so finely drawn and so subtle as they are in respect to chlorosis, such analytical severance is hardly justifiable, perhaps harmful, and certainly productive of confusion. There is only one certain ground for such severance, and that is the one which follows from Virchow's discovery in some cases of chlorosis of what appear to be congenital defects in the circulatory mechanism, to which I shall presently refer. Setting that aside, there does not appear any marked distinction between chlorosis, in its development and progress, from other forms of anæmia of idiopathic origin, save only that in many of the latter the progress is uninfluenced by treatment. The point of view taken by those who argue for the separation is that chlorosis is a distinct morbid entity, of which the anæmia is but a symptom[1]—that it is marked by nervous derangement, and frequently by menstrual disorder, as much as by anæmia. But the same may be said with equal warranty of the forms of anæmia to which it should be allied. The anæmia itself is only a symptom, which in its turn brings other symptoms after it; and in both chlorosis and in the idiopathic anæmia of the adult the anæmia prevails over every other symptom.

The reasons which, so far as I can gather, are advanced in favour of regarding chlorosis as a distinct disease are these: its almost complete limitation to the female sex; its apparent dependence in some way on the menstrual function, and the changes undergone by the organism at puberty; certain nervous conditions, and certain peculiarities in the composition of the blood, and the structure of the bloodvessels. I will consider each of these in turn.

It is well known that females are more readily influenced by anæmiating causes than males; the blood is less rich in hæmoglobin, and its quantity is less. Any influence liable to create a demand on the blood is more likely to lead in the female to anæmia than in the male; and not only at puberty, but during pregnancy, the puerperal period, lactation, and the menopause, anæmia may arise and become profound. There is no essential difference between the anæmia produced at any of these periods. Nor is the limitation to the female sex of a condition indistinguishable from chlorosis invariable. I have at present under my care a youth, well-developed and well-nourished, who is the subject of an anæmia conforming in its history and characters, and I may add in its curability, to the most typical cases of chlorosis, and from time to time such cases of male chlorosis are recorded. More than this, in later life the male like the female appears to be liable to the development of an insidious anæmia, without wasting, which in all its leading features resembles chlorosis. It may be initiated by the same influences, mental, physical, hygienic, and other, which initiate chlorosis; it is not so common or so frequent because in adult life the balance between blood formation and destruction is more evenly maintained.

The dependence of chlorosis upon the menstrual function is not so absolute as is often supposed. The importance of that function and of its regular continuance are doubtless great, and of considerable influence upon the blood; and at puberty there must be a considerable readjustment of the forces of the organism when the processes of ovulation and menstruation are established. There must be an increased demand on the blood then and at every recurring menstrual period; and although we may be unable to state precisely what the influence is, we are persuaded that there is a connexion between the normal evolution of the blood and of these processes. At the same time menstrual irregularities often neither precede nor accompany the development of an anæmia indistinguishable on other grounds from chlorosis; whilst both amenorrhœa and menorrhagia are as frequently secondary to the anæmic condition as initiatory of it.

The same might be said of those nervous symptoms which frequently predominate in chlorotics to such an extent that some have desired to place chlorosis among the neuroses. For whether we regard the mental and emotional characteristics, or the liability to neuralgiæ and other nervous disorders; whether we consider the influence of psychical perturbations in determining the development of the anæmia,—there is no firm distinction between chlorosis, as generally understood, and ordinary anæmia.

There remain two very important reasons which, if established, should suffice to justify the separation. The first is one to which I have frequently referred—viz., that in chlorosis the alteration in the blood is solely a diminution in its hæmoglobin, and in no other constituent. If this obtained of no other anæmia the distinction would be of value. But unless we enlarge the boundary of chlorosis until its territory becomes conterminous with that of idiopathic anæmia, this distinction will not hold. For it has not been proved, except in a few cases of pernicious anæmia, that the serum-albuminates are diminished in other forms of idiopathic anæmia besides chlorosis. There would seem to be no evidence of such diminution except when dropsical symptoms occur, and in those cases where there is general inanition. But in very many of the cases of idiopathic anæmia of the adult the body is well nourished and in this respect shows no difference from chlorosis. Lastly, there is Virchow's discovery of certain vascular anomalies in chlorosis, which of themselves, if of general occurrence, would suffice to create a distinction on the surest basis—viz., an anatomical one. I may be permitted to briefly describe these anomalies, which have also been met with by Rokitansky and Bamberger. There is considerable narrowing of the aorta, which can hardly admit the little finger, instead of the thumb, its normal size. It is quite infantile in size. Its walls are much thinner than normal, but their elasticity is very marked, even excessive. The intima is the seat of irregular thickenings in the form of wavy, or trellice-like, elevations, with ridges, between which are depressions. The inner coat is, moreover, often the seat of diffuse fatty degeneration, limited to the superficial layers, and forming yellow patches and striæ, especially between the intercostals in the posterior wall of the aorta. Sometimes this degenerative change extends to the muscular coat. Finally, there are anomalies in the origin of the branches of the aorta, particularly seen in the irregular disposition of the intercostals. With these vascular imperfections there is sometimes a small imperfectly developed heart, but more often a large one, dilated and hypertrophied. The reason for this diversity is explained by Virchow, who, believing that the whole condition is one of arrested development of the vascular system (associated sometimes with stunting of the body), and, one may add, of the blood, would recognise a small heart as part of this general change; but if the volume of the blood increases, this, together with the narrowness of the aorta, would be a sufficient cause for the enlargement. This vascular hypoplasia may or may not be associated with an ill-developed condition of the uterus and ovaries, which Rokitansky thought the rule in chlorotics. But neither of these congenital defects—or, more correctly, defects in the evolution of the vascular or of the generative apparatus—can be considered as underlying every case of chlorosis, or, at any rate, existing as a cause of the anæmia. Moreover, the vessels are liable to great variations in size, the intercostal arteries are very inconstant in their mode of origin, and narrowness of the aorta has been often described in cases where there were no symptoms of chlorosis during life. It is, however, a valuable and suggestive contribution to the subject, opening up the line of thought that in chlorosis we have a condition dependent on imperfect evolution of the blood and vascular system, but no proof has been given that the diminution in size of the vessels has not followed upon diminution in the total quantity of blood.

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[1] Moriez: La Chlorose. Paris: Masson. 1880.

The history of chlorosis presents, in the majority of cases, a distinct etiological factor or factors, which cannot be ignored. Those who are most frequently its subjects are young women who have exchanged the light and air of the country for arduous domestic work in a town house, withdrawn from sunlight, undergoing considerable physical exertion in climbing stairs, or engaged in sedentary occupations in crowded and ill-ventilated rooms, or in many other ways subjected to conditions which we know to be prejudicial to healthy nutrition, whilst at the same time, by reason of their age and sex, they are more susceptible of such influences. There are changes then at work both around and within the organism all tending to the same end. It would be absurd to eliminate all the cases in which there are these etiological factors from the category of chlorosis because in other cases the disease develops without them, for it is impossible to say to what extent they act in inducing the anæmia. And the symptoms of chlorosis are those of anæmia. The increasing pallor, breathlessness on exertion, palpitation, headache, vertigo, and general nervous irritability, the fatigue induced by slight effort, the physical and mental enertia, the cardiac and vascular signs, the marked thirst, frequent derangements of digestion, and the character of the urine. These and other symptoms can be directly attributed to the anæmic state. Nor is the course of chlorosis quite apyrexial in all cases. It is often so, but it is not very unusual to find a temperature of about 99°, with slight exacerbations to 100° or 101°, a mimic reproduction of the irregular "anæmic fever" that appears in pernicious anæmia.

Finally, what are the characters of the blood in chlorosis as regards hæmoglobin and corpuscles? This has been thoroughly inquired into of late years, and in my first lecture I referred to some of the facts concerning this matter. I may briefly recapitulate and extend these points. There is invariably a reduction in the total quantity of hæmoglobin, a reduction reaching, according to the early researches of Duncan, about one-third of the normal. According to Quinquad the hæmoglobin is diminished about one-half in moderate chlorosis, varying between 70 and 30 grammes, instead of 125 grammes (which is the normal quantity), per 1000 grammes of blood, and the capacity for oxygen is very greatly reduced. The same observer declares, further, that the chief saline constituents of the corpuscles—the potash, salts, and chlorides—are appreciably diminished, but that there is no change in the amount of the stromal globulin. In a series of observations by Hayem, where the number of corpuscles was estimated in relation to their richness in hæmoglobin, this latter was found to be on an average about 50 per cent. of the normal, and in a few cases in which I have made similar calculations this diminution has been almost as marked. But there is not, as a rule, a corresponding diminution in the number of corpuscles. The mean of eighteen numerations by Hayem gives 3,520,000 corpuscles per c. mm. of blood, or 70·4 per cent. of the normal; and of seven cases I find a mean of about 3,000,000, or 60 per cent., there being, however, remarkable variations in the total number of corpuscles in different cases. For example, in one well-marked case where the percentage of hæmoglobin was only 45, the number of corpuscles was 4,050,000, whilst in another the number of corpuscles was only 2,090,000, with 32 per cent. of hæmoglobin. Such examples as these—and they might be multiplied—prove what I have before pointed out, that the number of corpuscles is only one factor in the degree of an anæmia, their value as to hæmoglobin being the more important factor. Especial attention has been paid in chlorosis, as in pernicious anæmia, to alterations in the form and size of the corpuscles. Malassez declares that the corpuscles are, as a rule, larger than those in health in the ratio of 1·09 : 1, and others have found a certain number of truly giant corpuscles, with a diameter of 12 μ instead of 7·7 μ (Hayem). More striking, however, is a departure from the normal in the contrary direction, these, according to Hayem, forming an undue proportion. He lays much stress upon the abundance of these small elements or "hæmatoblasts," which, it will be remembered, he considers as the early form of the adult corpuscle, and believes their accumulation to point to the incomplete development or evolution of the blood. The same observer has also noticed great variations in the form of the corpuscles, which bring to mind the variations described in pernicious anæmia by Quincke. I cannot say that I have been enabled to confirm this; certainly the corpuscles seem to be very variously sized, and to be more plastic and softer than in normal blood, forming rouleaux which are far more irregular, whilst the corpuscles, too, seem to be flattened out and otherwise slightly altered in form, but the extreme variations in size and in form, except after exposure (when they more rapidly become crenated than do healthy corpuscles), I have not seen.

The effects of treatment, especially of ferruginous medication, are so remarkable in those cases of idiopathic anæmia which are styled chlorosis as to be in sharp contrast with the other forms occurring in the adult. In a very short time under such medication the blood regains nearly its normal standard. Sometimes this improvement is permanent, but often the anæmia returns at some later date, under the influence of some exciting cause. There is an anæmic tendency in such individuals which might be explained by the anatomical defects described by Virchow, in which case the disease would be practically incurable, but which seems more probably dependent on a defective evolution of the blood-forming organs.

I have ventured to point out these matters because of the difficulty, which I feel sure is a real one, of deciding in any given case whether it is a chlorosis or not. It is not a mere question of nomenclature; if that were all it would matter no whit by what name we signified these conditions, but it is the difficulty which has arisen in consequence of the word "chlorosis" being held to convey more than the word anæmia, and being also arbitrarily considered inapplicable to idiopathic anæmia arising in later life. It may be most desirable, as Immermann[2] rejoices to think it is, that in chlorosis we have a distinct malady rescued from being merged in the "great ocean of anæmia," but unless its distinctive features can be more sharply defined than they are at present, the difficulty of separating it from other forms of idiopathic anæmia will constantly be felt.

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[2] In his article on Chlorosis in Ziemssen's Cyclopædia.

I desire now to speak shortly of two of the more constant and striking effects produced by the anæmic condition—the signs furnished by the heart and bloodvessels, and the influence it has in determining fatty degeneration. Upon the former of these points, which has been the object of so much controversy and speculation, I hardly feel qualified to speak with authority, not having studied the matter so deeply as many. It seems to me, however, that as regards the production of so-called hæmic murmurs, we have to consider, not only the factor of the blood-impoverishment, and especially its diminution in quantity, but also the factor of the conditions of the walls of the heart and bloodvessels induced by that impoverished blood. Indeed, the idea that the murmurs are solely due to the first of these factors has, I believe, been almost abandoned; it did not afford an adequate explanation, and seemed to be contrary to physical laws. As regards the purely *cardiac* murmur, there are at least two conceivable explanations for it in which the condition of the muscular walls (dependent on the anæmia) is primarily involved. One of these is that the heart is dilated, and the murmurs are produced by its cavities being incompletely filled, and the other that there is actual regurgitation through the tricuspid and mitral orifices owing to the imperfect action of the enfeebled papillary muscles deranging the mechanism of the valves. Besides these cardiac bruits there are murmurs produced over the pulmonary artery and aorta. All of these murmurs are systolic in time, and vary much in intensity and situation; the most constant seat being at the base of the heart, the next at or within the left apex. Dr. Pearson Irvine, whose loss we have had so grievously to deplore, studied this subject for a long time, and embodied his conclusions in a paper read before the Royal Medical and Chirurgical Society in 1877. He started from the ground that dilatation, especially of the left ventricle, is the chief cardiac change in chlorosis—an opinion promulgated by Stark,—and endeavoured to explain the murmurs not obviously vascular on the fact of this dilatation. One may admit the fact that in many chlorotics there are signs of this dilatation. The matter, however, is very difficult of clinical proof, but it is supported by the post-mortem evidence of hypertrophy by Virchow and Lewinski—a hypertrophy which is as conceivably produced secondarily to a dilatation, as to a narrowed aorta. The known relation between anæmia and fatty degeneration of the heart supplies us with ground for believing that in slighter cases the heart muscle is enfeebled; and probably also its innervation is affected by the impoverished blood. Dr. Irvine differentiated four cardiac murmurs in chlorosis, having their points of maximum intensity over the left auricle and its appendix, at the left apex, over the fourth left costal cartilage, limited there or transmitted downwards to the right or left, and lastly, in the fifth left space, below it or over the sternum adjacent to it. He was inclined to attribute the production of these murmurs to the dilatation of one or both ventricles, and did not favour the view that any of them were due to regurgitation. The regurgitant hypothesis, which explains the auricular murmur as well as those met with about the region of the apex, is supported on the left side by the almost constant accentuation of the second pulmonary sound, and on the right side by the occurrence of jugular pulsation. The mechanism of this regurgitation may be either a slight inadequacy in the contraction of the papillary muscles, or it may be dependent on dilatation. Although the basic systolic murmur may be in many instances due to this regurgitant eddy into the auricular appendix, there can be no question that bruits are heard strictly over the aortic and pulmonary areas. Of the mode of the production of the former (which are not common) no adequate explanation has been given; but of the latter, the true pulmonary bruit, we have Quincke's view that in the cases where it is marked, the lung is retracted and the pulmonary artery slightly compressed at every systole; and we know how pressure by the stethoscope will increase the intensity of these bruits.

The murmur heard in the carotids and other arteries is only an exaggerated degree of what can be heard in health, and is probably due to the impaired tonus of the vessel allowing it to be more readily influenced by slight pressure.

The hum in the jugular vein—to which more significance has been attached than it merits, as shown by Dr. Herbert Davies—is produced by pressure, and increased in intensity whenever the flow of blood is accelerated. This is illustrated in the influence of posture—its increase in the standing position in the rise and fall of the otherwise continuous blowing sound, with the respiratory movement, the increased aspiration into the chest with every deep inspiration being accompanied by increase in the intensity of the murmur, which can be entirely arrested by forced expiration. It is noticed also that the auricular and ventricular diastole influence slightly the intensity of this bruit, so that in it we have a measure of the variations in celerity of the venous blood-flow.

I ought not to leave this part of the subject without alluding to the hypothesis advanced by Dr. Goodhart,[3] that anæmia may be at the foundation of some of those valvular diseases, especially of the mitral valve, the etiology of which is still obscure. He thinks the evidence conclusive that in anæmia there is ventricular dilatation, just as there is post-mortem evidence of muscular degeneration, and suggests that the continuance of this regurgitation may submit the valves to so constant and irregular a strain as to lead to alterations in their intimate structure, thickenings and puckerings, productive of permanent regurgitation and possibly some stenosis.

ON THE

NATURE AND SEQUENCE OF THE CARDIAC AND VASCULAR CHANGES IN INTERSTITIAL NEPHRITIS.

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THE short yet very able rejoinder (THE LANCET, March 12th) made by Dr. George Johnson to my papers in THE LANCET for the 5th and 12th of February appears to call for some brief additional comment. When my articles were written I had not seen Dr. Johnson's paper in the *British Medical Journal* for May 25th, 1878, and was consequently unaware that he had ceased to maintain the muscular character of the inner longitudinal layer of the thickened coats of the arterioles in interstitial nephritis. In the two papers just mentioned, Dr. Johnson expresses his conviction that the layer of longitudinal thickening is due to a physiological increase in the elastic or outermost portion of the tunica intima. He bases this conviction upon the following reasons:—Firstly, this thickened inner layer has precisely the same structural appearance and arrangement as the elastic layer in the larger, but still microscopic arteries, the increase being probably ascribable to the necessity on the part of the arterioles for resisting that tendency to elongation to which they are subjected under the strain of the increased injecting force of the hypertrophied left ventricle. Secondly, the thickening being constant and uniform in its structural characters, and presenting essential points of difference from syphilitic or tuberculous thickenings, it is probable that the true explanation of its nature is to be sought rather in the direction of physiological hypertrophy than in that of pathological change.

My reply to these arguments rests principally on the ground that this uniformity in the structural character of the thickened intima is not observable in my specimens. On the contrary, the shape and arrangement of the elements of the intima in different examples are subject to very considerable diversity. For descriptive purposes I may distinguish two principal varieties of thickening—namely, the fibrous and the cellular. The fibrous variety is evidently that to which Dr. Johnson alludes. The arteriole figured by him in the thirty-third volume of the Medico-Chirurgical Transactions, page 114, is an excellent example of it. A somewhat minor degree of the same kind of thickening is represented in Plate 4 of my monograph on Interstitial Nephritis. Were this the only kind of thickening I should feel less hesitation in regarding it in the same light with Dr. Johnson, even despite certain difficulties which might be suggested by a consideration of the permanent and stable nature of elastic tissue. But the characters of the cellular varieties of thickening appear to me to negative this hypothesis, and to force upon us not only the idea of pathological change, but also that of inflammatory connective-tissue multiplication. Take, for instance, the arteriole, a portion of whose wall I have figured in Plate 5 of my monograph. Here the thickened tunica intima, far from being exclusively fibrous, contains a large number of rounded or ovoid cellular elements, which can hardly be regarded as anything else than the products of a pathological multiplication of the connective-tissue cells of the middle layer of the inner coat. The elastic elements of the outer layer of this coat are visible as a number of sharp wavy lines separated from one another by the elements originating in the proliferative process. When viewed in transverse section under a power of about 600 diameters, these lines are seen to run through the thickened intima, presenting an appearance somewhat comparable to that of river-markings on a map. It is difficult, indeed, to resist the conviction that the wavy lines represent the split-up and displaced lamellæ of the elastic or outer layer of the inner coat, while the bulk of the thickening is constituted by an increase in the number of the elements forming the connective tissue or middle layer. The structural peculiarities of this variety of thickening are almost identical with those visible in many syphilitic arteries. The patient whose kidney contained the arteriole figured in Plate 5 was, however, known not to have suffered from syphilis.

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[3] THE LANCET, vol. i. 1880, p. 479

I purposely omit all mention of the appearances observed in the vessels of the remarkable kidney, an arteriole from which is represented in Plate 6 of my monograph. In this case the arteries were waxy, and there was a suspicion of syphilitic history which might tend to invalidate any conclusions based exclusively upon a consideration of the changes in the vessels of this specimen. Accordingly, lawyer-like, I prefer not to cross-examine a doubtful witness. I have, however, in my possession, a number of specimens in which the arteries are in a very similar condition. In these there is no warrant whatever for the supposition of a causatory syphilis.

It now remains to explain the reasons for my hesitancy in accepting Dr. Johnson's etiological explanation of the arterial and cardiac hypertrophy of interstitial nephritis as being due to an antagonistic action on the part of the heart and arteries, the one insisting on supplying the poisoned blood to the various tissues, and the other, in obedience to vaso-motor mandates, doing their utmost to exclude it.

My first objection is an *à priori* one, and shares of course to some extent in the weakness of all such arguments. It is this. The tendency of the various factors in all living organisms inclines so obviously towards mutual accommodation, that one is conscious of a *primâ facie* reluctance to admit the existence of long continued antagonism on any grounds short of absolute demonstration. But Dr. Johnson replies, In what other manner can we account for the high arterial tension and increased cardiac action in certain cases of acute renal disease with uræmia? In the first place, I might rejoin that in these cases the time necessary for the establishment of a give-and-take toleration is not allowed. A transitory antagonism is more conceivable than a persistent refusal to come to terms. But the real objection to this ingenious argument from analogy appears to me to be the following. Increased cardiac action with high-tension pulse are by no means invariably observable in cases of uræmic toxæmia. In all such cases the blood is presumably poisoned; why then are the consequences as regards the heart and vessels not invariable also, or at least fairly constant? Yet the name is legion of those cases of uræmia where the heart's action is insufficient, and the pulse slow, compressible, irregular, and intermittent — and this not merely in the later stages, but even from the very outset. What then is the explanation of this non-uniformity? Is it not to be sought in the constantly threatening tendency to serous and other inflammations, which constitutes so ever imminent a contingency in these cases? Congestion of the lungs, pneumonia, pleurisy, pericarditis, and peritonitis are each and all of them sufficient to account for a high-tension pulse and cardiac overaction. So too is that inflammation of the alimentary canal which occasions the severe diarrhœa so frequently seen as a harbinger or concomitant of uræmia. We cannot but recognise the influence which incipient inflammatory conditions of this kind must exercise on the circulation. According to my observations of uræmic cases, circulatory inefficiency is quite as frequent as excitement; and I have been accustomed to regard the latter, not as a consequence of antagonism between heart and arteries, but as a warning to be on the alert for inflammatory complications.

I have been led to the opinion that the hypertrophy of the heart in interstitial nephritis is due to diminution in the calibre of the arterioles, because of the apparent relation subsisting between them in those cases which I have hitherto examined. I do not consider my series sufficiently extensive to warrant as yet the expression of a positive opinion; and I therefore merely wish to indicate, in the meantime, the direction in which the balance of evidence appears to incline. There can, however, be little doubt that a condition of thickening of the tunica intima is very common in cases of interstitial nephritis; that it reduces the calibre of the arterioles generally; that this diminution in the sectional area of the arterial conduit-pipes must tend to produce a rise in the blood pressure; and that this rise in the blood pressure must be compensated by cardiac hypertrophy, either as direct result or concomitant, if the efficiency of the circulation is to be maintained. These considerations, when viewed in relation to the fact that in eighteen cases a very constant relation was maintained between the diminution in the calibre of the arteries and the degree of cardiac hypertrophy, seem to point in the direction of a strong probability, which further observations must either negative or confirm.

I have already indicated my present inability to propound a feasible explanation of the causes which issue in the production of hypertrophy in the tunica media of the arterioles. I trust that a new series of observations, which I am preparing to undertake, may possibly throw some light on the subject. If anyone has explained the *raison d'être* of this unquestionable feature in the morbid process, it is Dr. Johnson; but in the absence of further evidence, I cannot but regard his ingenious theory as provisional and tentative. A few carefully conducted experiments on animals by the administration, say of ergot, for a prolonged period, might do much towards settling the question as to whether continuous contraction of the muscular coat of the arterioles might or might not, in the absence of obliterative changes in the intima, prove sufficient to give rise to hypertrophy of the muscular fibres of the heart, and those of the arteries themselves. At present, however, when the head of every tomcat in the British Islands is held as sacred as that of the bull Apis in ancient Egypt, it is to be feared that any and every theory pertaining to this subject must remain unsettled in the absence of experimental corroboration.

Edinburgh.

ABSCESSES CONNECTED WITH BARE BONE, TREATED WITH AND WITHOUT LISTER'S METHOD.

BY HENRY MORRIS, F.R.C.S.,
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THE object of this communication is to ask a question and to state a case. In a recent number of THE LANCET there was an account by two able and well-known men of a phthisical young man, aged twenty-six, who had an abscess situated over the fifth rib, which was opened "antiseptically" on December 7th, 1879. A few drachms of thick curdy pus were evacuated, and the surface of the rib was found to be bare and rough for nearly two inches. On February 23rd (i.e., eleven weeks after the abscess was opened) the drainage-tube was extruded and the wound healed. The commentary is: "This affords a beautiful illustration of the power of nature to repair, if only protection be afforded, against fresh irritation. The diseased bone was kept free from all irritation, escape being provided for the discharges preceding and accompanying repair, and perfect asepticity being secured by the use of Lister's method. Had the abscess been opened without antiseptic precautions, prolonged fetid suppuration and exfoliation must have resulted."

The questions I would ask are: "Can the infatuation of disciples—*addicti jurare in verbis magistri*—go beyond this?" "Does not any system which has good in it flourish rather than suffer by such tributes to its glory as the above?" "Is it in accordance with the principles which should render to carbolic acid the praises which belong to it, and to common sense and the ordinary process of repair the tributes which belong to them?" The following case may assist to an answer :—

On Nov. 11th, 1880, Ellen W——, aged twenty-six, a weakly, very anæmic and pale-looking blonde, who all her life has had bad health, was admitted into Regent ward of the Middlesex Hospital with an ovoid swelling the size of a large walnut in the roof of the mouth, projecting downwards towards the tongue. It was situated chiefly on the right of the median line, and fluctuated and discharged daily a small quantity of rather offensive matter into the nose as well as into the mouth. Her jaws were filled with the decayed, ragged, and offensive stumps of molar and bicuspid teeth. The swelling in the mouth appeared three weeks before admission, and was attributed to the irritation caused by the first right upper bicuspid tooth, which had been for a long time carious, and had decayed away, leaving only a stump. This stump was extracted nine days before admission. A fortnight before coming in the swelling on the palate was lanced by the patient's regular medical attendant, and a quantity of blood and matter came away. It filled again in three or four days, and subsequently broke of itself, and discharged in two places—one where lanced, and one just behind the front teeth. A week before admission the discharge into the nose began. The mouth was slightly examined on the day of admission, but owing to her weak state of health and her fainting under examination, nothing was done until the next day (Nov. 12th), when a free antero-posterior incision was made into the abscess, and two or three drachms of mixed blood and pus evacuated. With a probe the whole palate process of the right maxilla was felt bare and rough, and the probe passed through a carious opening from the mouth into the right nostril. A wash for the mouth, consisting of Condy's fluid, was ordered, and the wound was kept open by the daily introduction of a probe. On Nov. 25th there was still some fulness in the seat of the abscess, but the mucous membrane had settled down upon the hard palate again. The mouth was still in a bad state owing to the stumps of teeth.

Dec. 3rd.—Palate looks quite sound, but patient thinks there is a trace of discharge at night into the mouth. She describes an uncomfortable "hollow sort of feeling" in the nose when she goes into the cold air. Is now well enough to bear the extraction of the stumps, all of which are to come out. The right second incisor, which was decayed, and two stumps were removed this morning.—Dec. 11th: There is now nothing wrong to be detected about the palate. Five more stumps have been removed since the 3rd of Dec. She is very much improved in health, and now only remains in hospital to have the other stumps removed.—Dec. 21st: Discharged well.

Remarks.—Cases are numerous enough in which an abscess connected with rough bare bone has been opened without what is now understood by the antiseptic precautions and dressings, and where no exfoliation has followed. But the above case is one in which such an abscess was opened not only without the perfect asepticity secured by the use of Lister's method, but in the presence of unavoidable and most septic conditions, the pent-up matter of the abscess having a communication with the nose, as well as with the mouth and its offensive tooth stumps. Yet neither exfoliation nor prolonged suppuration resulted, and the abscess, thanks to the ordinary processes of repair, was quite well in less than four weeks.

This case is open, no doubt, to the argument that the presence of the decayed and foul stumps was an important and most favourable element in the recovery, serving as potent centres to attract the germs of putrefaction, and thus draw them away from the abscess cavity and the diseased palate bone, like wasps which hover about the cracked and over-ripened fruit of the greengage tree to the neglect of the heliotrope and roses. Further, this deduction—it would not be a logical one—may be made from the case—namely, that it would be well in every instance to have a powerful centre of putrefaction at no great distance from a wound in order to serve as a counter-attraction for the said germs. I am not, however, disposed to agree with so cynical a disputant; any more than I can believe, even when asked to do so by distinguished men, especially with the evidence of such cases as the above before me, that Lister's method is requisite for the cure of these abscesses.

It has for some time past been quite the general practice in describing any successful operation, be it never so simple, or one ever so frequently performed, to state that it was done under Lister's method, and to imply that the success was chiefly due to the employment of this method. If this habit continues the students of medicine in the immediate future will run the risk of growing up to think that before the use of the "antiseptic system" there could have been no successful surgery at all; and when they get into country practice they will have to make provision for always carrying on horseback, or in their gig, a steam spray and rolls of gauze and protective, so as to avoid the qualms of conscience which must follow if in a weak moment they open an abscess without these precautions, and make the horrible discovery that there is rough bare bone. Every week contributes its quota to this end, and we are almost persuaded to think that without carbolic acid there can be no good from herniotomy, no safe colotomy, no satisfactory excision of a tumour or a joint. Such are the expressions which are daily heard that one cannot help feeling, with one of my old teachers at Guy's, a past President of the College of Surgeons, who said, "If all we now hear is true, I wonder we old fellows ever had a successful operation." It is to be hoped, for the sake of the just appreciation of Lister's system, that many of these "old fellows" will long remain amongst us, to hold the balance between the true and false, and to recall to our minds some of the successful results of pre-Listerian practice.

Mansfield-street, W.

ON THE HERPES IRIS OF BATEMAN.

By T. COLCOTT FOX, B.A. CANTAB., M.B. LOND.,

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OUR largely-growing knowledge of diseases of the skin, which has resulted from the general advancement of medicine and surgery and the special increase of work in a long and much-neglected section, has borne fruit in the fulfilled desire for a more scientific classification and a simplification of the grouping of these diseases. In the latter process, however, there may arise a danger of being hurried on too fast, and it is well to call a halt occasionally, and make sure of our ground, that we may not introduce confusion by having subsequently to retrace our steps. It is my intention by the following remarks to ask careful consideration of the subject before we yield to the growing tendency amongst dermatologists to swamp, as it were, in the group erythema multiforme the rare but very characteristic disease herpes iris, so well described by Bateman. Unquestionably a very real advance was made by Hebra when he grouped together under the term erythema multiforme the various varieties of inflammation of the skin, hitherto described as erythema annularis, iris, papulatum, tuberculosum, circinatum, and so on, because, although each of these varieties has distinctive features both as regards site, appearance, &c., they are frequently associated together, and are undoubtedly mere varieties due to the amount and site of the fluid effusion, and to the mode of extension of the inflammatory process. Now, it is an all-important point to recognise that the effusion of fluid in sufficient quantity or superficially enough to form vesicles or bullæ is a perfectly natural stage of the erythematous inflammation, although an exceptional termination, and by no means to be regarded as a characteristic feature. Still the term erythema ("inflammatory blush") must for the future be given a wider significance than heretofore, and must denote a type of inflammation which may exceptionally, but naturally, terminate in vesiculation. When the process is very acute or the effusion of fluid superficial enough we see such vesiculation exceptionally in many varieties of erythematous inflammation, as—e.g., in urticaria (U. bullosa, which has been described as pemphigus), in the cruptions produced by the ingestion of some balsams, in the erythematous rashes characterising many of the acute specific fevers, in erysipelas, &c. And, further, it is necessary to note that from the peculiar evolution and spread of the inflammatory process the vesicles or bullæ may be arranged singly or grouped in some variation of the annular pattern.[1]

In herpes and pemphigus, on the other hand, the effusion of fluid sufficient to form vesicles or bullæ is a characteristic and almost constant feature, though exceptionally the eruption may abort or stop short of this. In pemphigus it is usual, and in the "vesicating erythemata" very exceptional, for the vesicle or bulla to rise directly without the intervention of a marked erythematous stage. In herpes the many vesicles are aggregated characteristically on an erythematous base; in pemphigus the vesicles or bullæ (for the collections of fluid may be very tiny) are usually disseminated singly, but they may be in groups of a serpiginous or other pattern.

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[1] Those interested specially are referred to a posthumous paper by the late Dr. Tilbury Fox, which I edited for the January number of the Archives of Dermatology, 1880, entitled A Clinical Study of Hydroa.

Bearing these facts in mind, it appears to me that between the essentially vesicular or bullous diseases known as herpes and pemphigus and erythema multiforme, which is only exceptionally vesicular or bullous, it is desirable still to retain a place for Bateman's characteristic affection herpes iris. And chiefly for two reasons: firstly, because in my experience, and I have notes of many cases, it is an essentially vesicular disease; and, secondly, because it is almost always associated with the vesicular eruption known as herpes facialis or preputialis, certainly a very rare complication of even "vesicating erythema." I would not lay much stress on its symmetry, its colouring, its very constant site on the hands, knees, and insteps, nor on its strongly recurrent tendency and the influence of the seasons in its production, because though of great value collectively these features unquestionably tend to separate it from true herpes and bring it very close indeed to erythema. The peculiar form of the eruption, dependent on the presence of a central umbo and one or more successively surrounding rings of distinct or confluent vesicles, points to a mode of evolution characteristic also of the erythemata, but here I would clearly state my view that I do not include under herpes iris those rare cases of vesicating erythema in young children, of which I possess drawings, and which were recently described at the Clinical Society, though some of these lesions are identical in appearance. I am not concerned to retain the term "herpes iris," because the term herpes nowadays has a precise meaning, and I cannot agree that the disease under consideration falls within that definition. In conclusion, therefore, I would plead for the retention of Bateman's herpes iris between true herpes and the erythemata, but as far more closely allied to the vesicating forms of the latter than to the former.

Harley-street, W.

ON THE TREATMENT OF CLOSURE OF THE JAWS.

By W. DUNNETT SPANTON, M.R.C.S. Eng.,
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I can discover in works on surgery very little information on the subject of closed jaws, and still less that is satisfactory in the matter of treatment. We find the affection usually dismissed in about half a dozen lines; and yet to a limited extent the matter is of some importance, and I propose to direct attention to one method of relieving the affection which, so far as I know, has not been usually practised.

Various causes have been assigned for what Gross calls "this distressing affection," the principal being cicatrices of dense unyielding tissue caused by some form of ulceration, such as ptyalism; anchylosis more or less complete, from injury, or inflammation of temporo-maxillary joints; contraction of the structures surrounding the joint, particularly the masseter and pterygoid muscles; a bony connexion between the upper and lower jaw; and from pressure caused by a neighbouring tumour or enlarged glands. I do not now refer to spasmodic closure, which would seem to depend on reflex irritation, such as the eruption of wisdom-teeth, tetanic spasm, &c.

In the two cases which I will very briefly notice, there appeared to be no other cause for the immovable condition other than anchylosed temporo-maxillary joints; and, as I shall presently show, this depended on a condition which would seem to be quite analogous to that of other joints, such as the knee, occurring as a sequela of certain diseases—such, e.g., as scarlet fever and measles. We have, in fact, to deal with a joint in which there has been inflammatory mischief at some previous time, with resulting contraction of the surrounding ligaments and tendinous structures. This consideration led me to adopt the mode of treatment which is found so serviceable in dealing with a like condition in cases of stiff knee or genu valgum—that is, to divide the ligaments in such a way as to release the joint. Various objections to such a procedure will no doubt readily suggest themselves, as they did to myself; but I think that in the two following cases the result justified the means.

The first is that of a girl, aged ten years, Ada M. R——, who was admitted under my care in the North Staffordshire Infirmary in April last year. About six years before she had scarlet fever, which resulted in hip-joint disease, and in a subsequent closure of the mouth, which had never been relieved. On admission she was very thin and ill-nourished, owing to her inability to masticate food. The mouth was firmly closed, and under chloroform it was found impossible to open it, although one tooth was broken in the attempt. There were no marks of cicatrices either in the mouth or externally; the digestive muscles were fully developed, and there was no unusual rigidity of the masseter or temporal muscles, nor was there any glandular swelling or other apparent cause for the condition of the mouth. The right hip was dislocated from disease of the joint, coincident apparently with the temporo-maxillary affection, but in a perfectly quiet state. She was able to take only liquid food, or such as she could squeeze with her fingers between the teeth.

Believing that the immobility was dependent on an anchylosed state of the temporo-maxillary joints, with probable contraction of the ligaments surrounding them, and failing to make the slightest impression by means of a gag with any justifiable amount of force, I passed a very narrow tenotomy knife into the temporo-maxillary joint on each side, immediately in front of the temporal artery, and then passed it freely round the condyle of the inferior maxilla as far as I deemed prudent, dividing completely the external lateral ligament of the joint, and partially the insertion of the external pterygoid muscle, keeping the back of the knife towards the temporal, and carefully measuring the depth of incision so as to avoid the middle meningeal artery. It is not a particularly happy spot to tenotomise in, but very little hæmorrhage occurred; and as soon as this procedure was effected I found that the joints at once yielded to the gag, and the mouth could be opened to the extent of more than an inch. For a day or two some soreness was complained of, but the gag was used almost daily, and seven weeks afterwards the patient left the infirmary able to open the mouth fairly well and to masticate her food. As a result of this her general health greatly improved. She continued well, and was able to go to school, but the use of the gag from time to time was neglected, and by degrees the stiffness began to return. At the end of November she came under my care again, very much improved in health, but with the mouth closed so far as only to admit the tip of one's finger. I accordingly repeated the operation, taking care to divide the structures, especially anteriorly, more freely than I had on the former occasion; and the result has been much more marked than it was before. She can now open the mouth to some extent without assistance, and with the use of force it can be opened wide without causing pain. There is, however, very slight lateral movement.

The second case is that of a girl aged nine, Sarah Ann B——, who was brought to me in November, 1879, for a closed mouth. She was a delicate-looking child, had been deaf from early childhood, and about two years and a half before I saw her had scarlet fever, after which the gradual closure of the jaws took place. This was naturally accompanied by a corresponding decline in her health and strength, for which her friends sought relief. The mouth was quite firmly closed, and with no legitimate amount of force could it be moved. Under chloroform I operated as in the former case, and by means of a screw gag opened the mouth freely. No untoward symptoms beyond some swelling and tenderness about the temporo-maxillary joints occurred, and by the frequent use of the gag by the patient's friends at home, she can now open her mouth sufficiently to take any kind of food, and I am glad to say is now recovering very fair lateral movement also. She can open it to the extent of more than half an inch without assistance, and is able to masticate her food thoroughly. This has led, as we hoped it would, to a corresponding improvement in her general health.

In these cases, when I found it impossible to force open the jaws, I was inclined at first to practise Esmarch's method of excising the joint, or Rizzoli's plan of dividing the ramus of the maxilla; but as I happened to see the first case in which the former operation was performed in this country by Mr Mitchell Henry many years ago, and which resulted in a rapidly fatal issue, I was led to try the milder measures I hav described; and as an alternative of the more severe operations for the relief of this troublesome affection the plan is one which is, I think, deserving of a more extended trial. I would only further suggest that it should be practised cautiously.

Hanley, Staffordshire.

CASES OF SUDDEN OBSTRUCTION OF THE ŒSOPHAGUS.

By PUGIN THORNTON,
SURGEON TO THE ST. MARYLEBONE GENERAL DISPENSARY.

LAST year two cases of stricture of the œsophagus came under my notice, in both of which a sudden obstruction to the passage of food was the first symptom of disease. In the first case the affection proved to be of a benign nature, in the second malignant. I venture to bring these cases forward because sudden and extreme dysphagia, attacking a person apparently in good health, is a rare condition, and one which must affect a surgeon's ability to determine upon the nature of an œsophageal stricture. Sir James Paget, who saw the second case, tells me that he has never before known sudden obstruction to the passage of food to be the first symptom in cancerous stricture of the gullet. The first case is also of much interest, because in most respects it resembled one of malignant disease.

CASE 1.—Mrs. ——, over sixty years of age, was sent to to me by Mr. W. H. Evans, of the Finchley-road. Mrs. —— informed me that four days previously, during dinner, a piece of meat had stuck in her throat, and that it was with great difficulty she had managed to pass it down, that for some hours after the accident she had been unable to swallow anything, and then, and till the time she saw me, she had only been able to take liquids drop by drop. The patient was in good health at the time of the accident and had never before found difficulty in taking food. She had been apt, she acknowledged, to hurry through her meals, although unable to masticate her food properly, her teeth not being in good order. Since the accident Mrs. —— had felt continuous pain in the right ear, and had been troubled with a constant collection of frothy phlegm. In swallowing she also felt pain between the cricoid and sternal cartilages. Her expression was anxious. She was very thin, but was not aware that she was thinner than she had been for years. The larynx and surrounding parts were normal in appearance. Mr. Evans had written to say that he had been unable to pass an instrument through the stricture, and I also met with the same difficulty, the constriction being opposite the cricoid cartilage. At first beginning with a large-sized bougie, I made steady and protracted pressure on the stricture, and I then tried quickly through some of the smaller instruments. On March 13th I could pass a bougie down the left side of the gullet, but on the right side the œsophageal canal was still firmly closed. Mrs. —— had been able to take small pieces of dry bread, and could now drink without stopping. The pain in the right ear continued, but was not so severe, and the anxious expression in her face had disappeared. This patient made a complete recovery, and has remained free up to the present time from any relapse, although she has since, I have heard, been through a severe attack of pneumonia.

CASE 2.—Major ——, aged sixty-two, consulted me on March 23rd, 1880, on account of dysphagia which had troubled him for three weeks. When he came to see me he was unable to take solid food, and liquids only with difficulty. He said that the stoppage had come on suddenly during a meal, when he was apparently quite well. Finding himself unable to take anything he became very nervous, and for some hours would not make any further attempt to swallow, and when he tried he could only manage a teaspoonful of fluid at the time. On examination I found a stricture at the upper part of the lower third of the œsophagus, through which I could not pass the smallest-sized bougie. The patient was well nourished in body, nor had he noticed that he had lost flesh. His face was anxious, but presented no appearance of a cancerous cachexia. There was a murmur to be heard in the cardiac region, which, on consultation with Dr. Ringer, this physician pronounced to be aortic, and not aneurismal. For diagnostic purposes I asked this gentleman to pay me a second visit in a fortnight's time. I afterwards learnt that he was taken to Sir James Paget. He died a few weeks later.

At the post-mortem examination Dr. Hodson, of Bishop's Stortford, has informed me that he found a cancerous stricture, annular, but not complete, about one inch and a half above the cardiac orifice.

What the condition of the œsophagus was in the first case it is hard to say. It could scarcely be that the cricoid cartilage was diseased, or the patient would have felt pain on external pressure, and most probably some mischief would have been detected in the laryngeal examination. If we say that it was a case of spasmodic stricture it is difficult to account for the fact that on passing a bougie at the patient's second visit an obstruction was met with on the right side of the gullet, and not on the left. One would think that the closure of the œsophageal walls in the case of a spasmodic stricture would either give way all at once or equally from the centre of the canal, unless, indeed, in this instance a very slight and old-standing constriction of the mucous wall on the right side of the œsophagus was present at the time of the accident. Undoubtedly the circumstance of finding a complete stricture, apparently organic, in an old woman, attended with the symptom of constant pain in the right ear (the side, let it be noted, the stricture lasted the longest), and with the presence of a quantity of frothy phlegm, pointed in a great measure to the affection being of a cancerous nature.

Mr. Power, in 1866, related in THE LANCET (vol. i., p. 252) a case of stricture in which the patient died of inanition, but that on a post-mortem examination he found a perfectly natural condition of the œsophageal walls. In this case the difficulty of swallowing came on gradually, and a large-sized bougie was on one occasion passed by force through the stricture. By both patients I was asked to give a decided diagnosis. In both instances I was unable to do this. With regard to the case of Mrs ——, I explained that the nature of the illness could not at once be determined upon, but could only be cleared up by time; that although the condition of the patient was undoubtedly very serious, yet, at the same time, from the abnormality of the symptoms, there was reason for saying that the case should not be considered as hopeless. In the second instance, although one had the experience of the case of Mrs. ——, there was more reason to suspect that the stricture was of a cancerous nature on account of its position, but here again it was difficult to account for the suddenness of the attack, coupled with the absence of other signs, and the previous good health of the patient. Perhaps the proper course for clearing up the diagnosis in each case would have been to attempt to pass a bougie whilst the patient was under chloroform.

Devonshire-street, Portland-place.

PHANTOM TUMOUR.

By P. D. MALLIK, M.B.

ON Dec. 3rd, 1880, I was called to see a case of spurious pregnancy. The patient's history was as follows:—

M——, aged seventeen, married. No children, no miscarriages. Menses arrested since July, 1879. General health good. No family history of hysteria. A month after the cessation of her menses she had nausea and the usual sympathetic disturbances of pregnancy. About the second month the breasts became increased in size and tender, and afterwards became much larger and firmer; blue veins were seen crossing them. The nipples became turgid, and the changes in the areolæ were marked, and exactly resembled those seen in a case of true pregnancy. About the fifth month the abdomen was found to be prominent and enlarged. Quickening was perceived by the patient, and, what is more strange, apparent fœtal motions were observed. The patient was pronounced pregnant, and although she was suffering at the time from irregular attacks of intermittent fever, yet, according to the prejudices still unfortunately prevalent among a large section of the native community, she was not placed under medical treatment — the very fact of pregnancy being, in their opinion, a sufficient reason against the administration of any medicine. The size of the abdomen increased progressively until it resembled the gravid uterus at full term. Exactly at the end of nine months all the phenomena of labour supervened. Regular pains came on and continued to increase in force and frequency, but no progress was observed. The pains lasted about twenty-four hours, after which period the patient had an attack of intermittent fever. Days and months elapsed, but the labour pains never returned. The parents of the girl became anxious, and thought she had an abdominal tumour. Accordingly they sought medical assistance, and Babu Hara Lal Dutt, of Chandernagore, who was sent for, requested me to see the case in consultation with him. On inspection, the tumour was situated exactly in the centre of the abdomen, and extended from the pubes below to the ensiform cartilage above. The umbilicus was not protruded. There were no striæ over the abdomen. On palpation the tumour was found to be elastic; it had not the hard feel of a solid tumour. Its boundaries were not distinctly circumscribed. Firm, even, continued pressure perceptibly diminished the size of the tumour. The tumour had no connexion with the liver, spleen, ovaries, or uterus. On auscultation, neither the fœtal heart sound nor the uterine souffle could be heard. Rumbling noises were audible all over the tumour. On inquiring whether the patient ever had "fits," a negative answer was received, but we were told that she now and then complained of "globus hystericus." Taking all these facts into consideration, we diagnosed phantom tumour. To confirm our diagnosis, we placed the girl under chloroform. When complete anæsthesia was produced, the tumour entirely vanished from sight; but on withholding the administration of chloroform for a few minutes, it reappeared and assumed its former size and shape. Thus the fact of spurious pregnancy was established beyond doubt. We ordered ten-grain doses of bromide of potassium three times a day. Whether this medicine will do her any good time will show.

Hooghly.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

COMPOUND FRACTURE OF LOWER END OF FEMUR; ACUTE GANGRENE; FATTY EMBOLISM; DEATH.

(Under the care of Mr. BRYANT.)

FOR the following notes we are indebted to Mr. Dalton.

Chas. B——, aged thirty-two, was admitted into Accident ward on July 18th. At 11 P.M. on the 17th, while alighting from a waggonette at New-cross, he slipped, and the wheel after pushing him a little way, passed over his left thigh. He was taken to Guy's at 1 A.M. in a condition of marked collapse. He had fracture of the lower end of the femur. The arteries were pulsating. Ice was applied. In the afternoon of the same day the thigh swelled and became cold. The temperature rose to 102°. Mr. Lucas was called as gangrene had set in, but did not consider it expedient to amputate. By 11 P.M. the pulse was imperceptible, the face became cold, the leg swelled and became emphysematous. Incisions were made, but the gangrene extended to the abdomen, and the patient died at 7.20 A.M. on July 19th, thirty-two hours after the accident.

Post-mortem Report by Dr. FAGGE.—Face bloated and emphysematous, so also all parts of the body. The whole of the injured extremity was exceedingly tense from the distension of the tissues with gas. The scrotum also was blown up to a large size, and large bullæ of dirty fluid were spread about the buttocks and hams. Both lungs stained from blood soaking, though they were quite *warm*. On section of the lungs the exuding fluids were thickly covered with small droplets of oil of various sizes. I have frequently seen such a state in fat bodies previously; but as it was suspected the case might be one of fat embolism, I examined the parts very carefully, and I soon noticed that the oil had a peculiar glutinous appearance, and that it came in large quantities from the moderate-sized branches of the pulmonary artery. I could take them from the vessels on to my knife and show them to the class in quantity. The lung was otherwise perfectly healthy. — Heart: Healthy. A moderate amount of clot in each side. Muscle distended with gas from decomposition.—Liver: Healthy; distended with gas.—Spleen weighed six ounces and a half.—Lower limbs: Healthy. Knee-joint free from blood, and not implicated in any way by the fracture, which was a comminuted one in the lower third, running from in front and above downwards and backwards. It appeared to be an ordinary form of fracture. The vessels were in no way lacerated or even bruised, so far as we could see. The vein was examined in its whole length down to beyond the fracture, and the artery also. They were free from clot, though both were much stained with blood. This early decomposition is worth noting, as the blood was still quite warm when the inspection was made (eight hours after death). The man was a big muscular fellow, with a fair amount of fat on him.

COMPOUND COMMINUTED FRACTURE OF LEG; ATTEMPTED PRESERVATION; SECOND AMPUTATION; FATTY ORGANS; DEATH.

Edmund E——, aged forty-seven, was admitted into the accident ward on July 20th, 1880. He was a fly-driver at Chiselhurst, and was thrown from his fly and run over, at 10.30 P.M., on the 19th. A local surgeon bound up his leg and sent him to Guy's. On removing the bandage, a piece of bone was found to have come away. The wound was about two inches long. There was fracture of the lower third of tibia. There was also a graze over the inner side of right patella, about the size of half-a-crown. The right metatarsal phalangeal joint was also a good deal bruised. The left shoulder was tender, but no bruising was to be seen. The tendo Achillis was divided. There was a little crackling up the tubercle of the tibia (emphysematous). Two interrupted side and one back splint were put on, and ice was applied to the seat of injury.

On July 26th the patient complained of heat in the injured limb and a good deal of pain, and he had been delirious during the night. On examining the leg there was a little extravasated blood on the front as high as the knee in the cellular tissue. The wound was on the inner side. There was extensive extravasation of blood in the calf. It was chiefly under the soleus, reaching nearly down to the knee, and lying in a plane superficial to the deep fascia. The tibialis anticus was slightly lacerated. The fracture was of both bones, three and a half inches from the anterior border of the tibia; there was a gap in the under surface of tibia from which the pieces were removed; there was a loose fragment of the fibula attached by muscle only. The posterior muscles were chiefly lacerated. The anterior arteries were not wounded. The internal saphena vein was free, but a good deal of coagulum surrounded it. Around the end of the bones was some granular tissue springing from the muscles. The periosteum reached nearly to the end. Nowhere amongst the muscles or cellular tissue was there any suppuration. There were some fine adhesions between the muscles around the clot. No suppuration round the end of the bones. All the clot looked firm except at one point, where it was grumous near the fracture. End of tendo Achillis was torn; the upper part looked a little swollen. The gap between was not filled up, though within the sheath there was a little new lymph. The ankle-joint was sound. Coagulum in medullary cavity. No pus beyond the clot. There was everywhere much yellow serous fluid. Stokes's supra-condyloid amputation was performed. Next day the patient was partly delirious, and very thirsty. The pupils were contracted, and there was a spasmodic twitching of the muscles. He was perspiring freely. Urine clear, pale, slightly ammoniacal, with no trace of bile or albumen. On the 28th he was quieter. There was a little yellowness of conjunctiva. There was no œdema or redness above the amputation. On the 29th he was restless. Tongue brown and dry; sordes on lower lip. Perspired freely. Passed excretions in bed. He had a peculiar smile playing over face. Urine was brown, with a greenish colour floating on top; there was some sediment; albumen was present; nitric acid gave a slight pink blush. During the afternoon he became suddenly worse, and died at 3 o'clock.

	Morning Temperature.	Evening Temperature.	Pulse.
July 20th	—	99°	—
,, 21st	100·4°	100·6°	72
,, 22nd	100·8°	99·0°	84
,, 23rd	102·2°	102·0°	100
,, 24th	102·0°	101·6°	
,, 25th	100·6°	101·5°	96
,, 26th	101·4°	99·6°	92
,, 27th	101·3°	101·6°	100
,, 28th	103·1°	—	120
,, 29th	102·2°	—	132

Post-mortem examination.—There was extensive decomposition. The scrotum and face inordinately distended with gas. A great deal of fat in abdomen wall. The organs were all fatty, which condition Dr. Fagge thought had an important influence in causing death. There was no evidence of pyæmia.

BURTON-ON-TRENT INFIRMARY.

SARCOMA OF HEAD OF TIBIA; AMPUTATION; SECONDARY DEPOSIT IN CHEST; DEATH; NECROPSY.

(Under the care of Mr. P. B. MASON.)

T. A——, aged fifteen years, was first seen late in May, 1880. He complained of pain in the left leg just below the head of the tibia, and on the inner side. He had been struck on that spot a few weeks before by a cricket-ball, to which cause he attributed the attack. There was some tenderness over the spot and a slight fulness, apparently due to thickening of the periosteum. The case, in fact, presented all the characteristics of one of subacute periostitis, and was treated accordingly, but without any relief. After having been seen for a short time without any appreciable alteration in the symptoms he was lost sight of until the end of September, when he applied again. The aspect of the case was by this time very considerably altered. At the spot abovementioned there was a distinct swelling of a very elastic character, which had increased rapidly in size. He was admitted into the house, and the swelling daily became larger, and soon exhibited faint pulsation. The general health was good. No swelling of glands in groin, and no dulness could be made out in the chest. On October 2nd the patient was put under chloroform, and a grooved needle was passed through the swelling down to the bone. A bloody serum exuded and small spiculæ of bone could be distinctly felt. The thigh was amputated in the lower third, full antiseptic precautions being observed. The patient made a good recovery from the effects of the chloroform at the time, but towards evening there was considerable retching, great pain in the stump, and some hæmorrhage. The dressing was removed under the spray, when the flaps were found to be much infiltrated and distended by a large venous clot which had formed between them. The hæmorrhage was found to be from the femoral vein which had been divided very obliquely in the operation, and not bleeding at the time had been unnoticed. It being quite impossible to get the edges of the flaps into apposition again, the antiseptics were abandoned, and they were simply bandaged together with gauze bandages, which were allowed to remain on for five days, the discharges soaking through them. The flaps granulated quickly, and the wound eventually healed without any further complication. He was discharged well on November 20th. It is interesting to note that although all the vessels were secured without carbolised catgut ligatures there was no sign of hæmorrhage after the antiseptics had been discarded.

The boy was seen from time to time and appeared to be doing very well. On the 15th of December, however, he complained of great pain in the right side, and on examination presented all the physical signs of acute pleurisy with slight effusion. He was again admitted, but the symptoms did not yield to treatment. The effusion increased considerably; blisters were applied freely, with but little relief. There was also some dyspnœa, which was never very urgent except when lying down. The whole of the right chest was soon distended by fluid, and the advisability of tapping was discussed, but negatived (as the real cause of the pleurisy was strongly suspected) unless the difficulty of breathing became greater. This did not occur, but on the 26th of December, having felt rather better during the evening, the patient died very suddenly.

The necropsy disclosed a large mass of sarcoma at the base of the right lung, binding it down to the diaphragm. The right pleural cavity contained 320 ounces of fluid. The pleura on both sides of the chest was studded with small growths (all adherent to the ribs) from the size of a chestnut to that of a pea. The other organs were normal. No sign of any recurrence in the stump. On microscopic examination the primary growth proved to be a spindle-celled sarcoma, while that in the chest was composed of round cells. The nodules studding the pleuræ were found to have originated in the osseous structure of the ribs.

WINDSOR ROYAL INFIRMARY.

CASES RECENTLY TREATED UNDER A STRICT ANTISEPTIC PLAN.

(Under the care of Mr. HOLDERNESS.)

FOR the following notes we are indebted to Mr. C. Bullock, house-surgeon.

Amputation of Leg.—This operation was done at the lower third, in a man, aged twenty-three, for long-continued and extensive disease of the ankle-joint. Strict antiseptic precautions were observed at the time of the operation, such as catgut ligatures, carbolised silk sutures, india-rubber drainage-tubes, and the usual dressings. The wound was dressed on the second, fourth, sixth, eleventh, sixteenth, and twentieth days after operation. All sutures were removed on the eleventh day, and drainage-tubes on the sixteenth. The temperature the night before the operation was 101·2°, having been so for many nights previously. On the night of the operation it fell to 98·4°, and never rose afterwards. Patient discharged on the twenty-third day after the operation, wound entirely healed, with an excellent covering to the ends of the bones.

Amputation of Leg, at the Lower Third, was performed on a child, for the removal of a useless foot, and with a false joint, about three inches from the ankle, the result of an intra-uterine fracture. Strict antiseptic precautions, at the time of the operation, catgut ligatures, carbolised silk sutures, india-rubber drainage-tubes, and the usual dressings. Wound dressed on the second, third, fifth, eighth, tenth, sixteenth, and twenty-first days. Sutures removed, as required, up to the eighth day, and tubes, which had been gradually shortened, were removed on the twelfth day. The temperature never rose above normal. Patient left the hospital on the twenty-first day, stump quite healed and firm.

Opening a large Abscess on the back of the Thigh, in a man aged forty-five, from which twenty-four ounces of thick offensive pus were withdrawn. The man before the operation had had rigors, and evening temperatures up to 104°. The temperature became normal twenty-four hours after the operation, and remained so. The abscess cavity gradually closed up, and the patient was discharged on the seventeenth day.

Removal of Solid Bodies from the Bursa on each Leg, situated between the tubercle of the tibia and ligamentum patellæ. The ether spray was used on this occasion. The wounds were united with catgut sutures, and free drainage provided. The wounds were dressed on the second, fourth, and sixth days. She returned to her duties, which occasioned much kneeling, on the eighth day, perfectly free from all former pain, which had been caused whenever she knelt for the past year or more.

Removal of Bone from the Surface of Tibia.—A case of osteitis, in which the nocturnal pains had been most severe. A long trial of other remedies having failed, about two inches in length, from the upper part of the internal surface of the right tibia, was removed with gouge and hammer, the periosteum having been previously detached. The wound was left unsutured, and filled with blood clot. At the dressings this clot was carefully preserved. The wound gradually contracted until a line of healthy granulating tissue remained. All pain in the leg ceased immediately after the operation, and the patient left the hospital able to walk without pain, and eager to do her work, on the twenty-seventh day.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Double Facial Paralysis.—Cheiropompholyx.—Tubercular Meningitis.

AT the meeting on the 4th inst. the chair was taken by the President, Dr. BROADBENT, who exhibited a man who was the subject of a double facial paralysis; it was a peripheral paralysis. The man had suffered from headache for a long time, but the history of syphilis was doubtful. If the disease were of central origin, Dr. Broadbent remarked that it was one of a condition of extreme rarity, for that if there had been symmetrical lesion in the medulla oblongata the sixth nerve ought also to have been implicated, but it was unaffected. There was no reaction to the Faradaic current, but there was an exaggerated response to galvanism. The appearance was not characteristic of facial paralysis, because from the affection being bilateral the mouth was evenly balanced between the muscles of the two sides of the face. The expression was solemn and the man was unable to shut his eyes voluntarily, though they closed during sleep. The condition was the result of exposure to extreme cold.—Dr. S. MACKENZIE called attention to the loss of smell and to the facility with which, owing to the symmetry of the affection, the case might have escaped recognition.—Dr. GILBART SMITH noted the fact that the man had lost the power of distinguishing salt from sugar.

Dr. CROCKER exhibited a Case of Cheiropompholyx, or Dysidrosis. The disease began as small vesicles in the palms of the hands, which ran together to form irregular bullæ one inch and half in diameter. He was of opinion that the sweat ducts opened through the middle of the original vesicles. Possibly dysidrosis and cheiropompholyx were really different pathological conditions. The patient, he showed, was a confirmed dyspeptic, whom he was treating on general principles, with the local application of oleate of zinc or lead. Both the hands and feet were affected in large bullous and in small erythematous patches. In reply to the President, Dr. Crocker remarked that the sweat was acid, but the fluid from the vesicles was alkaline in reaction.

Dr. DAY read a paper "On Tubercular Meningitis and the Mode of Treatment." He commenced by asking two questions: 1. At what stage of the disease could its nature be surely recognised? 2. Is its progress affected by treatment? The premonitory symptoms were essentially febrile; then might come on varied grave signs with great rapidity, when perhaps the disease in its early symptoms had been mistaken for typhoid fever, or some other ordinary disease. An abstract was read of five cases. The first was that of a very young child, who had in the course of the disease suffered no sickness. The second case was that of a child nine years old, who had been ill twenty days, but had never suffered from vomiting. The pulse, respiration, and temperature had rapidly mounted just before death. The autopsy revealed general tubercular infiltration. The third case was that of a child two years and a half old. In this case also there had been no vomiting, but there were flushings of the face and convulsions. Early on the day of death the temperature was 99°, but towards evening it had risen to 105°. In the fourth case, a child of four years, there was no vomiting; but in the fifth there had been both constipation and vomiting. Of all the cases this was the only typical one, though the temperature never rose above 101°. Dr. Day did not regard optic neuritis as a great aid in making the early diagnosis. Congestion and haziness of the optic discs might be much more frequently discovered, though it was by no means easy to make a satisfactory ophthalmoscopic examination in an irritable restless child. As regards the treatment of these cases he would rather ask for suggestions than attempt to give any. Cold to the head often gives relief; iodide of potassium he had never found to be of any avail. He thought that the recorded cases of "tubercular" meningitis were really instances of simple inflammation.—Dr. S. MACKENZIE said it was often impossible to make a diagnosis in the early stage. He regarded a high temperature as a sign of impending dissolution. Irregularity of the pulse and retraction of the abdomen were important symptoms. In his opinion a few cases of undoubted tubercular meningitis did recover. Iodide of potassium and mercury were his usual remedies.—Dr. ALTHAUS said that a heightened temperature with a slow pulse were important aids to diagnosis. He advocated cold applications to the head.—Dr. GREEN regarded the pulse as probably the most important aid in making a diagnosis; it was very irregular, both in rhythm and force.—Dr. LEE advised caution in making a diagnosis, for many cases presented but the general and ordinary symptoms of cerebral disturbance. Experience had led him to the conclusion that true cases of tubercular meningitis do not recover. Ptosis was a most characteristic symptom.—Dr. GILBART SMITH mentioned the marked difference in the pulse rate when the child was lying down and when standing up. The ophthalmoscope was of great use in the later stages of obscure cases.—Dr. CROCKER alluded to the ease with which a few tubercles may escape observation on the post-mortem examination.—Dr. DAY briefly replied. In his opinion no case of true tubercular meningitis recovered.

The meeting then adjourned.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Optic Neuritis.

A SPECIAL meeting of this Society was held on the 31st ult., when the adjourned debate on optic neuritis, opened at the last meeting by Dr. Hughlings Jackson, was resumed and concluded, the President, W. Bowman, Esq., F.R.S., in the chair.

Mr. STREATFEILD showed a boy twelve years of age with optic neuritis and enlargement of cranial bones. There was a hard but not tender prominence of the left frontal bone, and the supra-orbital arch appeared depressed. The upper eyelid was œdematous, the levator palpebræ unaffected. The swelling had been noticed for four months, and had undergone but little change. The boy was thin, complained at times of his sight, and had occasional headache, but no vomiting. Vision: right eye $\frac{20}{70}$; left, $\frac{20}{50}$; double optic neuritis: discs swollen and grey, veins engorged, arteries small. After one month's treatment by iodide of potassium vision in right eye was $\frac{20}{100}$, left $\frac{20}{70}$. Mr. Streatfeild presumed there was some growth from the lateral part of the frontal bone extending inwards.

Mr. SEBASTIAN WILKINSON showed a patient with Double Optic Neuritis and Retinal Hæmorrhages.

Mr. STANFORD MORTON showed two cases illustrative of the Co-existence of Normal Vision and Swollen Discs. Case 1. A man with double optic neuritis, vision in right eye, 0; in left, $\frac{20}{20}$, and with presbyopic correction can read Jäger 1. There was a history in this case of a blow on the head, followed by pain and muscular tremors. Ophthalmoscopically no apparent difference in the condition of the two discs. Case 2. A young woman, under observation for two months, with slight asthenopia. Both discs were swollen, but there was perfect vision—viz., $\frac{20}{20}$ in each eye, and ability to read Jäger 1. The case was remarkable for the lengthy duration of good vision with neuritis.

Debate on Optic Neuritis.

Dr. S. MACKENZIE said he spoke as a pupil of Dr. Jackson, and agreed in much that he had said. He also knew of no sign by which a "choked disc" could be distinguished from a "descending neuritis," and admitted the difficulty there was in distinguishing between neuritis due to Bright's disease and that due to cerebral tumour, and showed drawings in illustration. In one case of double neuro-retinitis, thought to be due to Bright's disease, but without albuminuria, the autopsy revealed a cerebellar cyst. In another case of double optic neuritis with syphilis and Bright's disease no coarse change was found in the brain. Another important point was the condition of the optic nerve left after neuritis, and he showed a case where lead-poisoning had been the cause of the neuritis, which, after treatment by iodide of potassium, had entirely disappeared; and another case where striation along the vessels and slight blurring of the discs remained to show the previous existence of neuritis. Dr. Jackson had drawn attention to the existence of optic neuritis without loss of sight. He would say that the majority, or at least one-half, of the cases had no defect of sight, and hence the difference in experience between ophthalmic surgeons and physicians upon the matter. He referred to a case of epileptiform convulsions due to a tumour of the cerebellum with double optic neuritis but no defect of sight. Serious mistakes sometimes arise from want of ophthalmoscopic examination; and he knew of two cases of headache and occasional vomiting put down to malingering, but which proved to be due to tumour of the brain, where an ophthalmoscopic examination would have been of great value; any kind of change in the brain would produce neuritis. As to the manner of its production, Dr. Jackson favours the vaso-motor hypothesis, but had hardly dwelt sufficiently upon the neuritis being due to an extension of an inflammatory process from the brain. He himself had published a case where nothing was found in the brain, but there was corpuscular exudation in the optic nerves without any distension of the nerve-sheath. However, observations were wanted to prove the existence of a continuity of change from the region of a tumour to the optic nerve. Dr. Jackson thought that the fact of some patients complaining of defect of sight before neuritis appeared was in favour of the vaso-motor hypothesis. But the precursory stages of inflammation might lead to the same result, and Dr. Jackson's view that the symptoms of tumour are due to concomitant encephalitis would harmonise with the doctrine that the nerve is involved by extension from the brain or by a general condition acting equally on the brain and optic nerve. Microscopical examinations of the tissue around a tumour were wanted to clear up these points. He agreed with Dr. Jackson as to the great importance of treatment in optic neuritis to preserve sight, and thought iodide of potassium freely given was the best method. Dr. Mackenzie concluded by showing a drawing from a case where there was three years ago well marked neuritis, but now almost normal discs; and another drawing of neuritis from lead-poisoning, which would probably be interpreted as due to renal disease.—Dr. BUZZARD said that it was now many years ago since Dr. Jackson drew attention to the important points that unilateral fits and optic neuritis denoted a new growth involving the brain; and that good sight might exist with optic neuritis. Having also had the advantage of Dr. Jackson's personal instruction in the use of the ophthalmoscope, he was under the same difficulty as Dr. Mackenzie in finding but few points in Dr. Jackson's paper from which he could differ. He had brought down a patient illustrating the first of the above points; a woman who eighteen years ago suffered from pain in the head and failure of sight. She had from that time to this suffered from fits beginning in the left hand. She became blind and her eyes now show post-neuritic changes. He was certain that had this patient (the cause of her neuritis being no doubt syphilis) been examined ophthalmoscopically in the first instance and then treated, she would not now be blind. The profession was vastly indebted to Dr. Jackson for insisting upon this point. He thought that good sight was the rule in optic neuritis. He had never seen optic neuritis with cerebral hæmorrhage apart from tumour or other disease of the brain, nor had he seen it in cerebral softening. Dr. Jackson's hypothesis that the nerve condition was induced by vaso-motor action was, taking all things into consideration, the most probable explanation; but why should the optic nerve be specially singled out? One must either account for its being selected or show that it shares a derangement common to the other cerebral nerves. The optic nerve was anatomically peculiar in being bounded by the scleral ring; but was it a fact that the other nerves were unaffected? Might not a similar change in the fifth nerve often account for the pain in the head which accompanies intracranial tumour; and the vertigo by changes in the oculo-motor nerves? May not the vomiting, the slow pulse, and possibly the occasional occurrence of sudden death in these cases be due to an affection of the vagus comparable to that which in the optic nerve produces the symptom of optic neuritis?—Mr. HUTCHINSON said they should be thankful to Dr. Jackson for having strangled the "choked disc" at last. He would illustrate some of the different circumstances under which optic neuritis arose by mentioning a few cases. One was that of a patient who, two months after having acquired syphilis, complained of dimness of sight. Double optic neuritis was found with abundant effusion of lymph. It lasted six weeks, good sight being retained. There was no cerebral symptom whatever. A young lady, healthy and florid, complained of being blind in one eye; nothing was seen by the ophthalmoscope; but, on the apparently normal eye being covered, the pupil of the affected eye dilated. At the end of a week the disc of this eye was found to be covered with lymph; which cleared away under mercurial treatment. There were no cerebral symptoms in this case. Another case was that of a lady who hurried home from Italy, because whilst visiting the picture galleries of Florence she was attacked with headache, and found that the vision of her left eye was impaired. Mr. Hutchinson saw her on her arrival in England, and found the optic disc buried in lymph. This case also was treated with mercury, and there had been no symptoms of intracranial disease. In view of cases such as these did not Dr. Jackson think that some forms of optic neuritis were primary and idiopathic? It appears probable that there is a form which may be spoken of as syphilitic neuritis, and the forms of neuritis occurring in renal disease and lead-poisoning were primary inflammations of the nerve tissue. Dr. Buzzard's remarks upon the possible existence of other nerves being attacked were suggestive, and explained the sudden occurrence of paralysis otherwise unaccounted for. Did Dr. Jackson think that it was always correct to assume that the vomiting and headache were due to the same cause as the neuritis, and not that the neuritis was sometimes the cause of these symptoms? In all cases where he had seen recovery from optic neuritis the vomiting and headache had been at their height at the time when the neuritis was most intense. Many years ago he remembered a lad coming to Moorfields Hospital totally blind, with widely dilated and insensitive pupils and discs covered with lymph. No symptoms preceded the attack, the blindness coming on suddenly after working at bricklaying on a hot summer's day. There were no paralyses. Mercury was freely given, and good sight was regained; but he did not know whether any cerebral symptoms subsequently developed. These were only samples of many cases which had come under his observation when the first suspicion of the neuritis was raised by the affection of sight itself. Many years ago he had published a paper upon the occurrence of white discs in children who, at some previous time, had passed through a cerebral illness resembling tubercular meningitis. He doubted if so many cases of tubercular meningitis could have recovered, and there may have been encephalitis or meningitis in some of the cases, but others may have been instances of primary optic neuritis. Analogous cases occurred sometimes after the exanthemata. Dr. Waddilove had described cases of optic neuritis following measles; and lately he (Mr. Hutchinson) had seen a girl, eighteen years of age, with pale discs, who had had no brain illness, but when a child had been attacked with measles, which "went in" very rapidly, and she became almost insensible. Probably this was an attack of some form of meningitis or encephalitis with optic neuritis, the effects of which remained in the pallor of the discs. Mr. Hutchinson concluded by expressing the great obligations he was under to Dr. Jackson for his teachings on this important subject.—Dr. GOWERS said he would chiefly speak on the origin of optic neuritis. Anæmia might lead to it. He had recorded some cases in chlorotic girls, and had found the neuritis disappear in the course of two weeks under treatment by iron. This showed that a general blood condition may lead to inflammation of the optic disc. In cases of Bright's disease, in which the optic neuritis exists without retinitis, there may be very prominent head symptoms, and he recalled one case supposed to be cerebral tumour. But the characteristic white dots were present in the retina, and the urine contained a large quantity of albumen. The occurrence of the neuritis and of the cerebral irritation in these cases may be due to the altered condition of the blood. Dr. Jackson had confirmed Mr. Couper's opinion upon the dependence of some cases of optic neuritis upon hypermetropia. When the neuritis is considerable there is hypermetropia; it was so in the cases of anæmia to which he had referred; but the neuritis was more than the hypermetropia could account for, and, moreover, cleared away under iron. The difficulty of diagnosis between optic neuritis from cerebral disease and that from Bright's disease only exists when the neuritis is subsiding, and leaves white spots at the places to which the inflammation has extended. In Bright's disease the white spots are always at a distance from the inflamed papilla, and should be sought for by the direct method. From observation of several cases Dr. Gowers thought that in the early stages the inflamed papilla was much paler in meningitis than in cerebral tumour; but in subsiding neuritis there is pallor of the disc under either condition. He was surprised that Dr. Jackson had not mentioned chorea among the conditions with which optic neuritis may be associated; for he (Dr. Gowers) had given Dr. Jackson as his authority for such association. In one case of chorea examined by Dr. Gowers there was also Bright's disease, and he had seen another case of chorea where there was marked neuritis. As to choked disc, his own observation was opposed to the idea that there was any intensification of pressure at the sclerotic ring; the vessels pass through the ring entirely unconstricted. They become "choked" in the swollen papilla, not behind it. Might not Mr. Hutchinson's cases be instances of retro-ocular neuritis? Some time ago he met with a patient suffering from intense pain in the head, with no loss of sight, and with the least trace of neuritis, which rapidly increased, whilst paralysis of one orbital muscle appeared. These symptoms subsided, but before that the other nerve became slightly affected. Dr. Jackson had put forward the difficulties in the way of the vaso-motor theory. But is there any ground for believing that inflammation ever results from reflex vaso-motor action? The only two instances that occurred to him were renal hæmaturia following catheterism, which might be accounted for by the immediate dilatation of the renal vessels, and not by inflammation; and the other was the occurrence of duodenal ulceration after severe burns, a remarkable phenomenon, the only instance in which actual tissue alteration followed from nerve irritation at a distance. Again, it would be difficult to believe that a reflex effect would be confined to the vessels of the optic disc; it should equally affect the cutaneous vessels, so that were the vaso-motor hypothesis true we might expect an intermitting blush to be produced by cerebral tumour. Herpes zoster afforded no analogy, for the change was limited to the area supplied by the affected nerve trunk. The distension of the optic sheath was an important fact; it was very frequent, and some surgeons (e.g., Mr. Power) had punctured the distended sheath; and it might reasonably be thought to have some influence in the production of the papillary change. The distension of this great lymph channel may intensify a neuritis although it may not cause it. In the case of a child ten years of age admitted with acute cerebral symptoms, old choroiditis, acutely inflamed discs with hæmorrhages, there was abundant syphilitic disease of the arteries of the brain and an extensive hæmorrhage. The optic sheaths were greatly distended, the bones of the skull and orbital plates were thickened, so that the optic foramen was constricted, and this condition probably determined the great distension of the optic sheath. In many cases there was evidence of descending neuritis; definite changes in the optic nerves extending from the brain in meningitis. In one case of tumour of the frontal lobe there was but slight change in the optic nerve, but higher up very marked changes. There is then inflammation around a cerebral tumour, and in the optic papilla (a part prone to inflammation, partly on account of its anatomical conditions), distension of the optic sheath, which may intensify the papillitis, and traces of inflammation more or less marked along the optic nerve to the brain. The change in the nerve-trunk might be barely perceptible, and yet suffice to light up an intense papillitis. May not a like change occur throughout the entire brain, and explain the other symptoms of the tumour? Taking the facts that are known, optic neuritis may be held to be due to (1) a condition of irritation in the brain, (2) distension of the optic sheath, (3) the change reaching the papilla and lighting up inflammation there. But the vaso-motor theory is as incapable of proof as it is of disproof.—Dr. BROADBENT said that optic neuritis was sometimes produced apparently by suppression of the catamenia. A girl who had suffered for two years from vomiting, headache, and double optic neuritis, which passed on to atrophy, was first attacked on the sudden arrest of the catamenia. With the restoration of the catamenia, the headache, vomiting, and a peculiar mental condition ceased. In another case of optic neuritis, no coarse disease in the cranium was found after death; no evidence of inflammation; only considerable ventricular effusion. He believed that all the phenomena of optic neuritis were best explained by optic ischæmia—pressure on the nerve through effusion into its sheath. He had never seen a case in which the disc could be supposed to be covered with lymph; the structures are swollen, and the vessels buried in them. He believed that fluid was forced by intracranial pressure into the sheath of the optic nerve, and that this strangled the disc. In every one of these conditions—in anæmia, lead-poisoning, and tumour—there is increased intracranial pressure. The only reason why neuritis does not invariably occur in renal disease was the existence of very high arterial tension. The two conditions of intracranial pressure and of fluid to be forced into the sheath must be present. Many cases of increased intracranial pressure occurred without optic neuritis; in such cases there is no fluid to be forced into the sheath, or obstacles to its entrance. In some cases of great ventricular effusion the whole surface of the brain is dry and sticky; in such cases one cannot expect to find meningeal fluid. The only case in which he had seen unilateral optic neuritis was one where a tumour was so situated as directly to prevent fluid passing along the sheath. The size of the tumour did not determine the occurrence of optic neuritis; but the amount of vascular disturbance around it. In hæmorrhage there was no great increase of intracranial pressure—the effused blood being substituted for so much cerebro-spinal fluid. Mr. Power had relieved the symptoms of neuritis by incising the distended sheath. He (Dr. Broadbent) had never attempted to distinguish between ischæmia and neuritis. The acceptance of the vaso-motor hypothesis would only increase the difficulties of the subject.—Dr. BRAILEY would draw a distinction between simple swelling or œdema of the papilla and optic neuritis going on to atrophy. He had seen many cases where optic neuritis occurred from local disease—e.g., tumour of orbit. Again, in intra-ocular tumours, such as sarcoma of the choroid or glioma of the retina. Optic neuritis sometimes occurs associated with wound or ulcer of the cornea, the inflammation spreading along the sclerotic to the nerve. Then there were the cases where embolism produced acute inflammation of the optic nerve and resulting glaucoma. These are instances of local causes producing the inflammation which spreads along the fibrous tissues, a strong reason for believing in an inflammatory and not a vaso-motor origin of the condition.—Dr. WALTER EDMUNDS pointed out that the fluid within the sheath was produced by the inflammatory process, and believed that anatomical facts were in favour of there being a descending neuritis—the evidence of inflammation being traceable along the optic nerve as high as the chiasma in cases of tumour and meningitis. The inflammatory process spread along the bloodvessels, and not along the trabeculæ or nerve fibres, for it is confined to the papilla. His own observations led him to believe that in all cases there was some basic meningitis about the chiasma.—Dr. HUGHLINGS JACKSON briefly replied, and after a cordial vote of thanks had been awarded him on the motion of the President the Society adjourned.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

AT the meeting on Wednesday, March 16th (Thomas Edgelow, L.R.C.P., President, in the chair), Mr. W. A. N. CATTLIN drew attention to a courteous letter he had received from the Secretary of the Royal College of Surgeons of England, asking him to correct one or two slight errors into which he appeared to have fallen in his recent address "On the Imperfections of the Dentists Act" when alluding to the licence in midwifery. It would appear that out of the three unqualified persons who were examined for the licence in midwifery, only one (*not three*) received it, and two were rejected. From the Regulations respecting the licence (a copy of which accompanied Mr. Trimmer's letter), he ascertained the fact that candidates who were members or licentiates of other Colleges, or who had passed through a curriculum of education prescribed by Rule VI., were up to 1875 entitled to be examined for the licence in midwifery, so that he was wrong in saying only members of the College could receive it.

Mr. EDWARD BALTLETT read a short paper on the four following cases:—Case 1 was that of a girl aged twenty, with a supernumerary tooth posterior and between the central incisors, and which appeared at the same time as the centrals.—Case 2 was that of absence of the second tricuspid, which was accounted for by the posterior deciduous molar being forced up nearly into the antrum by the closure of the first bicuspid and molar over it. This (the crown of the molar) Mr. Bartlett removed, which felt on exploration like dead bone, being covered with tartar.—Case 3. Two very large supernumerary teeth and a lateral, which he had removed from the mouth of a man, aged thirty-three, who had a third central incisor, undistinguishable from the normal ones.—Case 4 occurred in a young lady, aged nineteen, in which all the permanent teeth were absent, with the exception of the two centrals, two canines, and two molars, some of the temporary teeth remaining in their position.

Mr. HAMILTON CARTWRIGHT made some remarks on the treatment of Rigg's disease, consisting of the destruction of the periosteum of the teeth, absorption of the alveoli, and ultimate loosening and loss of the teeth. He said that it generally commenced in an unhealthy condition of the gums, and that he believed the deposit of tartar to be secondary to the disease; the deposits of the saliva pocketing between the separated gum and the teeth. Of course the first and most important matter was to remove the tartar effectually, but he still held that much might be done by a very, so to speak, "heroic" treatment with the knife and escharotics used alternately. Mr. Hamilton Cartwright then showed a most remarkable case of the Jaw of a Dwarf, about three feet high, and compared the denture with that of the American Midgets. The dwarf was the child of wealthy parents, and grew normally for some months, when the development of its body became completely arrested, whilst that of the head and brain continued to a great extent. The boy is about sixteen years of age and highly intelligent, having recently gained a prize for French at school, and having a great taste for study generally. He walks, however, with difficulty, his head being so much larger than his body. His teeth, unlike most dwarfs, are not deficient as in the case of the Midgets, but consist of a perfectly formed *first* set. In the upper jaw only the first molars had been shed to give place to the bicuspids, which are nearly erupted, whilst the six-year old molars are just appearing. In the upper jaw there is a perfect set of milk teeth without any sign of caries. In conclusion, he wished to draw the attention of the Society to the analogy existing between the teeth and dermic structures in their development, and that, as a rule, both the hair and teeth were deficient in dwarfs; but that in this case the hair was as perfect as the teeth, the only peculiarity in the latter being the persistence of the first denture up to the age of sixteen years.

Reviews and Notices of Books.

Lectures on Diseases of Bones and Joints. By CHARLES MACNAMARA, F.R.C.S. Eng., Surgeon, and Lecturer on Surgery at the Westminster Hospital; Surgeon to the Royal Westminster Ophthalmic Hospital, &c. Second Edition. London: J. and A. Churchill. 1881.

THE present edition of this work appears in a considerably altered form. Instead of being limited to a consideration of diseases of bones as before, Mr. Macnamara has included lectures on diseases of joints, and thus the volume has doubled in size, and we may also add in value and importance. There can be no doubt that this alteration in its scope is in accord with the dictates of scientific reason. Bones are, both physiologically and pathologically, the chief structures entering into so-called "joints"; it is impossible to separate fully the diseases of one from the other, and a thorough comprehension of the pathological changes in bone is one of the most essential, if not *the* essential condition of a sound knowledge of diseases of joints. These lectures are not formal, set, clinical lectures, but are an embodiment of the daily instruction given in the wards, with brief records of cases under observation. Mr. Macnamara goes into the question of the occurrence of epiphysitis more fully than before; he maintains that in young children the actively growing tissue at the line of junction of bone and cartilage is very likely to be affected by inflammation, which, leading to separation of the epiphysis, may extend to the periosteum and medullary tissues, and so cause necrosis; he prefers to consider many of the cases of suppurative periostitis of children as really cases of epiphysitis. Several interesting cases bearing upon this affection are cited. In the lecture on syphilitic disease of bone—which is quite up to date, and describes fully the changes to which Drs. Parrot and Barlow have drawn attention, as caused by inherited syphilis—we have an explanation of the frequent and special affection of the vault of the cranium in this malady. Mr. Macnamara points out that not only are these bones ossified from membrane, but are developed from the epiblastic layers of the embryo, and may be regarded as dermal appendages; also that their affection is an illustration of the fact that syphilis and other constitutional diseases tend to affect certain groups of tissues ontologically connected. The author is, however, mistaken when he speaks of the choroid coat of the eye as developed from the epiblast; it is formed from a part of the mesoblast.

Coming to the lectures devoted to diseases of joints we have only space to notice two points. The first is the author's classification of cases of synovitis into serous, muco-purulent, and purulent. Objection may fairly be taken to these terms, but not to the distinction drawn; and even though it may be convenient for purposes of teaching to show the analogy between, let us say, varieties of conjunctivitis and synovitis, yet if words are to have a meaning it must be inaccurate to speak of any product of synovitis as muco-purulent. Perhaps the terms "simple," "semi-purulent," and "purulent" would serve. Further on, in the lecture devoted to disease of the hip, we meet with an attempt to range the various cases under three heads, those beginning as synovitis, those starting as epiphysitis, and those at first chronic osteo-myelitis of the articular ends of the bones. This is at least a great advance upon the older method of grouping the cases by the bone primarily and chiefly affected as either femoral or acetabular. In our present knowledge, or, rather, want of knowledge on this point, any classification on a pathological basis, however much to be desired, must be received with caution, and it can hardly be expected to command general assent. Moreover, a pathological classification which is nothing more, and cannot be clinically applied, may be interesting, but is wanting in practical value and fails at the test which must ultimately be applied to it. Can we then separate clinically Mr. Macnamara's three groups of cases? Mr. Macnamara says that cases with a slow ill-defined early course and very chronic development are cases of osteo-myelitis; those characterised by severe pain coming on soon after an injury and local heat and fulness of the joint are cases of synovitis; while those cases which occur in quite young children, with severe pain, great constitutional disturbance, early rigors and evidence of suppuration, are instances of suppurative epiphysitis. This distinction appears sound and practical, but the question still remains, are *all* the cases included? Are there not cases of very slow granular synovitis at first indistinguishable from and later on leading to chronic osteo-myelitis? This subject, however, is too large to be dealt with fully here and now. Suffice it to add that the volume before us will doubtless prove acceptable to a large number in the profession, for it is well written, and is a happy combination of scientific and practical surgical teaching.

Experimental Chemistry for Junior Students. By J. EMMERSON REYNOLDS, M.D., F.R.S., Professor of Chemistry in the University of Dublin. Part I. Longmans and Co. 1881.

IN these days of "little books," which are often insufficient, and issued only for the purpose of cramming, it is a relief to come across a really good introductory work written with a high purpose. This volume does not pretend to teach much, but what it does teach it teaches thoroughly. The system pursued by the author is designed to lead the student through a series of connected experiments and to assist him in the interpretation of his results, and also in devising modes of testing the validity of the conclusions drawn from them. So that whilst acquiring a tolerable acquaintance with facts the student receives a certain amount of training in purely experimental methods. This is the basis on which all scientific training should rest; and no learner ought to be permitted to proceed to the higher branches of study till the A B C has been thoroughly mastered. We wish this little volume every success. For candidates preparing for examination in elementary chemistry at the matriculation at the London University or the Oxford and Cambridge local examinations it will be found a useful guide.

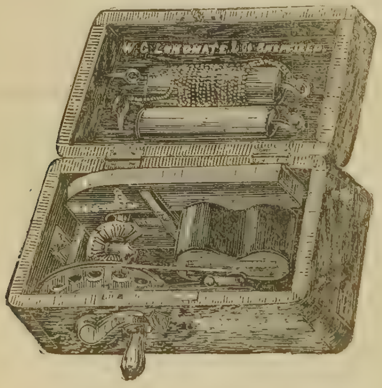
Lectures on Syphilis. Delivered at the Harveian Society, December, 1878, by James R. Lane, F.R.C.S., Surgeon to St. Mary's Hospital, and Lecturer on Surgery; Consulting Surgeon to the London Lock Hospital. Second Edition. London: J. and A. Churchill. 1881.

The fact that the first edition of this book has been out of print for some time is sufficient evidence that the lectures meet a real want. They are a simple statement of the main facts about syphilis which may be considered established. From the view that all forms of venereal disease are modifications of one great malady a good deal of confusion has arisen, and the reasons for separating them into three distinct classes are clearly given, as well as important facts in reference to the infective power of syphilitic fluids of different kinds.

New Inventions.

POCKET MAGNETO-ELECTRIC MACHINE.

A miniature Magneto-Electric Machine, constructed by Messrs. W. C. Longmate & Co., of Arundle-street, Sheffield, has been brought under our notice by Dr. C. Nelson Gwynn, of Sheffield. Some of the improvements were suggested by Dr. Gwynn, but the mode adopted for carrying them out is due to Messrs. Longmate and Co. The motion and multiplication of speed and power are on a new principle. There are three beveled mitre cog-wheels, one of which is fixed to the magnet, one fast to and revolving with the band-wheel, and one fast to the shaft turned by the handle. These, combined with a fast and loose shaft or spindle, become so manipulated, that, although the number of teeth in the cog-wheels is the same, yet the driving-wheel is propelled at twice the speed of the handle and shaft. The reason of this is that during the revolutions of the shaft in a rectilinear direction there is also a transverse revolving property in the centre wheel which turns the driven cog-wheel twice round. By the application of this principle a very small and light pocket magneto-electric machine has been obtained, which possesses ample strength and is worked with considerable ease. The magnets are nickel-plated to prevent rust. The machine answers exceedingly well, and will be a great boon to practitioners, being easily carried in the hand, and therefore more likely to be available on an emergency than the larger instruments in common use.


W. C. LONGMATE & CO. SHEFFIELD

HYGIENIC SPONGE-BATH.

A very useful bath is made by Messrs. Groom and Co. It is so constructed as to provide a stage on which the person using it may stand out of the water, supposing he wishes to use either warm or cold as a lavement while avoiding the immersion of the feet. There is a well in the bath for the water, from which it can be dipped by sponge or bowl. This bath will prove most acceptable for general purposes, and is likely to be peculiarly useful for special purposes.

DISINFECTANT HOSPITAL BLANKET.

Acting upon a suggestion first made some years ago in The Lancet, to the effect that paper should be used in the construction of bedclothes, Messrs. Henry and Leigh Slater, of Manchester, have produced a cheap blanket of which the staple material is paper. It is perforated for ventilation, which may or may not be necessary—we are inclined to think not. The blanket is not altogether noiseless, as it is stated to be; but may be readily made so by a little manipulation, or would be so at the outset if different paper were employed in the manufacture.

THE CATGUT LIGATURE.

To the Editor of The Lancet.

Sir,—In your report of the meeting of the Royal Medical and Chirurgical Society on February 8th, some doubt is thrown on the power of a catgut ligature to sever the middle and inner coats of an artery. One speaker says, "if they (viz., the ligatures) had not yielded the coats would have been completely divided." I have had considerable experience in the experimental ligature of healthy arteries in their continuity by carbolised catgut of average calibre, and have always found that with a legitimate amount of force the middle and internal coats were thoroughly divided, the solution of continuity taking place at once, and not after a certain interval; an observation that seems to prove that any subsequent yielding of the ligature is of no importance—as far, at least, as the mere division of the arterial coats is concerned. The belief was also expressed, that "if the inner coat were not divided no clotting would ensue," and in your annotation you say, "If these coats were not divided there was nothing to excite the formation of a thrombus." I can assert from observation that if a healthy artery be compressed in its continuity by a flat-bladed instrument, such as Dieffenbach's clip, a fairly firm clot forms above and below the point of pressure in less than twenty-four hours, though the walls of the vessel had merely been brought into apposition without being wounded. As the clot forms so quickly, and has acquired a certain degree of firmness before suppuration has begun in a septic wound, it is rather difficult to understand how antiseptic precautions can have any deterring effect on the thrombus, in its early existence at least. The marked differences in septic and aseptic cases belong to a later period. Whether the final occlusion of the vessel is brought about by changes in its coats, or by organisation of the clot, or whether it is shared in by both, is a question too wide and difficult to be discussed at present; and I am merely desirous of stating my opinion, founded upon experiment and dissection, that catgut ligatures can be depended on for severing the middle and inner coats of an artery, and that, however advantageous this severing may be for the ultimate obliteration of the vessel, simple compression, and not a wound, is all that is necessary for the formation of a thrombus.

I am, Sir, your obedient servant,

Poona, March 16th, 1881. E. D. Mackellar, M.B.

THE LANCET.

LONDON: SATURDAY, APRIL 16, 1881.

THE long-expected Naval Medical Warrant has at last been published. It fulfils the promise made by Mr. TREVELYAN of a scale of pay somewhat higher than that granted to the army medical officers, "in order to counterbalance the disadvantages of the two services." But we are doubtful whether in other respects the changes introduced by it will be deemed altogether satisfactory by the department. The principle of compulsory retirement of administrative officers at the age of sixty, as in the Army, has been adopted, but in addition to this they are to be placed on the retired list at any age if they have not served for five years, without any reservation as to their non-employment being compulsory or voluntary. The examination of surgeons previously to promotion to the rank of Staff-Surgeon and after completion of eight years from date of entry, is still retained, though abolished in the Army. No grade has been established corresponding to that of Brigade-Surgeon, but "in all matters wherein the Army and Army administration are concerned, Fleet-Surgeons to rank with and as Brigade-Surgeons." We confess that we are at a loss to understand why Fleet-Surgeons, who are in all respects on a footing with Surgeons-Major of twenty years' service in the Army, the rank being granted to all Staff-Surgeons "on completion of twenty years' service," should take precedence of their military brethren, but we presume it is one of Mr. TREVELYAN'S sops "to counterbalance the disadvantages of the two services." It can be of very little advantage in any way. Gratuities are to be given to Surgeons and Staff-Surgeons who retire before completing twenty years' service, and these increase in amount every four years, instead of five as in the Army. These gratuities and the rates of retired pay after twenty years' service appear to be nearly identical with those of the Army Medical Department; but we observe a note as to the retired pay of Fleet-Surgeons which requires explanation. It is attached to all the rates for that grade. "To obtain this rate an officer must hold the commission of Fleet-Surgeon." Is it possible to be a Fleet-Surgeon and to be placed on the retired list as such without holding the commission of that rank? If so, under what circumstances may this happen? If not, what is the meaning of the note? All officers on the retired list under the age of fifty-five will be liable, as in the Army, to be called upon, till they attain that age, to serve in time of declared national emergency, in a rank not lower than that held on retirement. With a view to diminish the hardship arising from compulsory half-pay, the Warrant allows time on half-pay to count as one-third service for increase of retired pay, but not for any other purpose. It is to be regretted that the authorities did not see their way to make arrangements for the abolition of the system of half-pay on a ship being paid off, by employing the medical officer in one of the naval hospitals till his services were again required afloat. Provision is made in the Warrant for an allowance "to officers giving the course of instruction to Surgeons on first appointment to the Naval Service: to a medical officer of Haslar Hospital, £150 a year; to a junior medical officer of the same hospital assisting him, £50 a year." We cannot but think that the withdrawal of naval candidates from Netley is a grievous mistake as regards both the interests of the Service and those of the young officers. The plan now proposed was tried many years ago at Haslar, and we have reason to believe was a complete failure. That a system of effective sanitary and special teaching, such as has been in force for many years and still is most successfully carried out at Netley, will be introduced at Haslar we do not believe. It has been suggested that the withdrawal has been decided upon in accordance with "representations made by naval officers, who thought that association with military medical officers at Netley tended to make the naval doctor discontented with his position and prospects." If this be so, the authorities at the Admiralty have taken a false step. The Service will undoubtedly deteriorate in efficiency from the loss of the special instruction given in the Netley School, and this will react in the way of causing the better class of medical students to hold back from entering the Naval Service. We are afraid that these half measures of the Admiralty will have but little effect in increasing the number of really good candidates for the Department, and that the new Warrant will influence few to come forward as candidates but those who consider money to be the only, or at least the most important, consideration. As the Warrant states that existing regulations as to relative rank are to remain in force, we presume medical officers will be entitled to "cabins according to their relative rank." We have on previous occasions called attention to the fact that the orders of the Lords of the Admiralty on this point are often practically ignored by captains. We would therefore suggest to Mr. TREVELYAN that if he desires any degree of success to attend his new Warrant, he should take measures to enforce this rule, and to remove from the minds of medical officers the strong feeling of injustice which exists in consequence of this permitted violation of the Admiralty Instructions.

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"WHY may we not meet professed homœopaths in consultation?" is a constantly recurring question, to which recent events have given an unusual degree of urgency and importance. The answer is a dual one, and apparently paradoxical. We decline to have professional intercourse with professed or reputed homœopaths for one or both of two reasons—either because they are believers in a method of therapeutics which is at once fantastical and absurd, or because they are *not* believers; in other words, either because they are true disciples of HAHNEMANN, or because they are *not*. In one instance the objection is scientific, in the other it is ethical. Despite the prevarications and protestations of those half-hearted professors of homœopathy whom HAHNEMANN and his stricter adherents have denounced by the name of "mongrels," homœopathy is logically Hahnemannism or nothing. From the rules laid down by HAHNEMANN, there can be no material departure without a practical abrogation of the doctrine of homœopathy itself, and with it of the so-called *Law of Similars*. This cannot fairly be gainsaid. A recent exponent of pure homœopathy said: "HAHNEMANN discovered founded, and elaborated a system of healing by medicines; to this system he gave the name of *Homœopathy*. In his 'Organon' he gives the plainest and most minute rules for the practical application of his teachings, and he challenges the medical profession to put his teachings to the test. It would seem, therefore, a very simple matter to define homœopathy; it would seem also self-evident that, while every physician has a right to practise that system of medicine which he deems best; on the other hand, no one has a right to call himself a homœopathician who does not firmly believe in Hahnemann's practical rules, and strive in every case to carry them out to the best of his ability; and it would seem only consistent that the name of homœopathy should not be appropriated to any other system than that to which Hahnemann gave it; yet that which would appear to be self-evidently just and true has not been followed, and Hahnemann's fundamental rules are daily violated by those who falsely call themselves his disciples." This is, at least, an intelligible, if not an intelligent, position. Pure homœopathy differs from scientific medicine by claiming to be a complete and final system of therapeutics, based on constant and universal laws. These laws, as defined by Hahnemann, are chiefly two: First, the Law of Similars; and second, arising out of this, the law of dynamisation of medicines. It is not now necessary seriously to combat either the fanciful hypothesis on which the supposed law of similars is based, that "disease is a spiritual dynamic derangement of our spiritual vital principle," nor the extravagant notion that "dynamisations" of drugs "are real awakenings of the medicinal properties that lie dormant in natural bodies during their crude state, which then become capable of acting in an almost spiritual manner upon our life; that is to say, on our percipient (sensible) and excitable (irritable) fibres." This has been already accomplished by the unanimous condemnation of scientists, philosophers, and practical physicians. It is enough for our purpose to call attention to the fact that obedience to the law of similars has led homœopaths to give dilutions of bugs "to cure the inflammation arising from bug-bites," cholera evacuations for the cure of cholera, and the expectoration of phthisical persons for arrest of consumption; and that the belief in "dynamisation" has carried some of the disciples of Hahnemann to the last stage of impudence or imbecility of claiming to have obtained distinct results, not only by means of olfaction or smelling globules containing the decillionth of a grain of a drug, as Hahnemann asserted, but also by means of medicines contained in *closed* vessels held in the hand. These ridiculous pretensions can have no place in scientific medicine, and, therefore, practitioners of scientific medicine can have no professional association with those who advance them. The objection to a profession of homœopathy is, however, in the present day ethical rather than scientific, because the scientific fallacy has been for ever exploded. Few professed homœopaths nowadays owe allegiance to Hahnemann, still less do they accept homœopathy as a complete system of therapeutics. It will be remembered that about four years ago the Vice-president of the British Homœopathic Society, speaking for himself and a certain section of his colleagues, wrote: "We admit, first, that the views expressed by Hahnemann are often extravagant and incorrect; secondly, that Hippocrates was right when he said, 'Some diseases are best treated by similars and some by contraries,' and therefore it is unwise and incorrect to assume the title homœopathist; thirdly, that although many believe that the action of the infinitesimal in nature can be demonstrated, its use in medicine is practically, by a large number in this country, all but abandoned." (See The Lancet, June 2nd, 1877, p. 817.) The plain meaning of this statement is that the law of similars has broken down, and that "the homœopathic therapeutic maxim" of infinitesimal doses, which Hahnemann alleged was "not to be refuted by any experience in the world," is false. The retention of the name of "homœopath" by a medical practitioner under such circumstances is, therefore, misleading, if not actually unjustifiable, since it has no scientific or logical significance. Those who persist in retaining the name have themselves to blame if they are said to do so for the purpose of attracting a certain section of the lay community. Pure homœopathy has been condemned by the best minds as false and absurd, and without any scientific sanction. We cannot consult with the consistent homœopath (if for no other reason), because his notions of pathology and therapeutics are fundamentally contradictory and antagonistic to ours; nor can we consult with the professed homœopath, though he may occasionally practise according to the principles of scientific medicine, because he employs a name that, in his case, possesses no scientific meaning, and is used for sectarian purposes.

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Continuing our observations upon the question of "Blood Diseases" and the "Germ Theory," commenced in our issue of the 2nd inst., we now proceed to the consideration of "Diseased Germs." Before entering, however, upon our more immediate subject, it is well to refer to certain known facts in the natural history of germs—because upon these much of our reasoning in respect to diseased germs must be based. To begin at the beginning, then, we may assume that all animal and vegetable individual life begins in a germ. Whether in the higher animals this germ is supplied by the male in the spermatozoon, or by the female in the ovum, or by a conjunction of both, it is not essential to our purpose to decide. This primordial germ is endowed potentially with the capacity for forming all the structures of varying character of which the fully formed individual consists—blood, skin, bone, hair, teeth, muscle, &c., each in its own place and proportion—to the extent that the mature individual, exactly in size, weight, shape, &c., follows the archetype of its race; but beyond this conformity in all parts, it has impressed upon it, and passes on to the individual made up of its successive generations to a remarkable extent, the physical and structural specialities of its parents. It is impossible to see in this germ of different animals any distinction, still less in different human individuals. Yet does each germ somehow through its long succession of generations and formations of organs pass on more or less of the characteristics of its parents, not merely of colour in hair and eyes, in shape and feature, but of temperament and quality of the organs into which it is differentiated, and of some of the psychical endowments—its highest and its most exalted perfection; the parents are indeed even more the foreshadows of the child than "the child is father of the man." Not more certainly will the germ of the negro develop into a negro with a black skin, than the germ of a negro and a white develop into a mulatto. But this is not all. The sins of the fathers truly cling to the children to the third and fourth generation, and there are unhappily still so many diseases of hereditary character that we must allow that just as the germ has impressed upon it more or less of the mental and bodily characters of its parents, so has it the morbid or diseased characters, which it likewise passes on to be more or less evidenced in the future and more or less matured individual. We might fairly argue that the germ in such case was diseased. We have at hand, however, an obvious instance. A syphilitic father, with no present outward evidence of syphilitic disease, impregnates a pure mother, and a child is prematurely born covered with syphilitic eruption; a second pregnancy follows, and the child is born mature but dead; a third, and the child is born mature and apparently healthy; the only symptoms in the mother being during the first pregnancy a scurfiness of the scalp or falling off of the hair. Can we but believe that the germ of the father, or his portion of it, impressed diseased qualities on the resulting germ-development, which involved the morbid conditions of syphilis in, and the premature death of, the fœtus? As to the father, the first link in this chain, the matter discharging from an infecting sore coming in contact with an unprotected or denuded surface, produced an altered action in the growth and development of the surrounding cells, the result of which is destructive ulceration instead of healing. The elements from this sore are conveyed to the nearest lymphatics; here they produce morbid action with abscess of the gland, the discharge being inoculable,—or the infected cell-elements of the gland pass on till they reach the circulating blood, when the individual becomes or is syphilised—that is to say, the morbid influence pervades his whole body, causing alteration from healthy growth and normal structures in numerous parts and tissues with altered properties, as we have seen, even in the sperm-cells. That the morbid effect must be impressed on the cells and germs seems incontestable, because it must be particulate, as we have shown from previously recited experiments; nor, indeed, can we conceive it to be in solution in the fluid of the blood, ever changing by additions and subtractions as this is, and yet lasting as the morbid effect does. However, were the poison in solution in the fluids of the blood its action must be of chemical nature, a supposition set aside by some experiments of Professor LISTER, who showed that by using almost infinitesimal portions of infecting fluid, but in equal quantities, in some cases infection followed, and in others not. The chemical effect must be uniform, but as the cells vary in quantity in the portions of fluid, success might reasonably be expected to follow in those portions only which contained cells and germs, and not in others which in all probability would not.

Nor is there any difficulty presented in the passage of these cells or germs throughout the body. It is a well established fact that the colourless corpuscles and leucocytes of the blood pass freely through the walls of capillary vessels, and take an active part in the increased proliferation of cells in and around an inflamed spot; but further proof of the possibility of such passage is afforded by the transmigration of the germinal forms of many of the entozoa, and their development in situations they could only have reached through the bloodvessels. Again, we see in many instances, as mentioned in regard to syphilis, as soon as the local affection is established, the next manifestation is in the nearest lymphatic gland. This gland becomes affected, and its leucocytes entering the blood-current pass it on to the system generally, or, as is frequently the case, to form secondary deposits. Sometimes, however, we see infection of the system aborted by the formation of an abscess in the gland closing the further passage of the diseased cells into the blood or system, the matter formed in and discharged from this abscess being itself imbued with the poison, and capable of inoculating the individual or others, for in this case the individual is not protected. A very interesting illustration of this fact was brought to light in the researches of TOUSSAINT and others on the fowl cholera poison—that of anthrax. It was seen that when the contagium was cultivated, and portions were inoculated, in many instances abscesses formed, the animal in such case showing none of the general effects of the poison, only the abscess. If the animal were reinoculated, even from the contents of his own abscess, and no fresh abscess formed, he then manifested all the symptoms of the disease, and, moreover, that when the abscess discharged it was inoculable to others, for even if the discharge came in contact with the food of fowls it produced in them the disease in its entirety.

So many diseases have been proved by experiment to be inoculable by the blood of the infected that we need hardly quote instances, but there are others again in which the discharge from one mucous membrane produces a like specific inflammation in another—as, for example, gonorrhœa and gonorrhœal ophthalmia; but in this instance we seem to approach the edge of the circle in our classification, for slight as is the constitutional affection in gonorrhœa as compared with that of syphilis, it is yet indicated in gonorrhœal rheumatism, and its proneness to induce chronic joint disease, unless, indeed, we consider this, like scarlatinal rheumatism, merely sympathetic or pyæmic. It is, again, a curious fact that we observe in certain of these diseases a tendency especially to affect particular parts, as if they were the foci from which the poison was most easily passed out of the system, and that not only in particular membranes or tissues, but in special parts of such tissues. Not to go into the matter generally, we may mention the salivary glands in mumps, the intestinal glands in typhoid, the throat and tonsils in scarlatina, the nasal membranes in glanders, the salivary glands in hydrophobia, whilst others again, as skin diseases, manifest a decided tendency to symmetrical distribution. We must remember also how prone all developments in any situation are to return to their primal condition under morbid impressions, in some cases, for instance, the proliferating cells return to their embryonic form, in others to a state quite different from the tissues around, in others exactly like them; in some cases, in fact, the inflammatory product is a simple hypertrophy, in others it consists of heterogeneous formations. In thus insisting, however, upon the importance of the germ element in so many diseases, and subsequent investigations will show it to be far more extensive, we do not in the least ignore the effects of morbid or diseased blood itself. The very diseases we have most frequently alluded to are, indeed, characterised by such conditions as have caused them to be classed as blood diseases, nor can we imagine that so all-important a fluid—the reservoir of all pabulum of growth and development, as well as the all-pervading current through which is supplied the oxygen necessary to the continuance of vitality, and through which all the interchanges necessary to the production of vital endowments are effected—can possibly be unaltered by the presence in it of septic elements from without, still less by septic conditions of its essential organisms. On the contrary, we believe that the more or less severe constitutional effects of the poison in the exanthemata are due to the action of the septic germs on the cell organisms of the blood; and further, that the "typhoid conditions" that so often follow these, after the specific effects of the contagion are passed, even sometimes after their elimination has been effected, are due to the altered conditions of the blood perhaps more than that of the cell organisms themselves. We see a case of scarlatina, for instance, pass through its regular course with no very acute symptoms, and no or very slight throat affection (certainly no ulceration), yet a fortnight or three weeks afterwards, when even desquamation has ceased, typhoid symptoms set in with all the conditions of grave blood infection, eventuating in scarlatinal rheumatism, or purulent effusion into the pleura or pericardium, or abscess in the lungs. This can hardly be a reinoculation of the specific poison of the disease, and if not, to what shall we ascribe it but to either the morbid condition of the blood cell-organisms, or to a changed condition of the blood effected in it by the action of the specific *materies morbi?* Do we not know also that there are certain conditions in which the blood is so changed as to be peculiarly susceptible to morbid influence? for example, the puerperal condition. BRAXTON HICKS has shown that in 65 per cent. of a large number of cases puerperal fever was due to exposure to septic influence. Does not the surgeon know that to operate on a patient suffering from albuminuria is to expose him almost certainly to erysipelas or pyæmia? Does not the diabetic condition of old people induce carbuncle and abscess; hæmorrhage a tendency to phlegmasia dolens? Nor is our faith yet abolished in respect to diatheses and constitutional conditions as manifestations of blood disease. We well know how weak and stunted our plants are in poor soil, how they dwindle in confined space and overcrowded greenhouses, and how soon they become the prey to blights and parasites. So exactly of children reared on scanty food in close rooms, and with limited hygienic advantages; their development is imperfect, physically and morally; they are wanting in stamina, and are prone to degeneration. Their cell formations, and therefore their organs and tissues, are not complete and healthy because their blood condition is insufficient and imperfect; hence, as well as to inherited conditions, they are more affected by the, so to say, necessary diseases, and more inclined to manifest those constitutional states which accompany depraved organisations, and which are the starting-points of consumption in very many cases, if not of tubercle. Cell organisms ill-formed and of low vitality send as their product and detritus morbid matter prone to caseation to the lymphatics and blood; these contaminate the leucocytes of the lymphatics, or induce disease of a joint. The resultant morbid germs are arrested in the capillaries of the lungs, just as those of pyæmia, and thus the patient becomes phthisical by self-infection. In pyæmia we have a very widely significant example, for it certainly is in many instances contagious; witness its spread amongst contiguous surgical patients and in our lying-in wards. It seemingly often occurs, apparently without contagion, as the result of a simple accidental or surgical wound; and it also occurs, seemingly without contagion, on any break of surface. Though bacteria are found in the blood of pyæmic patients, the same are met with in that of those who are not so; there is grave doubt, therefore, of its bacterial origin; whilst the constant presence of inflammation products and of germs imbued with the characters of the local inflammation from which they pass, and the consequent constant formation of embolism and thrombosis, undoubtedly giving rise to the secondary deposits, seem to point unmistakably to its dependence on altered and diseased blood germs.

It is still a moot point with many whether cancer should be considered a constitutional disease, and as such more or less hereditary. For ourselves, we can see no difficulty in holding it to be so, bearing in mind the facts to which we have alluded in respect to syphilis. Why should not cancerous, strumous, and other tendencies be passed through the primordial germ of an individual as well as syphilis? All strumous children do not die of phthisis, and all syphilised patients do not suffer from tertiary symptoms. All the offspring of gouty parents do not manifest gouty conditions. Why expect all born of cancerous parents to have cancer? What first causes its development in any particular spot we cannot say, but it is certain that at first cancer seems to be simply a formation of embryonic tissue, like that seen in any inflammatory process. Soon, however, in differentiation, the specific characters of the growth appear. Shortly the nearest lymphatics are involved; and then, the cell organisms of these being altered, secondary deposits occur. We have often thought that the old experiments of HUNTER, the transplantation of cocks' combs, and the modern practice of skin-grafting, throw much light upon the germ theory. If epithelial organisms can be taken from one individual and be made to grow on and form part of another, retaining even their special characters; if the cells from the urethra imbued with the specific characters of gonorrhœa can produce gonorrhœal ophthalmia; if the syphilitic father can through the sperm elements transmit the disease to his offspring, and, as shown in the previously quoted experiments of TAPPEINER, the cell germs in the sputa of phthisical patients, when inhaled in the form of spray, induce this disease in dogs,—why should not cancer be similarly transmissible? That in some cases it is so, by apposition as in skin-grafting, is apparently shown in the frequent instances in which with cancer of the tongue we find patches of the same on the cheeks; and with epithelioma of the cervix uteri we notice the same on the contiguous vaginal surfaces that come into contact with it, for these appear so disconnected with the original disease that they cannot be regarded as secondary developments in the ordinary sense, and their occurrence is explicable only on the ground—for which good reason has been shown—of direct transplantation of diseased cells and germs. The whole question is as wide as its influence on medicine and pathology, as well as surgery, may prove to be extensive; and we have thus, however incompletely, given our reflections upon it, that the subject may have that place in the current thought of the day which its importance seems to us to demand, and as suggestions for its application as occasions arise.

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THE *London Gazette* of the 5th inst. gives in detail the new statutes for the University of Cambridge, drawn up by the Commissioners appointed under the Universities of Oxford and Cambridge Act, 1877, and which are to be submitted to Her Majesty, and if approved come into force on the first day of January, 1882. The general effect of the new statutes will be to strengthen and extend the professorial teaching at the University, as well as improve its financial condition. For this purpose the colleges are to be placed under contribution, each of the colleges having to pay to the University chest every year a fixed percentage on its income. This, in the aggregate for the first two years will amount to not less than £5000; in the three subsequent years, to not less than £10,000; and so on, till by the year 1896 the annual income of the University will be from this source not less than £30,000. In addition, the colleges have to provide professorial fellowships, some of which are assigned to particular professorships, as, for instance, the Regius Professor of Greek to Trinity College, the Dixie Professorship of Ecclesiastical History to Emmanuel College, and Professorships in Law and Medicine to Downing College. The other professorial fellowships not assigned to any particular fellowship are twenty-seven in number, of which Trinity College provides five, St. John's five, King's four, Caius two, and the other colleges, with the exception of Downing and Emmanuel, which have special professors assigned to them, one each. In addition to this large increase of the professorial power of the University, the endowments of existing university professorships are to be increased, and three new university professorships created—viz., Physiology, Pathology, and Mental Philosophy and Logic. The professorial chairs are handsomely endowed, the Regius Professor of Physic receiving £700 per annum, the Professor of Chemistry £850, Anatomy £600, Physiology £800, and Pathology £800. The occupants of the last two chairs, however, are debarred from private practice. Again, in connexion with the departments of study for which special boards of studies are instituted, a body of teachers called Readers are to be appointed, each of whom will receive an annual stipend of £400. A certain number of these Readers will be assigned to the Natural Science department and the chairs of Anatomy and Pathology. Their appointment, however, will no doubt depend to a considerable extent on the number of students attending in any given department. The University, moreover, is to have power to appoint lecturers on any subject not immediately connected with any special board of studies for such time and under such conditions as may from time to time seem desirable. The increased resources of the University will also provide for the erection of museums, laboratories, libraries, lecture-rooms, on a more comprehensive scale than they have been hitherto able to afford. Lastly, it is intended to devote some portion of the University revenues in grants of money for special work in the way of research, and for investigations conducted in any branch of learning or science connected with the studies of the University. The scheme is a noble and comprehensive one, and the benefit it will confer on our profession and on science will, we believe, be immense. An increasing number of students will be annually attracted to the University: those of promise to compete for scholarships and other rewards now so liberally thrown open to students of medicine; whilst the more ordinary student will be glad to avail himself of the practical training the University laboratories will afford, and which, if the scheme now introduced be carried thoroughly into effect by the appointment of efficient teachers—and Cambridge in this respect has been hitherto most fortunate,—will be exceptionally great, if not beyond the possibility of attainment elsewhere. Apart from the educational advantage, the gain in another direction will be considerable. One of the great drawbacks in the life of the medical student at our London hospitals is its almost complete isolation from other interests and objects; so that when the time comes for him to engage in the active duties of his professional career, he finds himself at a disadvantage, because he has had no opportunity of acquiring that knowledge of the world which contact and exchange of ideas with men engaged in other pursuits and studies can alone give. A few years spent at the University, as a prelude to the completion of his medical education in London, will be invaluable to him, by bringing him in contact with men training for other professions or occupations in life, and thus extending the range of his ideas and enlarging his sympathies, besides furnishing him with valuable friendships and an entrance into a wider social sphere than is usually possible for the metropolitan student.

Annotations.

"Ne quid nimis."

SIR WILLIAM JENNER, PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

THE election of Sir William Jenner to the important office of President of the Royal College of Physicians will give great satisfaction to the profession at large. This distinguished physician has long been recognised by the general consent of his brethren as the head of the profession. Sir William is wrong in regarding the esteem felt for him as a tribute to the position in which "accidental circumstances" have combined to place him. He has been thrust "in the sunlight," but while the fierce light brings out the defects of an imperfect object, it has displayed the professional character of Sir William Jenner in a way to command the respect and regard of his keenest critics as well as his most ardent admirers. This selection for the Presidency of the College reflects honour on that institution, and may well be the harbinger of a new era, a renewal of which the old corporation stands greatly in need. The choice is the more significant seeing that it was made, almost unanimously, after a "personal explanation," in which—following the extraordinary statement made by Dr. Quain with respect to his co-operation with Dr. Kidd in the treatment of the Earl of Beaconsfield—Sir William Jenner announced that he too had been asked to meet Dr. Kidd, and he positively declined. "If then," continued Sir William, "Dr. Quain be right, it is I who deserve the censure of the College." The vote of the Fellows, which gave Sir William Jenner more than twelve times the support accorded to the candidate next below him on the poll, was the answer of the College to this appeal.

It is not Sir William Jenner who has done wrong in declining to meet a reputed homœopath in consultation, but Dr. Quain who has erred in consenting to act with Dr. Kidd! No notice of the question of ethics having been given, and a discussion being impossible, this was the only form in which judgment could be expressed. It is a judgment which will be endorsed by the profession as a whole; and the election of Sir William Jenner to the Presidency of the College is the more honourable, and has the greater significance, because it was accomplished at the conjuncture and in the manner described.

THE CASE OF THE EARL OF BEACONSFIELD.

THERE are features of medical interest in the case of the Earl of Beaconsfield to which it is worth while to allude; but first let us explain that there has been no foundation for the statement that Sir William Jenner met Dr. Kidd in consultation; on the contrary, Sir William expressly declined to do so. There was nothing personal in this refusal. The course taken was that to which every practitioner of scientific medicine must have felt himself impelled. No grounds exist for consultation between the ordinary physician and the professor of a particular school. Medicine is not a science which admits of sectarian views. If two mariners, one of whom believed the earth to be a flat disc, while the other held the commonly received hypothesis of its spheroidal form, were asked to act together in navigating the same ship on a voyage round the world, how could they co-operate? We do not *wilfully* refuse to meet homœopaths; we simply decline because it would be a grim farce and a practical imposition to do so. The result must be a failure of justice to the patient, which may jeopardise his prospect of recovery. The course which practitioners should pursue in an emergency of this kind is very clear. They are not acting rightly in causing the delay of possible relief. They are not called upon, nor is it expedient, to postpone action until they have consulted professional friends. We can scarcely conceive of a more undignified procedure than that which Dr. Quain confesses to have adopted when he delayed obeying the summons he received to the aid of the Earl of Beaconsfield until he had visited or communicated with the then President and several Fellows of the College of Physicians. The call of duty should be instantly obeyed; and the physician, being on the spot and ready and willing to render his services, should claim to see the patient *alone*, or throw on the friends the onus of declining to permit him to do so. This was not, unfortunately, the course pursued by Dr. Quain in the case of the Earl of Beaconsfield, but there will, we think, be no question in the mind of the profession that this is the course which ought to have been taken, and which alone could be defended or approved. What took place at the second visit of Sir William Jenner to Lord Beaconsfield may be stated as follows. In consequence of Lord Beaconsfield's weak state and general illness, it was impossible for those about him to explain any matter to him, and any agitation might have proved fatal. Lord Beaconsfield himself wished much to see Sir William Jenner, but he had remarked on Dr. Kidd's absence from the room when Sir William, having received the Queen's special commands to visit Lord Beaconsfield, saw him with Dr. Quain alone. And it was feared that if Dr. Kidd was *not present* at this second visit with Dr. Quain and Dr. Bruce, Lord Beaconsfield would be much disturbed. Under these circumstances Sir William Jenner, in the interest of the patient, consented to see the noble lord in Dr. Kidd's presence. After the examination, Sir William Jenner expressed his views to Dr. Quain, Dr. Kidd being still present, but in no sense of the word did Sir William Jenner consult with Dr. Kidd. In brief, Sir William Jenner did all that the condition of his patient required while avoiding any breach of professional etiquette.

As we pointed out at the commencement of this illness, the noble lord's strength has long been a matter of *mental* energy; it has therefore been especially necessary that he should be sustained by *mental* stimuli. His was not the case of a man suffering from worry, or what is erroneously called "overwork." At no period of his brilliant career has this great statesman suffered from disorderly work. His mind has been too well-balanced, and his method too consistently clear-headed to leave him exposed to the perils which beset less calmly earnest workers. To deprive such a man of his normal sources of energy was to enfeeble his very powers of life. We are in no way surprised to hear that the appearance of Lord Rowton at the bedside of the noble earl, and the personal influence of his nearest friend of many years past, acted as a restorative, and enabled Lord Beaconsfield to "rally." The only marvel is that this obvious method of reviving the failing strength was not more promptly applied. Lord Beaconsfield has had an attack of undeveloped gout with the characteristic bronchitis. The so-called "spasm" has been the result of the accumulation of viscid secretions in the bronchial tubes, the accumulation being indicated by the usual physiological consequences of a deprivation of oxygen, together with special nervous depression. Spasm of the muscular coats of the air-passages is common in gout, and in the case of Lord Beaconsfield the constitutional peculiarity has rendered the spasm worse. The unavoidable but most untoward absence of Lord Rowton during the early period of the illness exercised a depressing effect, and rendered the treatment more than ordinarily difficult. The medical question of the moment is whether proper means can be taken to relieve the bronchial tubes and so avert the spasm when it occurs; the noble lord can be supplied with suitable nourishment at very short intervals, so as to keep up his strength. For the rest, the issue is simply a question of vitality, and that, as we have insisted, it depends almost exclusively on the mental strength in reserve, and the mental treatment to which his lordship may be subjected.

URÆMIA.

THE inoffensiveness of urea when injected into the blood, a fact of much interest in connexion with current theories of certain symptoms in renal disease, asserted by many experimenters, has been confirmed by MM. Richet and Martin in some experiments described to the Académie des Sciences. Even fifty grammes, nearly an ounce and three-quarters, did not cause the immediate death of a dog of medium size. The investigators then endeavoured to ascertain the percentage of urea in the blood half an hour after the injection of a considerable quantity, and they conclude from the results which they obtained that not more than one-eighth part of the amount injected can then be found in the blood. It is remarkable that the same result was obtained even when both kidneys were ligatured. It must hence be assumed that the urea injected passes at once into the tissues and liquids of the organism, and, in accordance with this supposition, a notable elimination was found to occur by means of the stomach and intestine. The contents of the stomach yielded at the rate of fifteen grammes of urea per litre, and the saliva five grammes per litre. Doubtless a similar passage of urea occurs into the lymph, the muscles, and the parenchyma of the tissues. Urea injected into the blood is only very slowly eliminated by the kidneys. A very remarkable fact, and one most difficult to explain, is that although urea acts as a diuretic, causing a considerable total increase in the quantity of the urine, it lessens the percentage of urea contained in it. There is an elimination of water out of all proportion to that of urea. Nevertheless, animals whose kidneys have been tied die far more quickly after an injection into the blood of a moderate quantity of urea (20 grammes) than if no such injection is made. They die in sixteen, eighteen, or twenty hours, whereas, after simple nephrotomy, they usually live for forty-eight hours. The injection into the blood of a small quantity of chloride of ammonium has the same effect. The injection of moderate doses of neutral salts of ammonia beneath the skin does not occasion any considerable toxic effects, far less than if they are injected into the blood. This fact makes it difficult to attribute the symptoms known as uræmic to the non-elimination of the salts of ammonia. The mucous membrane of the stomach of animals dying after the injection of urea into the blood is strongly ammoniacal. A small quantity of such mucous membrane, placed in contact with a solution of pure urea, causes it to decompose with great rapidity, just as if a soluble or organised ferment had been added, a very suggestive fact on which the authors promise a further communication.

THE MEDICAL REFORM QUESTION IN YORKSHIRE.

A MEETING held at Leeds on the 6th inst., to consider the subject of medical reform, was numerously attended, almost every large town in Yorkshire being represented by one or more members of the profession. The feeling of the meeting was clearly indicated by the marked expression of approval which followed Dr. Allbutt's trenchant remarks regarding the hopelessness of any real improvement in the existing system of medical education under the auspices of the General Medical Council as at present constituted. The sense of the meeting was also expressed with tolerable precision as to the necessity of reducing the number of members of Council, and that a large proportion of its members should be elected by the votes of the profession. It does not follow that the gentlemen thus elected should neeessarily be general practitioners. It was felt that the profession at large could well be trusted to judge as to the men who were best calculated to advance the interests of medical education and the well-being of the profession, and that they would vote for candidates for the Council irrespective of any considerations as to which branch of the profession such candidate might belong. In placing the subject of the reconstruction of the Medical Council first on the list of the resolutions and in the hands of one of the most distinguished physicians in the North of England, the meeting at Leeds plainly indicated their opinion of the importance they attached to this measure, and their belief that a change in this direction is necessary before any reasonable hope can be entertained for the improvement of medical education in this country. The subject next in importance to the emancipation of the General Medical Council from the baneful influence that is exercised upon it by the corporations is the desirability of creating conjoint and complete examinations for each division of the kingdom. As Mr. Wheelhouse remarked, no legislation on this subject can be satisfactory which does not provide for such examinations. Mr. Wheelhouse reiterated the arguments we have frequently made use of, and the Leeds meeting unanimously supported him in his observations as to the desirability of reducing the number of the doors through which men are now able to enter the profession. There can be no question that it is absolutely to the disadvantage of the profession that students should be able to seek entrance into its ranks first at one door, and then, if they failed, at another, and so on till they gained their end. A few only of these nineteen bodies give anything that can be called a complete examination. At the present moment a man by passing in Anatomy and Surgery alone can place his name upon the Register, and claim to be a practitioner. Mr. Wheelhouse remarked some people imagine that some joint boards of examiners, such as he had referred to, would be the means of reducing all our students to one dead level, and tend rather to lower than increase the average standard of their professional attainments; he believed these premisses were unfounded, and that the majority of our students would not be contented with the minimum standard, or pass examinations, but would strive to obtain the diplomas and fellowships of our various colleges. We sincerely hope, with Dr. N. de Bartolome, that the meeting at Leeds will be followed by similar gatherings of the profession in other large towns, so that the action commenced at Leeds may proceed until the profession have impressed upon the Government the fact that by far the majority of medical practitioners in this country not only know what they want, and the nature of the measures they refer to when they talk about medical reform, but that they are earnest in the matter, and determined to attain their end in spite of every obstacle. The result of the Leeds meeting was summed up in a petition to Parliament, which has been already numerously signed by the medical practitioners of Yorkshire. The most gratifying feature about this meeting in Leeds is the evidence it affords that medical reform is a question, above all things, of a more efficient Medical Council and more complete and fewer examining bodies.

CINCHONA CULTIVATION IN JAMAICA.

WE lately referred to the promising extension of the cinchona cultivation in the island of Jamaica, and some further details of interest are contained in the "Annual Report of the Public Gardens and Plantations in Jamaica," for the year ending the 30th September, 1880, by Mr. D. Morris, M.A., F.G.S., Director. The work has been retarded by severe hurricanes and storms which have inflicted great damage on plantations, but, nevertheless, the progress has been very satisfactory. About 50,000 cinchona plants have been set out in their permanent places, of which 43,000 were C. officinalis, 6000 were C. calisaya, and 1000 C. succirubra. No new land has been opened up, these plants having been used in planting the remainder of the land cleared and partly planted in preceding years. A striking proof of the suitability of the soil for the cultivation of the tree is afforded by the fact that in two plantations the original planting has been completely masked by the abundant growth of self-sown seedlings, some of which are now large enough to be cropped, and there is the promise of a succession of valuable crops for several years. Root bark from these seedling trees has realised 10*s.* per pound, and trunk bark 8*s.* per pound. Moreover, these self-sown seedlings were to the number of 100,000 transplanted to nurseries, where about 350,000 others were raised from seed. Several new species of cinchona have been introduced, especially a valuable variety of Columbian bark and the true Calisaya bark; it having been found that the plant cultivated in the island as such was really a hybrid, partaking more or less of the red bark character, and, although a valuable form, is less so than the true yellow bark. Several cuttings have also been introduced from Kew of the precious Ledgeriana variety and are thriving. This variety has been called by Mr. Howard "The Prince of Cinchonas." Quite recently bark of this form has been sold in the London market at 14*s.* 8*d.* per pound, and that from trees grown in Java has been sold in Amsterdam at 17*s.* per pound. The aggregate amount of bark shipped to England during the year was 27,299 pounds, which sold for £5380, and was yielded by 8248 trees. The evidence afforded by the rapid growth of self-sown seedlings that the climate of the Blue Mountains is specially suitable for the growth of cinchona is corroborated by another very interesting fact mentioned in the report. Twelve years ago a few seedlings were planted for experiment on one or two estates, and most of the plants were removed when the regular nurseries were opened. Hearing last year that a few cinchonas had been left at one of these experimental plantations at an elevation of 4800 feet, Mr. Morris determined to visit the spot and ascertain their condition. Nothing had been done to the land since 1868, and the road thither was almost impenetrable. The trees were found to occupy an area of 120 square yards, and to be no less than 379 in number, and some were only nine inches apart. Most were of the Crown bark (C. officinalis), and about twenty feet high, with clean tall stems, the largest measuring fifteen inches in circumference at the base. The condition of the trees showed clearly that when a cinchona plantation has been established and the trees completely cover the ground, say in the third year from planting, no further attention is necessary till they arrive at maturity. Mr. Morris examines the question of whether the extensive cultivation of cinchona is likely to render it an unremunerative object of industry, by lowering the price of quinine, but he concludes, with much show of reason that the death-roll among all the nations of the world from fevers, for which it is the sole remedy, is so vast that there is no prospect of the price of quinine being seriously diminished. On the contrary, the prices of good quinine-yielding barks have been rising. At any rate, the cultivation in Jamaica would seem to have nothing to fear, for it is estimated that the yield per acre from the crown barks, in suitable localities and properly planted, would not be less than £1980, while if Ledgerian bark is grown it would be £2000. It is evident that the quinine might fall considerably in price, and yet its cultivation under such conditions might yield a handsome profit.

APPOINTMENT OF A HOMŒOPATH AS MEDICAL OFFICER OF HEALTH AT HASTINGS AND ST. LEONARDS.

Surprises, like misfortunes, seldom come singly. Before we have been able to realise the fact that a London physician is in daily consultation with a reputed homœopath the news reaches us that a member of that persuasion has just been elected as Medical Officer of Health at one of our chief watering places and health resorts. The facts of the case are briefly as follows. Through the retirement of Mr. Ashenden a vacancy was recently created in the post of Medical Officer of Health for the Hastings Urban Sanitary District, and in response to an advertisement nine candidates came forward, some of whom, from their high qualifications and professional standing, were entitled to receive every mark of consideration and respect from the members of the Town Council. Nevertheless, at the monthly meeting of that body, without even appearing to consider the claims of the more eligible candidates, they at once proceeded to elect Mr. Knox Shaw, the youngest of the applicants, and who has recently commenced practice as a homœopath at St. Leonards. It is alleged that the municipal body have been actuated in the matter by political motives. If that be so, we are at a loss to conceive how a body of gentlemen, elected to watch over the interests of a flourishing town, can have subordinated those interests to any collateral considerations. That the welfare of Hastings and St. Leonards may be materially affected by this injudicious proceeding we have no doubt. In order that the functions of a medical officer of health shall be efficiently performed, it is of the utmost importance that this gentleman should possess the entire confidence of his professional brethren, and feel assured of their support in the discharge of his delicate and responsible duties. As matters at present stand at Hastings and St. Leonards it is impossible that the medical officer should receive confidence and support, for members of the profession cannot place themselves in unreserved communication with one whose views differ so materially from their own on every subject connected with medical practice. The sanitary condition of the town is, therefore, likely to suffer materially, and we need hardly say how any suspicion of that kind must be calculated to injure the prestige of the place with visitors and invalids. One of the first questions asked nowadays by patients, or even by persons merely seeking change of air, of their medical attendants, relates to the sanitary condition of the place they intend to visit. What information can medical men at a distance obtain with regard to those two towns when they are of necessity debarred by professional considerations from holding communication with the present sanitary officer? The medical men of the district have already discharged their duty by issuing a dignified protest. The fame of "Hastings and St. Leonards" as an invalid resort has been in part due to the high professional reputation of its medical men, and there can be no doubt that the two towns are greatly indebted to the members of our profession generally for much of their substantial prosperity.

It will be gratifying to his numerous English friends to learn that the health of Dr. J. Marion Sims has to a considerable extent been re-established. Dr. Sims has received a cordial welcome from his medical brethren at Charlestown, who propose to give him a public reception.

The Honorary Fellowship of the Royal College of Surgeons in Ireland was last Wednesday, the 13th inst., conferred on Professor Helmholtz, of Berlin; and the Honorary Degree of LL.D. by the University of Dublin.

We learn that the prize of £50 for the best essay "On the Treatment of the Opium Habit" has been awarded by the adjudicators, Sir Risdon Bennett, Sir J. Fayrer, and Dr. Sieveking, to Dr. George Shearer of Liverpool.

At an inquest held at Battersea on Tuesday on the body of a woman who died from exhaustion during parturition, a verdict of "manslaughter" was returned against the unqualified assistant at a dispensary, who was called to the case.

We regret to learn that Dr. Frederick Hulke, the well known and esteemed practitioner in Deal, died suddenly on Sunday last.

We may remind our readers that there will be a meeting of the Pathological Society on Tuesday next, the 19th.

The Brighton Town Council has decided to erect a sanatorium at a cost of £15,000.

Ambulance Practice by Volunteers. — A number of the officers, non-commissioned officers, and gunners of the 7th (Manchester) Lancashire Artillery Volunteers have during the past two months attended a course of practice prescribed by the St. John Ambulance Association, the instructor being Dr. Tomkins, honorary surgeon of the corps. On April 4th, Surgeon-Major Hutton, of the Rifle Brigade, conducted an examination of the men in ambulance practice at the Artillery Barracks, Hyde-road. They acquitted themselves in an efficient manner.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORT OF MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Newlyn, East (Dr. BALLARD).—Newlyn (East) is a decayed mining village in the rural sanitary district of St. Columb, Cornwall. It contains about 150 houses, nearly all of the cottage class, and about 650 inhabitants. Much of the village is in a grievously dilapidated condition, some of the occupied houses unfit for habitation, and indications of gross sanitary negligence are apparent everywhere, even to overcrowding of the dead in the churchyard. Several times this village has been scourged by enteric fever, and in October last another outbreak began, which in the course of the next three months attacked 67 families, giving rise to 116 cases, and killing 14 or 15. The attention of the Local Government Board was called to this formidable outbreak by a notice of it in the London daily press, no information of it having been given to them by the medical officer of health, as in duty bound, he having been forbidden to do so by the Rural Sanitary Authority. Dr. Ballard was directed to make inquiry by the Local Government Board into the accuracy of the reports which appeared in the public press, and having ascertained this, if requisite, to investigate the circumstances of the outbreak of disease and give such help to the sanitary authority in dealing with it as might prove to be necessary. The origin of the largely diffused outbreak was readily traced to the excremental pollution of two of the principal sources of water-supply of the village—the one a well with which a common sewer communicated, and with which the sewer must have been in free communication shortly before the outbreak, the other a spring outside the village, and situated in a hollow. The surroundings of this spring were found to be such as "to inspire simple disgust, since the surface of the field and the ditch close to the spring were defiled with human excrement deposited there by the women and children when they came to fetch water. They probably had no privy at home." The general insanitary state of the village, particularly as to excremental nuisances, contributed to keep up and extend the outbreak when the disease had once declared itself.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Burgh of Hillhead (*Glasgow*).—Dr. James Christie reports for 1880 a birth-rate of 24·00 and a death-rate of 9·43 per 1000 among a population numbering 7000. The average mortality of the burgh of Hillhead during the last three years, it appears, was only 11·0 per 1000 living, "a death-rate much lower than that of the insular rural districts of Scotland, which invariably show the lowest death-rate in the country." This remarkably low death-rate, according to Dr. Christie, "depends to a large extent on careful modes of living, and on the fact that the houses are commodious and not overcrowded, and that all cases of illness, as a rule, receive early attention," but, he adds, "it must be conceded that it is, in some measure at least, due to healthiness of site, proximity to the open country, and to attention on the part of the Local Authority to matters affecting the public health of the district."

Dublin: February, 1881.—Dr. Cameron reports for this month a death-rate of 44·25 per 1000 inhabitants, the rate on the northern side of the city being 46·45, and on the southern side 42·52. The deaths from zymotic diseases were considerably under the average for the month of February during the last ten years. On the high mortality of the month he observes that it "cannot be ascribed to the prevalence of zymotic disease, for the proportion of deaths from this class of maladies to the total deaths is much below the average of former Februarys, and of very many towns. A very high proportion of the mortality was due to diseases of the respiratory organs, especially of bronchitis and pneumonia. The want of proper food, of warm clothing, and of comfortable dwellings, are prime factors in causing diseases of the breathing organs. For some time past these factors, the result of poverty, have done their deadly work amongst the humbler classes of Dublin. The workhouses are crowded, there are large numbers of persons out of employment, and the unusual severity of the winter has sown the seeds of many such diseases as chronic bronchitis, phthisis, and rheumatism."

Dorchester (*Urban*).—Mr. E. J. Day reports for this urban district for 1880 a birth-rate of 32·4 per 1000 inhabitants, and a death-rate of 18·8, the population being estimated at 7435. A good deal of sanitary work, according to Mr. Day's report, appears to have been done during the year, and a scheme for the drainage of the town is occupying the attention of the sanitary authority.

Dorchester, Rural (*Eastern Division*).—Mr. E. J. Day's report for 1880 for this division shows a birth-rate of 24·8 per 1000 inhabitants, and a death-rate of 17·2, the population being estimated at 5352. Here also more or less detailed sanitary work has been done, but we notice among the items of work mentioned the doubtful proceeding of the construction of a cesspool of circular shape, thirty feet in depth and six feet in diameter, "*adjoining* the south wall of the workhouse." The italics are ours.

Dorchester, Rural (*Maiden Newton*).—Mr. Wm. Rendall, the medical officer of health for this division of the rural sanitary district, reports for 1880 a birth-rate of 23·74 per 1000 inhabitants, and a death-rate of 18·47, among a population estimated at 6640. He has the following observations on farmyard and pig nuisances:—"Complaints have frequently been made to me of the nuisance arising from farmyards, dairy-yards, and pigstyes situated in the centre of villages close to dwellings and public roads. This is undoubtedly the case, and as long as these yards are so situated animals must be kept there and the nuisance will arise; of all animals pigs seem to be the most objectionable, and generally give rise to the complaints made. Again, I believe these yards are often the means of polluting wells for some distance round; several cases have come under my notice where well water is discoloured and unfit to drink after a storm, and I have invariably found these wells situated near a yard. The yards are usually hollowed out and filled with manure, and after a storm of rain are overflowing with liquid manure, which gradually percolates the soil and pollutes the springs which run in that direction. The consequence is that all wells supplied by these springs are polluted." It is worthy of note that at Maiden Newton privies, with few exceptions, have been converted into earth-closets, and are satisfactorily managed by the inhabitants themselves.

THE OKEHAMPTON WORKHOUSE.

A report has been presented to the Okehampton Rural Sanitary Authority on the sanitary condition of the workhouse of the Union, by Mr. Linnington Ash, their medical officer of health. The report is an excellent illustration of the advantages to be derived from the employment of medical officers of health in the sanitary inspection of these buildings. The workhouse is not a very old one, but it was built at a time before that clear knowledge of the sanitary requirements of buildings of this class, which we now possess, was obtained, and, in consequence, it has very numerous defects in its arrangements for ventilation, sewerage, water supply, dormitories, sick accommodation, offices, and general convenience, which it is not desirable should remain for one moment longer than necessary for removal after their discovery. How many of these defects have remained so long unremedied, or rather, we should say, undiscovered, is one of those mysteries of official poor-law inspection we do not pretend to explain, but which shows that the ordinary inspection of the Local Government Board in sanitary matters needs as much as ever to be supplemented by inspection such as this of which Mr. Linnington Ash has given us a specimen. Mr. Ash describes the general plan of the Okehampton workhouse as good, and lending itself readily to such changes in internal arrangements as is to be desired, although the site is not well chosen.

SANITARY HOSPITAL ACCOMMODATION.

It is an old saying that "we may take a horse to the water, but we cannot compel him to drink"; and it would appear from our contemporary, the *Local Government Chronicle*, that we may induce a sanitary authority to build a hospital, and give the gratification to the ratepayers of paying the cost of it, but the sanitary authority is not bound to keep it open for the reception of patients.

The *Local Government Chronicle* reports a curious case of river pollution from Salford. A bargee engaged in the removal of town refuse from the Corporation manure wharf on the canal for carriage into the country, hit upon the ingenious idea of saving his time and labour by depositing his cargo, consisting of no less than twenty-three tons of filth of one sort and another, in the river with which the canal communicates!

Dr. Tatham, the medical officer of health for the borough of Salford, has recently been delivering in that borough a popular lecture on the "Nature and Prevention of Infection."

The City of London Union and the Kensington Guardians appear to have protested against the further expenditure of money by the Metropolitan Asylums Board in legal proceedings regarding the Hampstead Hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further slight increase last week upon that which had prevailed in recent weeks. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5277 births and 3264 deaths were registered last week. The births exceeded by 91, and the deaths by 7, the average weekly numbers during 1880. The deaths showed a further increase of 68 upon the low numbers returned in recent weeks. The annual rate of mortality in the twenty towns, which had been equal to 20·6, 21·7, and 21·9 in the three preceding weeks, further rose to 22·4 last week. The lowest rates in these towns were 16·0 in Portsmouth, 17·9 in Leicester, 18·7 in Brighton, and 19·0 in Bristol. The rates in the other towns ranged upwards to 26·1 in Manchester, 26·2 in Oldham, 27·8 in Wolverhampton, and 28·0 in Liverpool. During the thirteen weeks ending the 2nd inst., the death-rate in the twenty towns averaged only 23·9 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 321 and 315 in the two preceding weeks, rose to 339 last week; these included 78 from measles, 73 from small-pox, 71 from whooping-cough, 45 from scarlet fever, and only 26 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·3 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Leicester, to 3·4 both in Portsmouth and Wolverhampton. Whooping-cough showed the largest proportional fatality in Portsmouth and Leeds, and scarlet fever in Wolverhampton. The 16 deaths referred to diphtheria in the twenty towns included 11 in London and 2 in Portsmouth. The highest death-rates from fever, mainly enteric, were recorded in Newcastle-upon-Tyne and Portsmouth. Small-pox caused 77 more deaths in London and its outer ring of suburban districts, and one in Liverpool, but not one in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 820 and 899 at the end of each of the two preceding weeks, further rose to 921 on Saturday last, exceeding the number under treatment at these hospitals at any time since May, 1877. The number of new cases of small-pox admitted to these hospitals during last week was 224, against 147 and 256 in the two preceding weeks.

The deaths referred to diseases of the respiratory organs in London, which had been 348 and 358 in the two preceding weeks, were 359 last week, and no less than 91 below the corrected average number in the corresponding week of the last ten years; they included 221 from bronchitis and 94 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 5·0 per 1000 in London last week; the rate from the same diseases was no less than 9·0 in Liverpool, but did not exceed 4·3 in Salford.

The causes of 90, or 2·8 per cent., of the deaths in the twenty towns last week were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths was equal to 2·4 per cent. in London, and averaged 3·1 per cent. in the nineteen provincial towns. No uncertified deaths were recorded last week in Brighton, Portsmouth, Norwich, Bristol, or Leicester; while the proportions of such deaths were largest in Salford, Hull, Leeds, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week was equal to 23·5 per 1000, against 23·5 and 20·7 in the two preceding weeks; this rate exceeded by 1·1 the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 17·6 and 19·1 in Dundee and Leith, to 27·3 and 33·9 in Perth and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 97, 75, and 69 in the three preceding weeks, rose again to 82 last week; they included 26 from whooping-cough, 20 from diarrhœa, 11 from fever, 12 from diphtheria, 7 from measles, 6 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·2 per 1000 in the eight towns, which was 0·9 above the mean rate from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 1·3 and 1·7 in Greenock and Leith, to 3·9 and 4·4 in Perth and Aberdeen. The fatal cases of whooping-cough, which had been 31, 27, and 16 in the three preceding weeks, rose again last week to 26, of which 13 occurred in Glasgow, 6 in Edinburgh, and 3 in Aberdeen. The 20 deaths from diarrhœa showed a further increase upon recent weekly numbers, and exceeded the average number for the season; they included 7 in Glasgow, 4 in Dundee, and 3 in Aberdeen. The 12 deaths referred to diphtheria corresponded with the number in the previous week; 8 were returned in Glasgow and 2 in Paisley. The 11 deaths referred to "fever" showed an increase, and included 7 in Glasgow and 2 in Edinburgh; the death-rate from this cause in the eight towns was twice as high as the average rate in the twenty English towns during the week. Four of the deaths from measles occurred in Glasgow, and the other 3 in Aberdeen; the 6 from scarlet fever included 4 in Edinburgh and 2 in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 138 and 146 in the two preceding weeks, further rose to 163 last week, and were equal to an annual rate of 6·5 per 1000, while the rate from the same diseases in London did not exceed 4·2; these diseases were especially fatal in Glasgow.

HEALTH OF DUBLIN.

The excessive rate of mortality in Dublin showed no decline last week. The annual death-rate in the city, which had been equal to 34·9 and 30·8 per 1000 in the two previous weeks, was again 30·8 last week. During the thirteen weeks ending on the 2nd instant, the death-rate in the city averaged no less than 37·8, against 23·4 in London and 22·3 in Edinburgh. The 197 deaths in Dublin last week corresponded with the number in the previous week, and included 14, or rather more than 7 per cent., which were referred to the principal zymotic diseases, against 19 and 15 in the two previous weeks. The 14 deaths from zymotic diseases included 8 from fever (typhus, enteric or typhoid, and simple continued), 4 from diarrhœa, 1 from scarlet fever, 1 from whooping-cough, and not one either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases did not exceed 2·2 per 1000 in Dublin last week; it was 3·0 in London and 3·1 in Edinburgh. The deaths referred to fever in Dublin, which had been 12 and 7 in the two previous weeks, were 8 last week; and the annual death-rate from this cause was seven times as high in Dublin as the average rate in the twenty English towns. The fatal cases of diarrhœa exceeded the number returned in recent weeks; while the deaths referred to other zymotic diseases were exceptionally few. The deaths of infants showed an increase upon those returned in the previous week; while those of elderly persons were fewer than in either of the two preceding weeks.

VITAL STATISTICS OF THE PUNJAB.

We are in the receipt of weekly returns of vital statistics for the Punjab Province of India, bearing the signature of Surgeon-Major Bellew, Sanitary Commissioner, which reflect great credit upon the local sanitary administration. These returns appear to be uniformly furnished for the entire province, which was reported to have had a population at the last census in 1875 of about seventeen and a half millions of persons. During the two weeks ending 5th and 12th Feb.

last the annual death-rate among this population was equal to 27·6 and 28·8 per 1000 respectively. It appears that only three deaths from cholera occurred in the province during the fortnight, and that the fatal cases of small-pox in the two weeks were 184 and 193 respectively. The most remarkable feature of the return is the fatality from fever; of 18,994 reported deaths in the province during the fortnight, no less than 12,566, or more than 65 per cent., were attributed to fevers. If these deaths from fevers be deducted from the deaths from all causes the annual death-rate from other causes in the fortnight would not exceed 9·5 per 1000, affording strong presumptive evidence that the term "fevers" must have a somewhat indefinite and wholesale signification in the returns. These weekly returns include detailed vital statistics for each of fifty-two large municipal towns, having an aggregate population of about a million and a quarter persons, among whom the average birth-rate in the fortnight was 39·0, and the death-rate 31·5 per 1000. Bearing in mind that in the capitals of the three presidencies registration of births has hitherto been a comparative failure, it is somewhat surprising to find in the returns before us apparently trustworthy returns of births in the fifty-two principal towns of the Punjab. Taking the two returns before us as indicative of the sanitary condition of these Punjab towns, we find, as might be expected, very excessive mortality in many of them. The largest town in the list is Amritsar, with a population of 136,166, which had a death-rate of 37; in Delhi, having a population of 115,992, the rate was 40. The third largest town in the list is Peshawur, the population of which is given as 58,430; the mean mortality of this town in the fortnight was 48, fever fatality showing a terribly high proportion of the total mortality. Assuming that the birth returns are approximately trustworthy, we may venture to suggest to the Sanitary Commissioner that an additional column to his excellent return, showing the deaths under one year of age, would afford valuable information on a most important and interesting subject—infant mortality in India.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SANITATION AT CANNES.

The town of Cannes is about to contract a loan for £120,000, of which a third is to be employed to pay off the local floating debt. The rest will be devoted to public works, and we must commend the appropriation of this money as being dictated by sound sense. Fortunately the present administration of Cannes has at last realised that the preservation of public health is the first duty of a health resort. Hence it has been resolved to construct, and this at a cost of about £14,000, proper sewers in no less than nineteen streets. The present abominable sewers will be replaced by new egg-shaped conduits. If these latter are properly ventilated, an end will be put to the bad odours for which the streets of Cannes are too notorious. There are also four rivulets which at times assume the proportions of mountain torrents, and are invariably more or less contaminated by the refuse of neighbouring houses. To prevent the formation of stagnant pools and the decomposition of organic matter on the banks during dry weather, the bed of these rivulets will be converted with cement and masonry into a smooth channel, down the centre of which the smallest volume of water will pass on easily to the sea. The greatest work, however, will be the destruction of the most unwholesome district of the town called the Poussiat. Eighty-five houses must be pulled down, and a market and two broad streets built on the site. The cost of compensating the various proprietors in this and other districts, where narrow unhealthy streets are to be widened, is estimated at £40,000. In all, out of some £80,000 to be spent, only about £2000 will be employed for embellishments totally unconnected with the improvement of public health, and £3000 for the building of a school. This is a great and favourable contrast to, for instance, the town of Hyères, where a loan was contracted last year for £60,000, and only £880 devoted to the repairing of water conduits and canals. The example given by the town of Cannes is therefore all the more worthy of notice. At present, Monaco, Monte Carlo, and even the intervening low-lying quarter of the Condamine, is the only well drained district of the Riviera. Though the house drainage in the Principality is still very imperfect, the streets, at least, are marvellously well kept, even in the poorest localities, and are completely free from the noxious effluvium which is the bane of these southern winter stations. The Republican administration of Cannes have now determined, however, to keep pace with the monarchical government of Monaco, though their financial resources are not so large and their executive powers are strictly limited.

BERI-BERI.

Two important recent additions have been made to the literature of beri-beri; the first from the pen of Dr. T. Irvine Russell, Principal Civil Medical Officer of the Straits Settlements, in the form of a report on the prevalence of the disease in the criminal prison, Singapore; the second by Dr. Duane B. Simmons, Director of the Government Hospital, and President of the Foreign Health Board, Yokohama, in an elaborate paper published in the Medical Reports issued by the Chinese Customs (Special Series, No. 2). Dr. Irvine Russell's report gives a very careful and instructive account of *beri-beri* as it has been observed in the criminal prison of Singapore from May, 1875. From that date to the end of May, 1880, 1174 cases (of which 165 died) had been observed in the prison under circumstances very favourable for observing the disease. According to Dr. Russell, damp and malaria are the chief conditions provocative of *beri-beri*, malaria being essential. Dr. Simmons' paper is illustrated by a map and several instructive outline illustrations of patients in different phases of the disease. He regards *beri-beri* as arising from "a specific miasm or ground exhalation." Our contemporary the *Indian Medical Gazette* in its last received number gives, in a note from Dr. W. Carey, a curious extract from an account of life in Bombay two or three centuries ago, or thereabouts, in which the phrase *berri-berri* appears. "After drinking toddy rapidly," reads one sentence, "they took a disease called *barbieri* or *berri-berri*, in which a man tottered in his gait like a dying sheep, or span round like a teetotum." Dr. Carey asks, "Has the disease mentioned any connexion with *beri-beri* which excited discussion lately?"

An action (Hicks *v.* Doubledee) has been recently tried before Vice-Chancellor Hall to set aside an agreement to take a lease of a house in Sussex, which had been advertised in our pages in September last as suitable for a sanatorium or convalescent hospital. Tempted by this advertisement, the plaintiff, a medical men, entered into communication with the defendant, which ended in his signing an agreement to take the house on lease. After he had entered upon the occupation of the premises, the plaintiff found—contrary to what he had been led to believe, as he asserts, by the defendant—that the chimneys smoked intolerably, the water-supply was impure, and the drainage arrangements very defective; and he sought to free himself from the agreement. The case occupied nearly a fortnight in the trial, and the evidence tendered was of the most contradictory character. In the end the Vice-Chancellor decided that the plaintiff had entirely failed to make out his case, and dismissed the action, with costs, giving judgment in favour of the defendant.

The growing custom of members of Parliament asking questions in the House of Commons on general medico-sanitary matters deserves notice. It is evidently found much more convenient to ask a minister than to take the trouble of referring to a work in the library. But is it well that ministers should yield so readily to this habit, wasting the time of the House, and encouraging the laziness of certain of its members? Is a member of Parliament by virtue of his position released from the necessity of acquiring knowledge as other people have to acquire it?

The owners of several houses in the vicinity of Stanhope-street, Euston-road, were summoned at Marylebone Police Court for allowing their premises to lapse into an unhealthy condition. The insanitary state of the dwellings having been testified to by Mr. Shirley Murphy, the district medical officer of health, each of the defendants was ordered to complete the necessary work within seven days and to pay the costs of the summons.

Messrs. H. K. Lewis have issued a new edition (the tenth thousand) of Dr. Edward T. Wilson's most handy and useful card "Disinfectants, and How to Use Them."

THE SERVICES.

INSPECTION OF THE ARMY HOSPITAL CORPS.

The class of medical officers and men of the Army Hospital Corps who have just completed a course of training in "stretcher and ambulance drill" at Aldershot, was inspected on Monday last by Surgeon-General A. Shelton, Head of the Medical Branch War Office, in the unavoidable absence of Sir William Muir, K.C.B., Director-General. The class, which consisted of twenty-two medical officers and a large number of men, was drawn up on the parade ground in Z Lines, South Camp, under the command of Surgeon-Major Sandford Moore, and after an inspection of the ranks and a march past was put through stretcher drill by the Instructor, Surgeon Henry Bradford. Not the least interesting part of the day's proceedings was the presentation of the Zulu War Medal to twenty-four men of the Army Hospital Corps who had served in the late campaign, and to whom the Surgeon-General expressed his pleasure and gratification at conferring on them the decoration granted by Her Majesty for their services. After the inspection the Surgeon-General and his staff were entertained at luncheon by Surgeon-General Fasson and the officers of the Army Medical Department in their mess-hut in the South Camp.

THE ARMY HOSPITAL NATIVE CORPS FOR INDIA.

The Indian Government has sanctioned the formation of a Native Army Hospital Corps for service with British troops in that country. The head-quarters are established at the office of the Surgeon-General of Her Majesty's Forces, who is charged with the command of the corps and its general administration. All men joining the corps will be duly enlisted, attested as "hospital attendants," and will be subject to military discipline. Men belonging to the present existing hospital establishments will be eligible for enrolment, provided their age and character qualify them for admission; recruits will be enlisted as required. The corps will consist of the following classes—viz., ward servants, cooks, water-carriers or bheesties and sweepers. The total strength of the corps for the present is to consist of 1872. The scale of pay and pensions has not yet been promulgated, but it is understood it will be sufficiently liberal to attract a good class of servants, a want hitherto much felt in hospital administration in India.

THE BEARER COMPANY IN SOUTH AFRICA.

The Bearer Company of the Army Hospital Corps, under the command of Surgeon-Major William Johnston, arrived at Fort Napier, Natal, on the 28th of February from Durban, and, after some difficulty in getting its transport and equipment, proceeded to the front on the 5th March. The ambulances, waggons, stretchers, litters, cacolets, &c., were brought out from England with the Company, the transport consisting of 20 horses, 64 mules, and 120 oxen being obtained in the colony. The *Natal Witness* states that the conduct of the men since their arrival in Pietermaritzburgh has been excellent. Surgeon Connolly acts as adjutant of the Company.

The following medical officers, who have completed a tour of foreign service in India, will return to England during the present trooping season: Surgeon-Majors S. B. Roe, G. C. Gibbon, T. H. White, O. Owen, and G. J. Gibson. Surgeon-Major Roe accompanied the 92nd Highlanders to Natal for the Transvaal expedition from India.

Surgeon-Major E. Hopkins, Surgeons W. R. G. Hinds and W. Donovan, Army Medical Department, have embarked with the 85th Regiment from India for service in the Transvaal.

Surgeons J. G. Clery and J. Stevenson accompanied the 102nd Madras Fusiliers from Ceylon to Natal.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major John Wales has been granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Francis Patrick Staples, from half-pay, to be Surgeon-Major; Surgeon-Major Charles Frederick Richards, M.B., has retired upon temporary half-pay.

INDIAN MEDICAL SERVICE.—The following appointments as Surgeons have been approved by Her Majesty:—Bengal: George Michael James Giles, Arthur Robert Wyatt Sedgefield, Edwin Francis Horatio Dobson, Johnston Shearer, Syed Hassan, Robert James Polden, Hem Chandra Banerji, Sambhu Chandra Nandi, Alfred Henry Pierson, Francis Samuel Peck, William Deane, and Philip de Conceiçao.—Madras: John Lawrence Vangeyzel, Hastings Norman Victor Harington, Gerard Macklin Eccles McKee, Kavasji Cursetji Sanjana, Hormasji Merwanji Hakim, John Adolphus Burton, Francis Joseph Doyle, Manekshaw Jamshedji Keláwálá, Philip Henry William Boon, Mervanji Pestanji Kharegat.—Bombay: Alexander Frederick Ferguson, Kavasji Hormasji Mistri, George Ernest Fooks, Joseph William Townsend Anderson.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881, the undermentioned Fleet Surgeons have been placed on the Retired List from the 1st inst., with permission to assume the rank and title of Deputy Inspector-General on the Retired List:—William Ross (b), M.D., James Lilburne, M.D., John Ruddall-Holman, M.D., William Patrick, Henry Loney, Robert Irvine, William Forrest MacClinton, B.A., M.B., Samuel Clift, John Chamberlayne Ingles, William Telfer, Marmaduke Philip Smyth Ward, Francis Yeates Toms, William James Hamilton, M.D.—The following appointments have been made:—Staff Surgeon William Redmond and Surgeon Joseph Crowley, M.D., to the *Repulse*.

ROYAL COLLEGE OF PHYSICIANS.

PERSONAL EXPLANATION BY DR. QUAIN; ELECTION OF PRESIDENT.

THE meeting of the Fellows of the College of Physicians on Monday last (the 11th inst.) was most numerously attended, nearly all the metropolitan Fellows being present, including Sir Thomas Watson, Sir James Alderson, and Sir George Burrows, who have in past times held the office of President. The occasion was a memorable one, the chief business being the election of a President for the ensuing year. Before this and the other business of the meeting took place, however, Dr. Bucknill, one of the censors of the College, rose, and begged to ask Dr. Quain to give an explanation of the reasons which influenced him in entering into consultation with a homœopathic practitioner.

The PRESIDENT (Sir Risdon Bennett) allowed the question to be put; but as it was a matter purely personal to Dr. Quain he ruled that no discussion could take place on it, as no formal notice had been given of the question.

Sir G. BURROWS asked whether such a question could be put until the business before the Comitia had been dealt with.

The PRESIDENT ruled that it might now be put.

Dr. QUAIN then rose and said that he was grateful for the opportunity afforded him of giving a personal explanation. He looked upon homœopathy as a creation of the imagination, which had no relations with scientific medicine. In the course of his long life he had never sought notoriety or publicity; and he felt sure that the Fellows, when they heard his explanation, would see that no other course was open to him. On the 29th of March Lord Barrington called on him and said that he had come to ask him to visit Lord Beaconsfield, that it was the wish of the Queen that further advice should be sought, and that Lord Beaconsfield had particularly requested to see him (Dr. Quain). He felt flattered by the request, but told Lord Barrington that he could not meet Dr. Kidd, who was a homœopathic practitioner. Lord Barrington said that he was not aware that Lord Beaconsfield was being treated homœopathically, and urged his request in strong terms. Dr. Quain, in reply, said that he must seek further advice, and did so. He went to a former President of the College, who told him that if the medical man were a qualified practitioner and were not treating the case homœopathically, Dr. Quain could not refuse to meet him. Acting upon this advice Dr. Quain next called upon Dr. Kidd, who told him and (at Dr. Quain's request) gave him a written statement to the effect that he practised medicine regularly, that he sometimes treated his patients homœopathically, but that he did not treat Lord Beaconsfield so. Dr. Quain then called on the President of the College and told him all the circumstances, and received the reply that he would not be justified in refusing the summons. The next day he saw Sir T. Watson and Sir James Paget, who both spoke in the same sense. He went to Lord Beaconsfield, and found that he was being treated actively, that Lord Beaconsfield had the utmost confidence in Dr. Kidd, so much so that the consequences to his lordship might have been serious were Dr. Kidd to withdraw from the case, and, under all these circumstances, Dr. Quain asked what other course could he have pursued? He had acted from the best motives.

Sir W. JENNER rose to make a statement, as he was personally involved in the matter.

The PRESIDENT said that no discussion could take place without formal notice of motion being given.

Sir W. JENNER said that he was not going to speak of Dr. Quain but only of himself. He, too, had been asked to meet Dr. Kidd, and had positively declined. "If, then," Sir William added, "Dr. Quain be right, it is I who deserve the censure of the College."

The ordinary business, which had been delayed by this episode, was then proceeded with. A communication from the General Medical Council relative to a preliminary scientific examination was read, and referred to the Council of the College for consideration.

On the motion of the PRESIDENT a grant of fifty guineas was made towards the expenses of the International Medical Congress.

The PRESIDENT then delivered the customary annual address. He said that during the past year eighteen members and seventy-eight licentiates had been admitted; that twelve new Fellows had been elected, the total number of Fellows being 304. Twelve Fellows had been removed by death. He referred to the manner in which the College had furthered the International Congress by devoting to the Executive the use of its rooms; and spoke of the alterations in the regulations for the Licence Examinations, which had already borne good fruit. The opposition of the College to the Vaccination Acts Amendment Bill had led to its withdrawal. The late Dr. Sparks had bequeathed his library to the College; pictures had been presented by Mr. Richmond, R.A., and Dr. Munro; and a legacy of £1000 had been bequeathed by Mrs. Bradshaw to the College (and also to the College of Surgeons) for the purpose of founding a lectureship in memory of her husband, Dr. Bradshaw, the lecture to be delivered on August 18th in each year, the day of Dr. Bradshaw's decease. In conclusion, Sir Risdon Bennett expressed his deep sense of the kindness and generous support he had received from the Fellows during his term of office. He had no fear for the future of the College, which was representative of British medicine, and he urged that the way to maintain its reputation was by circumspection in the elections into the Fellowship.

On the motion of Sir W. JENNER a cordial vote of thanks was passed to the President for his address with the request that it should be printed and sent to the journals.

The election of President was then taken by ballot. The result was that out of 108 Fellows present there voted—for Sir W. Jenner, 87; Sir R. Bennett, 7; Sir W. Gull, 5; Dr. Wilks, 2; Dr. Pitman, 2; Dr. Acland, 1; Dr. Quain, 1; Dr. Radcliffe, 1. Two papers were blank.

Sir W. Jenner, having obtained the votes of more than two-thirds of those present, was declared duly elected.

Sir THOMAS WATSON, as the Senior Fellow present, read the customary declaration, and handed the insignia of office to the new President, who then took the affirmation.

Sir W. JENNER, in thanking the Fellows for his election, said that the office of President of that College was the highest honour that could be conferred on any English physician. Its honour rested on that of the College, its dignity, the high scientific character and social status of its Fellows through all time. It had been enhanced by those who had filled the chair. The names of Watson, Alderson, Burrows, and Bennett were second to none in the profession; and they had discharged their duties with the greatest possible dignity. For himself, he felt unworthy of that post. Accidental circumstances, in the shaping of which he had no control, had placed him in the sunlight, and thus it had been that a large number of the Fellows had looked towards him; but he knew for that very reason that if he did anything which could be thought in the least way unworthy, he would not have been elected President. He felt, therefore, greatly honoured, for he knew they would not have selected him unless they felt confidence in him. He assured them he would keep to the solemn declaration he had taken, and added the satisfaction with which he had seen all the ex-Presidents present that day, and hoped that he had their support.

PHARMACOLOGY AND THERAPEUTICS.

THE INFLUENCE OF TEMPERATURE ON ABSORPTION.

M. SASSESKY has published in the *St. Petersburg Medical Wochenschrift* the results of some observations on the influence of temperature on the absorption of drugs. These were introduced by the mouth, the rectum, or by hypodermic injection, in the case of persons in good health, and of others suffering from various diseases. Iodide of potassium, salicylic acid, ferrocyanide of potassium, and hydrochlorate of quinine were given in solution, by the mouth and rectum, care being taken that each viscus was previously empty. The period after administration at which the drug could be detected in the urine was taken as the indication of the rapidity of absorption. For hypodermic injection solutions of iodide of potassium and of ferrocyanide of potassium were employed. It was uniformly found that, when given by the mouth or rectum, the higher the temperature of the solution the more rapidly was it eliminated, the difference varying from two to forty minutes, the results being somewhat influenced by the individual condition of the patients as well as by the differences in the temperature of the solution. In administration by hypodermic injection the results were less conclusive. In ten cases the warm solutions were absorbed the more quickly; in four, temperature made no difference in the rapidity of absorption, and in one case a cold solution of ferrocyanide of potassium was absorbed more quickly than a warm solution. Manassein has suggested that warm liquids produce a more intense hyperæmia of the mucous membrane, and hence are absorbed more quickly. It is possible also that cold liquids cause a more prolonged initial contraction of the vessels which will have the effect of delaying absorption.

RESORCIN.

Resorcin is a diatomic phenol extracted from certain plants, as assafœtida, and produced synthetically by the action of potash on chloro-phenyl sulphuric acid, to which we have before called attention (THE LANCET, 1880, vol. ii., p. 777). M. Dujardin-Beaumetz has lately corroborated its value as an antiseptic, and represents it as very serviceable in surgery. It causes poisonous symptoms in doses of more than six grammes. According to Andeer, sublimed resorcin has much less toxic properties. He asserts that it has not merely an antiseptic, but also a slightly caustic action upon mucous membranes, and does not give rise to a slough, the epithelium being regenerated in two or three days. He has employed it with advantage for the purpose of washing out the stomach in gastric catarrh and dilatation. It seems to possess certain hæmostatic actions, chiefly efficacious in capillary hæmorrhages. Soltmann has employed it in ninety-one cases of infantile "cholera," of which seventy-four were cured, and asserts that, putting aside three cases in which death occurred from grave complications, the use of the drug reduced the mortality from this disease in his practice from 34 to 15 per cent. It quickly arrests vomiting, even in small doses, and restrains the diarrhœa, without tending to cause the collapse or the toxic symptoms which result from the use of even small doses of carbolic acid. It is readily taken by children. The stomach and intestine rapidly regain their functional energy. He gave it to children under a year in a dose of ·1 to ·3 gramme in sixty grammes of infusion of chamomile.

THE ANTIPYRETIC ACTION OF IODINE.

Many observers have asserted that preparations of iodine possess the power of lowering the temperature in acute febrile diseases. A solution of iodine and iodide of potassium was recommended, for instance, by Hillebrand for this purpose in typhoid fever; and Coesfeld, in 1879, pointed out the antipyretic action of iodoform applied to the skin in febrile states. Binz, in a recent communication to the *Archiv für Exp. Pathologie und Pharmakologie*, attributes this effect to the liberation of free iodine in the system, and has demonstrated that iodic acid possesses the influence in a very high degree. In the artificial septic fever of rabbits he found the temperature could be reduced in an hour from 104° to 101½° by an injection beneath the skin of a grain and a half of iodate of soda dissolved in two cubic centimetres of water. Unfortunately the poisonous properties of iodic acid are an obstacle to its therapeutic use, and, when combined with an alkali, it cannot be given by the mouth, because free iodic acid is liberated in the stomach. Given hypodermically it is, however, effective, and seems to cause little local disturbance.

THE ANÆSTHETIC ACTION OF CHLORINE.

Ten years ago Cameron published a singular case of a sailor who died comatose after having slept in a cabin containing a quantity of chloride of lime. In the post-mortem it was noticed that a strong odour of chlorine was exhaled from the ventricles of the brain when they were opened, although the autopsy was only made thirty hours after death. Binz has recently observed a similar effect in the case of rabbits, and his researches show that chlorine, bromine, and iodine, when inhaled, paralyse the nerve centres, apparently by a direct action on the protoplasm of the nerve cells, and cause death by cessation of the respiration, not of the heart. It used to be taught that chlorine when inhaled is quickly transformed into chloride of sodium by combining with the alkali of the blood. It seems, however, that, as Cameron's case teaches, the chlorine may remain for a long time in contact with the lymph and blood without undergoing this transformation.

POISONING BY TANSY.

A case of fatal poisoning by this common English plant has occurred in America, and has been recorded in the *Pittsburg Medical Journal.* An infusion of about half an ounce of the dry herb was taken by a woman at bedtime. In a few hours the patient vomited and was purged, and then ceased, to recur in the afternoon with abdominal pain in the epigastric region, which became very severe; the breathing was rapid and shallow, and the pulse became very feeble. The patient died twenty-six hours after taking the tansy. Dr. Gallaher, who describes this case, also records another of poisoning, not from the infusion, but from the oil of tansy. It was taken in order to bring on menstruation, and, small doses having been ineffective, half a teaspoonful was taken at bedtime. Two hours later the patient was awakened by burning pain at the stomach and ringing in the ears; she became cold and pulseless; after an emetic, however, she rapidly recovered. In neither case was there any convulsion, coma, or paralysis.

DIALYSED IRON.

According to a writer in "New Remedies" the so-called dialysed iron of the United States is not prepared by dialysis, but is obtained by mixing a small proportion of hydrochloric acid with washed ferric hydrate precipitated by ammonia, and setting the mixture away for about three weeks, when the clear solution is decanted from a slight residue, and is then ready for use. The preparation is thus identical with that long in use in this country under the name of ferric oxychloride or chloroxide. The knowledge of the method by which it is prepared—that the American "dialysed iron" is not dialysed—is said to be kept so sedulously secret by the manufacturing fraternity that a practical chemist of some experience was laughed at for his simplicity when he proposed to make dialysed iron by dialysis. It is said that if the factories were restricted to dialysis for the product they could not possibly supply the demand—without, we suppose, increased labour, which would be more troublesome and expensive.

NITRITE OF SODA.

According to Binz and Barth the physiological action of the nitrites in general, and of nitrite of soda in particular, bears considerable resemblance to that of arsenic. Their high "reductibility" renders them powerful oxidising agents, and it is asserted that they are first reduced in the tissues of the greatest physiological activity, in the gastro-intestinal mucous membrane, and in the nerve tissues, and next in the blood, where the oxygen seems to be absorbed by the red corpuscles, which assume a chocolate-brown colour, and become functionally powerless in consequence of the formation of methæmoglobin. This elective action of the nitrites explains, according to Binz, their caustic action on the intestine when they are applied to the skin, and also their paralytic effect on the nerve centres.

COCO-NUT AS A REMEDY FOR TAPEWORM.

In the Antilles the coco-nut is a popular native remedy for tapeworm, and its utility has been proved by Dr. Martiali, chief of the medical service at Senegal. A nut of the coco (Coco crucifera) weighs about five ounces, and the whole of this is taken, scraped, and three hours afterwards a dose of castor oil is administered. The worm comes away five or six hours after the dose of coco-nut. In nine cases in which it was given the remedy was successful.

PILOCARPIN IN FETID PERSPIRATION.

M. Armaingaud of Bordeaux, in a communication to the Académie de Médecine, asserts that repeated hypodermic injections of pilocarpin will cure the troublesome fetid perspiration of the feet without producing any injurious effect on the system. Prolonged observations on three patients have convinced him that the effect is permanent, and not temporary. The pilocarpin appears to act by producing a "derivative hypersecretion" in the salivary glands; and the general sudorific action, which can be obtained much more surely with jaborandi than with pilocarpin, cannot be advantageously substituted for the sialologue action of the latter.

EUGENOL.

The antiseptic properties of oil of cloves and oil of peppermint have long been known, since they have often been employed to prevent starch, &c., from becoming mouldy. They have also been employed as remedies for toothache. Eugenol, which is extracted from these oils, and which is also known as eugenic or caryophyllic acid, is found to have similar powerful antiseptic properties. It has a formula $C_{10}H_{12}O_2$.

THE COLLEGE OF SURGEONS.

At a quarterly meeting of the Council, held on Wednesday last, the report of the Erasmus Wilson Committee, recommending the award of sixty guineas to Mr. Butlin for his two lectures on the Relations of Sarcoma to Carcinoma, and the award of thirty guineas to Mr. Frederick Treves for his lecture on the Pathology of Scrofulous Affections of Lymphatic Glands, was adopted.

The third report of the Committee on the necessary arrangements for the institution of additional examinations for the diplomas of Member and Fellow, was likewise adopted. (See also The Lancet January 15th, 1881.)

It was resolved to appoint a "Nomination Committee," consisting of seven members of the Council, to nominate candidates for the several examinerships of the College, excepting candidates for the Court of Examiners, and for the Court of Examiners' section of the Dental Board.

The Jacksonian Prize was awarded to W. Watson Cheyne, F.R.C.S., for an essay on the History, Principles, Practice, and Results of Antiseptic Surgery.

MEDICAL NOTES IN PARLIAMENT.

In the House of Commons, on Thursday, the 7th instant, petitions for inquiry into the Indian Army Medical Department were presented from W. Morgan, D. M. Jack, and D. N. Martin. A copy was ordered, on the motion of Mr. Ashley, of further correspondence relating to hospitals for British seamen in foreign ports. Notice of amendments in Committee on the Metropolitan Open Spaces Bill was given by Mr. W. H. James, and on the Alkali Works Regulation Bill a large number of amendments was put down by Earl Percy.

Indian Quinine.

On Friday, Captain Price asked the Secretary of State for India whether it was the fact that the Indian Goverment were exporting large quantities of cinchona bark for sale in London; and whether, in introducing the cinchona plant into India, the Government did so with the object of encouraging private enterprise, or of competing in the market with the private trade. The Marquis of Hartington said the object of the Government in introducing cinchona into India was to provide an abundant supply of a cheap febrifuge in the country. Almost all the bark produced in the Bengal plantations was manufactured in India for use there, but difficulty had been found in treating the produce of the Madras plantations in the same way as that of the Bengal plantations. For this reason the greater part of it was sent to England, and it was believed that the sale of this bark had established a reputation for the Indian growths to the great advantage of private growers; but an experiment was now being made on a large scale with a view to its manufacture in England on Government account, and if that experiment were successful it was probable the sale would be discontinued.

Small-pox Statistics.

Mr. Puleston asked the President of the Local Government Board whether he could give any statistics showing the extent of the present small-pox epidemic; whether this disease was more prevalent than in former years; and if it was, whether he would cause such temporary hospitals to be erected for small-pox patients as were put up during the epidemic of 1877. Mr. Dodson replied that at so short a notice he could not give precise statistics on the extent of the epidemic, but up to the present time it had not been fatal in any appreciable degree except in the metropolis. It was unfortunately more prevalent in the metropolis than on an average of years. As compared with recent epidemics, it was believed that the present would about rank with 1877–78, or 1866–67; but it was not anything like as fatal as that of 1871–72. The Board had recommended the local authorities to provide temporary accommodation as far as practicable, and that had already been done, or was in progress in some instances.

Correspondence.

"Audi alteram partem."

"MISSED LABOUR."

To the Editor of THE LANCET.

SIR,—I venture to ask your indulgence for a few words in reference to the editorial comment in your last issue upon my case of so-called "missed labour." You cite "the ingenious theory of" my friend "Dr. Roper, that cases of missed labour are cases in which rupture of the uterus had taken place, and the child had escaped through the rent into the surrounding tissues or abdominal cavity. In the case observed by Dr. Barnes, he seems to have convinced himself that the fœtus was in the cavity of the uterus by the introduction of the hand into that cavity......The theory of Dr. Roper is not incompatible with Dr. Barnes' observations, and the question cannot be settled but by careful post-mortem investigation."

I do not think it judicious to exclude Dr. Roper's hypothesis as explaining some cases; but as applied to my case I submit that it is rather far-fetched; it is an example of that fallacy in logic which seeks to substitute for a simple and natural explanation one that is extraordinary and improbable. I cannot accept this explanation even from Dr. Roper, to whose clinical sagacity I am indebted for much knowledge.

To argue that the question can only be settled by post-mortem examination is really to beg the question. In such cases as may be explained by Dr. Roper's theory death is a probable issue, and the opportunity of dissection may arise; but uterine pregnancy generally terminates in recovery, and happily dissection cannot be appealed to. I submit that my patient recovered because the gestation was uterine.

Deeply as the case interested me, and difficult as the pathological problem it presented seemed to be, I confess I was not anxious to solve it by a post-mortem examination. The solution given by repeated and varied examinations during life and the issue in recovery satisfies alike my ambition as a physician and my curiosity as a pathologist.

I am, Sir, yours &c.,

Harley-street, April, 1881. ROBERT BARNES.

CYSTICERCUS IN THE BRAIN.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Saturday last Dr. Flint, of Scarborough, published an interesting case of cysticercus cellulosæ in the ventricle of the brain occurring in a boy aged seventeen; giving rise to no marked symptoms during life, but apparently causing almost sudden death with acute and peculiar cerebral symptoms. As Dr. Flint seems to consider his case almost as unique as it is interesting, it seems to me worth while to refer to two others, notes of which were published with drawings of the specimens in the Transactions of the Bristol Medico-Chirurgical Society, 1878.

The first occurred in my own practice, and was published by me in 1859. The patient was a woman, aged twenty-nine. Otherwise healthy, strong, and active. For eighteen months she suffered from gastric irritation with vomesis and headache, with great febrile excitement when the attacks—seldom absent more than a few days—came on. Various forms of treatment had been tried by Dr. Mortimer Granville, under whose care she was, but without much benefit, change of air and chalybeates alone seeming to procure any abatement in the symptoms. Subsequently she became my patient in the infirmary. She could not bear to lift her head from the pillow on account of a dead, dull, heavy pain and sense of weight, nor move it because of excessive pain and stiffness in her neck. Subsequently she stated she could not open her eyes, and had all the appearance of being very hysterical; and, being strongly impressed with the idea that she was dying, returned home. Five days afterwards, while supposed to be sleeping, she was found to be dead. A cyst about an inch in diameter was found lodged in the fourth ventricle, the roof of which was much softened. The cyst contained a white semi-opaque mass, a quarter of an inch in length, and what appeared like a twisted tube protruding from it, containing fluid. On removing the end of this tube it was seen to contain the head and neck of a tænia about a quarter of an inch in length. The head has four suckers, and the corona of hooklets characteristic of tænia, and the neck, which is clearly and distinctly segmented, ends in a sort of bulb.

The second case occurred in the practice of Dr. Shingleton Smith at the Infirmary, the patient being a girl sixteen years of age. She had complained for a month, but only gave up work as a servant a week before admission. The first symptom noticed was headache frequently recurring; her look was healthy, but she seemed listless and apathetic. She became subject to attacks of severe pain across the forehead lasting only a few minutes, with flushing; then copious perspiration and a short sleep; vomiting frequently followed an attack. After six weeks the attacks were followed by drowsiness; pulse 40 to 50; then an attack of convulsions affected the right side, and the vomesis was frequent. In a second attack of convulsions she died. A cyst was found in the lateral ventricle, loosely attached to the choroid plexus. It consisted of an abdominal sac three-quarters of an inch in diameter, with an elongated projection half an inch in length; a thin layer of membrane enveloped the whole length of the head and neck, and obscured the suckers and hooklets. A dark spot, however, could be seen at the distal end of the narrowed part of the object, which, with a pocket lens, resolved itself into a dark central mass, with four smaller ones arranged around it.

My object being simply to afford your readers an opportunity of comparing these two cases with that published by Dr. Flint, I refrain from alluding to the several points of interest such comparison seems to afford.—Yours, &c.,

F. BRITTAN, M.D.,

Clifton, April, 1881. Consulting Physician, Bristol Royal Infirmary.

"THE CONSULTATIONS OF DRS. QUAIN AND KIDD."

To the Editor of THE LANCET.

SIR,—In your issue of the 9th inst. I noticed some remarks elicited by the consultation between Dr. Quain and myself upon the illness of Lord Beaconsfield, in which you question the professional morality of the proceeding and challenge a justification of our conduct. Speaking for myself, may I tender the following reply?

1. Although, to quote your own words, "a reputed homœo-

path," I desire once for all to disclaim any such special party designation. Four years ago I resigned all connexion with the Homœopathic Hospital and Society. In a very extensive practice during thirty-four years I have always adopted that course of treatment which my own experience has taught me to be most effective for the cure of my patients. Herein I claim simply to have acted as any man does who is not bound by the trammels of a merely mechanical routine. Like other practitioners, I use the drugs of the British Pharmacopœia, but in many cases I have learned from experience that what are called homœopathic remedies may be usefully prescribed. Such remedies I freely use in suitable cases and according to my own judgment. I do not prescribe infinitesimal doses, nor according to the caprice of my patients.

2. With regard to the co-operation of Dr. Quain with myself, the facts are as follows:—A valuable life was at stake, one precious to her most gracious Majesty the Queen, and to many millions of her subjects. I had been enabled for nearly four years to afford prompt and effectual relief to that illustrious man in many severe illnesses. From the first moment of the present attack I recognised its gravity and danger. For ten nights and days I bore the strain of incessant attention, then her Majesty wished that the responsibility of so momentous an illness should be shared in consultation. I was asked to arrange it. Knowing the satisfaction it would give her Majesty to have Sir W. Jenner's co-operation and opinion, I at once wrote to him. Without inquiring as to the manner in which I was treating the patient, Sir W. Jenner declined to meet me, on the ground that (quoting his own words)—"holding as you and I do different views as to practical treatment, I do not think Lord Beaconsfield's interest could in any way be served by our meeting in consultation; on the contrary, it could not be without risk to him." Before receiving his answer, however, Lord Beaconsfield expressly desired to see Dr. Quain. He communicated with me as to how I was treating the case, and upon receiving my assurance that it was not homœopathically, he without hesitation visited the patient, and so fulfilled the spirit (to use your own words) of that boast of the medical profession that in the hour of sickness it recognises only humanity in need of succour. In this way Dr. Quain and I did not work together without being agreed, nor did either sacrifice his convictions to effect the co-operation. On the contrary, Dr. Quain's great skill was thus made useful to our illustrious patient, and my intimate knowledge of his constitution and of the disease was as helpful to Dr. Quain.

3. As to the rules of professional etiquette which you maintain have herein been violated, it is impossible within the limits of this letter to discuss the entire question, but of this at least I am convinced, that if that "boast of the medical profession"—which you so fully endorse—is henceforth to remain a living principle of conduct, we must be guided not by the misleading flicker of prejudice and jealousy, but rather by the clear and convincing light of humanity and common sense.

Believe me, yours faithfully,

J. Kidd, M.D.

George-street, Hanover-square, April 12th, 1881.

⁂ Then there must be strange errors in the published reports of the Homœopathic Hospital. The report for 1879–80 lies before us, and in it we find Dr. Kidd's name as a "Benefactor," in addition to which he is credited with a donation for 1879, and another for 1880. Until recently the name "Joseph Kidd, M.D., M.R.C.S.," appeared *first* in the List of the "Medical Council" of the Hospital. Again, in the "British Homœopathic Medical Directory, 1881," under the head "List of Qualified Physicians and Surgeons practising Homœopathy," &c., we find Dr. Kidd's name and address with the hours at which he may be consulted at his professional residences. His name also appears under the head "Homœopathic Practitioners," in the "Plain Directions for the Treatment of Common Complaints," and Homœopathic Medical Directory, issued by Messrs. Leath and Ross, Homœopathic Chemists. Those facts need explanation. We cannot discuss the question of ethics—we cannot call it etiquette—with Dr. Kidd. We differ on fundamental principles; and to these principles as set forth in our article of last week we adhere.—Ed. L.

ABERDEEN.

(*From our own Correspondent.*)

On April 1st an outbreak of a disease presenting many features of novelty occurred in Aberdeen, breaking out nearly simultaneously in several families, and attacking a considerable number of individuals in each. Cases occurred in rapid succession in all parts of the town, until by the 8th of April about fifty families and over a hundred and fifty individuals had been affected. At first it was somewhat puzzling to account for the outbreak; but after a day or two it became apparent that it was connected with the milk supply, and the further observation of the disease confirmed this impression, for the families affected were scattered widely over the town, and had only one thing in common—viz., that they all obtained their milk from one large dairy farm in the neighbourhood of the town. Inquiry has shown that about one-half of the families obtaining milk from this source have been infected, while no similar cases (as far as is yet known) have occurred elsewhere in the town.

The symptoms in most cases have begun suddenly with a sharp onset of fever—chilliness followed by hot dry skin and high temperature,—the thermometer frequently marking 103° and 104°, and sometimes even nearly 105°. Headache and pain in the back, particularly the former, have very uniformly been present, and sometimes the headache has been very severe and persistent. In one or two cases delirium has been present. Along with the headache there has usually been more or less sickness, and very often vomiting, after which the stomach has remained inactive, food being refused, and this condition remaining till the disease has passed away. The tongue at first coated with a white fur, not usually very thick, and in cases where the symptoms were prolonged, and especially where much weakness was present, it became dry and brownish. The pulse rose at once at the commencement of the attack, and ranged usually about 100, but in weakly patients it rose to 120, and even somewhat higher. Sore-throat has uniformly been present to a greater or less extent. This has begun with a feeling of stiffness and soreness about the angle of the jaw, and a difficulty in swallowing or a feeling as if something were in the throat. The fauces have been more or less reddened, sometimes but slightly, at other times brightly injected, but without any appearance of exudation, and generally with little, often no swelling, the redness extending over the uvula, the lower margin of the soft palate, the tonsils and pillars of the throat, and occasionally the back of the pharynx. Externally there has been marked swelling behind and below the angle of the jaw, sometimes on one side only, sometimes on both, and not unfrequently appearing on one side, and after that subsided, appearing on the other. In a few cases a herpetic eruption has shown itself about the lips and inside of the mouth. In one or two cases there was a slight attack of diarrhœa, but it appeared to be merely a casual complication. In one case the lymphatic glands at the lower part of the neck were enlarged, and in another the right inguinal glands were enlarged. The period of greatest severity of the attack has been the first twenty-four or forty-eight hours, after which the symptoms gradually subsided. Relapses, however, have been frequent, especially when the swelling, after subsiding on one side of the throat has shown itself on the other; but usually the second attack has been less severe than the first. Whether any sequelæ may occur remains to be seen; but a considerable number of the cases seem now to be convalescent, having lasted from three or four to five or six days. Where the system was previously weak the disease seems to have been most prolonged; or perhaps it might be more correct to say that the subsidence of the attack has left more or less debility and prostration, from which when the patient was weak, and especially when he was elderly, there has been considerable difficulty in obtaining restoration. One fatal case has occurred, and it is not improbable that others may have to be recorded.

A careful examination is being made into the cause of the outbreak, and until that is completed it would be premature to offer any decided opinion on the subject. In the meantime, however, it may be stated that the cows (forty-six in number) at the dairy farm whence all the families attacked receive milk, seem in excellent health; that no addition to the dairy stock has been made since November; that the byres are large and airy, in every way unexceptionable in structure, and that everything about the dairy-house is clean and well kept. In one point, however, there is a serious defect. The water used is obtained from the Dee, being part of the water supply for the town of Aberdeen, which is extremely pure; and chemical examination has shown that it reaches the farm entirely uncontaminated. The supply pipe is led into a large cistern made of concrete, from which it is distributed to the byre, stable, dairy, &c. This cistern is placed within the byre, supported on beams in one corner, and placed at such a height as not to be in the way of the cows or their feeding-troughs. No doubt it is covered with a wooden cover, but this is very far from fitting air-tight; and as the byre is open from end to end, the air loaded with exhalations from the animals, from their food, their bedding, &c., finds free access to the water in the tank. Chemical examination has shown that the water in the cistern is seriously contaminated with albuminoid ammonia, nitrates, and excess of chlorides; and this, as direct sewage contamination is impossible, has evidently been derived from the air in the byre. Whether this has been the cause of the outbreak remains to be seen, but it is plain that an arrangement which subjects the water to such contamination is in every way most objectionable.

IRELAND.

(*From our own Correspondent.*)

THE Cork medical libel case, which was tried last week at Cork before Mr. Justice Barry and a special jury, terminated by the jury disagreeing.

During the past year the total number of patients treated at the Hospital for Women and Children, Cork, was 123 in excess of the number under treatment in 1879. The Board of Management, in their annual report, regret that the inadequate size of the present hospital building and want of funds prevent them from developing the usefulness of the institution. They also regret that the hospital has not received that support from the general public during the past year that was expected; on the contrary, the gross receipts of 1880 have fallen below those of 1879 by the sum of £107 19*s.* 8*d.*

An adjourned meeting of the Dublin Ladies' Sanitary Association took place last week, for the purpose of receiving a report from the Provisional Committee recently appointed, and to take measures for the permanent establishment of the association. It is proposed to carry out the objects of the association by the distribution of pamphlets, the delivery of lectures on health, sanitary improvements, and domestic economy, the establishment of a lending library of books, the formation of classes for adult girls, instruction in schools on hygienic and domestic matters, and the encouragement of neatness and cleanliness in the rooms and houses of the poor.

The plan of organisation of the Royal University of Ireland as adopted by the Senate differs but slightly—at least as regards the medical portion of the curriculum—from that proposed by the committee appointed for that purpose, and published in THE LANCET at page 504. Although as there stated, candidates for the M.D. may present themselves at the examinations for this degree at the end of two academical years from the date of obtaining the degree of M.B., yet to this arrangement must be added a regulation, that those candidates who shall be students in medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to obtain the degree of M.D. instead of the degree of M.B. upon passing the degree examination. There will also be an examination for a diploma in sanitary science, which will be conferred only on graduates in medicine of the University. The fee for the examination will be £2, and the examination will embrace the following subjects: —climate, chemistry, geology, physics, vital statistics, hygiene, and sanitary law.

At a recent meeting of the Committee of Management of the Cork-street Fever Hospital the registrar reported that during last month both fever and small-pox had decreased to a considerable extent, the number in the house that week being under forty, and none of the cases were of a severe type. The Committee are anxious, while the numbers are so low, to clear out the present convalescent house, which is unsuitable in many ways, and remodel the same according to modern requirements, but the necessary expenditure deters them for the present. There was only one case of small-pox under treatment in the principal Dublin hospitals for the week ending the 2nd inst.

The Corporation of Dublin do not appear to regard with satisfaction the recent conjoint report of the Colleges of Physicians and Surgeons on the death-rate of the city, most probably due to the belief that the Colleges consider that the sanitary authority have not been sufficiently active in utilising the powers they are entrusted with. At a recent meeting of the Town Council the conjoint report was recived and the following resolution in reference thereto was adopted:—"That in acknowledging the reports of the united colleges of the King and Queen's Colleges of Physicians and the Royal College of Surgeons on the death-rate of Dublin, the Corporation wish to thank the Colleges for their report, and to point out that the report contains no new matter or suggestions on matters of public health to which the notice of the Corporation had not been previouly directed by the report of the Public Health Committee, dated August, 1880, and that all of the said suggestions, so far as the executive powers of the Corporation extend, have been acted on for many months previous to the issue of the reports of the Colleges, except that of the main drainage, which, in the opinion of the Royal Commissioneers, should follow the more urgent and possible reforms, and that the said report be forwarded to the Public Health Committee for further report thereon as to extended legislation to improve public health, and as to such reforms as will in great measure depend on the extension of municipal boundaries."

Obituary.

SURGEON-MAJOR G. F. FORBES.

DR. FORBES, whose death was announced in our obituary list of March 26th, belonged to the Forbeses of Millburn, near Inverness, and was brother of the late Dr. William Welsh Forbes. The greater part of his life was spent in India, and about fifteen years ago he was employed by Government as a Commissioner in connexion with the growth of cotton both in India and America. He passed through the troubles connected with the Indian Mutiny, and also saw service in the first Afghan War. Shortly after the completion of the Government engagement, he retired from active service. The deceased (says the *Aberdeen Herald*) lately endowed a medical dispensary, founded in Inverness by his brother, with a sum of £6000, which was lately handed over to trustees on behalf of that institution, and it is understood that his native county will benefit further by his benefactions. The provost, magistrates, and members of the Town Council attended the funeral, and the shops and places of business of Inverness were closed in token of respect for the deceased. The Forbes Memorial fountain, which he had presented to the town, was draped in black.

ADELAIDE HOSPITAL, DUBLIN.—During the past year 875 patients were admitted into the hospital, and the average number of beds in daily occupation throughout 1880 was 78. The special attention of the Committee has for some time past been devoted to providing a nursing staff sufficient for the proper care of the patients both by day and night; and the subdivision of the wards for the proper classification of disease has rendered it necessary to employ a larger number of nurses than in similar institutions. The sum expended in the maintenance of the hospital for the year amounted to £5258; while £1588 was received by subscriptions, £1598 by donations, £919 by bequests, and £867 from pay patients. A debt of nearly £3000 still remains, but this sum will be much reduced when some large bequests have been received.

NEWCASTLE INFIRMARY.—At the annual Court of Governors of this institution, held on the 7th inst., reference was made to the great pressure experienced on the accommodation afforded by the building, so that its enlargement would soon become an absolute necessity. On the representation of the infirmary authorities, it was stated that the Schools and Charities Committee have set apart suitable premises, and taken other measures, for founding a Hospital for Incurables in Newcastle.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 7th, 8th, 11th, and 12th inst.:—

David L. Williams, Percy W. McD. Howse, Frederick H. Taylor, William A. Nutt, Walter Blaxland, Alfred T. Schofield, John Bostock, David Thomas, and Victor N. Bindley, London Hospital; Vere L. Oliver, George D. Hunter, Alfred T. I. Lilly, and Herbert W. Allingham, St. George's Hospital; Sydney S. Merrifield, Gerald G. Hodgson, A. H. Gordon, Herbert C. McDouall, Alfred M. Vann, Cecil D. Greenwood, and Thomas W. S. Morgan, King's College; Charles K. Bond, George D. Johnston, and Walter G. B. Tyrrell, Yasuzumi Saneyoshi, Frederick F. Caiger, Bernard Kelton, and Henry B. Robinson, St. Thomas's Hospital; Herbert Larder and Paul Jackson, Westminster Hospital; William A. Russell, Walter Spencer, Arthur E. Huxtable, John Marriott, John H. Crocker, Walter H. Haw, Howard Davies, and Alfred Turner, Charing-cross Hospital; Edward J. Cave, Francis Cresswell, Thomas E. Lovegrove, Thomas W. Shore, John F. Steedman, and Arnold Lyndon, St. Bartholomew's Hospital; George M. P. Braine, William W. Linney, Percy W. Smith, William H. Crags, and Albert E. Rook, Middlesex Hospital; Edgar E. Masters, Herbert E. Counsell, and George A. Johnson, Guy's Hospital; Alfred T. Masters, Charles H. Hall, and Edmund P. Cockey, St. Mary's Hospital; Thomas F. Gardner, Frank Hinds, Arthur F. Blagg, William A. Gostling, Arthur J. Drew, Alfred J. Turner, and Evan Williams, University College; Albert Martin and George H. Rodman, Guy's Hospital; William Bradbrook, Owen C. Jones, and James D. Llewellyn, London Hospital; Harry J. Thornton and Henry W. M. Kendall, Middlesex Hospital; Benjamin W. Thomas and Ernest Atkins, Charing-cross Hospital; Richard Andrews and John P. Glover, St. Thomas's Hospital; Horace H. Pinching, St. George's Hospital; Henry H. Wigg and Herbert R. Spencer, University College; Charles Childe and Charles T. Dornford, King's College; Frederick A. Rogers, St. Mary's Hospital; Edmund C. Pettifer, John R. Nunn, and Edward C. Sharpin, St. Bartholomew's Hospital, George H. Phillips, University College and Charing-cross Hospital.

[In the list published last week of gentlemen who passed the Primary Examination, the name "Arthur W. Davison" should have been Arthur Willan Dawson.]

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 7th:—

Anderson, Daniel Elie, Harrington-square.
Dashwood, Edmund Samuel, Merrick-square, Borough.
Hodges, James, Henley-on-Thames.
Tibbles, William, Wayford-street, Battersea.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Bourne Berry and William Skilbeck Stables, Guy's Hospital; Ebenezer Thomas Smith, London Hospital.

THE Manchester Board of Guardians have made a grant of £50 to St. Mary's Hospital of that city.

A GRAND Fancy Fair and Tableaux Vivants will be held on the 19th inst. and following day, in aid of the enlargement of the National Eye and Ear Infirmary, Dublin.

THE Library of the Royal Medical and Chirurgical Society will be closed from Thursday evening, the 14th inst., until Tuesday morning next, the 19th inst.

A LADY has placed at the disposal of Dr. Greig Smith, one of the surgeons of the Bristol Royal Infirmary, a gift of £5, for providing additional comforts for the patients.

THE funds of the Poplar Hospital have benefited to the amount of £20 7*s.* 6*d.*, the proceeds of a concert given at the Town Hall, Poplar, last month.

CAMBRIDGE UNIVERSITY.—At a Congregation on the 7th inst., the degree of Bachelor of Medicine was conferred on Donald McAllister, M.A., St. John's College.

THE name of Mr. John Bowes, L.R.C.P. Lond., should have been included last week in the list of gentlemen presented at the levée on the 5th inst.

AT the Quarterly Meeting of the Directors of the Compassionate Branch of the Naval Medical Supplemental Fund, Sir W. R. Smart, K.C.B., M.D., Inspector General, in the chair, the sum of £37 was distributed among the several applicants.

THE difficulty of obtaining a proper supply of water has rendered useless the site recently purchased, at a cost of £5000, for the erection of a new lunatic asylum at Witham, Essex. The county magistrates have accordingly resolved to enlarge the present building, and leave the question of the appropriation of the fresh site to be settled on a future occasion.

AT the quarterly court of governors of Addenbrooke's Hospital, Cambridge, the attention of the medical officer was directed to the increase in the average length of time during which in-door patients are retained in the hospital.

WE are asked to state that the prizes offered by the Société contre l'Abus du Tabac, for the concours of 1880, will be awarded on May 8th next. For the concours of 1881, the Society offers one prize of 300 fr., three prizes of 200 fr., and one of 100 fr., also silver and bronze medals and books.

IN token of their obligation to Dr. Bell of Bradford, for the part he has taken in the investigation of the malady known as "woolsorters' disease," the woolsorters of the district are about to present to that gentleman an illuminated address and a handsome gold watch.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mrs. Seymour, of Great Shelford, bequeathed £200 to the Addenbrooke's Hospital, Cambridge. Mr. J. W. Dod has offered, conditionally, £1000 towards relieving the Bristol Infirmary from its debt.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The Prince of Wales, having to be present at the wedding of the Crown Prince of Austria in Vienna on May 10th, has desired that the festival dinner of the above hospital shall be postponed from the 9th to the 24th of May, in order that his Royal Highness may preside.

AMERICAN MUNIFICENCE.—It is stated that the Hon. T. A. Scott has presented 50,000 dollars each to the University and Jefferson Medical College, and 30,000 dollars to the Orthopedic Hospital, Philadelphia. Mr. George Seney, of Brooklyn, has given 200,000 dollars and a site worth 70,000 dollars, in addition to several other valuable lots, for the purpose of erecting and maintaining a new hospital in that city.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.—During the past year there has been a deficiency in the income from non-payment of rents on Sir Patrick Dun's estate of £600, and in the year preceding of £400 from the same cause. Notwithstanding this diminution of income, not a single ward has been closed during the year, and the daily average of beds occupied amounted to 70. This result was, however, obtained only by the sale of certain securities.

SUITABLE premises have been taken at Wolverhampton for the purpose of establishing an Infirmary for Diseases of the Eye. The nearest hospitals for residents in the above-named town are situated at Birmingham and Shrewsbury, and the need in Wolverhampton of such an institution as that proposed has, it is stated, been long experienced. Subscriptions in aid of the project have been liberally supplied, and no doubt is felt as to a sufficiency of funds being forthcoming.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination in their respective districts:—Mr. John H. Wraith, Darwen district of the Blackburn Union (third time). Dr. John Dearden, Church, near Accrington (fourth time). Mr. J. Wardleworth, Bury Union. Mr. W. Moxon, Matlock district of the Bakewell Union, Derbyshire. Dr. Fentem, Bakewell district of the Bakewell Union (second time). Mr. H. Laver, Colchester.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ARMSON, C. G., L.F.P.S.G. & L.M., has been appointed Medical Officer and Public Vaccinator for the Yoxall District of the Lichfield Union.

AUSTIN, C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the First South-Eastern District of the Freebridge Lynn Union.

BARNES, L. J. J., M.D., L.R.C.S.I., has been appointed Medical Officer to the Second B District of the Dartford Union.

BUTTERFIELD, H., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bradford Urban Sanitary District.

CAFFYN, S. M., M.R.C.S.E., has been appointed Government Medical Officer for the District of Illawarra, New South Wales; Surgeon to the Albert Memorial Hospital, Mount Kiera Colliery, and Illawarra Lodge of Odd Fellows.

CLARE, E. S. N., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Third District of the Calne Union.

COLLIER, W., M.B., M.R.C.S.E., has been appointed Junior Residen Medical Officer to the Radcliffe Infirmary, Oxford.

CURETON, E., L.R.C.P.Ed., has been appointed Physician to the Salop Infirmary, vice H. N. Edwards, L.R.C.P.Ed., resigned.

DE WATTEVILLE, A., M.A., B.Sc., M.R.C.S.E., has been appointed Medical Electrician to St. Mary's Hospital.

DOUGHTY, W., L.R.C.P.Ed., has been appointed Medical Officer to the Wetherall District of the Carlisle Union.

FITZGERALD, W. A., M.D., L.R.C.S.I., has been appointed Assistant House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

FRASER, D. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Burnham Urban Sanitary District.

GROGONO, W. A., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed, temporarily, Medical Officer to the St. George's-in-the-East Industrial Schools, vice Levick, deceased.

HINE, J. C., M.B., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Radcliffe Infirmary, Oxford.

LILLEY, G. H., M.D., M.R.C.S.E., has been appointed Assistant-Surgeon to Her Majesty's Convict Prison, Portland.

MAVER, D., M.B., C.M., has been appointed Medical Officer of the Newhills and Dyce Medical Association, vice Carlyle, resigned.

MILLES, W. J., F.R.C.S., L.R.C.P., has been appointed House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

NEWSHOLME, A., M.B., M.R.C.S.E., has been appointed Surgeon to the City Dispensary, vice Kingdon, resigned.

NEWTON-CLARE, E. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Third District of the Calne Union.

PARTRIDGE, T., M.K.Q.C.P.I., M.R.C.S.E., L.S.A.L., has been re-appointed Medical Officer of Health for the Stroud Rural and Urban and the Besley Urban Sanitary Districts.

RAMSAY, W., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer and Public Vaccinator for the Sherburn District of the Scarborough Union.

ROBSON, E. S., L.R.C.P.Ed., has been appointed Medical Officer to the Eastern District of the Durham Union.

SHEARS, A., M.D., M.R.C.S.E., has been appointed Medical Officer in the Civil Service of Tobago, West Indies.

[ERRATUM.—In the announcement last week of the appointment of Mr. Anderson Critchett to the Ophthalmic Surgeoncy of St. Mary's Hospital, the name of his predecessor was given as "Wharton Jones." It should have been, vice Haynes Walton.]

Births, Marriages, and Deaths.

BIRTHS.

BARRON.—On the 10th inst., at 13, Church-street, Southport, the wife of H. G. Barron, B.A. Oxon., M.R.C.S.E., L.R.C.P.L., of a daughter.

DUKE.—On the 8th inst., at Cornwall-road, Westbourne-park, W., the wife of G. Amos Duke, M.R.C.S.E., of a son.

DUNLOP.—On the 9th inst., at 50, David-place, Jersey, the wife of Dr. Dunlop, of a son.

KYNGDON.—On the 10th inst., at St. Leonard's, North Shore, Sydney New South Wales, the wife of F. H. Kyngdon, Esq., M.D., of a son.

LITTELJOHN.—On the 1st inst., at Hanwell, Middlesex, the wife of Saltern G. Litteljohn, M.B., of a son.

MARRIAGES.

DYER—STEPHENS.—On the 5th inst., at St. George's, Hanover-square, Thomas Birch Dyer, M.D., of Darenth, Kent, to Mary Jane, third daughter of Edward Stephens, of Morton-road, Canonbury.

GREVES—SOUTHAM.—On the 7th inst., at St. Giles's, Shrewsbury, Hyla Greves, M.B., C.M., of Liverpool, only son of E. T. Greves, of Carlton-road, Maida-vale, London, to Agnes Emily, fourth daughter of Thomas Southam, of The Hollies, Shrewsbury.

INKSTER—CLARKE.—On the 7th inst., at St. Stephen's, Hampstead, Macauley Inkster, M.D., of Sheffield, to Amy, eldest daughter of Henry Clarke, Esq., of Belsize-avenue, Hampstead.

JUKES—POYNTER.—On the 3rd ult., at Kurrachi, India, Andrew Jukes, L.R.C.P., Med. Missionary to the Beloches, Dera-Ghazi-Khan, son of the late Rev. M. R. Jukes, to Anna Jane, second surviving daughter of Samuel Poynter, of Crouchmans, North Shoebury, Essex.

DEATHS.

CRELLIN.—On the 8th inst., at Parkside, Richmond, Surrey, Horatio Nelson Crellin, M.R.C.S.E., aged 82.

HULKE.—On the 10th inst., suddenly, at Admiralty House, Deal, Frederick Thomas Hulke, M.B., J.P., aged 47.

WATCHORN.—On the 13th inst., at Sandfield House, Nottingham, Isaac Watchorn, M.D., aged 48.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 13th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
April 8	30·07	E.	44	41	87	52	32	..	Bright
„ 9	30·06	E.	45	42	88	57	38	..	Bright
„ 10	30·06	S.E.	49	45	87	60	37	..	Bright
„ 11	29·87	S.E.	51	48	82	60	40	..	Hazy
„ 12	29.91	S.W.	50	50	82	59	46	·11	Raining
„ 13	29·89	S.	55	51	92	66	48	·07	Hazy

Medical Diary for the ensuing Week.

Monday, April 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, April 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Cylindroma of the Popliteal Space; Specimens of Rectal Cancer; Villous Polyp of the Bladder; Liver Abscess following Dysentery; Cirrhosis of Liver in a Child with Congenital Hydrocele; Fractured Cervical Spine; Two Cases of Intestinal Obstruction; Heart with Calcareous Plates; Sarcoma of Kidney from a Child; Gangrene of Lung following Amputation of Tongue (card); Heart with Stenosis of Tricuspid Valve; Multiple Sarcomata of Skull.

Wednesday, April 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—7.45 P.M. Council Meeting: "Casual Communications."

HUNTERIAN SOCIETY.—8 P.M. Mr. F. Treves, "On the Diagnosis and Treatment of Scrofulous and Lymphatic Glands."

Thursday, April 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

HARVEIAN SOCIETY.—8½ P.M. Mr. Henry Morris, "On some Cases of Fibrous Polypi of the Nose and the operative treatment of them."—Mr. Teevan, "On Difficult Micturition from Prostatic Disease."

Friday, April 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. T. Charteis White, "On the Histology of the Gustatory Organs of the Rabbit's Tongue."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. W. J. Tyson, "On a Case of Cross-legged Progression."—Dr. W. Stokes (Dublin), "On Cases of Excision of the Tongue."—Dr. Whipham, "On Aortic Aneurism Demonstrated by the Laryngoscope."—Dr. T. Stretch Dowse, "On a Case of Anorexia Nervosa."

Saturday, April 23.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A WHOLESALE DISTRIBUTION OF COFFINS.

THE Municipal Special Committee of Hygiene entrusted with the difficult task of preserving public health at Rome allude in their last monthly report to a form of generosity which is not altogether encouraging. We are told with some unction that, though there were only 722 deaths in the month of February, no less than 525 coffins have been distributed gratuitously to the poor! Further, we are informed that the number of these sinister donations was greater during the preceding month of December. As a contrast, we find that the assistance in medicaments given was equivalent during the month to only £88. The parish, or municipal, doctors attended 1386 poor, of whom 950 were already under their care during the previous month. Thus we find that measures for the interment of the dead rather than the preservation of the living hold the most prominent place in the report. Yet we should mention that something has been done with respect to house inspection; 301 dwellings were visited, and in 81 cases improvements in drainage, &c., were enforced. Further, 268 kilogrammes of bad meat were seized and destroyed during the month. Still, in spite of this good work, the knowledge that the Government has to distribute annually more than six thousand coffins to the poor inhabitants of the Eternal City is not calculated to enhance the attractions of Rome.

MULTIPLE ABSCESS OF THE LIVER FOLLOWING DYSENTERY.

To the Editor of THE LANCET.

SIR,—I quite agree with your Indian correspondent in THE LANCET of March 26th as to the almost universal fatality of multiple liver abscess and the little hope the operation of aspiration offers to the practitioner practically conversant with the relations of hepatitis and dysentery.

After a preliminary experience in Bengal, I started the subject at Secunderabad, which is the school in which to accumulate such knowledge. When attached to the 107th Regiment in 1874-5 my friend, Surgeon-Major W. H. Corbett, and I had some very successful cases of recovery after aspiration. On one occasion, indeed, when a first operation was likely to end badly, in consequence of air having accidentally entered through the separation of a tube, at a subsequent operation in January, 1875, finding that there was a discharge of highly offensive pus, I washed out the cavity of the abscess repeatedly with a one in forty solution of carbolic acid until the liquid came out of the aspirator as clear as when injected, and, closing the wound to exclude the air, I had a good recovery.

I had the pleasure of meeting another of my old cases last year in which I had been obliged to operate a second time. He was still in the ranks. These cases were those of the large single abscess, the consequence of hepatitis pure and simple, and occurred in a regiment which had been a long time in the country.

When attached to the 12th Lancers, in 1877-8, I had an opportunity of studying the effect of the climate on a young regiment fresh from England. Though many operations for the relief of hepatic abscess were attempted, they all failed, as the cases were those of multiple abscess consequent on dysentery. Nature performed two operations successfully, but even with her the cases were those of abscess following uncomplicated hepatitis; I question if she ever does much in the way of successfully evacuating the multiple abscess which follows chronic dysentery. The post-mortem appearance is enough to negative such an opinion. It also afforded me complete insight into the cause of the failure of the operations.

JOHN E. PURDON, M.B., Surgeon-Major.
Guernsey, March 27th, 1881.

THE WEATHER OF 1880.

MR. EDWARD MAWLEY, F.M.S., has published for 1880 a work on the weather in the neighbourhood of London, similar in character to that which he issued last year on the weather of 1879, and which we commented upon very favourably. This work will prove equally as useful as the previous one, and observers—medical and other—will find it a welcome addition to their works of reference.

Mr. A. T. Searle.—We cannot recommend any physician or surgeon in particular.

Mr. F. L. C. Richardson.—We regret we have not space for the insertion of the questions.

Constant Reader.—Are the questions specified worse than the others? We think the whole thing bad, but we doubt whether the interrogations to which allusion is made are mischievously suggestive.

MEDICAL MEN AND RAILWAY COMPANIES.

To the Editor of THE LANCET.

SIR,—The judge decided a short time since in the case of Vance *v.* Tilbury Company that a servant cannot pledge his master's credit. Nevertheless the jury gave a verdict for five guineas, which carried costs, in consequence of the secretary of the company admitting he knew of the attendance by Dr. Vance on one of their firemen. It was a well fought case, and if the Employers' Liability Act had been in force matters might have been different. I believe that if "M.D." was to sue under the Employers' Liability Act he would succeed, as a station master is the recognised superintending servant of the company, and therefore has power to pledge his master's credit when it becomes incumbent upon him to protect the lives of passengers.

I will be happy to give my mite to settle so important a matter. I have been much engaged in such cases, and, indeed, with the exception of the one just named, always found railway companies pay fairly and generously. The company had no right to demand a fee from the relatives. Medical men give up much time gratuitously, but a company like the London, Chatham, and Dover Railway Company seem not only to ask for gratuitous advice, but add insult to injury to "M.D." in offering half a fee.—I remain, Sir, your obedient servant,

JOHN VANCE,
Retained consultee by various firms under the Employers' Liability Act in Canning-town and Woolwich district.
Plaistow and Victoria Docks, April 11th, 1881.

To the Editor of THE LANCET.

SIR,—I think your correspondent, "M.D.," has a just right to complain, and that he has a legal claim on the London, Chatham, and Dover Railway Company. Some time ago I was sent for to the station here, an *employé* of the Great Eastern Railway Company having met with an accident, and superintended his removal to the hospital by the next train. The company forwarded me (unasked) a guinea through their station master, with their thanks for my promptitude in attending.

I am, Sir, yours faithfully,
Newport, Essex, April 9th, 1881. HENRY J. BUCK.

"SYPHILIS AND LOCOMOTOR ATAXY."

To the Editor of THE LANCET.

SIR,—In an annotation in last week's LANCET attention is directed to a recent communication published by Erb regarding the relation of syphilis to locomotor ataxy. The facts there recorded, as well as by other writers, no doubt justify the conclusion that there must be an etiological connexion between syphilis and locomotor ataxy. But I believe that another precursor to tabes dorsalis is chronic alcoholism, and although it may not prove to enter so largely into the etiology of the disease, yet I have been of opinion for some years that chronic alcoholism plays no unimportant part in a number of these cases. I have had under treatment within the last two or three years four cases of locomotor ataxy, in which all the parents had been for years addicted to the consumption of stimulants in very large quantities, and in whom no symptoms of syphilis, as far as I could learn, ever presented themselves. I merely mention this matter as, although it may be known to some, it is omitted, so far as I am aware, in all standard works on the subject.

I am, Sir, your obedient servant,
Dublin, April 12th, 1881. CHARLES H. ROBINSON, F.R.C.S.I.

To the Editor of THE LANCET.

SIR,—In an annotation on the above subject, which appeared in THE LANCET of April 9th, you mention the names of Dr. Gowers and Professor Erb in connexion with it. May I be permitted to say that the first to call attention to the frequent dependence of locomotor ataxy upon syphilis was Professor Fournier, of Paris, who in 1876 delivered a course of lectures at the Hôpital St. Louis to prove this connexion between the two diseases. These lectures were published as a *brochure* in the same year. Professor Fournier based his views on the subject upon eighty cases of locomotor ataxy in which there was a previous history of syphilis, twenty-four of these cases having been under his own care. He found that 80 per cent. of ataxic patients had suffered from syphilis, which is nearly the same proportion as was found by Professor Erb amongst his patients.—I am, Sir, yours faithfully,

Wimpole-street, W., April 9th, 1881. W. ALLEN STURGE.

"CASES OF PNEUMONIA TREATED IN THE HOSPITAL AT CABUL."

To the Editor of THE LANCET.

SIR,—Having read Dr. Morris's account of thirty-five cases of pneumonia treated in the hospital at Cabul in your issue of March 26th, I hope he will excuse my making a few remarks on them. He ascribes them to overwork, extreme cold and want of sleep; describes the pneumonia as catarrhal and complicated with pleurisy, remittent fever, and meningitis. Now, I would suggest that the cases might have been caused by the specific blood poison of whooping-cough, which might have been dormant in the whole of the men affected until aroused into activity by the causes mentioned, or only developed in one or two of the men and communicated to the others by contagion. The variety of pneumonia is that belonging to whooping-cough, the complications the same as mentioned in my letter on the Welbeck poisoning in your issue of March 12th.

I will just give particulars of one case which seems to me to connect that form of pneumonia with whooping-cough. On Friday, November 29th, 1878, I was sent for in the evening to see A. H——, who was said to have a severe cold. As I had been past the house several times in the course of the day I sent a saline mixture, with tartrate of antimony, and saw him next morning, Saturday; he was up, but look flushed and feverish, and complained of having had chills, thirst, and headache. I examined his chest carefully and found no particular morbid sound, respiration rather quicker than natural, and at the posterior and lower part of each lung the respiratory murmur was rather louder and slightly rough. I ordered mustard plasters, to be followed by hot poultices; the next day, Sunday, December 1st, I found a mucous râle over the whole lower and back part of both lungs. I applied blisters, continued the poultices and medicine; but, to epitomise the case, the inflammation gradually spread through the whole of both lungs, fortunately for him the parts first attacked improving as the disease advanced; the delirium also was very violent, particularly at night. On Sunday, December 8th, there was an improvement, and by the following Friday, December 13th, he was convalescent.

I will mention here that in whooping-cough the exacerbations take place generally from 4 to 8 P.M., when there is an increase of cough and general malaise; from 8 to 10 or 11 P.M. there is often a slight remission; afterwards a bad night till 4 or 5 A.M.

I generally visited A. H—— during his convalescence about 6 or 7 P.M., in order to observe his wife's health; she had nursed him night and day and had not been out for some time. On December 27th, as I came to the door, I heard some one coughing violently. I went in and found her standing holding by the table in a regular fit of whooping-cough; she was coughing until she seemed to empty her chest, then taking a long respiration with the "whoop"; finally it ended in vomiting. As she had not been out the contagion evidently came from her husband; but from her having been constantly in the warm rooms it had assumed the chronic form; had she been exposed to cold she would most likely have had pneumonia, the same as her husband.

I am, Sir, yours very truly,
New Whittington, April 6th, 1881. JOHN COLSTON.

General Practitioner.—Assistants, like everybody else, should have a holiday, but a principal who cannot afford one for himself may not be able to afford one for his assistant.

TOYS FOR CHILDREN IN SMALL-POX AND FEVER HOSPITALS.

To the Editor of THE LANCET.

SIR,—There are at the present time an unusually large number of children in the Metropolitan Hospitals for small-pox and fever. These little ones much need toys and books. When they get better they cannot go home for many weeks, for fear of their giving infection to others; nor can their fathers, mothers, and friends visit them in the hospital. During these tedious weeks the children much need some amusement in the somewhat uninteresting wards. One matron from a small-pox hospital writes:—"We shall be most thankful to receive a grant of toys and books for our poor patients, as it is a thing I very much deplore that we never get anything of the kind sent to us, as other hospitals do. We generally have 140 patients, one-third being children, and I regret to say that we have no library; and from the nature of the diseases which we receive we are obliged to keep our patients (as well as *employés*) so isolated that they stand in need of amusement more than general hospitals, which have constant visitors to their wards." Another matron of a fever hospital writes:—"We have nine wards open, and the amount of pleasure your present has given you can hardly imagine; poor little sick babies, forgetting their ailments, put up their hands for a toy. It has been a delightful morning to me, giving out the toys, books, &c., and I cannot tell you how grateful I feel to you for bestowing so much pleasure on our poor patients." Surely some of those happy children who can be nursed at home, should they fall ill, will be glad to send their old toys and books to the poor little children who are removed from their homes half across London, and have to spend several weeks in a large hospital amongst strangers. Any gift of toys or books will be received by Mrs. Ward, 36, Broadhinton-road, Clapham, S.W.; or money to buy such can be paid to the Hospital Book and Toy Fund (Treasurer, H. S. Thornton, Esq.), at Messrs. Williams, Deacon, and Co., 20, Birchin-lane, E.C.—I remain, Sir, yours, &c.,

J. ERSKINE CLARKE, Vicar of Battersea.

Broughton.—1. There is an account of lime-fruit trees given in Bentley and Trimen's "Medicinal Plants," No. 52. "It grows wild in Jamaica, Tahiti, and elsewhere. Lime trees are also cultivated in Jamaica, Dominica, and largely of late years in Monserrat of the Antilles."—2. Our correspondent had better apply to Dr. Sansom concerning the "ox-blood."

X. Y. Z.—The custom varies. Our correspondent should ascertain what it is in the district in which he contemplates settling.

Luke.—Nothing less than excision.

ENGLISH MINERAL WATERS.

To the Editor of THE LANCET.

SIR,—I have been much interested by the letters which you have published on the above subject. I am a miserable dyspeptic, who finds annually immense relief from the waters of Homburg, but I confess I should gladly be able to dispense with the fatigues of a long and not very interesting journey. Can any of your correspondents suggest any English waters within a convenient distance from town as an efficient substitute for and similar to the Homburg waters in chemical composition and therapeutic action?—I am, Sir, yours, &c.,

April 11th, 1881. BRUNNEN.

DRUGGISTS' CHARGES.

To the Editor of THE LANCET.

SIR,—The counter-practice of druggists has lately been complained of as injurious to legitimate medical practitioners. This has chiefly arisen from the "general practitioner" (I prefer "surgeon") throwing dispensing into their hands.

Forty years ago, when I commenced my professional life in a small country town, surgeons not only dispensed their own prescriptions, but also those of consulting physicians, with very considerable profit, and little trouble. The drug-sellers did a modest business. Now they are pharmaceutists—great swells—grown rich—live in fine houses away from their shops, &c. The surgeons have become less in number one-half; still attend clubs at 3*s*. per annum, and midwifery at 10*s*., and 15*s*. in the country. The large majority of the population are poor, and can badly afford to pay the surgeon's fee for attendance, and the drug bill in addition. The consequence is they go to the educated and examined pharmaceutists for their minor ailments to escape the additional expense they are now put to.

All this is, in my judgment, a mistake. No family attendant should be above sending out his own remedies. It is pride interfering with pocket. The remuneration for his brain-work goes into the pocket of the mere drug-seller. Now, a word about this same drug-seller. A lady friend of mine (a widow), of small means, had occasion to consult an eminent oculist, who prescribed a ten-ounce lotion of solution of lead, borax, and almond water. For this simple lotion she was made to pay 6*s*.

I am, Sir, yours happily,
April 5th, 1881. A RETIRED SURGEON.

SUCCESSFUL REVACCINATION AFTER NATURAL COW-POX.

To the Editor of THE LANCET.

SIR,—I would suggest to Dr. Battye—1st, that the girl he mentions had not been efficiently or sufficiently vaccinated in infancy, as proved by only one mark remaining; 2nd, that the fact of her having genuine cow-pox is extremely problematical; and, 3rd, that the fact of the success of his vaccination should rather point out to Dr. Battye the truth of my first two suggestions. With your permission I will enter more fully into the subject of vaccination and cow-pox inoculation on a future occasion.—I am, Sir, your obedient servant,

Bucks, April 12th, 1881. THOMAS NEWHAM, M.D.

"DISLOCATION OF SHOULDER-JOINT AND DEATH FROM CHLOROFORM."

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 26th (page 525), Mr. Lawton describes a method of reducing dislocation at the shoulder-joint, which might appear new. Will you allow me to state that twenty-six years ago I tried the same plan, and also with the jack-towel under both arms, but the lateral pressure against the ribs was so extremely uncomfortable, if not actually painful, so that I afterwards made a little apparatus which, when used, has proved most efficient.

It is simply the top rail of a common kitchen chair, with a couple of straps attached to it so as to fix it on the back below the shoulders (as in the sitting position on the chair), and the jack-towel put round it. This was exhibited at the meeting of the British Medical Association in Leeds, July, 1869, under the name of "A yoke for the back used in dislocation at the shoulder-joint," and can be obtained from Messrs. J. J. and W. Wood, surgical instrument makers, King-street, Manchester.

I am, Sir, yours, &c.,
Kendal, April 2nd, 1881. ROBT. T. LEEMING.

To the Editor of THE LANCET.

SIR,—I succeeded a short time ago in reducing with the greatest ease a dislocation of the shoulder after the administration of the nitrous oxide gas. The time occupied was just one minute—forty seconds for the gas, and ten seconds for the reduction. The shoulder had been twenty-four hours unreduced. Why give chloroform in such cases?

I am, Sir, yours, &c.,
Bristol, March 29th, 1881. ROBERT W. ELLIS, Surgeon.

FIRE-PROOF ASYLUMS.

THE *Boston Medical and Surgical Journal* of March 24th has an article on fire-proof asylums for the insane and the means at the disposal of the authorities of such institutions for the extinction of fire. It appears that within the past twenty-five years two conflagrations have occurred at the Vermont Asylum, one at the New York State Asylum at Utica, one at the Kansas State Asylum, whilst the State institutions in Ohio, West Kentucky, Minnesota, and Danville (Penn.) have been almost totally destroyed, and a considerable number of lives lost. The writer, amongst other suggestions, advocates the appointment of a State fire inspector, who should be held responsible for the completeness of the arrangements to meet so terrible an emergency as fire in an establishment devoted to the care of the insane.

Ars celare artem.—We shall consider the question, but there is a great difference between the subjects.

Mr. C. Burland should apply to the Dean of the University for information.

THE NOTIFICATION OF INFECTIOUS DISEASES.—THE JARROW CASE.

To the Editor of THE LANCET.

SIR,—Being defendant in the case tried in the police-court here under the Local Improvement Act, 1878, I trust you will find space for a few remarks in addition to those which have already appeared in your journal.

The Act defines "infectious disease" as meaning small-pox, cholera, and fever, and enacts that the medical practitioner in attendance on such a case shall, under a penalty of five pounds, send to the corporation the name of the patient, &c., and the "nature of the disease."

Whilst bearing in mind the evident intention of the Act, it surely seems more reasonable to consider small-pox, cholera, and fever as intended to indicate the kinds or types of disease to be reported infectious, excluding, for example, whooping-cough, &c., which, although infectious, it was probably deemed unadvisable, in the meantime, to have brought prominently under the notice of the local sanitary authority, than to hold by an interpretation which would exclude diseases equally as infectious and fatal (measles, diphtheria, &c.) as those to be reported. Besides, when a case is reported "infectious disease," its nature is sufficiently indicated to enable the sanitary authority to adopt the precautions necessary. Such a mode of reporting is also a means of preventing a possible mistake in diagnosis from being brought prominently before the Council and the public, and possibly the author of the report from being subjected to injudicious criticism, which might prove injurious to his professional reputation. That such a result is likely may be inferred from the evidence in this case.

Not being permitted to give evidence, my solicitor submitted that it was impossible to report anything but infectious disease, as I had not ascertained its precise nature. In opposition to this, the sanitary medical officer stated on oath that on first seeing the patient he had no difficulty in diagnosing the disease, and that I could not possibly have had any difficulty on the previous day, and, in addition, that he never experienced any difficulty in diagnosing a case.

True, as stated, we are paid for our reports, and some of our councillors say that the interpretation indicated above is contended for, so that a few more diseases may be reportable, and a little more money made by it. After that, the almighty dollar, as a means of influencing men's opinions, must give way to the "bob;" but it will probably be found out by-and-bye that an Act of Parliament, even when backed by a shilling fee for each report, may utterly fail in compelling medical men generally to be saddled with the position of specialist in diagnosis, when a sanitary medical officer is employed for the purpose of supplying such information.

I am, Sir, yours, &c.,

Jarrow-on-Tyne, April 4th, 1881. W. WHAMOND.

Mr. J. Browne.—Our correspondent seems to be labouring under a misapprehension. Officers of the A.M.D. are put in medical charge of native troops when the P.M.O. considers it necessary, but they do not receive less than medical officers of the Indian service employed in this manner, if of the same rank.

Auge.—We fear we cannot promise early insertion of the paper.

"CHRYSOPHANIC ACID IN PSORIASIS."

To the Editor of THE LANCET.

SIR,—I do not think the point raised by a "Glasgow Student" should be lightly passed over, or that anyone should condemn it without testing the effects of chrysophanic acid to the full. I have used chrysophanic acid ointment from five grains to two drachms to the ounce, and have had the good fortune never to have had a case of psoriasis where its beneficial effects were not apparent when directly applied.

In many cases also where I have applied it partially without any application to other affected parts I have been much struck with the disappearance of the disease from the parts to which there had been no direct application; a result I can explain in no other way than by the constitutional effects of chrysophanic acid.

One effect I have noticed on several occasions in the long-continued use of chrysophanic acid is congestion of the conjunctivæ, no matter where the ointment may have been applied, if in sufficient quantity. Is not this a constitutional effect? I would ask the writers in last week's LANCET if there is not a possibility of chrysophanic acid retaining its true qualities when absorbed into the system by inunction, while it may be changed and destroyed by the secretions when taken internally.

I am, Sir, yours, &c.,

Glasgow, April, 1881. ROBERT LEES, M.B.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Moxon, London; Dr. Thomson, Bournemouth; Dr. Dupré, London; Mr. Buck, Newport; Dr. Humphry, Cambridge; Dr. Nelson Gwynn, Sheffield; Mr. Newstead, London; Mr. Eaton, Grantham; Dr. Ward Cousins, Portsmouth; Dr. Bramwell, Edinburgh; Mr. Bowes; Dr. Fenwick, London; Dr. Playfair, London; Dr. Ryott, Newbury; Dr. R. Barnes, London; Mr. Burland; Dr. Biedert, Hagenan; Mons. Masson, Paris; Dr. Prickett, London; Mr. Kesteven, Holloway; Mr. Coathupe, Bristol; Mr. Leypoldt, New York; Mr. E. A. Cook; Mr. Leeming, Kendal; Mr. A. Sangster, M.B.; Dr. Donkin, London; Dr. Newham; Dr. Logan, Edinburgh; Dr. Symes, Halifax; Dr. Mackenzie, Burnley; Dr. Neill, Ryde; Dr. Penhall, St. Leonards; Mr. W. E. Rendle, London; Dr. Vance, London; Dr. Hewan, London; Mr. Wilson, London; Mr. Reckitt, Skegness; Mr. Hays, London; Mr. Abbott, Braintree; Mr. MacDonagh, Clapham; Dr. Sturge, London; Dr. Page, Kendal; Dr. Waller; Mr. Morris, London; Mr. Wallis, London; Dr. Kidd, London; The Assistant-Secretary of the Law Amendment Society; A. T. S.; Ars Celare Artem; A. B. B.; Brunnen; A. E. S.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Pierce, Liverpool; Dr. Gramshaw, Lowestoft; Mr. Molyneux, Upholland; Miss Clark, Birmingham; Mr. White; Miss Gabaron; Mr. Turner, Worcester; Mr. Hooper, London; Dr. Ferris, Uxbridge; Mr. Rutter, Notting-hill; Mr. Young, Chilton-Polden; Mr. McAdam, Glasgow; Mr. Kemm, Corsham; Mr. Lennant, Durham; Mr. Sawyer, Darlington; Messrs. Keith and Co., Edinburgh; H. S., Huddersfield; Medicus, Widnes; Medicus, Manchester; Medicus, Liverpool; Negotium; J. R.; Sigma; X. Y.; T. G., Amersham; H. J., Aberystwyth; L. C., Bath; M. G., Keighley; J. B., Exeter; L.R.C.S.I.; &c., &c.

Wide Awake, Newcastle Daily Journal, Daily Bristol Times, Yorkshire Post, American Specialist, York Herald, Cork Constitution, Pioneer, Japan Weekly Mail, The American, Hastings and St. Leonards News, &c., have been received.

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Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

By WALTER MOXON, M.D. Lond., F.R.C.P.

LECTURE III.—Part I.

Mr. President and Gentlemen,—In my last lecture I endeavoured to show that certain special diseases described in our text-books as congestion of the brain must be referred to other causes, and, indeed, chiefly to conditions the very reverse of a state of congestion. And I gave my reasons for believing that there is not any such disease as congestion of the brain in the sense of determination of blood to the head; or, in other words, congestion, as a cause of onset of attacks of diseases such as are described in some of our leading works under several distinct forms, does not exist. Neither pathological examination of persons dying under such conditions, nor the clinical symptoms described, afford any proof that a congested state of the brain even attends such illness, let alone gives rise to it; and the supposition that the blood causes such symptoms arose from views regarding the cerebral circulation which are obsolete.

Meantime, whilst such obsolete views of the cerebral circulation have entailed upon us the confusing doctrine of congestion of the brain, modern views of the vascular mechanism have in their turn given rise to speculative explanations of nervous disorders, which greatly and increasingly influence present teaching upon diseases of the nervous system. I refer in particular to the widely-spread assumption that epilepsy and other convulsive disorders are caused or initiated by spasm of the arteries of the brain. I will, with your permission, now examine the grounds of such an opinion, and afterwards consider the relation of angina pectoris to high tension in the arteries.

Any explanation is so much better than none that the explaining power of a new view is apt to purchase condonement of its unreality. Only let us with Kussmaul assume that he produced epilepsy in animals by ligaturing all the cervical vessels; and then if, indeed, we can further justly persuade ourselves with him that the arteries of the brain are able to contract universally, through an impulse sent to them along the vaso-motor nerves, so that the brain is rendered entirely anæmic as if the cervical arteries were all ligatured, this would undoubtedly make epilepsy a very comprehensible thing, reducing the whole highly complex set of actions to dependence upon a single impulse from the vaso-motor centres. Even if we don't accept the theory of entire anæmia, but take the same idea as modified by Schrœder, and now taught as the fashionable theory of epilepsy—namely, that the vaso-motor nerve carries forth a contractile influence to the arteries of the brain, which blanches it enough to produce unconsciousness,—we make a step which invades the mystery of epileptic convulsions, and which would put at least a part of it into continuity with the paleness of emotion, and other familiar things of the kind.

If we go further, and suppose with some writers who have devoted special attention to nervous diseases that in an epileptic convulsion the tonic stage is caused by tonic spasm of the arteries, and that each jerk of clonic spasm in the subsequent convulsion is due to a corresponding short spasm of the arteries of the brain, we can read off the epileptic paroxysm in hydraulic changes, and this appears to afford a certain satisfaction which may be taken for an explanation of the subject. Indeed, in the supposed power of rapid and entire closure of all the cerebral arteries, or the supposed power of rapid closure of any of them under the influence of the sympathetic, we have a handy method of unlocking almost any difficulties as to nerve-action, and if you will only imagine that the arteries close or open to the play of sympathetic influence, like mysterious doors in enchanted forests to the utterance of "Open, sesame," many otherwise impenetrable obscurities seem made free to the entry of light.

Now there is no doubt that the arteries, and especially the smaller arteries, are provided with muscular fibres in their walls, and that these muscular fibres contract, and cause the arteries to narrow their channels. But what we have to do with is the degree in which this power of contraction is under the influence of the vaso-motor nerves. If it were really the case that the muscular activity of the arteries is entirely dependent upon the action of the vaso-motor nerves, the powers of these nerves would stand in a much clearer light. But the contractions of the arteries serve purposes with which the nerves have nothing to do, and over which the nerves have no power. For it has been shown that the contractions of the arteries will proceed just the same when the vaso-motor nerves are destroyed. Thus the remarkable rhythmical contractions and dilatations of the arteries in the rabbit's ear are independent of the vaso-motor nerves, for they continue when the cervical sympathetic is divided, and even, according to Professor Michael Foster, when the cervical ganglion is extirpated. Again, Kussmaul relates that after section of the cervical sympathetic nerve he has seen the arteries of the rabbit's ear contract and drive their contents into the veins. Yet no ganglionic mechanism has been found in the rabbit's ear to account for these effects by nervous action. From such facts it follows that the muscles of the arteries possess and exercise their powers in a way independent of the vaso-motor centres, and that their contractions are not organised only to answer to those centres, but that the muscularity of the arteries fulfils functions independently of the play of the vaso-motor nerves upon them. This would lead us to anticipate limits to the power of the vaso-motor nerves over the arteries. And, indeed, if we study the results of the various experiments which have revealed the intricacy of the vascular mechanism, we find some points appearing which are important for our question. The first point is that when arteries are subjected to irritation so as to cause them to contract, the contraction is not instantaneously rapid, but measurably slow; on this point there is a very general agreement among observers. Reid in his "Physiological and Anatomical Researches," p. 46, says, "The contractility of the arteries manifests itself by slow contraction followed by equally slow dilatation." Carpenter (p. 330, ed. 1876) quoting Weber, says, "The electric stimulus is most effectual when applied by the magneto-galvanic apparatus; when the minute arteries of the mesentery of frogs between $\frac{1}{7}$ and $\frac{1}{17}$ of a Paris line in diameter are thus stimulated, they do not immediately respond to the irritation, but begin to contract after a few seconds, so that their diameter in from five to ten seconds is diminished by a third and their sectional area consequently reduced to about half; by a continued application of the stimulus the calibre is so much reduced that only a single row of corpuscles can pass, and at last the vessels become completely closed and the current of blood arrested, the original conditions being restored on the cessation of the electric current." Paget ("Surgical Pathology," p. 225), says, "If as one is watching the movements of blood in a companion artery and vein the point of a fine needle be drawn across them three or four times without apparently injuring them or the membrane over them, they will both presently gradually contract and close . . . . . follows at some interval after the application of the stimulus and is slowly accomplished, it shows that their power of contraction is like that of parts with smooth or organic muscular fibres." Michael Foster says, "By galvanic and still better by mechanical stimulation this muscular coat may in the living artery be made to contract. During this contraction, which has the slow character belonging to the contraction of all plain muscle, the calibre of the vessel is diminished." I have made many observations upon the contraction of arteries as caused by direct stimulation in watching the development of the inflammatory process, and have observed them to contract slowly. I never saw complete contraction in less than six seconds. But I have never witnessed the effects of stimulation of the vaso-motor nerves. It is antecedently improbable that if the contractions of arteries are slow when caused by direct stimuli, they would be rapid under indirect. Dr. Burdon-Sanderson in the "Handbook for the Physiological Laboratory," page 237, when speaking of the direct excitation of the spinal cord by galvanism in the frog, says, "On opening the key for a moment so as to allow the induced current to pass through the needles, it is seen that all the arteries of the web at once contract, the contraction increasing for four or five seconds, and then gradually subsiding; if the excitation is continued for several seconds the circulation stops." I have here a copy of a diagram from Professor Michael Foster's work which is perhaps more to our purpose, as it shows an instance of the rate of arterial contraction in a mammal. It is a manometer trace of the fall of blood pressure caused by galvanising the depressor nerve in the rabbit, but it is said in the text that galvanising the excitor nerve will produce sometimes the exact reverse of this trace. The slow progress of the contraction is evident when we see that it takes thirteen seconds to complete the action, and that this action is nowhere sudden, but is gradual throughout. This corresponds with the usual characters of contractions of plain muscular fibre. My first proposition, then, is that the contraction of arteries is slow, requiring from four or five to thirteen seconds for its completion.

I will next inquire what is the degree of completeness of the contraction of arteries as caused through the vaso-motor nerves. We have seen that the entire closure of the arteries may be caused in the web of the frog's foot by the stimulation of the spinal cord. But it must be observed that in cold-blooded vertebrates the several parts of the vascular system stand in somewhat different relations to those they bear in warm-blooded animals. In fish the veins have pulsatile sacs upon them. The veins as well as the arteries of the frog's foot will close on application of a direct stimulus. Frogs have lymphatic hearts. In short, there is less differentiation of the vascular mechanism in such animals; the heart does less and the vessels more in the work of circulation. If, instead of such remote creatures, we take examples from amongst warm-blooded vertebrates, the development of whose vascular mechanism is more like that which belongs to the human organism, we find that the powers of the vaso-motor nerves are moderate. There appears evidently in the descriptions of the results of the stimulation of the vaso-motor nerves a much less extent of contraction produced than there is of certain and large dilatation of the vessel on section of the nerve. Section of the vaso-motor nerves dilates the arterioles very decidedly, and when the vessels are thus dilated if an interrupted current is sent through the distal segment of nerve, such a current as would tetanise a muscular nerve, the result, according to Professor Michael Foster, is to cause the arteries to contract "to or beyond" their normal calibre. This would lead to the inference that stimulation of the vaso-motor nerves in the most violent way will do little more than counterpoise the effect of total paralysis of the nerve. In one of Ludwig and Cyon's experiments cited by Dr. Burdon-Sanderson, the normal arterial pressure was ninety milimetres; after division of the splanchnic the fall was to forty-one millimetres; during excitation of the peripheral end of the nerve 115 millimetres. Thus the rise on stimulation did not exceed the normal by half the extent of the fall on division of the nerve. In the case of the rabbit's ear, after the vessels have been made very visible by the dilatation of them consequent upon division of the cervical sympathetic, the same authority says, if now the peripheral end of the divided nerve is placed between the copper points and the key opened, the artery contracts and the congestion of the ear disappears. Dr. Michael Foster says a galvanisation of the peripheral end of the nerve will cause the rabbit's ear to become pale, much paler than normal; if the current be strong, the vessels diminish in size, so that the smaller ones disappear and the temperature falls. But, then, it must be remembered that the visibility of the smaller vessels and the rise of temperature were due to total paralysis of the vessels by section of the nerve. And that the galvanism has to close up the vessels dilated by paralysis, and to cause a fall of abnormal temperature. Also the vessels have to be seen through the skin of the ear, and none of them are large, so that the continued visibility of these small vessels covered by skin and hair when under tetanising stimulation of the nerve shows how limited is the power of the vaso-motor nerves over the arteries. Now, these are but moderate results as compared with ligature of the cervical arteries; and if stimulating the arteries by tetanising the vaso-motor nerves only causes them to contract "to or beyond" their normal calibre, and if the muscular powers of the arteries are shown to act independently of the vaso-motor nerves, it is fair to ask, what justification there is in this for supposing that any action of vaso-motor centres will equal Kussmaul and Tenner's proceedings, so that the arteries of the brain may be virtually ligatured by the cervical sympathetic. When the physiologist proceeds from his point of view to apply any conclusions from his experiments to practical medicine, he is very moderate; he has seen the extent of contraction and dilatation obtainable by cutting and galvanising the sympathetic, and he does not suppose that the sympathetic can ligature the cervical arteries. What he says is as follows: "The numerous pathological phenomena classed under sympathetic action, such as the affection of one eye by disease of the other, are probably at the bottom the results of reflex motor-action"; and again: "The afferent impulses may arise anywhere, as, for instance, in the brain. Thus an emotion originating in the cerebrum may either inhibit or exalt that portion of the vaso-motor centre which governs the vascular area of the head and neck, and thus call forth"—what?—"either blushing or pallor." This is very moderate; it corresponds with the degree of change in the calibre of the arteries observed in experiment. But it gives no adequate grounds for any supposition of an action of the vaso-motor centres that would equal Kussmaul and Tenner's ligatures in depriving the brain of blood so as to cause fits of epilepsy, or even fits of unconsciousness. Attempts to produce such fits by galvanising the cervical sympathetic ended in failure. The physiologist only claims for the action of the vaso-motor nerves such effects as blushing and pallor, and these would rather go with fits of laughter or crying. Even in the matter of blushing and pallor we are not entitled to suppose that the change of blood-stream is altogether due to the vaso-motor nerves. It is true, of course, that bad news will make the face pale, but we must not forget that such causes influence the heart's beat, and thus a person suffering a mental shock has his circulation altered at its centre and feels this effect universally; so that, perhaps, his stomach seems to turn, and he may have to go and eat his supper with what appetite he has. In fact, the only changes in the vessels of the face that can be certainly referred to the vaso-motor nerves are such changes as are more properly called flushing, as in the hectic of phthisis, or in the redness of the eye in neuralgia.

There is, of course, not the slightest doubt about the arteries possessing and using the power of contraction. But in estimating the effects of their contractile actions we have to note carefully the rapidity and the degree of their contraction, and the extent to which it is under control of the vaso-motor centres and nerves. It must, I think, be admitted that so far as we have any evidence of sudden and entire closure, the arteries, if they possess such a power, are curiously sparing in the use of it. Indeed, I do not know a single instance in which the arteries put forth a power of sudden and total closure in parts exposed to view. The arteries appear to reserve all these quick and strong acts for exhibition, if I may so speak, in dark séance in such deep parts as are hidden within the cranium. But if the arteries are capable of inducing sudden blanching by total contraction why should the brain be the only part subject to such play? Why should not the arm, or leg, or ear, or nose, now and then, show sudden paleness and redness from central vaso-motor play?

The kinds of instance which show the effect of contraction of the arteries are well-known: thus the waxlike paleness of one or more fingers which some people are subject to, the drying of the mouth through depressing emotion, and its moistening through appetite; the flow of tears; the reddening of one ear "when people are talking of you at a distance." In all these cases we have effects which are, doubtless, due to the power of the nerves over the arteries, and some of which come on tolerably speedily. But in all these and such instances there is moderation in rate of accession, and also moderation in degree of the arterial change.

Let us now proceed to consider the onset of the epileptic convulsion which it is customary to attribute to spasm of the cerebral arteries. I have already traced this theory through Schrœder van der Kolk to the experiments of Kussmaul and Tenner, who produced epileptiform convulsions by ligature of the cervical vessels in rabbits, and who thereupon started a theory that spasms of the cerebral vessels would have the same effect. Schrœder adopted a part only of this theory, supposing that spasms of the cerebral arteries produce the unconsciousness but not the convulsions of epilepsy, and this theory is adopted by our own authorities upon the subject. But if we now refer to the published accounts of Kussmaul's experiments, we shall, I think, see reason in these to conclude that spasm of the arteries will not explain the onset of epilepsy. If we turn to Kussmaul's work we find as follows:—"General convulsions usually followed in from eight to eighteen seconds, after complete withdrawal of arterial blood. . . . We found in every instance that the closing of all the four arteries was necessary to produce rapid convulsions. If but one carotid or one subclavian has remained pervious, we have never seen convulsions take place, even when the ligature has remained on the other three for several hours; the animals, however, have generally appeared enfeebled and more or less paralysed."

It appears, then, that when the arteries were closed absolutely as to three-quarters of their supply, no phenomena of epilepsy occurred, but only enfeebleness. We do not know what proportion of the remaining one-quarter of the arterial supply would have been sufficient to keep off the epileptic attack, since it was necessary to take this one-quarter away at one stroke by ligaturing the one remaining artery. But there were instances in which the fits did not occur even when all the cervical arteries were ligatured, instances which Kussmaul explained by supposing some small artery to have reached the brain from an unusual source. Hence a very small remainder of arterial blood-supply prevents the onset of epileptic phenomena. But I think I have shown from our best accredited works on physiology that the most forcible stimulation of the vaso-motor nerves in mammals is far from causing complete closure of the corresponding vessels, and, although there are no numerical proportions given, yet I submit that the descriptions which I have quoted justify me in saying that it is at least very doubtful whether the arteries can be made to contract down to one-quarter of their natural calibre by any known mode of action of the vaso-motor nerves, whereas it requires a contraction beyond this degree to produce any part of an epilepic attack.

Again, it is not only on account of its insufficient degree that arterial spasm will not explain any epileptiform phenomena, but there is the further lack of quickness in the act of arterial contraction. Let us take into consideration the slow rate of action of the arteries. When we realise the fact that even the partial closure which a vaso-motor nerve can cause in an artery requires from five to thirteen seconds for its production, we shall perceive that arterial contraction is too slow an affair to be credited with the production of the epileptic onset. For consider the frightful suddenness of the epileptic fit and compare it with thirteen or even with five seconds. Let anyone count five seconds on his watch, and he will find it a considerable time. If a person when taken with an epileptic attack had thirteen seconds warning, by changes in his brain through gradual loss of blood-supply, he would have time to do a great deal to protect himself. He could almost come in from the garden into the house, or at any rate cross his room to lie on a couch. Even if he had only five seconds he could get safely down upon the floor. But instead of this they fall downstairs or into the water, or into the fire; a stroke of lightning is not more absolutely sudden. Surely it is not to be supposed that no feeling at all would arise in the brain during a gradual blanching of it up to the degree Kussmaul and Tenner showed to be required before the epileptic onset will appear.

Meantime, however, it remains true that when a person is seized with epilepsy the face becomes very pale, and so some interference with blood-supply evidently does occur. And although I think it is our duty, in forming opinions on these grave subjects, to test the foundations and the reasonableness of our conclusions, yet I should not have spent so much time in showing the groundlessness of the theory of spasm of the cerebral vessels if I could not offer facts of a kind to explain the paleness of the face, and perhaps the unconsciousness of the epileptic seizure.

But I will now relate some observations which have convinced me that the cause of paleness of the face in the epileptic attack is stoppage of the heart's action. The first of these observations was as follows:—Seven years ago I was standing by a patient, who was in bed with cardiac dropsy, in Philip ward, at Guy's Hospital, and I was feeling his pulse carefully; the beats were regular and of moderate strength. I was looking towards the middle of the bed, and my attention was given to the pulse. I missed one, then another beat, and then found the pulse to have stopped so entirely that it made me look up suddenly at the man to see what was the matter. His face had become very pale; his head was turned towards his left shoulder, and the lip and cheek were twitching; the spasms then affected his arms, and he passed into a severe epileptic convulsion. At the time when I first noticed the pulse to disappear the man's arm was quite still. I tried to feel the pulse during the convulsion, but there was so much muscular movement that I could not distinguish it.

I had never before chanced to have my fingers on the pulse at the moment of onset of an epileptic convulsion, nor have I ever done so since until January 13th of the present year, when I was at No. 1 bed, Philip ward, in which bed was a man who had come in with uræmic vomiting and had been seized with convulsions. At the time of my visit he had come out of the insensibility which followed each convulsive attack, and was in an excited state, staring about rather wildly and endeavouring to raise himself in the bed, and calling loudly the word "Beer!" He was not a temperate person. He then lay quite still and looked quietly about him, his arms lying outside the bedclothes. I took his wrist and felt his pulse, it was forcible and regular. I was feeling it when it quite disappeared from under my finger, many beats being missed. I looked at him, he had become very pale in the face, twitching set in, and he at once went into a very severe epileptiform convulsion. Mr. Lane, my house-physician, then told me that he had chanced to be feeling the pulse at the moment of onset of convulsion in the man during the morning of that day, and that the same thing had happened on two occasions in which he had his fingers on the pulse at the moment of the commencement of the attack. Since then Mr. Lane has made a similar observation upon a girl with eclamptic convulsions in Mary ward. So far, however, it might be said that the failure of the pulse was due to spasm of the arteries of the arms. Now, such a sudden universal arterial spasm would be an otherwise unprecedented thing, and my next observation shows that the supposition of it is not wanted. Three years ago I was examining the heart of a young gentleman who was asking my advice on account of attacks of epilepsy. He was standing, and I had my stethoscope over his heart, and was attending to the quality of the sounds. These sounds stopped suddenly, and so completely that in great surprise I moved to look at him, and saw him with exceedingly pale face, evidently quite unconscious, his balance just lost, and he falling forwards. He went forthwith into severe epileptiform convulsions. Dr. Hughlings Jackson has kindly informed me that he has observed on several occasions the pulse to disappear during the paleness of the face in the onset of attacks of petit mal, and Dr. Hilton Fagge was good enough to send me the following notes of a case:—

"John W——, aged twenty three, consulted me for epistaxis. While I was listening to his heart it suddenly stopped beating. His face turned very pale. He said, "I am going to faint," and sat down in the chair from which he had risen that I might examine him: there was of course no pulse at the wrist. Then his face flushed and his pulse started again; I suppose the attack lasted half a minute. There was distinct twitching of the muscles of one or both hands. I could not observe very well, having to get water, and being alarmed at his condition. On recovering he said that he often had "fainting fits," explaining this by adding "when he cut himself badly more than ten years previously he had had epileptic fits."

A medical friend, whose observation I can well trust, and who has a daughter subject to epileptic seizures, with frequent attacks of "petit mal," writes to me that "her heart appears to stop in every attack."[1]

Now, in inquiries amongst my colleagues and friends, these are all the cases I have been able to meet with in which the state of the circulation has been observed at the first moment of the epileptic onset. There are, of course, very numerous observations upon the state of the pulse when the patient has already fallen. The heart's beat has, however, recommenced, as I suppose is necessary if life is to continue. I do not know how many beats can be entirely omitted without death resulting, but the number must be limited, because the circulation depends on tension in the arteries, and the whole arterial tension must be due to but few heartfuls of blood, so that the loss of few beats would take the tension quite away. I would, however, ask your notice of the fact that most observers, who have felt the pulse just after a person has fallen in an epileptic fit, agree in describing the pulse as small, sometimes imperceptible. It is said, in descriptions of the first stage of the fit, to be sometimes unaltered, but I think this must refer to the later part of the first stage during which the pulse recovers itself, but the insensibility continues. I have found the pulse present again when the clonic spasms have just commenced. The observations which I have adduced showing failure of the pulse in the first onset of epileptic attacks tend to take away the significance of a very wonderful case which is quoted by Kussmaul from Pereira as some evidence of spasmodic closure of the cerebral vessels. In this case the pulse at one wrist was observed to disappear in the onset of an epileptic attack, and the post-mortem examination showed that the radial artery received its supply through the vertebral from the circle of Willis, a very remarkable anomaly indeed. It is inferred by Kussmaul that in this person the arteries of the brain went into spasm, and the spasm shut off also the blood from the arm, which had the misfortune to derive its supply from so irritable a source. But I think it is reasonable to conclude that in this very wonderful case, what really happened was a failure of the heart's action as in my cases.

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[1] At the conclusion of the lecture Dr. Southey informed me that in the only instance in which he had his finger on the pulse at the beginning of an epileptic convulsion he observed the pulse to disappear during the onset of the attack.

Thus, so far as I have been able to learn, the unconsciousness in an epileptic fit is of just the same nature as the unconsciousness in a fainting fit. It has happened to me, as, I presume, to most physicians, to be able to notice the first onset of a fainting fit. Time will not allow me to describe the several occurrences, but in one young candidate for service at a bank, who fainted under examination, the heart's beat ceased as I was listening, and the lad fainted. He was pale throughout the attack, and he retched as he was recovering, and told me that nothing of the kind had ever happened to him before. In the case of a young lady subject to "fainting fits" I observed that the heart stopped beating; she used to fall very suddenly, and slight twitching of the face appeared, nothing more like epilepsy ever occurred, but such attacks are very like epilepsy, and I think that sudden faintings are always to be regarded with suspicion when they take place without sufficient cause of the nature of violent emotion or shock from some horrifying occurrence. Practically the presence of adequate cause of this kind is the readiest distinguishing character of what one might call normal faintness as contrasted with epileptiform fainting; other distinctions lie in the more sudden onset, and the earlier return of colour in epileptiform fainting. These sudden fits of unconsciousness occurring without shock to explain them appear to bear the same relation to the "petit mal" of epilepsy as eclamptic convulsion bear to the "haut mal." I mean that in either of the two parallels the character of the attacks is the same, and the difference is due to the cause of the attack which in fainting, as in eclampsia, is temporary; but in "petit mal," as in epilepsy, tends to produce a recurrence of the attacks. I do not know how the cessation of the heart's action is caused, but I suppose it is through the pneumogastric nerve. It is quite certain that this nerve is capable of inhibiting, as it is called, the heart's action so as to stop it for many beats. So that the power of the pneumogastric to cause the change is beyond question. Whereas I have shown that there is great reason to doubt that spasm of arteries will stop the circulation in the brain so as to produce insensibility. Another fact that points to the pneumogastric as the probable cause of the change is that the gastric branches of this nerve are evidently involved in minor degrees of the condition of fainting. As in the long ago experience of many of us, when the witnessing of sanguinary operations before we were ascustomed to such scenes, induced nausea and sinking sensations more or less embarrassing.

Again, Mr. Tom Bird, whose experience in the administration of anæsthetics is very large, and whose care as an observer is well known, tells me that during chloroform exhibition sudden pallor is accompanied by slowing of the pulse, and followed by sickness or retching. Such lesser degrees of faintness evidently refer to a change of action in the pneumogastric system of nerves. Now it is well known that one of the most common of the immediate causes of sudden fainting fits is the sight of blood, or rather of bleeding. And this sudden fainting, which in those who fall at the sight of a cut finger is abnormal, is an extreme example of a depressing action of the pneumogastric nerve, which is in a lesser degree so far natural that a large proportion of young men suffer a feeling like sea-sickness when first they witness a protracted sanguinary cutting operation. So that the blanching and insensibility of the epileptic onset may be reasonably regarded as an effect of pneumogastric inhibition, the initial step being thus an act of the nervous ganglia.

And, indeed, it must be clearly seen that any explanation of the epileptic seizure thus comes ultimately back not to the hydraulic mechanisms of the circulation, but to the seats of origin of the nervous power, in whose endowments lie the mechanism of epileptic convulsion, and in whose action the first impulse must originate when the fit is brought about. But in the cases I have described the next step following this incomprehensible impulse is a very comprehensible stoppage of the heart, with the result of a very comprehensible paleness and insensibility. It is said that paleness does not always occur in the onset of epilepsy. I have observed a livid appearance in the onset of the fit in a very red-faced person. The natural red appearance is, I believe, never retained. There is now under my care an epileptic girl, who also has an extreme degree of inveterate psoriasis, through which her face is reddened intensely with inflammation, yet in the onset of her fits this girl's face becomes very pale.

Starting, then, with a pneumogastric impulse of unknown origin we can, through the cessation of the heart's beat, abundantly satisfy any desire for a hydraulic explanation of the unconsciousness. But we must note that the entirely unknown source of the pneumogastric impulse stands behind our explanation, throwing on it the doubt whether the same unknown impulse which discharges the pneumogastric may not play among the centres where consciousness is seated, and itself involve a loss of consciousness. But, admitting this necessary doubt, we are able to say that the stoppage of the heart's action is itself sufficient to produce the unconsciousness and pallor, so that it is not necessary for us to seek any other explanation of them; and even in the minor degrees of epilepsy, in which there is only a momentary hesitation, as if a blank were suddenly introduced in the continuity of the person's course of action, the stoppage of the heart's beat will explain it, especially as a sense of giddiness accompanies the smallest degrees of such attacks as in epileptic vertigo. For giddiness is, when certainly referable to any change of circulation in the brain, always referable to a diminution of force of the circulation. It very commonly occurs on sudden removal of stress or tension from the venous circulation in the brain, as instanced in the giddiness which is felt on going out of chambers of compressed air, or on rising suddenly from a stooping posture. Very violent giddiness has other and different causes. The extreme giddiness one sometimes meets with, as when a gentleman came to me and begged relief from a giddy attack so violent that when seized he had to call to his daughters to hold him on the floor as he seemed to be falling upon the ceiling. This man's attacks ceased on the occurrence of a paroxysm of gout. Menière's disease offers a frequently applicable explanation of severe giddiness. But there is ample evidence to show that slight giddiness occurs through slight blanching of the brain. So that when in an epileptic subject the face grows suddenly pale, and at the same moment a sense of giddiness is felt, it is reasonable to ascribe all this to failure of the heart, if we have reason to know that the heart fails, and I have endeavoured to show reason to think so. But a fully developed epileptic attack offers us at least three quite distinct occurrences. The first is the initial loss of consciousness, the second the outbreak of convulsions, and the third the state of stupor which succeeds to these. It is a natural and fair question to ask, Will the hydraulic explanation, which suffices for the loss of consciousness, go further and explain the other two terms of the series of events that compose an epileptic fit? Now, either of the three portions of the complete attack may occur almost alone, or, perhaps, quite alone.

In the so-called "petit mal" a partial faint and momentary loss of consciousness are all that happen. In some cases of convulsions a partial degree of epileptiform muscular jactitation is similarly present, and Dr. Hughlings Jackson's name will always be honourably identified with our best thought and knowledge upon this most interesting phase of epilepsy. In other cases the stage of stupor may come on with little evidence of faint or of convulsions, and I think Trousseau has claim to be honourably held in recollection on account of the clearness with which we showed the truly epileptic nature of attacks of this kind, which were, and indeed by some still are, obscured under the designation of apoplectiform cerebral congestion.

This separate occurrence of the three distinct parts of the epileptic attack proves that there is no direct dependence the one upon the other, and yet they are so constantly found united in serial order in the complete epileptic fit that it is natural to look for some causative connexion between them and to find some way of showing how upon the profound fainting attack convulsions would ensue, and how upon convulsions stupor would follow. If this were positively desirable it would not be difficult to bring in Kussmaul's convulsions from anæmia to explain the onset of the spasmodic movements; for if indeed it be a law of the vertebrate organism that a discharge in convulsion occurs when bloodlessness is on the point of becoming fatal to the life of the brain, then a prolonged stoppage of the heart would fall under such law, and convulsions be the result. Nay, we may further here observe that in a certain degree there is in such a law that kind of adaptation to purpose which it is so great a satisfaction to perceive, seeing that when the heart's beat stops the arteries empty themselves, and then tension is done away, and it requires at least six or seven heartfuls of blood to restore arterial tension; meantime, with the removal of arterial tension, the *vis a tergo* on the whole circulation is lost, and the blood is no longer pushed round in a continuous course, so that it would therefore tend to stop in the veins, and in the abdominal veins alone there is room for the whole of the blood; therefore, with all the blood in the veins, and with no *vis a tergo* to act on them, where should the heart get its six or seven charges of blood to start arterial tension once more? But the veins of the limbs have valves that prevent reflux of the blood, and convulsions compress the veins, and drive to the heart the necessary amount to keep the arteries full.

And, indeed, it is quite probable that this is the purpose or use of the convulsions. Neither does it gainsay such a use that the convulsions become extreme and pass beyond the service for which they are adopted. For take the parallel case of the plainly conservative spasm of a cough whose object is beyond doubt to expel undesirable contents from the windpipe; do we not find cough sometimes so vigorously acting in excess of its duties that we are at our wits' end to find some means of keeping this otherwise beneficent contrivance within due bounds? Likewise also, if we ask why stupor should succeed to convulsions, we may think this, too, a natural consequence of the convulsions, and we may also perceive that it favours recovery. For convulsion is no mere exertion, as in healthy exercise; but it is the exertion of otherwise dying nervous centres called out not by the wholesome influence of sufficient or redundant supply, but brought to pass by desperate starvation, and therefore in the matter of exhaustion not to be put on a par with normal fatigue. Then what more likely than extreme exhaustion, and what better than a short deep sleep in which the senses are, if I may so speak, closed for repairs? An insensibility which is thus negative and whose service is plainly to allow time for the centres to recover themselves, is not of itself to be dreaded nor thought of as a terrible thing. It need not be set down to any overpowering positive cause on the baseless old-fashioned theory of congestion of the brain. But here too, in a more dangerous way, we may find ourselves troubled with an excess of what is designed for good, and just as cough may need checking, and as convulsions may prove extreme, so stupor may be protracted, and the sleep which was intended to refresh may not restore excitability, but become longer and deeper, until the person dies in a state of coma. And the normal stupor of the epileptic attack becomes thus extreme and fatal under conditions that sufficiently explain the occurrence. For such fatal coma never happens in the epilepsy of young or vigorous subjects when the brain is well nourished and capable of quick recovery. It is in old age that it occurs, or at the close of a long course of cerebral exhaustion, especially when an impure state of the blood adds another cause of stupor, as in cases of protracted jaundice, or diabetes, or chronic renal disease, which not unfrequently terminate by a sudden epileptiform coma or in old alcoholism in unstable brains. In these cases essentially epileptic attacks occur in which there is little or no convulsion and the person appears seized with sudden coma. But as a proof of the epileptic nature of such attacks it is remarkable that in the description of them under the erroneous title of "apoplectiform cerebral congestion" it is stated that the pulse disappears at the wrist in the onset. Now, after the cases which I have given I consider this to be evidence of the epileptic nature of these attacks. For clinical evidence of the connexion of such attacks in individual cases with the history of epilepsy I have already referred to Trousseau's lecture on the subject. But if I had time I could give many cases of the kind from my own experience.

CHRYSOPHANIC ACID AND PSORIASIS.

By M. CHARTERIS, M.D.,
PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA, GLASGOW UNIVERSITY, AND PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

THE circumstances under which I was induced to try chrysophanic acid, as indicated by the correspondence in your journal, briefly stated, are as follows:—

A boy of nine years of age was admitted into my wards on April 5th last, covered, as the ward journal states, "with a scaly eruption, which came on about three years ago, and gradually extended until it embraced the whole body, being, however, most marked and patchy at the outside of the knees and elbows." He was ordered to be rubbed with the chrysophanic acid ointment (one drachm to one ounce of vaseline), and four days afterwards the nurse informed me that he had been sick and had vomited. On inquiring a little further into the matter, I made the remark to my clinical class, "I wonder if the application of the acid could have done this," and I stated "that I would on a subsequent occasion test the ointment with a view to elucidating the truth." Meanwhile I discontinued to employ the acid to the boy in the same strength, making the proportion half a drachm to the ounce; and he was dismissed well on May 3rd, without any further untoward symptoms. In accordance with the view suggested, the next patient admitted into the male wards was only rubbed with the acid of the same strength on one side of the body—the other being untouched. Both sides healed, but some dubiety existed on my mind, and also on that of my assistant, as to the truthfulness of the patient's statement, for we suspected, in his anxiety to become well, he had surreptitiously applied it to both sides. In the case also during the same summer of a female patient, we were suspicious that the nurse, somewhat inexperienced and zealous, had occasionally and intentionally forgotten the directions given and used it on places we had warned her to avoid. In publishing my clinical retrospect in THE LANCET of last autumn, I alluded to this, and said with regard to the chrysophanic acid ointment: "A singular circumstance was noted—viz., that the acid rubbed in must have some constitutional action, for if applied only to one side of the body it seems eventually, though more slowly, to remove the scales from the other. This observation, though true in one case, was not so marked in another, and would require further verification."

Continuing my narrative, I may state that the next case of psoriasis was admitted on Nov. 18th, 1880. This man, aged twenty-two, had twice before been under treatment in the infirmary for the same complaint, and on both occasions had been treated by arsenic with the result that in six weeks he had left the wards well. The last admission was in 1875, and he stated that since then the eruption had appeared every autumn, but not to any great extent. Six months ago it was very apparent on the elbows and knees, and since then it had spread to the arms and legs, and, as noted now, it is said to extend from the arms and legs over the whole body.

On the 21st Nov. (three days after admission):—One arm and leg were ordered to be covered with close-fitting flannel, and the ointment of the strength previously mentioned to be rubbed in over the exposed parts. On the 1st Dec. the ointment was rubbed in for the last time, and twenty-four hours afterwards a bath was given. On the 6th December it is noted "that the skin on both sides is now clean and smooth, and the patient was dismissed 'cured.'"

In the next case, that of a female aged seventeen, the history and appearance were as follows:—"She had been under treatment three years previously, and had been treated successfully by me with chrysophanic acid. Six months ago the disease appeared again, and at present psoriasis spots are observed on the chest and back, circumscribed and not very numerous. But over the extensor surface of the arm there are large silvery patches, and on the outside of the knees and front of the legs and thighs the eruption is very marked." Stringent precautions were taken in this case to guard against any error in the one-sided application of the ointment, flannel padded with cotton-wool was applied from the upper part of the thigh to the ankle, and secured by tapes so that the ointment could in no way affect it. Two days after admission treatment was commenced by rubbing in the ointment to all the other parts implicated. This "rubbing in" was continued daily for ten days. The nurse used her hand, not a cloth. Fully two ounces were so used every day for four days, until the scales were thoroughly removed, after that about one ounce only of the ointment was applied. Ten days after the commencement of treatment it was found, on taking off the bandages, that the scales had commenced to disappear, the disappearance being most evident at the circumference. On the centres of the patches a few scales were still observed. The skin was left on the previously scaly surface white and clean. A week later the parts rubbed were completely free from scales, and the parts covered very nearly so, with the exception of one or two spots about the size of a pin head, which were situated on the centre of the previously scaly patch. The patient was ordered a bath, and a small bread and water poultice was applied over the previously covered leg. Three poultices in all were so applied on three successive days, and it was found after that time the skin was left clean and whole, and not discoloured as the other side was by the application of the ointment. In this condition the patient was shown to my class at the university, and I have no doubt they will testify to the appearance mentioned. I may add that the patient remained in the ward after this for a month, but the eruption did not reappear. The total quantity of ointment used in this case on twenty-four applications was thirty-two ounces, of the strength of one drachm to the ounce of lard.

It will be observed from the history of these cases—1. That the ointment was applied with no stinted hand, but, as the nurse states, rubbed in until it had been all absorbed. 2. That the strength of the ointment was perhaps stronger than that generally used—viz , one drachm to the ounce. 3. I venture on no speculation as to how chrysophanic acid may act if given internally. I simply state careful, well-recorded facts with regard to the influence of its one-sided application, and these facts can be corroborated without reservation by many who watched with interest the progress of the experiments.

Glasgow.

ON WOUNDS OF THE KNEE-JOINT.[1]

By WALTER RIVINGTON, F.R.C.S. Eng.,

SURGEON TO THE LONDON HOSPITAL.

THE object of this communication is essentially practical. Discarding all theory, setting aside all questions concerning germs and bacteria, I am desirous of contrasting the results of wounds of the knee-joint treated according to the rules of Listerism with those obtained under other methods of dressing, and of eliciting experience on both sides of the question. The records of cases occurring before the introduction of strict antiseptic precautions will be especially valuable. As I purpose confining my remarks mainly within the range of my own observation, it will, I think, be most convenient to relate at the outset the most recent example of wound of the knee-joint which has occurred in my practice, and to make it the text of my paper.

The subject of the injury was one Edward G——, forty-six years of age, a cab-proprietor. On the 19th of May, being the worse for liquor, he fell or was thrown from the box of his cab. From alcoholic causes he was unable to give any positive account of what happened, but he was inclined to think that the wheel of the cab passed over him. He was admitted during the evening of the 19th, with a jagged wound over the right patella about the size of a shilling, and looking to the superficial eye as if it were merely a graze of the skin. My house-surgeon, Mr. Lawton, however, found an aperture at the upper part of the wound from which some serous fluid issued. This aperture admitted a probe, and, with some difficulty, the track of a sinus was found leading upwards and outwards for a couple of inches. There was no other injury anywhere. The patient was sent to bed, and an ice-bag was applied to the knee. The following afternoon he was seen by myself. The knee-joint was swollen, looked inflamed, and was considerably hotter to the touch than the corresponding joint on the left side. The natural outlines of the joint were obscured, fluid inside the joint distending it so as to obliterate the hollows which are observable in the normal condition by the side of the patella and its ligament. Some pus could be pressed out of the small aperture at the upper part of the wound. Having heard Mr. Lawton's account of his exploration with the probe, and of the free escape of serous fluid the day before, and having regard to the distended condition of the joint, I thought that it would be advisable to slit up the sinus, and ascertain the condition of the parts beneath the skin. Thinking it probable that there might be a wound of the joint, I procured a steam-spray producer and allowed it to play upon the wound for a few minutes. A director was then introduced into the sinus, and the sinus was laid open. This done, there appeared a jagged hole in the quadriceps extensor tendon above the patella, and through this lacerated foramen I introduced my carbolised finger behind the patella into the knee-joint, and explored the interior. Then I pressed out of the joint a considerable quantity of turbid serous fluid, almost purulent, and injected into it three or four large syringefuls of a solution of carbolic acid (1 in 19). Finally the joint was emptied as far as possible of all fluid, a drainage-tube passed into it behind the patella, and the wound dressed in the usual manner with protective and gauze. A back splint was fixed to the limb. On the 21st the patient complained of a good deal of pain in the knee, and experienced a sinking feeling due to the deprivation of his customary stimulants. The record for the 22nd says—"The patient is much better this morning; has slept well; the knee is much easier." Temperature: morning 101·6°; evening 101·4°. On Sunday evening, the 23rd, I redressed the wound and withdrew the drainage-tube. There was very little discharge. The temperature continued high for a day or two, being 103° on the evening of the 24th and 102° on the 25th, but the patient remained remarkably well and amused himself with reading during the day. Occasionally he had some painful twinges, but there was no constitutional disturbance or swelling of the limb, and he took all his fluid diet with relish. The wound pursued a perfectly normal course, gradually cleaning and granulating healthily, and as soon as some of the tendinous fibres which had been damaged had come away the aperture leading into the joint entirely closed. It is noted that the temperature on the 19th was up to 103°, and on the 21st and 24th to 101°, but there was nothing to account for this record, and the only way in which I can explain it is by supposing that it was due to the absorption of the effusion in and around the joint. The patient remained some weeks in the hospital, as cicatrisation of the superficial wound was slow. He left in July to return to his occupation, sooner than I wished him to do, and before the joint had regained its freedom of movement. When I saw him in August he was walking about, and stated that the stiffness was passing away. A fortnight ago he came to see me at the hospital in excellent health, with a freely movable joint, and in a most grateful frame of mind.

Now whether we are or are not disposed to assign the favourable issue in this case to the Listerian method, it will be admitted that the result is highly satisfactory, and invites us to apply the method without reserve to any wounds of joints which may present themselves in the clinic. Although well aware that "one swallow does not make a summer," I am strongly inclined myself to attribute the freedom from constitutional disturbance and the preservation of a serviceable joint, without the previous exhibition of violent local inflammation and its effects, to the adoption of the carbolic acid treatment, and I am influenced by several considerations, which I will state as briefly as possible. They are considerations arising out of the case itself, out of the experience of surgeons prior to the adoption of the Listerian system, and out of the experience of surgeons who have carried out that system in its integrity. If we regard the case itself we find that the joint had already begun to inflame, and that suppuration was imminent at the time the treatment was commenced. The surface over the joint was hot and tender, and the joint itself contained a considerable quantity of turbid serum. Supposing, under these circumstances, with a burrowing passage leading to bruised tissues destined to slough, and communicating on the one side with the air, and on the other with the cavity of the joint distended with a fluid capable of putrefaction, I had left the case to the *vis medicatrix naturæ*, aided only by rest on a splint, evaporating lotions, and ice-bags, is it reasonable to believe that as good a progress and result would have been recorded? Or supposing that, without going to the extreme of the spray and gauze, I had thought it advisable to assist the *vis medicatrix naturæ* a little further, and had slit up the sinus, had passed my cleansed finger into the joint, nd inserted a clean drainage-tube of any kind after ressing the serum out of the cavity of the joint, r had adopted the same treatment without the drainage-ube again, supplemented with splint, and lotions, and ice-ags, or plaster-of-Paris casing commended by Billroth, vould the patient have enjoyed a similar immunity from nflammation of the joint, suppuration, abscesses, swelling f the limb, and constitutional disturbance? Before nswering the question bear in mind that the patient was y no means the kind of subject a surgeon would be inclined o select for an experimental wound of the knee-joint to be reated without the most efficient antiseptic precautions, aving probably from his youth upwards been accustomed to pply hot and rebellious liquors to his blood. Neither was he wound the most favourable kind of wound, for it was ot a clean incision, but a contused and lacerated wound. t was not at the most dependent part of the joint, favouring ree escape of effusions, but at the upper part, well adapted or allowing putrefactive changes to spread from the surface o the interior, and run riot in the recesses of the cavity.

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[1] A paper read before the West Kent Medico-Chirurgical and Hunterian Societies

Such considerations tend to negative anticipations of a very avourable course and issue to the case if it had been treated merely in accordance with what used to be termed the general principles of surgery. And are not these doubts strengthened by recalling the experience of surgeons before Mr. Lister's doctrines and demonstrations had taken root in London and other great centres of the industrial population? Exclude from consideration, for obvious reasons, the results obtained in the perfectly pure atmosphere of country districts. Every one knows that severe injuries and operations, undergone by healthy persons in an atmosphere free from germs and organic impurities, and treated by the simplest means, may be attended with results which can scarcely be surpassed by the best records offered to us by the disciples of Mr. Lister. My friend Mr. William Forbes, who was house-surgeon at the London Hospital when I was one of the dressers, and who is practising at Sale in Australia, told me not long ago that there was no comparison between the results which he used to witness at the London Hospital and those which he has obtained in his own hospital in serious injuries to limbs and joints. Hence we may fairly set aside experience of this kind, and compare only the results obtained with and without complete antiseptic precautions in the loaded atmosphere of great cities and hospitals. I say complete antiseptic precautions, because, as antisepticism has become fashionable, everyone now professes to treat his cases antiseptically, whether regard be paid only to rest, pressure, and drainage, or some antiseptic application be superadded—cotton-wool, tenax, spirit and lead lotion, tincture of iodine, friar's balsam, thymol, carbolic acid, and the rest.

Now, I believe that the results obtained, say twenty years ago, by surgeons practising only according to the then recognised "general principles of surgery" in cases of wounds of the knee-joint, were very unsatisfactory. For proof of this it is only necessary to recall the grave apprehension with which surgeons of the old school regarded wounds of the knee, whether inflicted by accident or for any purpose by the design of the surgeon himself. A candidate who presented himself for examination at a college or university, and averred that he might be induced to entertain the notion of laying open the knee-joint, would with tolerable certainty have stood an excellent chance of reference to his studies, and at least would have damaged his prospects of a good position in a competition for honours. Refer to works on surgery, which treat of the natural issue of wounds of joints, and especially of the knee-joint, and it will be seen that among ordinary sequences are numbered profound constitutional disturbance, high fever, delirium, great and constant pain, free suppuration, and œdema of the limb necessitating liberal incisions, pulpy degeneration of the synovial membrane, disorganisation of the joint followed either by anchylosis or excision, or amputation, and that under these conditions the life of the patient may be put in peril. Sporadically, now and then, might be met with a triumphant case—a clean incision carefully adjusted, a puncture sealed with collodion, aided by rest and cold, closing kindly without damage to the joint or serious constitutional irritation. To such cases may be added those in which a knee-joint already full of pus has been saved by free lateral incisions. But however successful may have been the treatment of some surgeons who have "refused to listen to the voice of the charmer," there has always been a reverse side to the picture.

(To be concluded.)

ON TRICUSPID STENOSIS.

By BEDFORD FENWICK, M.D.

Disease of the tricuspid valves, and especially disease in the form of stenosis, is rarely found. Most authors tacitly acknowledge this by making no mention of its existence. A few specialists give the subject a cursory consideration, and chiefly confine themselves to narrating one or two cases, or enunciating one or two dicta. Firstly, say these, the disease is very rare. For example, Dr. Flint[1] writes: "A direct tricuspid murmur is one of the rare curiosities of medical experience," and Niemeyer[2] remarks that "tricuspid stenosis is extraordinarily rare." Secondly, that it is of congenital origin. Dr. Peacock in his classical Lectures on Valvular Diseases (page 24) refers at length to this theory, and in another place[3] he remarked: "It has been subject of discussion whether these cases are the result of disease before or after birth. I am inclined to believe the former to be the correct view." Rosenstein[4] prefaces a short description, probably taken from Dr. Hayden's work, by saying, "when it does occur it dates from fœtal life."

Finally, two authors, and as far as I can learn only two authors, have hitherto collected cases of this disease. Dr. Hayden of Dublin, in his most elaborate work on Diseases of the Heart, quotes twelve cases. M. Duroziez of Paris collated fourteen cases. His main deductions, however, are that the disease chiefly affects the female sex, and that it is not uncommonly found.

Since the year 1825 there have been at least forty-three cases of this affection recorded in European and American literature. I will briefly narrate the particulars of three others, two of which died last year in the wards of the London Hospital.

Therefore, to commence with, I think it may be allowed that the disease is not "extraordinarily rare." Probably, if this fact becomes recognised it will be more carefully looked for, and more often discovered than hitherto.

The total forty-six cases are summarised in the appended Table (No. 1), and by merely analysing these, I hope to exhibit the salient features, clinical and pathological, of the disease, and by their facts to test the validity of the congenital origin theory.

Case 1. (No. 43 in Table I.)—A. C——, a married woman, aged twenty-four, was admitted into the London Hospital under the care of Dr. Down, at the end of the year 1874. Her previous history showed that she had enjoyed good health till the age of nineteen. She then suffered from an attack of acute rheumatism, from which, however, she recovered well and quickly, and then continued in her usual state of health for three years. She was then attacked again with rheumatic fever, and from that time suffered from dyspnœa on exertion and palpitation. On admission there were great general œdema and ascites, orthopnœa, severe and irritable cough, and great lividity. The point of cardiac impulse was visible between the seventh and eighth ribs, and one inch external to the nipple line. The area of dulness was laterally increased. The heart's action was occasionally tumultuous, always irregular. There was a loud presystolic murmur audible at the apex; systolic and diastolic murmurs at the base. The jugular veins were much distended, the urine scanty, the temperature subnormal, the pulse small and irregular. She gradually sank and died comatose.

On post-mortem the heart was found to weigh 22 oz. The tricuspid valves were much thickened and roughened, and the orifice only admitted three fingers. The right auricle was enormously dilated, measuring $3\frac{1}{2}$ inches by 4 inches. The mitral valves were greatly thickened and contracted, the orifice barely admitted three fingers. The aortic valves were thickened and incompetent. All the organs of the body were in a state of chronic congestion.

Case 2. (No. 44 in Table I.)—E. C——, an unmarried female aged twenty-nine, a domestic servant, was admitted into the London Hospital in February, 1880, under the care of Dr. Samuel Fenwick. Her previous history was very

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[1] Diseases of the Heart, p. 240. [2] Clinical Medicine, vol. i., p. 360.
[3] Pathological Society's Transactions, vol. v., p. 65.
[4] Von Ziemssen's Cyclopædia of Medicine, vol. vi., p. 155.

TABLE I.

No.	SEX.	AGE.	PREVIOUS HISTORY.	SIZE OF TRICUSPID ORIFICE.	SIZE OF MITRAL ORIFICE.	CONCURRENT CARDIAC CHANGES.
1	M.	37	One attack of acute rheumatism at 15 years old.	Barely admitting two small fingers.	Contracted to a like extent.	Aortic valves much thickened. Ventricles much hypertrophied. Auricles dilated and hypertrophied.
2	F.	42	No rheumatic history.	Admitting the middle finger.	Admitting only the point of the little finger.	Great dilatation of the right auricle. Dilatation with hypertrophy of the right ventricle.
3	F.	37	No rheumatic history.	Only admitted one finger.	Only admitted one finger.	Aortic valves disorganised and incompetent. Dilatation and hypertrophy of all cavities, especially the right auricle.
4	F.	37	No rheumatic history.	⅝ in. by ⅜ in. in diameter; 21 lines in circumference.	3-5ths by ¼ in. in diameter; less than 2 in. in circumference.	Right auricle aneurismal, measuring 3 in. by 2 in. Aortic orifice thickened, only measuring 3 in. in circumference.
5	F.	20	No rheumatic history.	7 by 6 lines in diameter.	5 by 5 lines in diameter.	Dilatation and hypertrophy of all cavities, especially the right auricle. Aortic valves diseased.
6	F.	23	Not noted.	Only admitting the point of the index finger.	Contracted to an equal extent.	Right auricle much dilated and hypertrophied. Aortic valves incompetent.
7	M.	35	Acute rheumatism 6 years previously.	Only admitting the forefinger beyond the first joint.	Admitted the tips of the two first fingers.	Right auricle greatly dilated.
8	F.	26	No rheumatic history except pains.	Only admitting the tips of two fingers.	Only admitting the point of the index finger.	Right auricle normal. Left auricle greatly dilated. Aortic valves much contracted.
9	F.	26	Acute rheumatism 14 months previously.	Only admitting the tip of the index finger.	Only admitting the tip of the little finger.	Right auricle greatly dilated. Left auricle also dilated.
10	F.	young	Not noted.	Only admitting one finger.	Only admitting the end of the little finger.	Both auricles dilated, especially the right.
11	M.	23	Acute rheumatism at 9 and at 13 years old.	Only admitting the tip of the middle finger.	Only admitting the tip of the index finger.	Right and left auricles much dilated.
12	F.	27	Acute rheumatism 6 years previously.	Only admitting the index finger.	Only admitting the point of the little finger.	Right auricle much dilated.
13	F.	25	No rheumatic history; measles very badly at 16 years.	Only admitting the point of the middle finger.	Only the point of the index finger could pass.	Both auricles, especially the right, much dilated.
14	F.	38	Three attacks of acute rheumatism.	Not admitting the points of two fingers.	Admitting only the forefinger.	Right auricle greatly dilated.
15	F.	30	Acute rheumatism at 12 and at 24 years old.	Only admitting the point of the forefinger.	Only admitting the point of the little finger.	Right auricle excessively dilated. Aortic orifice as small as mitral.
16	F.	33	With a history of rheumatism.	Only allowing one finger to pass.	¼ in. long by ⅛ in. wide.	Right auricle much dilated.
17	F.	21	Acute rheumatism at 13 and at 19 years old.	Contracted to a narrow crescentic slit.	As tricuspid, but to a greater degree.	Pericardium adherent. Aortic valves rigid and thickened.
18	F.	19	No rheumatic history.	Contracted, rigid, and in places ossified.	Sufficient to admit the tip of the little finger.	Not noted.
19	F.	22	No rheumatic history.	Considerably contracted.	Considerably contracted.	Aortic valves much thickened and considerably contracted.
20	F.	32	Acute rheumatism at 19 and at 30 years of age.	Having a circumference of about fifteen lines.	Similarly contracted.	Aortic valves thickened and incompetent.
21	F.	18	Acute rheumatism 18 months previously.	Much contracted.	Exceedingly contracted.	All the cavities dilated and hypertrophied.
22	M.	21	One attack of acute rheumatism.	Admitted two fingers.	Admitted two fingers.	All cavities, especially the right auricle, greatly dilated.
23	F.	44	One attack of acute rheumatism.	Admitted two fingers.	Only admitted the end of the little finger.	Aortic orifice insufficient.
24	F.	46	No rheumatic history.	Admitted two fingers.	Only admitted one finger.	Aortic orifice stenosed and incompetent.
25	F.	37	No rheumatic history.	Admitted two fingers.	Only admitted the little finger.	Aortic valves slightly incompetent.
26	F.	40	One attack of acute rheumatism.	Only admitted one finger.	Only allowed a large quill to pass.	Aortic orifice contracted and incompetent. Left auricle dilated.
27	F.	58	No rheumatic history.	Admitting one finger.	Admitting one finger.	Aortic valves incompetent.
28	F.	27	Repeated rheumatic pains.	Only admitting the point of the index finger.	Not quite so small as the tricuspid.	Not noted.
29	F.	36	No rheumatic history.	Only admitting one finger.	Hardly admitting the end of the little finger.	Aortic orifice much contracted.

TABLE I.—(*Continued.*)

	SEX.	AGE.	PREVIOUS HISTORY.	SIZE OF TRICUSPID ORIFICE.	SIZE OF MITRAL ORIFICE.	CONCURRENT CARDIAC CHANGES.
30	M.	64	Repeated rheumatic pains.	Only admitted one finger.	Only admitted one finger.	Not noted.
31	F.	29	No rheumatic history.	Admitted two fingers to the first joint.	Only admitted the end of the index finger.	Right auricle greatly dilated.
32	F.	30	Several attacks of acute rheumatism.	Only admitted one finger.	Only admitted a quill.	Not noted.
33	F.	34	No rheumatic history.	Very considerable contraction.	Very considerable contraction.	Aortic orifice stenosed. Heart hypertrophied.
34	F.	23	No rheumatic history.	Very pronounced contraction.	As the tricuspid.	Aortic orifice thickened and contracted.
35	F.	21	History of acute rheumatism.	Only admitted one finger.	Greatly contracted.	Aortic valves incompetent.
36	F.	43	No rheumatic history.	Nearly 1 in. in length and ½ in. in width, of a half-moon shape.	About ⅔ in. by ¼ in.	Right auricle somewhat dilated. Left auricle enormously dilated.
37	F.	42	No rheumatic history.	Just admitting the little finger.	Not admitting the end of the little finger.	Right auricle considerably dilated and hypertrophied.
38	F.	37	Acute rheumatism at 21 and at 26 years of age.	⅞ in. in diameter.	⅜ in. in diameter.	Right auricle considerably dilated.
39	F.	37	No rheumatic history.	Stenosed. Obstruction had been great.	Stenosed.	Aortic orifice roughened and contracted. Right auricle much dilated.
40	F.	17	Very hard life. No rheumatic history.	Admitted two fingers.	Scarcely admitted the point of the little finger.	Right cavities dilated. Left cavities dilated and hypertrophied.
41	F.	33	Not noted.	About two fingers' size.	About that of two fingers.	Aortic valves thickened and opaque. Both auricles exceedingly dilated.
42	F.	40	Not noted.	A small contracted circular aperture.	Semilunar fissure, scarcely admitting the handle of a scalpel.	Aortic aperture barely admitted the tip of the index finger. Both auricles dilated. Left ventricle hypertrophied.
43	F.	24	Two attacks of acute rheumatism.	Just admitted three fingers.	Just admitted three fingers.	Aortic valves thickened and incompetent. Left auricle enormously dilated, measuring 3½ in. by 4 in.
44	F.	29	Acute rheumatism at 18, at 27, and at 28 years of age.	Circumference of only 2 in.	Circumference of only 1⅝ in.	Great dilatation of right auricle. Constriction of aortic orifice. Circumference only 1¼ in.
45	F.	48	A history of acute rheumatism.	Much contracted.	Much contracted.	Recent pericarditis. Aortic valves incompetent.
46	F.	26	Acute rheumatism 3 years ago.	Admitted only tip of one finger. ⅜ in. in length, ¼ in. broad, 1¼ in. in circum.	⅓ in. in length; ¼ in. in breadth.	Much dilatation and hypertrophy of all the cavities, especially the right auricle.

NOTE.—A column of references has been omitted from want of space. Its information has been condensed in the form of a bibliography given at the end of this communication.

interesting and very important. She enjoyed good health till she was eighteen years of age. She then suffered from an attack of acute rheumatism from which she seemed to recover perfectly, and continued in her usual health for nearly four years. Then one day while carrying a heavy child she was suddenly seized with pain in the left side and great dyspnœa. She came as an out-patient to the London Hospital, was "told only to rest, took some medicine, and the pain gradually went." From that time, however, she suffered from some dyspnœa on exertion. Five years after this, in 1878, she was admitted into the hospital for jaundice, and I find it was then noted that there was a presystolic murmur localised at the apex, and a faint systolic "whiff" audible at the base. During this year she suffered from a second attack of acute rheumatism. The following year, 1879, she was admitted with a third attack of that disease, and I find it now noted that the presystolic murmur at the apex was loud and rough, and that moreover there was a harsh systolic murmur at the base, other cardiac signs remaining as previously noted. Finally, in the beginning of 1880, she was again admitted. It was now found that these signs still persisted, but that, in addition, the presystolic murmur, instead of being, as heretofore, distinctly localised at the apex, which throughout had shown its impulse an inch and a half below and external to the left nipple, was now audible also over a large area and very distinctly at the left margin of the ensiform cartilage. The area of cardiac dulness was laterally increased, extending to the right edge of the sternum, and pulsation was strong and diffused over the whole of this area. There was a well-marked thrill sensible at the apex and at the fourth left interspace. The main clinical features were cyanosis, orthopnœa, cough, distension of the jugulars, feeble and very slow pulse (42), with intermittency and irregularity. The temperature was subnormal, the urine varied from 50 oz. to 10 oz. per diem, and contained albumen.

The autopsy revealed great increase in the size of the heart, the left cavities and the right auricle being much dilated. The tricuspid, mitral, and aortic orifices were all much thickened and contracted, the tricuspid having a circumference of 2 in., the mitral a circumference of 1⅝ in., and the aortic 1¼ in. All the other organs of the body were in a state of chronic congestion.

CASE 3. (No. 46 in Table I.)—R. A——, an unmarried female, a domestic servant, aged twenty-six, was admitted into the London Hospital in July, 1880, under the care of Dr. Samuel Fenwick. Three years previously she had suffered from a severe attack of acute rheumatism. Till then she had always enjoyed fairly good health, but from that time she suffered from dyspnœa, cough, and palpitation. On admission the main clinical features were cyanosis, orthopnœa, much distension of the jugulars, and anasarca. Pulse very small and quick (96), and fairly regular. Urine very scanty (18 oz. to 10 oz. daily), containing albumen. Temperature normal. The point of cardiac impulse was just below the left nipple, and on the nipple line. The area of dulness was square-shaped, measuring 4 in. by 4 in., and extending beyond the right margin of the sternum. There was a well-marked presystolic thrill sensible over the greater part of this area, and chiefly it was noted to the right of the nipple. A loud presystolic bruit was heard, loudest to the right of the nipple, but audible also to the left; and it was remarked by Dr. Samuel Fenwick that the point of greatest intensity of sound shifted from side to side, never being equally loud over both sides of the heart at the same time. Occasionally there was a tumultuous cardiac action, and then pulsation was visible over the whole of the left chest.

The autopsy revealed a much enlarged heart (weight 18 oz.); the auricles much dilated, especially the right; the ventricles dilated and hypertrophied; the mitral valve was greatly thickened and rigid, and the orifice contracted to a narrow slit, one-third of an inch long by about a quarter of an inch broad; the tricuspid orifice greatly altered, the edges of the valves being so united that they were converted into a kind of curtain stretched between the right auricle and the right ventricle. In the centre of this curtain there was a small, almost circular, orifice, three-eighths of an inch in length and a quarter of an inch in breadth, and having a circumference of only one inch and a quarter. All the other organs were in a state of chronic congestion.

(To be concluded.)

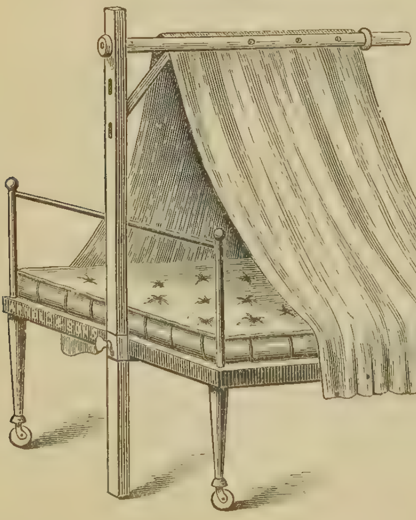
A NEW AND CONVERTIBLE SURGICAL APPARATUS.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL.

I BEG to introduce to the notice of the profession a very simple and convenient apparatus, which can be used for a great number of surgical purposes by making slight alterations in the component parts. Its special feature consists in the application of lever action over the bed without weight or contact with the bed itself. By a mechanical contrivance of great simplicity a lever is sustained immovably in any position, and by this means many of the ordinary surgical instruments, including the fracture swing, the bed cradle, the extension pulley, the bath hoop, the splint elevator, and bed rest are reduced to the form of one efficient, portable, and economical apparatus. The following is a short description of some of the principal applications.

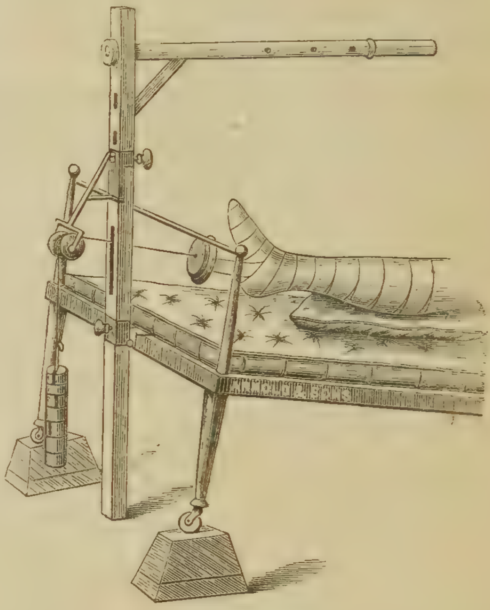
The bedclothes elevator (Fig. 1) is adapted for every case in which part or all of the bedclothes must be raised from the body of the patient. It can be instantly applied and adjusted to any part of the bedstead, and it will be found both in hospital and private practice far more convenient and comfortable than the old-fashioned bed frame. It never comes in contact with the patient, and never rests on the bed. It can be adjusted inside or outside the bedclothes, and it can be also regulated to elevate them any convenient height from the patient. The elevator serves also many other useful purposes. It will suspend a weight or ice-bag in any position, and it can be converted into a very convenient stand for a vessel or lamp.

FIG. 1.



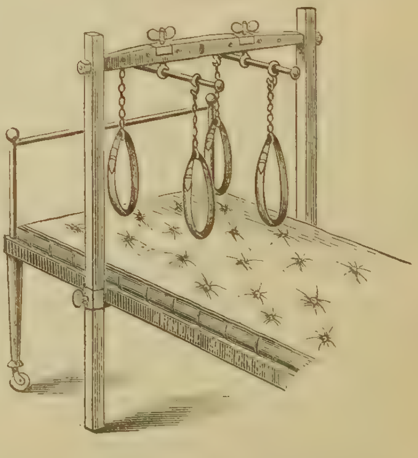
Extension by weight is now universally employed in many forms of injury and joint disease, and this kind of treatment is regarded by all surgeons as extremely simple and efficient. Fig. 2 represents the bedclothes elevator fitted with an extension pulley, which is suspended by means of a sliding bracket from the back of the instrument, and is thus capable of adjustment at any convenient height. A sliding collar, with a clamp working on a hinge, is also supplied for the purpose of fixing securely the upright to the bedstead in those cases in which counter-extension is obtained by raising the foot of the bed.

FIG. 2.



The fracture swing, Fig. 3, is another application of this apparatus. The swing is supported by two uprights, which are secured to the sides of the bedstead. It can be used with any kind of ordinary splint, and it supports the limb at any required height; at the same time it can be used to swing both legs, if necessary, without any addition to the apparatus. Moreover, it occupies no space in the bed, permits a free circulation of air under the bedclothes, and does not require to be removed in

FIG. 3.



dressing the limb. The apparatus is also convertible, by a very simple arrangement of wooden rods, into an elevator of the entire bedclothes, which will be found of great service in the application of hot-air and vapour-baths (Fig. 4). The cross-bar can also be placed over the bed for a rest in cases of lung or heart disease, in which the patient is unable to lie down, and a wooden stand can be adjusted on it to hold an inhaler, or other vessel. The elevator can be used as a splint rest, and it will be found useful in all cases in which a limb requires elevation (Fig. 5).

FIG. 4.

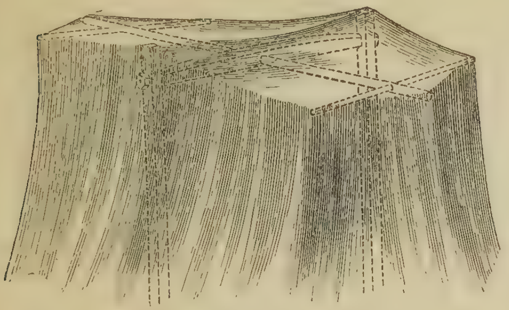
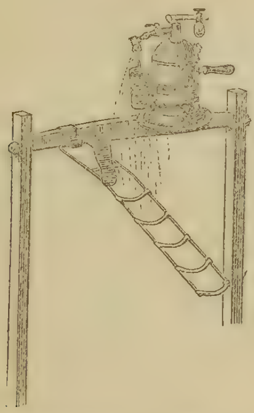


FIG. 5.



Special iron wire splints fitted with shifting bars and movable hand and foot pieces, form a part of the apparatus, and by means of a sliding metal rest they can be adjusted on the cross-bar at any convenient height. This method of elevation will be found very convenient in practice, and is especially adapted for the treatment of injuries and fractures, wounds of the hands and feet, amputation cases, and many other diseases in which absolute rest and elevation of the limb are essential.

Southsea.

THE MILK FEVER EPIDEMIC IN ABERDEEN.

BY J. M. GORDON PIRRIE, M.D.

IN the city of Aberdeen an epidemic of a novel character has mysteriously appeared in our midst, which has been properly or improperly named, *pro tempore*, the Old Mill Reformatory Milk Fever. The reason why it has received this appellation is from the fact that all the persons affected with the ailment, the symptoms of which will be presently described, have been partaking of milk supplied from the dairy in connexion with that institution; and no one has as yet been affected, so far as I am aware, who has not used the above-mentioned milk.

The first case of this epidemic which came under my notice occurred on April 1st. Since then fifty-eight families in Aberdeen, comprising over two hundred individuals, have been affected with this peculiar ailment. Three cases have terminated fatally.

Symptoms.—The patient, the subject of this disease, who, in most cases, has been up to the moment of seizure enjoying the best of health, is suddenly seized all over the body with a cold sensation and frequent rigors. This state of matters lasts in some cases for twelve or sixteen hours, and for a time all attempts on the part of the physician or of the patient's friends are fruitless to restore to the patient his natural feelings of warmth. During this cold stage or period during which rigors occur the skin is hot and dry. The pulse becomes rapidly and greatly accelerated, and in two cases under my observation amounted to 135 beats per minute. Another striking feature in this ailment is the sudden rise of the temperature of the body to 103° F. In two cases the temperature rose to 105° F., and remained at that high figure for nearly twelve hours. Variations of temperature do not occur as in some other cases of fever, it being as high in the morning as at night. The patient complains of intense thirst, great prostration, pain in the head, neck, back, and limbs, and sickness, which is usually accompanied by fits of vomiting and violent retching. The matter vomited has at first been the contents of the stomach and afterwards mucus mixed with bile. Pain in the head is a prominent and early symptom, but the character of this pain varies. Sometimes it is described by the patient to be of a bursting nature, at other times as if the parietes of the cranium were being drawn together and the eyes drawn inwards. The pupils of the eyes do not appear to be affected in any way. In one case the sensation of weight in the head was so great that the patient was unable to move the head on the pillow.

Perhaps the most striking feature in this complaint, along with the sudden appearance of rigors, the quick and great rise of the pulse and temperature, is the rapid and painful swelling of the glands and muscles of one side of the neck, and in the cases I have seen it has been the left side of the neck that was affected. In one case the glandular swellings extended down the neck to within two inches of the clavicle. These swellings of the glands and muscles are very painful under pressure.

Sore-throat is also complained of by the patient, and on examination I found only the tonsil on the affected side of the neck inflamed and slightly swollen. The amount of inflammation and swelling of the tonsil, the surrounding tissue, and the mucous membrane, was not at all in ratio to the amount of pain complained of. Two patients experienced a feeling of great tightness about the œsophagus and trachea, and in these cases difficulty of swallowing was present, but I could not discover any sufficient cause to account for it. In another case difficulty of breathing was experienced for several hours, which, however, subsided by causing the patient to inhale the steam of hot water. The shivering, the pain in the head, the sickness, the swelling of the glands and muscles of one side of the neck, and the soreness in the throat, usually appear in rapid succession. The tongue is coated with a yellowish-white fur, while its edges appear to be more red than natural. The urine is very acid, high-coloured, scanty, and loaded with urates; no albumen was present in any of the samples which I examined. The bowels are usually constipated; diarrhœa has not been present in any of the cases under my observation. The patient feels very uneasy and restless. Sleep is disturbed, of short duration, and unrefreshing. Delirium has been present in some cases. After the patient has been sharply purged, and diaphoresis thoroughly established, the pulse and temperature fall somewhat rapidly, the painful glandular and muscular swellings decrease, the sickness and vomiting abate, and in two or three days the patient may be said to be convalescent. A relapse of all the symptoms has occurred, in most of the cases under my notice, a day or two after the patients were convalescent; and, in such cases, it was always the glands and muscles of the opposite side of the neck from those first affected which became painful and swollen. One patient who was in a delicate state of health previous to being attacked with this complaint has had three relapses, but the symptoms during the relapses have been less severe than those at the onset of the disease in all the cases under my notice. The treatment I adopted, and which was successful in the cases under my care, was frequent purging, the administration of saline diaphoretics until diaphoresis was well established, and, after the more urgent symptoms had abated, I found the greatest benefit to follow the administration of quinine along with the most nourishing food, accompanied by a well-regulated amount of stimulants. A sample of the milk in question was put into Professor Brazier's hands on Tuesday, the 5th of April, to be chemically examined, and the following is his report:—

"The sample of milk chemically considered appeared to be one of fair average quality. The proportion of water and of saline matter was by no means abnormal, and gave no reason for suspecting any admixture or adulteration therewith. The only thing that attracted my attention was the somewhat rank odour possessed by the milk, and which manifested itself the more by allowing the milk to rest for a time in a vessel half full and loosely covered. If, as I have been led to believe, the milk in question has been blamed for giving rise to a series of sicknesses, the investigation as to the cause must be handed over to the pathologist or physiologist or both to determine, rather than the chemist."

By order of the proper authorities, a thorough investigation is now being carried on regarding the origin of this epidemic, and it is to be hoped that the cause of this serious disease may ere long be conclusively determined beyond all doubt.

Aberdeen.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

CASE OF SECONDARY INTRA-THORACIC CANCER; NECROPSY.

(Under the care of Dr. THOROWGOOD.)

LOUISA B——, aged forty-three, married, was admitted on Nov. 8th, 1880, and the following history taken:—She had had twelve children, eleven born prematurely and dead; the other died in childhood from bronchitis. Six or seven years back she first noticed a lump in left mamma, which continued slowly but painlessly increasing for three or four years ago, when tearing pain supervened in that region. She went into the German Hospital at Dalston, and had the breast removed in June, 1879. About a fortnight before admission into Victoria Park Hospital she noticed a small hard lump close to the cicatrix on the left side, and at the same time two or three lumps in the right axilla. About the beginning of August, 1880, she first found her breathing to be oppressed, the dyspnœa coming on rather suddenly. Cough, with muco-purulent sputa and night-sweats, came on, but no hæmoptysis. She had suffered a great deal of pain under the upper part of the sternum, and at the right lower part of the chest in front. She had been in bed since the end of September, gradually getting weaker. Appetite very bad. Was getting much thinner, and the dyspnœa increasing.

On November 9th she was examined by Dr. Thorowgood, and the following notes were taken:—The patient has a cachectic appearance; there is a small nodule in the site of the old cicatrix over the left mamma; one or two enlarged glands in the left axilla; several enlarged glands in the right axilla, and above the right clavicle. No œdema of feet; under the left clavicle percussion-note fair; breathing harsh, with prolonged crowing expiration, heard all over the left front. Under the right clavicle resonance good to the second rib, where dulness commences and continues to two fingers' breadths below the level of the ribs. Respiration is bronchial, mixed with sonorous and subcrepitant râles. At the level of the third rib sounds are weak, and at the right nipple inaudible, also in the right axillary line. The liver appears depressed below ribs and is very tender. Posteriorly, the left back is resonant, and the respiratory murmur loud and strong. At the right supra-spinous fossa breathing is heard, but cough resonance not increased. Crepitation in the right vertebral groove, at the right base the respiration *nil*, vocal vibration *nil*.

On the 27th paracentesis thoracis was performed in the sixth interspace at the anterior axillary line, and about one ounce of blood-stained serum was withdrawn. (This was not examined with the microscope.)

On Dec. 4th paracentesis was repeated in the fifth interspace at the anterior axillary line. No fluid was withdrawn. On the 31st the right side of the chest looked large and rounded; cyrtometer tracing showed marked difference between the two sides. Right, eighteen inches and a half; left, sixteen inches and a half. Below mamma the right did not move with respiration; intercostal spaces could be scarcely distinguished with the fingers. The heart's apex was one inch outside the nipple line in the fifth interspace. Vocal vibration was absent over all the right side, except at the extreme apex, where it was much diminished. Veins enlarged in the right axilla. Slight œdema. On percussion at the right apex, from the clavicle to the second rib the resonance was high-pitched, boxy. Below the second rib there was dulness, which extended fully one inch to the left of the sternum, and was continuous with the area of cardiac dulness. The right back was dull, except a little high-pitched resonance at the supra-spinous fossa, and there was some obscure resonance in the vertebral groove. The dull area presented a feeling of solidity to the fingers, and considerable resistance to percussion, hardly suggestive of a large fluid effusion. At the left back the resonance was normal. On auscultation at the right apex, front and back, there was some vesicular breathing, with prolonged expiration. Below the second rib in front the breathing-sounds were, for the most part, absent. Feeble bronchial breathing was heard all over the lung behind down as far as the base. The signs were similar in the right axilla; no bronchophony; heart sounds audible over the whole of the right back and side. There was no pleural friction; right side vesicular breathing; vocal resonance rather increased. The heart sounds were clear; no pericardial friction; no evidence of any pressure on vessels or nerves of thorax or œsophagus. During the last few days a small irregular lump, fixed and painful, had appeared at the inner border of the right mamma. Sputa for the last fortnight abundant, frothy, of light amber colour; microscopic examination revealed epithelial elements, but nothing specially distinctive of the intra-thoracic disease. Treatment, which consisted in the administration of small doses of iodide of arsenic, liquid extract of ergot, and, lastly, pills of Chian turpentine, exercised no influence over the extension of the disease, and after much increase of dyspnœa the patient died on January 22nd 1881.

The post-mortem examination was made fifty hours after death by Dr. S. West and Dr. Lawrence Humphry, notes being taken by Mr. Batson. Moderate height; not much emaciated; no rigor mortis. Right side of chest markedly bulged. In site of left mamma a long healthy cicatrix. Above this was a small hard nodule, which, on section, was soft medullary cancer. Skin over right mamma adherent; the mamma and surrounding tissues were adherent to the chest-wall; numerous small hard nodules upon the sternum and ribs. On removing the skin and making a section of the mamma these nodules were found to be cancerous. On opening the abdomen the liver was found enlarged and depressed, the whole peritoneum and omentum were thickly sown with small nodules, most numerous along the attachment of the large intestine, but also abundant in the mesentery. The lumbar glands were slightly enlarged. In the pelvis all the organs were matted together, especially posteriorly, where the nodules were most numerous. Both ovaries were converted into cysts, the left two inches in diameter and loculated. Liver weighed 4 lb. 5½ oz., and contained a few secondary deposits of very small size. Along the suspensory ligament the cancer had spread, but remained almost entirely in the capsule. The kidneys and spleen were congested. The left suprarenal capsule contained several nodules, the largest in the medulla. The diaphragm on the right side stood very low and was slightly convex downwards. The left lung was bound down by loose adhesions, consequent upon pleurisy, and which was due to small disseminated nodules in the visceral pleura, chiefly on the posterior surface. There were no nodules in the lung. The heart was displaced to the left; no fluid in pericardium; heart normal. From the pericardium, extending upwards to the top of the sternum, occupying the whole of the mediastinum, was a solid mass, extending through the intercostal spaces to become continuous with the nodules described in the skin. This was clearly cancer. It had involved the whole of the right pleura and diaphragm, the lung being collapsed, and forming a solid, airless, and adherent mass in the upper part of the chest. Below was a large cavity, filled with blood-stained fluid, the walls formed by the cancerous pleura and diaphragm. Dr. Humphry examined sections of the thickened pleura under the microscope, and observed scirrhous cancer extending from the pleura into the lung between the alveoli.

Remarks.—It was interesting to observe in this case how the cancer had spread along the serous surfaces. Only one or two small nodules of cancer were found in the liver, and the lung was pressed and collapsed by the thickened pleura. The under surface of the diaphragm and the serous membranes of the abdomen were thickly studded over with cancer, while the kidneys and spleen were simply congested. In exhibiting the specimen before the Pathological Society, on March 15th, Dr. West suggested that the failure of the attempts to draw off the fluid by thoracentesis was due to the rigid condition of the walls of the cyst, which would not allow it to collapse.

SUSSEX COUNTY HOSPITAL.

CASE OF STRICTURE OF RECTUM IN A BOY; COLOTOMY; RELIEF.

(Under the care of Mr. N. P. BLAKER.)

FOR the following note we are indebted to Dr. J. C. Uhthoff:—

William E——, aged sixteen years, was admitted on November 6th, 1879, complaining of offensive discharge from the rectum and painful defecation. He was an errand boy in a shop, and had been sent to the hospital by his employer, who complained that the smell emanating from him was so offensive that his shopmates could not endure it. He was a somewhat undersized lad and looked pale and ill in the face. He said that he suffered much pain in the rectum, and that defecation, which was painful and frequent, was accompanied by the discharge of blood and mucus. He was quite well until six months before, when pain in the abdomen, followed by the rectal symptoms, commenced. During this time he lost flesh and strength. He stated that his mother died of a similar complaint.

Examination of the rectum revealed a tight annular stricture about an inch or an inch and a half above the anus; the tip of the forefinger could be passed into it, but nothing more. The surrounding tissues were very hard and firm, and nodular in parts; but nothing in the way of ulceration could be felt, and the hardness was rather that which characterise firm fibroid tissue than the stony hardness of malignant disease. On withdrawing the finger, it was found covered with very offensive blood-stained mucus. After his admission he was treated with mild aperients to soften the fæces, with morphia suppositories to relieve the pain and tenesmus, and with solution of perchloride of mercury and iodide of potassium, as it was thought that the stricture might be of a specific nature. His condition varied; at times he seemed easy and the abdomen flaccid, and he was able to get up and about; at others he had much pain and tenesmus, and the abdomen was distended. The condition of the stricture remained much the same, and the motions were always narrow and offensive from the presence of muco-purulent matter.

Towards the end of January, two and a half months after his admission, the symptoms of obstruction were somewhat pressing, and it was decided to perform colotomy in the left loin. The abdomen was much distended and very painful, and any attempt at defecation was accompanied by much increase of pain; the general condition was also unfavourable, and the boy was evidently failing. The operation was performed on January 31st by Mr. Blaker, under anæsthetic mixture of alcohol, chloroform, and ether. The oblique incision was made use of, and great assistance in finding the colon was afforded by passing a small catheter through the stricture of the rectum, and distending the bowel with air.

A large quantity of liquid fæcal matter passed through the artificial opening during the next few days, and the relief of the obstructive symptoms was marked and rapid. The operation wound healed well, though slowly, and with a considerable amount of inflammation. The patient rapidly regained flesh and strength, and left the hospital on June 21st, 1880, to return to work. The bowels acted regularly through the artificial anus; a slight discharge still continued from the rectum, but was not accompanied by any pain, was seldom blood-stained, and had but little offensive odour; the stricture appeared in much the same state as on his admission.

It should be added that as he was recovering from the operation he was troubled by the occurrence of an ischiorectal abscess, which after its discharge left a fistulous opening on the left side of the anus, and about an inch and a half external to it.

He was readmitted on February 5th, 1881, complaining of pain and swelling on both sides of the anus. Since his discharge in June he had been at his work, and had continued to improve in general health. He had had, as a rule, but little discharge from the rectum, and little or no pain. The bowels had acted well through the loin, but he had been somewhat troubled by prolapse at the opening. There was now redness, swelling, and tenderness on each side of the anus; the swelling was very hard and irregular, and some doubt was felt as to its cause. But in a few days pus was discharged from either side, and the local inflammatory signs subsided, leaving two small fistulous openings. That on the left side passed to the rectum, about an inch above the anus and just below the stricture; that on the right side passed more deeply, and if it opened in the rectum must have done so above the stricture.

At the end of March the boy was still in the hospital and helped in the ward; his general health was good and he looked fat and well; but the stricture remained as tight as ever, and the fistulæ continued to discharge.

Remarks.—The particular interest attaching to the case is its rarity; no similar case being apparently on record. The nature of the stricture is very doubtful, that it is malignant is improbable, for the boy is fat and well, and the growth shows no signs of breaking down or invading surrounding structures; that it is syphilitic may be more likely, but there is no other evidence to uphold such a diagnosis.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Vascular Protrusion of the Eyeball.—Nephrectomy by Lumbar Section.

AT the ordinary meeting of this Society, held on the 12th instant, Dr. Barclay, President, in the chair, a paper was read on a case of Vascular Protrusion of the Eyeball by Mr. Charles Higgens, of which the following is an abstract:—The case was that of a woman aged forty-two. The disease appeared to have arisen spontaneously, and had been gradually progressing for six months. The symptoms were not very urgent, but increased steadily in severity in spite of rest, low diet, ice to the head, and purgatives. Six weeks after admission the common carotid was ligatured, with the result that a complete cure was effected, and the patient left the hospital two months later perfectly well. The daily progress of the case was given. At one time there was hemiplegia, which entirely passed away; otherwise no dangerous symptoms arose. A sketch of the patient's eyes was shown taken a week before the operation. Abstracts of two other cases were given.—Mr. HOLMES asked whether the pulsation had recurred, for if so the ligature of the carotid would have been without permanent effect. The real nature of these cases was obscure; in some an aneurism was said to exist, but this appeared uncertain. In the two cases related in the paper, where an examination was made, there did not appear to be anything like aneurism, and nothing which could have called for ligature of the carotid. Mr. Higgens's case resembled others which do as well when left alone. Ligature of the carotid was only justifiable when the disease is increasing and threatening life. In Mr. Rivington's case pressure on the carotid failed, and so did injection of perchloride of iron. Mr. Holmes had seen cases where the protrusion had remained stationary for years.—

Mr. HIGGENS had seen the patient last week; there was no pulsation in the superficial vessels on that side of the head. He would not be in a hurry to ligature the carotid again, for he had seen another case since with more urgent symptoms and blindness, the symptoms afterwards subsiding. The question was how long should one wait before resorting to ligature? In the case related compression of the carotid did no good, nor did rest and the application of ice, and, as the symptoms increased, ligature was done.

Mr. ARTHUR E. BARKER then read a paper on Nephrectomy by Lumbar Section. The basis of this paper is a record of two cases in which the author had recently performed nephrectomy by lumbar section for calculous pyelitis. But before considering them in detail, a brief review is given of the whole question of excision of the kidney in the light of all those cases he has been able to collect. Referring to a paper published in last year's Transactions of this Society, in which he tabulated 28 cases of this operation, he points out that of this number 14 recovered and 14 died; but that, deducting those 6 cases in which the operation was performed upon a wrong diagnosis or undesignedly, there remained 13 recoveries and 9 deaths. Passing on then to the new collection, 26 in number, he shows that 12 recovered and 14 died in the gross; or, making the same deduction as above (of 5 cases) that 11 recovered and 10 died out of the remaining 21. Adding the latter to the 22 designed nephrectomies of last year's table, he finds that, out of the resulting 43, recovery took place in 24 and 19 died. Two recoveries where nephrectomy was not premeditated might further be added to these 24. The causes of death in the 28 fatal cases of the combined tables are shown to be as follows: Peritonitis, 8; shock and collapse, 5; pyæmia, 2; uræmia, 2 (in one of these the other kidney had been destroyed by old disease; in the second it as well as the liver was found in a state of advanced fatty degeneration); wound of pleura, with consequent collapse of lung, 1; pulmonary thrombosis, 1; hæmorrhage during operation, 1; after operation, 2; exhaustion of vomiting, 1; œdema of lungs, with marked dyspnœa, 1; exhaustion from suppuration, 1; unrecorded, 3. Of the 9 fatal cases out of these 28 where nephrectomy was unpremeditated, 4 died of peritonitis; 1 of hæmorrhage during, and 1 after operation; 1 of suppuration and exhaustion; 1 of œdema of the lungs with marked dyspnœa; and in 1 the cause is not recorded. Of the two modes of operation—i.e., in the lumbar region and in the linea alba—the first shows the largest proportion of recoveries, but the author regards the mere numerical analysis of the cases as liable to mislead on this point in view of the varying nature of the conditions for which the operation was undertaken. A careful perusal of all the original records is alone to be relied upon for estimating the two methods correctly. The histories now recorded are briefly as follows: A married woman, aged thirty-two, was admitted into University College Hospital on June 16th, 1880, on account of a rapidly growing tumour in the left abdomen, first noticed seven weeks before, and accompanied by pain and much lassitude; the pain had existed since patient was five years of age. The tumour on admission measured 14 by 4½ inches, was smooth, and fluctuated obscurely. Diagnosis: Pyonephrosis probably due to calculus. On July 2nd the tumour was aspirated from behind and 18 oz. of fetid pus withdrawn. The next day it had refilled. Nephrectomy was performed on July 5th through an incision made downwards and forwards from midway between the last rib and crest of ilium for four inches. The enormously thickened capsule of the kidney was soon reached, and its removal with the contained kidney attempted. After considerable loss of time and blood from the vascular and inflamed tissue this line of action had to be abandoned on account of the extremely wide-reaching attachments of this mass of fibrous investing material. The organ itself was then sought for and was easily shelled out of its capsule with the finger and without loss of blood. The pedicle was tied with silk, not without difficulty, and the organ was cut away, after which some twigs spouted and had to be ligatured separately. The whole operation was conducted under Listerian antiseptics, and lasted one hour and ten minutes. The patient died three hours after its completion, of shock. The autopsy showed that it would have been next to impossible to have removed the capsular structures with the organ. They now lay as a great hollow mass of fibrous tissue attached to the spine. Enucleation of the organ alone ought to have been aimed at from the beginning. No bleeding had occurred after the operation, and the peritoneum was not torn. The next case is that of a woman, aged thirty-eight, to whom an operation for calculous pyonephrosis had been proposed seven months before and refused. The kidney was not at that time much enlarged, though a large stone was found in it by means of an aspirator needle. Six months later the patient requested the author to readmit her into hospital and perform any operation for her relief he might deem advisable, as she had suffered very severely in the interval, and was losing ground. On readmission she was very emaciated and bedridden on account of pain, the slightest movement even in bed causing much distress. On Oct. 5th an operation was undertaken with a view to remove the stone if possible, and if not, of excising the kidney containing it. An incision was made from the middle of the twelfth rib downwards and forwards for five inches, and the kidney rapidly exposed. An aspirator needle was then thrust into the organ and the stone struck, about two ounces of pus being withdrawn. A vertical incision was now made down to the calculus with a Paquelin's cautery knife through the cortex of the organ. The stone was very firmly fixed, and, when drawn on with a forceps, broke, one-half only coming away. Very great difficulty being apprehended in removing the remaining half, the excision of the whole organ was determined on. Warned by the last case, the surface of the kidney itself was sought for at once as a guide to enucleation, which was consequently easy. The difficulties of clearing the pedicle, however, were insurmountable in this case, and after many attempts to clear it, it was ligatured *en masse*, the ligature including much of the kidney tissue. It was not, however, possible to draw the silk close enough to justify cutting away the organ, which was therefore left *in situ*. In clearing the lower ends of the organ, something was felt to give way at one spot, to which it was firmly adherent, and it was suspected that the colon had been torn. The operation was completed by a Listerian dressing, having lasted one hour and twenty minutes. The patient died twelve hours later of shock. After death it was seen that the pedicle could not have been cleared, even though the last rib had been resected, which was now done for experiment, with ease and without any damage to the pleura. Also that any endeavour to remove the organ with its investing structures would have ended in failure, owing to the very extensive attachments of the latter. The colon was found to have adhered to the kidney and to have been torn at this spot, where it was soft and sloughy. The first point brought out by these operations appears to be the necessity of removing the kidney and it alone in such cases, and of not attempting to take away the investing structures with it. Again, the desirability of early operation, before the parts around the organ, and especially the pedicle, have become converted into a mass of dense inflammatory tissue. Thirdly, the want of every kind of data bearing on this operation, and either encouraging or discouraging its performance.—Mr. CLEMENT LUCAS, agreeing with the author's view as to the publication of unsuccessful cases, had not yet published a case of his own, in which fourteen months ago he had performed the operation with good result. The patient had been bedridden for three months with a sinus in the loin; the operation was difficult owing to adhesions, and severe secondary hæmorrhage set in two weeks afterwards, only checked by plugging the wound with sponges soaked in perchloride of iron. He saw the patient a month ago; the wound was healed and he had gained much flesh. In that case pus did not disappear from the urine for many weeks after the removal of the kidney, showing that much pus must come from the bladder and ureter. He thought the lumbar operation preferable to the ventral, except in some cases of tumour, and he advocated a vertical incision from the last rib, and another passing horizontally outwards to the quadratus lumborum. Mr. Morrant Baker in a recent case made a transverse incision, enlarging the wound in a vertical direction. He agreed with Mr. Barker as to the impossibility of removing the capsule with the kidney. In his own case no sign of uræmia, and no vomiting followed.—Mr. MORRANT BAKER felt strongly the importance of removing the kidney without the capsule. In his recent case (a child eight years old), nephrotomy was first performed, and finding that the removal of the kidney would be easy he determined to do this if necessary. But when he came to perform nephrectomy, two or three months later, the capsule had become so thickened that he was obliged to detach it. This was done without much hæmorrhage, no difficulty was met with as regards the pedicle, and the case did well. Apart from the risks of the operation itself, the removal of one kidney does not appear to have much influence. The child had fairly recovered from the effects of the operation in twenty-four hours, and no ill results ensued.—Mr. **BARWELL** had a case where death ensued shortly after operation. The patient was weakly, and passed much pus in the urine. He made a free incision into the abscess, evacuating much pus, and felt the kidney lying in the sac. The removal of the organ was easily effected, but it had to be detached from the crus of the diaphragm. A ligature was passed round the vessels and ureter, and the kidney then removed. The difficulty was to decide upon suitable cases, and to determine whether they could be dealt with by lumbar incision. He advocated free incision rather than aspiration in dealing with the perinephritic sac in the first instance, for the kidney could then be felt. The incision could be the same as for lumbar colotomy, and antiseptic precautions should be used. In a case of perinephritic abscess under the care of Dr. Silver, Mr. Barwell made a free incision in preference to aspiration, let out thirty-five ounces of pus, felt the kidney, which seemed healthy, inserted a drainage-tube, and the case recovered. The case of nephrectomy to which he had referred proved fatal on the fifth day, the patient dying comatose apparently from uræmia. The other kidney was found to be also the seat of tuberculous disease, so that had the operation been earlier performed the result might have been different. — Mr. **BARKER**, in reply, was glad that Mr. Baker had confirmed his view upon the desirability of removing the kidney from the capsule. Mr. Barwell's suggestion of an exploratory free incision was a good one. In a case of suspected tubercular disease he had preferred such exploration to excision, and evacuated much pus with considerable benefit. The patient survived two months, and after death both kidneys were found to be tubercular. In nephrectomy the time at which the ligatures come away from the pedicle, when this is tied *en masse*, is often much delayed, sometimes after the space of many months.

Mr. **HOLMES** exhibited a simple instrument invented by Dr. Howard for plugging the nares in epistaxis. It consists of a bag of india-rubber, which, after insertion in the nares, can be inflated with air to the required size, and, exerting equable pressure, speedily checks the hæmorrhage. It is made by Walters of Palace-road.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Syphilitic Psoriasis of Head and Neck.—Arterial Hæmatoma of Forearm.—Meningocele.—Progressive Painful Inflammation of Arteries.

THE ordinary meeting of this Society was held on the 8th inst., T. Smith, Esq., Vice-President, in the chair. The chief communications read had reference to some rare diseases of the vascular system.

Dr. **BERNARD O'CONNOR** read notes of a case of Syphilitic Psoriasis of Face and Neck. The patient, a female aged twenty-eight, came first under observation on March 2nd, 1881. She had been healthy up to six months ago, when she complained of pains in the head, most severe in the temples. A week subsequently there was sore-throat, and a fortnight later a general eruption appeared, that on the body and limbs being of the form of "dark bluish spots." Her husband had a few weeks earlier presented the same symptoms, with the exception of the peculiar rash on the face. He had also had a severe iritis, but never had a chancre. There were two healthy children, and the patient had never miscarried. The eruption on the face consisted of a number of pinkish-white scaly rings, and some darker circles all over the face, including the eyelids, and on the front, sides, and back of the neck. The rings were in all stages of development with spreading margins, and were not quite symmetrical; they were incomplete at points of contact. The eruption was dry, and there was itching. There was no trace of it on the elbows, knees, palms and soles, mucous membranes, ears, or scalp; but the hair had been shed in large quantity, and there was dry seborrhœa. A few brownish roseolous maculæ occurred on the body, back of thighs, and inner side of arms. There was no affection of the nails. The eruption on the face resembled somewhat lichen ruber and herpes circinnatus; but under the microscope there was slight hyperæmia and infiltration of the rete mucosa. The absence of any implication of the palms and soles was unusual in syphilitic psoriasis, which the case was proved to be by its history and features as well as by the rapidity with which the eruption cleared away under mercurial treatment.

Mr. **RUSHTON PARKER** read notes of a Case of Arterial Hæmatoma of the Forearm due (apparently) to embolic arteritis and perforation. William G——, aged fourteen, had rheumatic fever in the first quarter of 1879, during which he experienced pain in the right forearm, followed by swelling of the whole limb, eventual subsidence in the arm but gradual increase in the forearm. He was admitted into the Liverpool Royal Infirmary on July 23rd, 1879, and was found to have an oval swelling of the right forearm, tense, slightly elastic, without pulsation (the previous existence of which the patient distinctly negatived). Incision under ether revealed a blood tumour between the bones and deepest muscles on the flexor side, and an open artery with upper and lower apertures. This vessel was tied and the wound treated by the carbolised method without the spray. Inflammation however became intensified, and septic conditions arose, without, however, any evil result until after the twentieth day, between which and the thirtieth several attacks of secondary hæmorrhage occurred. The wound was eventually searched for a bleeding point, but none found, the oozing being general. Ergotine subcutaneously, and turpentine locally, with elevation of the limb, were followed by cessation of bleeding and rapid cicatrisation. Hitherto no cardiac or respiratory symptoms had been present, though a systolic and diastolic murmur revealed aortic obstruction and regurgitation, both on admission and since. He now, after the sixth week, had severe dyspnœa with palpitation, and cardiac pain, commencing with an attack of epistaxis and producing cyanosis. Opium and digitalis were given, and in a fortnight he was better with occasional remissions. Under a regulated diet of bread, butter, potatoes, tea, and beef-tea, excluding especially milk and flesh, with opium and no digitalis, he gradually made a complete recovery from all impairment of the respiratory and circulatory functions. The murmurs, however, remained for months, but he was lately (Feb. 1881) totally free from murmur, and in robust health and strength. Partial division of the median nerve, in the final operation, has resulted in impairment of the palmar muscles concerned, but the main use of the hand is good, and all the most important movements preserved. Mr. Parker remarked that the appearance of septic influences is of course due to causes which were probably preventable; and the secondary hæmorrhage was almost certainly due to the intensified inflammation which ensued. This case is only one among many examples, which to many surgeons are well known, proving in the clearest way the influence of inflammatory irritation in promoting hæmorrhage from vessels in the vicinity. The converse, though not demonstrable here, is experienced in other cases, where the removal of irritation (such as the distensile force of retained discharge or blood-clot) is followed immediately by cessation of bleeding, which may previously have been profuse and apparently uncontrollable. As to the original blood-clot, the hæmorrhage of which it was the substance, resulted evidently from perforation of the artery concerned. The blocking of this artery, and the consequent fluxion, are circumstantially evidenced in the history, while the conditions requisite for embolism were, to say the least, rendered possible by the clinical signs. The age of the patient and all the circumstances leave, it is thought, no choice outside the supposition that an embolus consisting of active inflammatory material, on becoming impacted in the anterior interosseous artery of the forearm, led to acute arterial inflammation and consequent perforation in place of the obliteration more commonly to be expected.—Mr. **T. SMITH** thought the explanation given the only probable one, and remarked upon the infrequency with which embolism in a limb leads to hæmorrhage as compared with cerebral embolism.—Mr. **GODLEE** asked whether the chest symptoms were attributed to aneurism, or whether there was evidence of arterial disease in other regions.—Mr. **HEATH** said it would be most unusual to meet with arterial disease at the age of fourteen. He could not understand how two openings should occur in the vessel from embolism, and asked whether any possibility of injury or strain had been excluded. The case might have got well more quickly had the wound been stuffed with lint, and no attempt made to close it.—Mr. MORRANT BAKER asked how long since the disease had the boy been seen, pointing out the occurrence of cases of blood cysts with a thin wall of sarcomatous tissue, afterwards developing into a tumour.—Dr. COUPLAND inquired if there was any evidence of embolism in other arteries—e. g., splenic or renal—and remarked upon the complete disappearance of the signs of valvular disease as a notable feature in the case.—Mr. RUSHTON PARKER, in reply, said that the age of fourteen excluded aneurism or arterial disease. He supposed the two openings might have been formed by the plug being in a branch coming off at right angles to the vessel. There was no possibility of any traumatic cause, and the idea of embolism was only entertained after the operation, which took place within one hour of admission. The puncture by the aspirating needle, and subsequent exploratory incision, were made because of the suspicion of malignant disease. The needle could hardly have reached the artery, which was deeply situated. The history was that of embolism, and the blood appeared to have gradually accumulated. The aortic murmurs were repeatedly observed by Dr. Glynn during the patient's stay in hospital, and an unfavourable prognosis was given. The opium and restricted diet were given because of the heart disease, and the total disappearance of the bruits was certainly remarkable. There was no evidence of the embolism elsewhere. In reply to a further question by Mr. Heath he added that the openings were about three-eighths of an inch apart, and the artery was not divided before ligature.

Dr. STEAVENSON read notes of a case of Meningocele. A female child, the last of a family of thirteen, was brought to the Children's Hospital when three weeks of age, with a cleft in the cranial and facial bones extending from the posterior fontanelle to the alveolar process of the jaw. Between the widely-separated eyes and nostrils was a tuberous swelling communicating freely with the cranial cavity. There was no cleft palate. Respiration was peculiar, a few short quick inspirations being succeeded by a pause, and the heart's action was accelerated. The mother stated that when she was three months pregnant she was much frightened by seeing the body of her son in a hospital mortuary, and to this fright she attributed the infant's deformity. The child lived to the age of four months and a half, and a post-mortem examination was refused. Out of thirty-nine cases recorded by Lawrence, twenty-one were males and eighteen females. In fifty-three out of seventy-nine cases the meningocele has been occipital; in six instances adult life was attained, the majority dying in early life.—Mr. T. SMITH had seen the child during life, and had never seen so extreme a case. It was remarkable that it should have lived so long. He added that the history of maternal impression was very clear, the mother stating that she had been much shocked, when viewing the body of her son, by placing her hand on the head and feeling the vacuity in the forehead left by the post-mortem.

Mr. JOHN H. MORGAN read notes of a case of Progressive Painful Inflammation of Arteries. G. W——, aged forty-six, contracted syphilis at eighteen, has since married, and has several healthy children. He is the subject of a curious congenital enlargement of superficial veins of chest and abdomen. Nine years ago he was a patient at Guy's Hospital under Dr. Wilks, who has described his case. In 1876 he suffered pain in the left armpit, which passed down to bend of elbow, and then left him. In 1877 he came under Mr. Morgan's care, suffering from pain in the left arm, for which there seemed no evident cause. There was no swelling, and he soon recovered from this attack. In 1880 an attack of sudden and severe pain in right groin, deep seated, and made intense when the part was pressed. The area of pain was confined to two to three inches in the course of the femoral artery, and to one to two inches on either side of it. This pain gradually travelled down in the course of the artery to the popliteal space, being traceable throughout, and being more severe at the part corresponding with the opening in the adductor magnus. In course of time the pain passed into the leg, and here some limited œdema was seen at the seat of pain, but not beyond. Similar pain came suddenly in the right axilla, and passed gradually down in the course of the brachial artery into the forearm, and here again a limited œdema occurred. He was treated with iodide of potassium, alkalies, and biniodide of mercury at various times, and in varying quantities, but without material effect upon the disease. Subsequently the right carotid artery was affected in a similar way. The symptoms pointed evidently to disease of an artery, probably inflammation of the fibrous coat; since the pain passed from the centre to the periphery, was in the course of the various arteries and was made intense directly the finger perceived the pulsation of the artery beneath it. Mr. Morgan had not been able to find any record of observation of symptoms. The patient is now in good health and has had no recurrence of the symptoms. He was shown to the Society.—Mr. HEATH said it was interesting that the arteries should have been inflamed and yet not blocked. He suggested that the patient had a tendency (possibly congenital) to disease of the bloodvessels; and asked whether there was any history of gout, in which disease there is a form of inflammation around arteries.—Mr. MCHARDY said that Dr. Buzzard and himself had examined the patient's retina, and had found the arteries to be only about one-third the size of the veins. The veins were not tortuous or distended, so that the arterial circulation seemed deficient. The arterial coats were not appreciably thickened.—Dr. TAYLOR asked whether any sphygmographic tracings had been taken. It would be interesting to know what influence an inflamed artery had on the pulse-trace.—Mr. HAWARD said the history of syphilis afforded the most natural explanation of the arterial condition; and the intermittency of the affection was rather in favour than against the theory of syphilis. He asked Mr. Heath whether arteritis was common, and if so whether clotting was a usual symptom of it. He had never met with it clinically.—Mr. HEATH agreed that arteritis was not a common thing clinically, but it had been laid down that in arteritis obstruction takes place.—Mr. HAWARD had never seen, in a large number of post-mortem examinations, any instance of clotting in an artery, but had met with arteries which showed old evidences of inflammation in thickening and opacity of the walls, and diminution of lumen. But of course he had seen inflammation in an artery set up by an embolus.—Mr. T. SMITH asked at what period of the case was the diagnosis made. He had never seen a case of primary arteritis during life. Mr. Savory had recorded a case of extreme diminution in the calibre of the carotid and other large arteries without clotting.—Mr. RUSHTON PARKER had very little doubt that in some instances arteritis led to plugging from blood-clot. Mr. Lister had recorded a case in the *Edinburgh Medical Journal* of gangrene of the leg in a child following measles. But acute arteritis seldom occurs except from traumatism. Ligature produces arteritis whether the coats be divided or not, and plugging results. He had seen cases where a rope pressing on the brachial artery had caused plugging, and another of severe injury with rupture of the brachial plexus and plugging of the subclavian.—Mr. MORGAN, in reply, said there was no history of gout. At no time was there any indication of plugging or impeded blood-flow in the affected arteries. Unfortunately no sphygmographic tracings were taken. The symptoms, and especially the extreme tenderness over the arteries themselves, were not those of neuritis. The diagnosis was made when one artery after another became affected.

Mr. T. SMITH showed a case of Nævoid Enlargement of one limb and the same side of the body. He had seen two other cases—one which he recorded in St. Bartholomew's Hospital Reports, of nævoid elephantiasis of one leg, with large venous sinuses about the nates, the main vein passing through the sciatic notch. The leg was bandaged and its size much reduced, but it became very painful, and the child died. The cellular tissue and skin of the limb were found to be much hypertrophied, and an abnormal system of veins passed up the back of the limb, emptying in the pelvis. The iliac veins were very large. The other case, a young lady of fourteen or fifteen, was less marked, and was treated by a tightly fitting elastic stocking. She is now twenty-six years of age. The present case, a boy, presents a similar condition of the right lower limb, and some nævoid stains about the chest. The leg was bandaged for a week, but it caused pain and tenderness and general failure of the health, so that the bandage (which proved so disastrous in the first case) had been left off, and it was intended to substitute an elastic stocking. Mr. Smith attributed the ill effects of the bandage to the disturbance produced on the general circulation by its pressure.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Recovery from Optic Neuritis.—Congenital Anomaly in Yellow-spot Region.—Blood-clot behind Iris.—Colour-blindness.

A SPECIAL meeting was held on the 7th inst., W. Bowman, Esq., F.R.S., President, in the chair, the main business being the presentation of a report of a committee upon colour-blindness, which was read by Dr. Brailey. At the close of the meeting a demonstration on the subject was given.

Dr. HUGHLINGS JACKSON showed a case ten years after recovery from Optic Neuritis. The patient came under care ten years ago for cerebral disease, seizures beginning in the right cheek, followed by right hemiplegia and temporary aphasia, and neuritis. The disease was due to syphilis, and under iodide of potassium recovery took place. The patient now complains of some numbness in two fingers of the left hand. His optic discs appear normal; one could not say from examining them that there had been neuritis. Vision too is normal.

Mr. WAREN TAY showed an infant, aged twelve months, who was brought to the London Hospital for weakness of its back and limbs. Suspecting some cerebral affection (congenital) the optic discs were examined with the ophthalmoscope. They were found to be healthy, but on the yellow-spot region of each eye was a conspicuous white patch of considerable size, with a brownish-red fairly circular spot in the centre. The conditions somewhat resembled those met with in the yellow-spot region in cases of embolism of the central artery. The changes are probably situated in the retina, and are possibly congenital. There were no signs of syphilis whatever; a sketch of the fundus of each eye was exhibited.—Mr. BRUDENELL CARTER suggested that the appearance was due to some opacity of the connective tissue around the fovea centralis, leaving a space through which the choroid was visible.—Mr. TAY said the yellow spot itself certainly seemed to be healthy. The condition had not altered during the six weeks it had been under observation.

The PRESIDENT showed for Mr. Power a case of Hæmorrhagic Clot behind the Iris, the clot having remained unaltered for some months. The humours were clear, but there was a dull reflex from the fundus suggestive of deeper effusion. Mr. Bowman remarked that blood-clots in the eye often remained unchanged for many months—e.g., in diabetes. In this case the iris looks normal. The eye is very nearly blind.

The Report on Colour-blindness was then presented for a Committee of the Society by its Secretary, Dr. W. A. BRAILEY. By the aid of sixteen colleagues 18,088 persons have been examined, of whom 1657 were females. The average percentage of colour defects among these latter was ·4, that of the males being 4·76, the pronounced cases only among males being 3·5 per cent. Certain classes of persons show an exceptionally high percentage of colour defects. The most striking in this respect are deaf-mutes, among whom every fifth child is defective. The average is also higher than normal among members of the Society of Friends, especially among those belonging to the poorer classes. It is distinctly high among Jews, and the forms of colour-blindness occurring among these are very pronounced. There is also observed a diminution in the percentage of colour-blindness as we ascend in the social and educational scale. For example, at Eton (769 boys) the percentage of pronounced cases, which are the most reliable for purposes of comparison, is 2·46. Among medical students and sons of medical men (435 persons) it is 2·5. In middle-class London schools (2671 boys) it is 3·48. In the Metropolitan police (4932 men) it is 3·52. Among poorer schools in London (1729 boys), 3·87. There appears to be no excess of colour defects among lunatics, or in town, as distinguished from rural populations. They are perhaps greater in Ireland than in England. All the pronounced cases reported (red and green blinds), not only make mistakes in the matching of coloured wools, but are unable to distinguish the colours of red and green lights; though sometimes, when they are contrasted side by side or in rapid succession, they are enabled to guess them by the fact that with equal illumination one appears to them always brighter than the other; but if their brightness and distance be unknown they are utterly unable to distinguish between them. Certain remarks were added by Dr. Brailey as to (1) the causation of colour defects, and (2) as to the mode in which the red- and green- blind see these colours. He attributes colour defects in some cases to a congenital physical defect, either in eye or brain, occurring as an accidental variation from the normal structure. When once existing it is capable of being transmitted to descendants. In other cases he thinks that they may arise, more especially the slight forms, from defective education in colours in infancy. This might account for the superiority of the female sex in respect to colours. Though brought up in very early life under the same circumstances as males their different tastes lead them to a greater study of colours, which will be facilitated by their more rapid mental development, especially in the observing faculties. It would also account for the high percentage exhibited by the deaf and dumb, and to some extent for that of members of the Society of Friends. It would also be compatible with a greater prevalence of colour defects among the poor. The third factor, which is by no means an unimportant one, is intermarriage. He is strongly of opinion that among Jews, and to a less degree among Friends, intermarriage during generations has strengthened the defects existing among them not only in number but in degree. In connexion with this it is important to notice that red-blindness, which he considers a more aggravated form than green-blindness, is especially prevalent among Jews, and, to some extent, among Friends also. He suspects an unduly high average of colour defects among the children of those working in colours, such as artists, dyers, &c., though he has as yet not collected sufficient evidence to establish the position on a statistical basis. With regard to the question as to what those blind to red and green see in place of these colours, he thinks that they appear to them as shades of grey, either pure or mixed, with a little of yellow. The completely green-blind probably sees pure *green* as a pure grey of the same shade. *Red* he sees as a dull yellow-brown, of a shade similar or slightly darker than the red is to a normal eye. Therefore he will more commonly match green with grey and red with yellow-browns, or with a green that is slightly yellowish. The completely red-blind sees *green* as a grey tinged with a little yellow, but of similar shade. He sees *red* as a very dull yellow-brown of much darker shade than the red is to a normal person. Therefore he will match red with a much darker yellow-brown, or with a much darker slightly yellowish-green. He will match green with grey less often than the green-blind. He thinks that in red and green blindness there is also a slightly defective appreciation of all colours, so that all pale shades are liable to be confused, especially at a distance, or by artificial or deficient light.—Mr. FROST mentioned a fact bearing on the hereditary transmission of colour-blindness. The father, a draper, was so colour-blind as to be obliged to mark the colour of all his goods. Of his seven sons, six were known to be colour-blind; but none of his three daughters were; one of them, however, has a son who is completely red-blind; and being a jeweller is unable to distinguish between rubies and emeralds.—The PRESIDENT was not previously aware of the prevalence of colour-blindness in the Society of Friends. Dalton was a Friend and he mentions a brother of his who was also colour-blind. It was also interesting that among this society both sexes seemed equally prone to the defect. The influence of education had been also seen in reports in other countries. As the object of this inquiry was to induce the Board of Trade to institute examinations of officials concerned in signalling, &c., the value of a report based on 18,000 cases was great. It was interesting to find its results agree with those obtained elsewhere, and especially with the more recent investigations; for in Norway and Denmark recent observations (made under improved experience) had not tallied with earlier ones. There appeared to be but few cases in which only one eye was colour-blind. We are still only at the opening of the inquiry upon the nature of colour-blindness.—Mr. BRUDENELL CARTER thought that all cases of monocular colour-blindness would escape notice under the present plan of examination. When one considers that anisometropia is not uncommon it seems likely that many cases, especially those which are hereditary, may be met with. He expressed the great debt which the Society and the public owed Dr. Brailey and his coadjutors for this arduous investigation; of its importance there could be no question when one considered that one railway company (the London and North Western) alone employs about one thousand engine drivers, of whom forty-five must be colour-blind. This would illustrate the great perils incurred, and suggested that many accidents may be due to this hitherto unknown and unappreciated cause. It was most important, then, to get legislative recognition of the subject.—Mr. M'HARDY had found that engravers were often colour-blind, and some had not taken to engraving for this very reason. He asked what was the highest percentage of colour blindness amongst any particular class of the Friends' children. On the Connecticut Railway at least one per cent. of the *employés* was found to be colour-blind; many such get discharged from work on account of mistakes attributed to carelessness, &c. He referred to the case of a collision in Norfolk Harbour, U.S., where there was cross-swearing as to the colour of the lights; when the pilot was found, three years subsequently, to be colour-blind, and incapable of distinguishing between red and green lights at an ordinary distance. He was accordingly discharged from his office, as were many other pilots, who were found to be similarly affected. In reply to Mr. Carter, he said that wood-engraving often runs in families, but sometimes one of the family is a water-colour artist.—The PRESIDENT remarked that a person with artistic aptitude, but colour-blind, would naturally devote himself to etching or engraving.—Dr. BRAILEY replied, the substance of his remarks being given above.

The Society then adjourned.

Reviews and Notices of Books.

How to Use the Forceps. By H. G. LANDIS, M.D. New York: J. B. Treat.

THIS little work is divided into two parts. The first treats of the anatomy of the pelvis and the mechanism of labour, the second of the forceps and its application. The pelvis is described as consisting of two canals partially separated at the inlet, but identical at the outlet. "These canals converge from above downwards, and are mutually curved from before backwards. Their direction is therefore somewhat spiral. The calibre of each canal is that of the fœtal head, therefore the head may descend in either canal, and will follow a spiral course in so doing." In accordance with this view of the pelvis the mechanism of labour is briefly explained as well as the principles which should guide us in the application and use of the forceps. The author recommends the use of the long forceps, but in their introduction and application regard is had to the head and not to the pelvis, for the blades should grasp the head in the biparietal diameter. The author is opposed to the employment of the so-called leverage movement to effect delivery, and employs traction only, and this he applies after a method of his own. He disapproves of the manner usually recommended in text-books of making traction. He maintains that pulling on the handles of the forceps drags the head not in the axis of the pelvis, but against the symphysis pubis. In order to avoid this, he recommends that the handles should be held by one hand, so as to grasp the head firmly, and that the other hand should be "placed so that the ball of the thumb comes over the lock, while the index-finger rests upon the upper arm of one blade, and the middle finger upon the other. Now, while the right hand holds the handles almost at rest, the fingers of the left push the blades so as to move them and the contained head downwards, backwards, and a little to the left of the median line. Secondly, while the fingers are pushing downwards in this way, we may also make use of them as a fulcrum, and by elevating the handles cause the blades to move in an opposite manner, but care must be taken that the force thus applied by the right hand is not enough to overbalance the downward pressure of the left, else we will merely extend the head without propelling it." The above will give some idea of the method of using the forceps recommended by the author. The work contains much that is original, and will repay a careful perusal.

The Natural History of Cranes. A Monograph. By the late EDWARD BLYTH, C.M.Z.S. Enlarged, with numerous Illustrations by W. B. TEGETMEIER, F.Z.S. Pp. 91. London: Horace Cox. 1881.

THIS prettily-illustrated work contains a zoological account of all the known species of cranes. It is founded on a monograph by the late Mr. E. Blyth on the Gruidæ, but great additions have been made to it by Mr. Tegetmeier, which add much to its interest. The cranes, as a whole, are a very well-defined group, and some of them exhibit intelligence of a kind that is rare amongst birds. Their name (crane—grus—*γέρανος*—sárrás—kárrunck, and the like, in different languages) is almost always onomatopœic, and indicative of the loud trumpeting sound they can emit. They are somewhat formidable animals when wounded, being able to transfix the walls of the abdomen with one stroke of their powerful and pointed bill, or to rip it open with their recurved claws. It is stated that when the bird is wounded, the best way to avoid its attacks is to present the muzzle of the gun as it approaches. It will fix its bill in the orifice, and may then be destroyed without danger. Several of the species migrate, the flock assuming a V-shaped form and flying at a great height. The members of the group are very widely distributed, being found everywhere except in South America, the Malayan and Papuan Archipelago, and the scattered islands of the Pacific. At one time they were common in the fenny counties of England. They appear to be entirely vegetable feeders. Mr. Tegetmeier observes that old Æsop's fable of the stork being captured in the evil companionship of the cranes, and being condemned to death for thus associating with notorious grain-plunderers, indicates that he knew well enough the two kinds of birds, far better, indeed, than the renowned prince of mediæval painters, who commits the zoological mistake of introducing cranes instead of storks into his world-famous cartoon of the miraculous draught of fishes. The cranes pair for life, and some, as the American white crane, propagate whilst still in the plumage of immaturity. The nest is built in swamps or lagoons, and most interesting accounts are introduced from the notes of the late Colonel Tickell of the love-making of the Grus antigone, and of Mr. Wolley upon their nesting, which he took infinite pains and trouble to inspect. The Gruidæ are divided into two groups, Balearica and Grus, the former being the crowned cranes of Africa; the latter include the Stanley or paradise crane; the damoiselle crane, a beautiful specimen of which is now, or was very recently, in the Zoological Gardens; the wattled crane; the white-naped crane, common in Japan, and represented on many of their ornaments; the Asiatic white crane, and others. Mr. Tegetmeier places in an appendix some observations he has made upon the convolutions of the trachea in birds. This tube is remarkably developed in the Gruidæ, forming convolutions which are partly lodged in a groove of the keel, or sternum, and partly occupy the space between the diverging limbs of the furculum. He is of opinion, and he supplies many facts in support of his opinion, that the elongation of the windpipe, and the resulting twisting and convolution if it is much elongated, are connected with the deepness of the note and resonant character of the voice. Several woodcuts illustrate the dissections he has made. The work will be read with interest by every zoologist and sportsman.

MR. ARTHUR FLINT, L.R.C.P., of Westgate-on-Sea, has been elected to the Board of Guardians and Sanitary Committee of the Isle of Thanet Union.

THE LANCET.

LONDON: SATURDAY, APRIL 23, 1881.

LAST week, in considering the question "Why may we not meet professed homœopaths in consultation?" we were driven to the conclusion that we cannot consult with consistent homœopaths (if for no other reason) because their notions of pathology and therapeutics are fundamentally different from and antagonistic to ours; and that we cannot consult with professed or nominal homœopaths, though they may occasionally practise according to the principles of scientific medicine, because they retain a name that, in their case, possesses no logical meaning, and is used for sectarian purposes. From this conclusion we feel convinced neither good sense nor good faith will attempt to find any way of escape. If homœopathy be not *exclusive*, as HAHNEMANN asserted it should be, it has no claim to be regarded as a special method. Homœopathy is essentially either a complete and formal system of therapeutics, or it is a mere assumption, and at the utmost a provisional hypothesis capable of limited and exceptional application. Neither the oft-quoted but equivocal assertion of HIPPOCRATES, *διὰ τὰ ὅμοια νοῦσος γίνεται, κ.τ.λ.*, "by similar things disease is produced, and by similar things administered the sick are healed of their diseases"; nor the less known dictum of PARACELSUS: "Inde sequitur simile per simile curari," affords any real support to HAHNEMANN'S notions of the nature of disease and of the selection of appropriate remedies. Even if the statements we have quoted were more precise and explicit than they are, their value would be purely historical, and in no sense or degree scientific. The allegation of PARACELSUS is only a part of his strange and erroneous doctrine of the Chemical Triad; and there are good reasons for believing that the treatise from which the support of HIPPOCRATES is drawn may not be genuine. However interesting, therefore, the testimony of these authors may be historically, it is worthless so far as it has been adduced to give warrant and authority to HAHNEMANN'S *Laws*. Of still less scientific value, in this connexion, are the conjectures of ANAXIMANDER regarding the nature of primitive matter, or ANAXAGORAS' doctrine of *ὁμοιομερῆ*, or DEMOCRITUS' theory of atoms. The truth or fallacy of homœopathy as a method of pathology and therapeutics cannot be established by appeals to the speculations of ancient philosophers or physicians. The claims of homœopathy—that is, of Hahnemannism—have been tried at the bar of scientific ctiticism, and have, in every instance and degree, been disallowed. The so-called law of similars and the law of dynamisations have been refuted by a general consensus of scientific opinion, and homœopathy has been deliberately held to have no point of contact with scientific medicine; consequently the practitioners of scientific medicine have, as a body, refrained from professional intercourse with those who practise or pretend to practise homœopathy. Physicians have, for the most part, been especially scrupulous in the observance of this rule of professional etiquette. As much cannot, however, be said for surgeons. Of late years there has been a growing laxity on the part of some surgeons in this matter. The explanation usually adduced is that whatever objections may be urged against homœopathy as a system of therapeutics, so far as it relates to diseases falling within the physician's domain, these objections cannot apply to surgical affections that require operative aid. This explanation is plausible at first sight, and might suffice if surgeons of the present day stood at the same low level as their predecessors six hundred years ago; but it is specious and not altogether honest now. In the thirteenth century surgical operations were generally performed by persons so ignorant of anatomy and medicine, that GUY of CHAULIAC stigmatised them as mere *mechanics*. Before WILLIAM SALICETTI, by his two works, "Chirurgia Magna" and "Chirurgia Parva," lifted surgery out of the low depths into which it had been sunk by the priests and monks, all who performed surgical operations, whether men or women, were compelled to undertake to limit their labour to *handiwork*, and not to give advice or administer any internal remedy without the permission of a physician. We have now changed all that. As no surgeon is now content to be looked upon as an artisan, it is difficult to understand how anyone claiming rank as a skilled and educated surgeon can agree to consult with a homœopath. To do so almost implies that he is willing to enter upon a similar undertaking to that demanded six centuries ago. The practice of surgery is no longer confined to the performance of the operation, but includes all the difficult and complicated details of the after-treatment. In the management of this much strictly medical knowledge and skill are often required. Indeed, the success of modern surgical practice as compared with that of former times lies, mainly, in the care and attention given to many matters previously deemed to be outside the sphere of practical surgery. Unless a surgeon, therefore, is prepared in the presence of such complications of operations as pyrexia, pneumonia, bronchitis, and pyæmia to stand aside and see his patient treated according to views of his homœopathic colleague, and perhaps sacrificed thereto, he must, quite as much as the physician, refuse to act in conjunction with a professor of homœopathy. The late Sir BENJAMIN BRODIE in a letter published in *Fraser's Magazine* in September, 1861, said, "To join with homœopathists in attendance on cases of either medical or surgical disease would be neither wise nor honest. The object of a medical consultation is the good of the patient; and we cannot suppose that any such result can arise from the interchange of opinions where the views entertained, or professed to be entertained, by one of the parties as to the nature and treatment of disease are wholly unintelligible to the other." In this just opinion all thoughtful persons must acquiesce.

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THE Metropolitan Medical Association is in a state of considerable activity. And when an association composed of very energetic men is in a state of activity, something of importance may be expected to result. We have only to mention the principal names representing this Association—The Right Hon. JAMES STANSFELD (Chairman), Sir CHARLES TREVELYAN, Sir RUTHERFORD ALCOCK, Sir SYDNEY WATERLOW, Sir FOWELL BUXTON, and Mr.

SAMUEL MORLEY—to assure our readers that there are life and purpose in this movement. A few weeks ago we noticed a meeting at Croydon in furtherance of the objects of the Association. Now, another is announced, the treasurer, Mr. HAMILTON HOARE, being in the chair. Mr. HOARE said the object of the Association was to benefit the working classes—(1) by lessening the expenses of sickness; (2) by obviating the necessity for doctor's bills; (3) by providing them with the best kind of medical advice and medicine which it was possible to get; and (4) by saving them entirely from the miseries and evils which had to be experienced when, for want of a better system, medical aid and medicine had to be sought for at the out-patient department of a London general hospital.

It is certainly most desirable that the working classes should be encouraged to take much more thought than they do about provision against the day of sickness and accident. Much of the disease that accrues to families is not accidental. It may be reckoned on; it should be anticipated. The sicknesses of children—measles, whooping-cough, scarlet fever, and, in negligent families, small-pox; diarrhœa, and the diseases of the period of teething and of growth; colds and the diseases of winter—to say nothing of constitutional ailments and weaknesses,—constitute half the care, and lead to half the work, of an intelligent medical man. A rich man can command the best advice in any emergency. He can go to a warm climate, or take a sea voyage. He has a number of resources for curtailing and curing disease; but when disease overtakes a working man, or his wife or child, he has to rely on a neighbouring doctor and on his good medicines. The object of the Metropolitan Medical Association is to intensify in the working man the sense of responsibility for meeting the incidence of sickness and to help him to make good arrangements beforehand. We do not wish to say anything in discouragement of such a movement. The almost universal distribution of medical clubs and provident dispensaries makes it now most easy for any thoughtful working man to secure good medical attendance for himself and family in any emergency. Far better arrangements still could be made if working men would take the matter into their own hands and come to personal terms with a medical man in their own immediate neighbourhood. Nobody knows better than such working men that good doctors and good drugs should be paid for; that the "workman is worthy of his hire"; that medical wisdom and dear medicines are not to be got in the first "shop" for sixpence. Many of the so-called provident dispensaries even are very far from perfect in their provision for retaining the best doctors. Some of them go on the principle of selecting a stranger, generally a young man, at a low salary, and exacting from him an unconscionable amount of work. A correspondent, whose letter we insert to-day, disappoints us by his account of the medical arrangements of the Provident Dispensary system in Manchester. A single doctor is appointed; his name and private address are advertised, and patients of other doctors are canvassed and pressed to join the dispensary. What is the good of such work as this? What is the benefit of asking a respectable working man, paying his bill creditably to an adviser of his own choosing, to leave his trusted doctor to pay a small and inadequate subscription to a dispensary system he does not need? Further, we have before had to complain of the tendency in these large movements to offend and injure medical men by admitting well-to-do people to the benefit of arrangements which are only allowable in the case of persons of very limited means. We should like some assurance that these grave faults are to be avoided in the metropolitan scheme, which seems to us a little too paternal and patronising towards the working man. If men like Sir SYDNEY WATERLOW and Sir RUTHERFORD ALCOCK, both prominently and honourably associated with the London hospital system and with this Provident movement, would use their influence fully, it should be quite possible to have an Out-patient Department to which a respectable working man could repair on suitable occasions with as little loss of self-respect as to the In-patient Department. We cannot see why it should necessarily be associated with "great miseries and evils" other than those incident to the very existence of sickness and poverty.

THE discussion on desquamation after scarlet fever, which has lately occupied a portion of our columns, will repay attention. As part of the larger question of the diagnosis of scarlet fever, it is of great interest. There is hardly any disease in regard to which diagnosis is at once so difficult and important as scarlet fever. All authors agree in saying that almost every prominent symptom of it may be wanting. All the symptoms of the earlier stages may either be absent or may be overlooked—sickness, sore-throat, and rash. And even the temperature, judged by one or two observations, may be below 100°. All authorities describe, and all practitioners are familiar with, cases in which no suspicion of the disease exists until the occurrence of desquamation, in circumstances which leave no doubt that it is only a part of scarlet fever. But surely desquamation itself is also a most variable process, and, as our correspondent "Vigilans" observes, is so variable as to excuse a good deal of the variety of opinion on it, which undoubtedly exists. It may be almost entirely absent, it may occur out of proportion to the amount of rash, it may be long delayed, or it may extend over a very variable period. The recent correspondence was based on the case of a boy at a large public school near London, whose scarlet fever was detected only by close observation, the amount of rash being small, and the whole attack unusually light. The medical officer of the school gave his sanction for the boy returning home three weeks after the attack, who never had any sign of desquamation. The father having other children at home during the Christmas holidays who had not had scarlatina, naturally felt afraid, and wisely (we presume with due precautions for the boy and others) removed him to an infirmary specially intended for such cases. Between two and three weeks later, and six weeks from the commencement of the attack, when the boy should have returned to school, he was found by a practitioner to be peeling. The medical man of the school considered the peeling to be unconnected with the attack which he had at school, and to be due to eczema. The father of the boy associated it with the attack that had been so well diagnosed at school, and saw in it a justification of his caution in not allowing his son to return home. The majority of authorities will be disposed to agree with Dr.

DAVID PAGE, that patients recovering from scarlet fever may have their desquamation much deferred, and that certainly they are not desirable as members of society for at least eight weeks. This is very hard, especially in cases where the disease is slight, where there is no sense of illness and but slight or no appearance of desquamation, but it is sound doctrine. The precautions may be excessive, but the case is one for great caution. Still it must be admitted that even among authorities there has been a variety—not to say looseness—of teaching which goes far to explain, especially in connexion with the acknowledged variations in the process, the view taken by the medical officer of the school. Let us notice only a few that are at hand. TROUSSEAU says, "Desquamation in scarlatina is not very well understood by the majority of physicians." He instances a case in which, though at the seventy-second day, it was still going on. TROUSSEAU would have been apt to regard even HEBRA as unsound, for HEBRA speaks of desquamation as ending at the "end of the third week." Dr. J. LEWIS SMITH, a very good observer, of New York, speaks of desquamation as succeeding the disappearance of the eruption and occupying "several days." Mr. MALCOLM MORRIS says it begins in the latter part of the second week, but may commence as the rash fades, or not until the end of the sixth week. Dr. BRISTOWE says the period of desquamation is of various duration. "It is sometimes completed in one or two days, not unfrequently extends over a week or two, and occasionally is prolonged for several weeks." Whether difference of opinion is sound excuse for difference in practice, the variety in the process itself and the occasional instances in which it is deferred indicate the safety of a rule of exclusion of at least six weeks, and if possible of eight. Parents and patients will often rebel against this hard doctrine, but, considering the gravity of the disease, it is a safe one for medical men to hold. Our correspondent of to-day, "Vigilans," reminds us that all desquamation is not scarlatinous. He describes one case in which it seemed to result from the administration of turpentine for hæmaturia. This suggestion is one to be remembered, when sanitary law and professional duty in connexion with desquamation are often both delicate and difficult.

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THE office of Coroner for the Central Division of Middlesex being again vacant, it becomes necessary to call upon our professional brethren to use all their influence in support of a medical coroner. The late Mr. WAKLEY, counted it among the triumphs of his energy to have secured this office for the profession, and to have been the first medical coroner. Dr. LANKESTER was a worthy successor, and Dr. HARDWICKE has justified the trust reposed in him. On this occasion, perhaps the last when the appeal will lie to the freeholders of the district, there is, we believe, to be a very determined attempt to recover the post as a prize for the legal profession, which has already more than its share of positions commanding both emolument and prestige. This consideration alone should induce members of the medical profession to enter into the contest with unwonted alacrity and earnestness. There are, however, better and higher reasons for urging instant action in the matter. Abundant indications have recently been apparent tending to show that the rights and interests of the profession, as medical witnesses and practical inquirers for "the cause of death," are about to be invaded. Elsewhere we draw attention to a question relating to fees for post-mortem examination in cases where the medical evidence given privately to the coroner obviates the necessity for an inquest. Under the plea that the medical man is not required to go into court, and that his report is communicated in writing, the fee for his opinion is to be reduced by fifty per cent., and rewarded by half-a-guinea instead of a guinea! This paltry economy is not unnaturally regarded as an insult by the medical practitioners of Kent. If the recognition won for the profession in Middlesex by the late Mr. WAKLEY, to whose endeavours the remuneration of medical witnesses was due, is now sacrificed, the effect on the question of fees in general cannot fail to be most disastrous. Medical and scientific knowledge is an undoubted advantage, if not a positive necessity, to a coroner. It saves the ratepayers' money, and prevents many miscarriages of justice. We will not say more on the subject of the election at the present moment, but no time should be lost by the medical practitioners of Central Middlesex in exerting their influence to secure the return of a member of their own cloth.

Annotations.

"Ne quid nimis."

THE LATE EARL OF BEACONSFIELD.

THE protracted illness of Lord Beaconsfield has terminated fatally. The age of the noble lord rendered this issue probable from the outset; and although desiring to welcome and cherish any hope which could be suggested, we have not been able to disguise the circumstance that throughout the conditions have been unfavourable to recovery. Those who closely watched the health of the deceased gentleman, during the last fifteen years particularly, cannot fail to have noticed the struggle which has been maintained by the mind against, and, to some extent, at the expense of, the body.

While Mr. Disraeli sat in the House of Commons his life was an almost continuous effort. His imperturbable bearing, his habit of emotional self-restraint, his almost uniformly placid style of delivery—artistically, and always as the result of purpose, never involuntarily, varied by lighter and brighter passages of elocution,—were the fruits of effort. The statuesque posture, the motionless face, the abstracted or seemingly indifferent manner, which the superficial observer mistook for indications of a constitutional lack of sensibility, were, in truth, tokens of the intensity of the emotional nature they disguised. Lord Beaconsfield was a man of profoundly deep feeling and a highly sensitive temperament, but, with an indomitable will habituated to self-control, the customary expressions of such feeling as he possessed were interdicted. For example, in place of movements of the ordinary excito-motor type, the noble lord's physical habit was, in the later-middle period and towards the end of his career in the Commons, characterised by slight and seemingly automatic, but really conscious, acts of the slightest kind often repeated. It was very curious and exceedingly interesting to study these movements from the psychological standpoint. Under ordinary circumstances Mr. Disraeli would sit for long stretches of time during the violent or terribly irritating attack of a political opponent, with nearly closed eyes, as though asleep.

When the onslaught waxed furious he would, as though with all-engrossing intent, fix his gaze at the toes of his boots, moving them slowly so as to bring all points under observation. If the taunts or reproaches hurled at him were of so grievous a nature as to make any other man furious, he would straighten himself and brush some particle of dust from the front of his buttoned frock-coat, or from the sleeve of his left arm. Then he would examine his nails, and as a climax, when few statesmen so assailed could avoid some token of emotional restlessness, he would, perhaps, take out his single eyeglass, and, fixing it firmly, look for an instant at the clock in the front of the gallery opposite Mr. Speaker, dropping the glass with one quick elevation of the eyebrow. This last-mentioned trick being the only part of a series of actions which, though familiar to his observer, was never a mere matter of habit. Probably, and it is worth noting in reference to the recent incident of his approaching the Ministerial bench in the House of Lords after the division at the close of the Candahar debate, the noble lord was less a man of *habit* in the true sense of that term—i.e., as implying the relegation of large classes of actions to the subconsciousness to be performed automatically—than the average brain-worker. The fact is interesting as throwing light on the type of his physico-mental constitution, and as illustrating the character of the strain which the life and enterprise of the deceased statesman imposed on his mind-power.

The long illness of the Viscountess Beaconsfield caused Mr. Disraeli an intensity of mental suffering which perhaps few, if any, of his most intimate friends adequately appreciated. He was not a man who wore his heart—and it was truly a great heart—on his sleeve, or found relief in the semblance of sorrow. The embarrassing political circumstances under which Mr. Disraeli first succeeded to the Premiership of the late Earl of Derby almost exhausted his powers. During the debates which preceded the Disestablishment of the Irish Church, he went through an amount of mental toil severely trying a constitutionally weak muscular system, a fact which was not sufficiently recognised. Probably few statesmen have suffered more, or surmounted greater physical obstacles, than Mr. Disraeli suffered and surmounted on the day preceding and during the night of the delivery of his great speech on Mr. Gladstone's famous Resolutions immediately before the Derby-Disraeli administration resigned. Then came a period of less strain, in which those who closely and anxiously watched the right hon. gentleman were rejoiced to observe a marked and progressive improvement in his general state with indications of a new storing of mental and nervous strength. Probably Mr. Disraeli was to all practical intents as well as he had been, for a decade at least, when he took office as Prime Minister in 1873. The cares and toil of a purely Ministerial life he might long have endured without any serious loss of strength, but the physical exhaustion consequent on long sittings in the Commons told heavily against him, and it would have been better had he been able to bring himself to accept the relief likely to be afforded by removal to the House of Peers the second time Her Majesty graciously pressed the proposal upon him. On the first occasion, as is well known, Mr. Disraeli, ever the most devoted and delicately affectionate of husbands, obtained leave to place the coronet on his wife's brow which had been intended for his own. It was, practically, too late when Mr. Disraeli became Earl of Beaconsfield to prolong a valued life by the means adopted. Speaking now freely, we believe the deceased statesman would have lived longer if he had *not* thus late retired to a scene of comparative quiet, upon which he ought, in the interests of his health, to have entered when the Queen urged him to do so some years before! As it was, Lord Beaconsfield was deprived of his accustomed mental stimulus at the precise moment when he most needed it; and although his immediate personal feelings were those of relief, the physical ease was purchased at too great a price.

From the outset of the last illness the case was, in our judgment, hopeless, unless the higher cerebral centres of the nervous system came to the relief of the lower. The bronchitis was not a "complication," but an integral part of the gouty affection. It was, in the history of the noble lord's life, one of the earliest indications of the gouty diathesis, the next in order of time being slight gastric and intestinal irritation. It must ever be a source of regret that Lord Rowton, who alone had stood in close personal relations with the deceased gentleman during many recent and trying years of his life, was unavoidably absent during the first and only hopeful stage of his illness. It is also, we think, unfortunate that Lord Rowton did not see the noble lord until four days after his return, whatever may have been the fact as to Lord Beaconsfield's own wishes in the matter! It is, again, we think, to be regretted that Her Majesty's graciously expressed desire to visit the noble lord was not carried into effect. We must be excused for giving expression to these regrets—they are essential to the professional view we take of the illness. In the end, death occurred, as it must have been expected to occur, after a temporary revival of the failing powers of vitality such as is usually manifested in cases of the class—in the closing days of a life lived, mainly, by mental energy or mind-force. The apparent improvement which took place towards the end of last week, and which was attributed to "the weather," and seems to have excited false hopes, should scarcely have proved misleading.

Profound regret fills every mind, wholly irrespective of the political view which may be taken of Lord Beaconsfield's life and worth as a statesman. He died full of years and honours, but his departure will leave a vacant place in the Legislature, in society, and in the country, which cannot soon be filled.

FEES FOR POST-MORTEM EXAMINATIONS.

ATTENTION has been publicly called to the remuneration awarded to the medical man who conducts a post-mortem examination on a coroner's order. At present the fee stands at two guineas, of which one moiety is supposed to be a sufficient fee for the examination itself, and the other for the report or evidence supplied upon that examination. It cannot be questioned that this is far from being adequate. The careful conduct of a post-mortem examination itself requires the devotion of a large amount of time, and the application of much special knowledge, and it is surprising that no attempt should have been made to fix the remuneration for such highly important service to the State at a much higher rate. We are even more surprised to hear of the resolution passed at the Kent General Sessions to reduce the fee by one-fourth in such cases where a report only is required, and no evidence in the coroner's court called for. On narrow technical grounds, and in a spirit of false economy, such a resolution might perhaps be justified; but it has been overlooked that the labour to the medical man is just as great; his expenditure of time almost as much, whether he simply furnishes a report or gives his evidence orally, whilst the written report obviates the necessity of unnecessarily multiplying inquests, and is thus a saving of much expense. Accordingly the action taken by the medical practitioners of the Greenwich district in refusing to submit to the new resolutions is one which will be appreciated by the profession throughout the country. It is only by such action that they can bring home to the authorities the fact that the number of inquests is controlled by the reports furnished by the medical men, and it will, it may be hoped, lead eventually to a rescinding of the obnoxious resolution. Unfortunately at present this does not seem to be the opinion of the magistrates of the district, for they have ordered that in twelve cases where inquests might have been avoided had a report been sent in, a sum of 10*s.* 6*d.* be deducted from the coroner's bill in each case—a proceeding which is certainly not calculated to get over the difficulty! A good effect will be produced by the business if it lead to the whole question of remuneration for post-mortem examinations in medico-legal inquiries being reconsidered, and coroner's law being revised in a manner which shall recognise more liberally and justly the extreme importance of the part taken by the medical man in these grave and difficult matters.

THE SALIVARY GLANDS IN RABIES.

THE condition of the salivary glands in rabies both in the dog and in man has been investigated by Dr. A. Elsenberg of Warsaw. Singularly few observations on the point are on record, in spite of the significant fact that the saliva is the chief vehicle of the infection. Nepveu found in one case a considerable small-celled infiltration of the interstitial tissue of the gland. A similar alteration was also found by Coats, who also described as a characteristic feature the accumulation of small round cells in the neighbourhood of the veins. Elsenberg, who seems to be ignorant of the investigations of Coats, has examined the salivary glands from twelve dogs and two men affected with the disease. The results have been published in the *Centralblatt für Med. Wissenschaften.* In the dog the most striking changes were found in the sublingual and submaxillary glands. The former were slightly enlarged, greyish-red in colour, with a smooth section, presenting here and there an indistinct appearance of acini. Microscopically the interstitial tissue was infiltrated by small round cells, with one or several nuclei, apparently identical with pale blood-corpuscles. The infiltration was greatest around the ducts and around the medium-sized veins in the hilus of each acinus, and gradually lessened towards the periphery, while in the hilus of the gland itself it was entirely absent. In many places the infiltration was so extensive as to resemble a point of suppuration. In the interacinal tissue the infiltration was far slighter. The "fixed cells" of the interstitial tissue were slightly enlarged, but showed no indication of multiplication. The bloodvessels, especially the small veins and capillaries, were much dilated, and the distending blood contained a large proportion of white corpuscles, which were in part diffused among the red corpuscles and in part were aggregated against the side of the vessel. The epithelium of the alveoli was unaltered, the secreting cells contained a granular mucoid substance, while the nuclei were enlarged. The peculiar crescentic cells were enlarged to such an extent as to occupy two-thirds of the lumen of the alveoli, and their nuclei were increased in number to two or three times the normal. Besides these alterations, the glandular alveoli contained an inconsiderable number of small round cells like the leucocytes which thronged the interstitial tissue. Very similar changes were found in the medium-sized ducts. Small round cells, passing through the wall, had raised the epithelium, separated individual cells, and penetrated into the lumen of the duct. A similar infiltration of small round cells was observed around and even within the nerve ganglia. Changes similar in character, but slighter in degree, were found also in the sublingual gland. The orbital glands of the dog belong to the same category of glands, but were in each case very little changed. In the three salivary glands the changes above described were always to be found in greater or less degree. The parotid gland, however, showed only slight changes in four of the dogs. The small celled infiltration of the interstitial tissue was considerable. The glandular cells were a little enlarged, somewhat granular, and contained two or more nuclei. In man the parotid gland was always found healthy. The changes in the submaxillary gland were always slight, being confined to a small celled infiltration of the tissue around the ducts and middle-sized veins. The most intense changes were found in the sublingual gland, and were exactly similar to those described in the dog, although less intense in degree. These changes point to the pathological process, which we call inflammation, to be ascribed to an infectious material circulating in the blood, and excreted by the salivary glands. Although the submaxillary and sublingual glands present such intense changes, the mucous glands at the base of the tongue are seldom altered, and hence it is conjectured the specific infectious material is to be found in the saliva alone. The salivary glands rarely present changes in other diseases, and no alterations have ever been found in the dog in any other disease than rabies. Hence their presence in any given case would constitute very important corroborative evidence that the disease from which the animal died was really rabies. The only possible fallacy would arise from the circumstance that certain alkaloids—nicotin, pilocarpin, and muscarin—cause changes which are somewhat similar, but they are so trifling in degree that little error is likely to arise from this source. But in man the changes in the glands are far too slight to be of diagnostic importance, and seem to be met with in other infectious diseases.

SENIOR WRANGLERS AT CAMBRIDGE AND MEDICINE.

IN our last issue we announced that Mr. Donald M'Alister, the senior wrangler at Cambridge in 1877, had been admitted to the degree of M.B. It is just one hundred years since that the two sons of Dr. James Ainslie, a distinguished physician at Kendal, graduated as senior and second wranglers in the Mathematical Tripos of 1781. The younger son, Henry, was senior. He afterwards graduated in medicine, became a Fellow of Pembroke College, and, commencing the practice of his profession in Cambridge, was elected physician to Addenbrooke's Hospital. He subsequently settled in London and became one of the physicians to St. Thomas's Hospital. The elder son, Montague Farrer Ainslie, was bracketed second wrangler with Law, afterwards Lord Bishop of Bath and Wells. In 1815, the year in which Sir Thomas Watson graduated as tenth wrangler, a son of the senior wrangler of 1781 obtained the eighth place, and was afterwards for forty-two years Master of the college of which his father had been a Fellow. Bickersteth, the first Lord Langdale, who was senior wrangler in 1808, relinquished the study of medicine for the more lucrative and ambitious pursuit of law. These, as far as we are aware, are the only senior wranglers who have devoted themselves to medical studies.

WESTMINSTER HOSPITAL.

SEVERAL changes have been recently made in the staff at Westminster Hospital and School. Dr. Murrell has been appointed lecturer on Materia Medica and Therapeutics in place of Dr. Phillips, who has never sufficiently recovered from his railway accident to enable him to resume his duties at the hospital. Dr. Murrell's appointment creates a vacancy in the chair of Practical Physiology. Dr. Leslie Ogilvie has been appointed lecturer on Comparative Anatomy, *vice* Dr. Carter Blake, resigned, and Dr. George Ogilvie has been appointed lecturer on Experimental Physics in succession to the late Mr. Charles Brooke.

STATISTICS OF COLOUR-BLINDNESS.

The Report of the Committee appointed by the Ophthalmological Society to collect statistics of cases of colour-blindness presents many features of special interest. The secretary of the Committee, Dr. Brailey, with the assistance of sixteen colleagues, has examined 18,088 persons of all classes, of whom 1657 were females. It is at once curious and suggestive to find that while the average percentage of colour defects among men is 4·76, and 3·5 for very pronounced defects, it falls in women to the low figure of 0·4. This, if true, would seem to suggest a new sphere of labour for women. If women are comparatively free from colour-blindness, they are so far specially indicated for many of the less laborious occupations in which good colour-perception is desirable or absolutely indispensable. It is satisfactory to find that these last statistics confirm, in the main, those collected by the late Dr. George Wilson of Edinburgh nearly thirty years ago. This is especially noticeable as regards the comparative frequency of colour defects among members of the Society of Friends, particularly among the poorer section of them. Though the members of the Ophthalmological Society seem either not to have known the fact or to have forgotten it, Dr. Wilson found a considerable number of cases of colour-blindness among the members of the Society of Friends, and he was of opinion that this was not an accidental circumstance. He further believed that the largest proportion of cases of colour-blindness would on extended examination be found among the less accomplished male Friends in the larger cities. The other matters dealt with in the report prepared by Dr. Brailey will be found in another column.

THE CHAIR OF PATHOLOGY IN EDINBURGH.

The appointment, by a unanimous vote of the curators, of Dr. Wm. Smith Greenfield to the Chair of Pathology in the University of Edinburgh is a most creditable and auspicious event. We do not know whether it is more creditable to the University or to Dr. Greenfield. When an institution has reached that pitch of fame and prosperity now attained by the Edinburgh University it is apt to think that it may act partially and indifferently—that an important chair may be given away to a worthy graduate without respect to the abstract claims of candidates. It was well known that in this contest more than one graduate of the Edinburgh University was in the field who may reasonably hope ere long to find himself in the professoriate of this ancient and yet ever-young institution. But the curators seem to have regarded only the supreme question—Who is the fittest candidate for a Chair of Pathology? and to have acted accordingly. We congratulate them on the result.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

On Monday last a deputation from the Irish Medical Association waited on the Chief Secretary for Ireland for the purpose of endeavouring to obtain a promise from the Government to introduce a Bill into Parliament for the compulsory superannuation of Poor-law medical officers in Ireland. The deputation was introduced by Mr. C. H. Meldon, M.P., and explained that they wished an Act to be introduced on the principles of the superannuation of civil servants. The interview was a lengthened one, and ultimately Mr. Forster promised to see the Vice-President of the Local Government Board on the subject, and give the points brought under his notice his best consideration. He, however, suggested that it would be advisable for some private member or members to introduce a Bill on the subject, and not leave the responsibility to the Government.

ALLEGED MANSLAUGHTER BY AN UNQUALIFIED PRACTITIONER.

An inquest in the case of Caroline Murrell has ended in the jury returning a verdict of "Manslaughter" against Mr. Scott, who is committed to the Old Bailey for trial. The deceased was on the point of her confinement, and at her request her husband fetched "a Mr. Scott from a dispensary at 547, Battersea-park-road." "Dr. Martin," of 1, Napier-terrace, also gave evidence to the effect that he allowed his name to be put on a brass plate outside of Mr. Scott's house. "He himself had not passed the necessary examination." Dr. Hills deposed that he was called in after death. He and Mr. Oakman made a post-mortem examination, and found that the deceased died from exhaustion, and might have been saved if proper measures had been taken. Mr. Scott honestly said he was a medical student, and, the patient being strong and healthy, he left Nature to complete her work. We must not prejudge a case which has to be tried formally. But we may at once say how unpleasantly cumulative is the evidence that London is covered with so-called "dispensaries," in any one of which poor people are led to think they are being treated by a qualified practitioner, and then find, or their survivors find, that they have been treated by a person totally unqualified.

THE EARTHQUAKE AT CHIOS.

The correspondent of the *Manchester Guardian*, who would appear to be a member of the medical profession, gives a graphic description of the harrowing scenes he witnessed at Chios after the appalling calamity which has desolated this fair isle. The following excerpt is of professional interest. The communication is dated April 8th :—

"We arrived here on Saturday last, after a quick run of thirty-six hours, and ever since I have been busily engaged setting fractures and binding up wounded heads and limbs. I am at work in a hospital made of ships' sails, and my patients arrive in an endless string of ghastly subjects. The sisters from the Deaconess Establishment of Smyrna are doing splendid work in the way of nursing, but it need not be mentioned that the workers are none too many. You cannot conceive the state of destruction and confusion on shore. The scene is indescribable. The houses of the town still standing are all deserted, the ground is still rocking slightly from time to time, and no one hardly ventures into the streets where there are walls still above ground. The search for victims amongst the ruins is, however, going on most actively. The distress everywhere is very great, but the committee now organised for the distribution of relief is sending off supplies of food to all parts of the island. Whilst death has overwhelmed whole families, there have been some remarkable escapes. I have had to-day under my hands a woman who was confined whilst under the ruins, and, strange to say, although three days elapsed before she was rescued, both she and the baby are still alive."

VIOLATION OF THE MEDICAL ACT.

At the Bristol Police Court a few days ago, Mayfield and Eugenie Lilly were charged with unlawfully, wilfully, and falsely pretending to be doctors of medicine and general practitioners in medicine. The defendants used to do their work in grand style. According to Police-sergeant Hunt they were accustomed to drive through the city in a carriage, with a Scotch piper. The male defendant claimed to have the right of practising under the 3rd of Henry VIII., providing that it should be lawful for any person having knowledge and experience of herbs, roots, and waters to practise, use, and administer them for any wound or outward sore. The magistrates were nevertheless quite convinced that he had violated the law, and inflicted the full penalty of £20. This decision still leaves the piper and the female defendant to carry on the business of specialists so long as they avoid the use of medical titles. This very proper prosecution was undertaken and carried through by the police of Bristol, who deserve much credit for tracking the defendant in his flight from town to town after learning that the magistrates of Bristol desired to see him.

HOSPITAL SATURDAY IN MANCHESTER.

The duty of the working classes in reference to Hospital Saturday is being warmly discussed in Manchester and other towns. A correspondent, "J. S.," of the *Manchester Guardian*, does not see the propriety of manufacturers bringing any pressure to bear on their men. In this we agree with him. We do not go with him in setting the Manchester and Salford provident scheme against the case and cause of the Manchester hospitals. No contributions to a provident dispensary scheme can possibly exonerate a thoughtful working man from some obligation to the large hospitals, which can be most easily discharged by a small periodical payment.

FELLOWSHIP OF THE EDINBURGH COLLEGE OF SURGEONS.

We have reason to know that the manufacture of Fellows of the Royal College of Surgeons of Edinburgh by the easy process of testimonials and payment, and on the nomination of, we must admit, some very respectable men, still goes on. We should like to be favoured with the periodical list of petitions for the Fellowship, and with the results of the ballot in individual cases. In a list before us there are petitioners from London, Edinburgh, Cumberland, Berwick-on-Tweed, Staffordshire, Stockport, Buxton, and Cape Colony.

According to a paragraph in *The Times* there were in the past winter in the twenty German Universities 21,164 students, of which 4405 were medical students. They were distributed as follows:— Berlin, 4107; Leipsic, 3326; Munich, 1890; Breslau, 1281; Halle, 1211; Tubingen, 1074; Gottingen, 959; Wurzburg, 921; Bonn, 887; Konigsberg, 788; Strasburg, 745; Marburg, 604; Greisfald, 599; Heidelberg, 543; Erlangen, 473; Freiburg, 443; Jena, 438; Giessen, 391; Kiel, 284; Bostock, 200.

Whilst at St. Petersburg recently the Duchess of Edinburgh visited the establishment for hospital attendants and assistant-surgeons instituted by the late Empress. She was accompanied by Dr. Berthenson, and conversed with many of the sick, remaining some time in the section of the building devoted to the patients suffering from typhoid fever.

At a meeting of the Reading Pathological Society held on the 13th inst., the following resolution was passed:—"That the members of this Society emphatically condemn any consultation between practitioners of general medicine and reputed homœopaths."

Dr. Planchon has been nominated to the Chair of Botany and Natural History in the Faculty of Medicine of Montpellier.

The death is announced of Dr. Ludwig Waldenburg, Professor in the University of Berlin, physician at the Charité Hospital, and editor of the *Klinische Wochenschrift*.

Madame Ivanitsky has been elected principal Clinical Physician of the University of Kharkov.

At the adjourned ordinary meeting of the Sanitary Institute of Great Britain, to be held at 9, Conduit-street, on Wednesday, April 27th, at 8 P.M., the discussion will be continued upon the address delivered at the last meeting—namely, "Suggestions for the Management of Cases of Small-pox and of other Infectious Diseases in the Metropolis and large Towns," by Dr. Richardson, F.R.S., Chairman of Council.

Not one of the essays on Diphtheria sent in by competitors for the prize offered by the Empress of Germany is, in the opinion of the appointed jury, worthy of the reward.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

River Tyne Port Sanitary Authority.—We regret to learn from this report that the medical officer of the Tyne ports, Dr. J. B. Bramwell, had been unable from illness to attend to his duties during the period to which it refers. The duties of the office were undertaken by the deputy medical officer, Dr. J. W. Bramwell, and upon him has devolved the drawing up of the report for 1880. From it we gather that the work of the port sanitary authority is now being as systematically carried on in the Tyne ports as at Sunderland, and doubtless with as good results; but the report wants the clearness and simplicity of arrangement which makes Dr. Yeld's reports so acceptable. The introduction of infectious diseases by shipping into the river is carefully watched, and the sanitary authority's floating hospital renders excellent service; while no less than 2997 vessels were inspected in the course of the year, an increase of 587 over those visited in 1879. Of these vessels, 1229 were reported in good sanitary condition; 1425 as "passable" only; and 343 in an insanitary state. With regard to these latter it was necessary for the port sanitary authority to take action, and they issued notices for certain matters to be done by the masters, 331 being complied with, the results of the notice not being ascertained in 12.

Faversham (Urban).—Mr. W. E. Atthill's report for this district for 1880 opens with the significant statement that in an extensive epidemic of measles which had prevailed early in the year, whooping cough being at the same time present in the district, he had been impressed by the facts that both diseases had "sprung up at the commencement almost entirely from those localities where the houses and their occupants are filthy and neglected, the former damp and wet, where large families crowd together in small ill-ventilated habitations, and where the provision of pure water is for the most part a questionable point." This sentence is painfully suggestive of sanitary negligence on the part of the sanitary authority. Nuisance removal appears, however, to be attended to, but strangely enough (and this particularly in an increasing town) house-drainage does not seem to have been seriously considered, and the sanitary authority are permitting to grow up in the new parts of Faversham evils similar to those which exist too largely in the old parts. Mr. Atthill is of opinion that the conditions which foster the spread of enteric fever foster also the spread of scarlet fever; he especially refers to the spread of the latter fever by means of contaminated drinking water, and it would appear that Faversham has, from the existence of shallow wells in the town, large opportunities for spreading maladies which may be conveyed by polluted water.

Halifax Union (Combined).—This combination consists of one *rural* sanitary authority (Halifax), and seventeen urban sanitary authorities, situated within the Halifax Union. Dr. Britton introduces his report for the several districts of which he is medical officer of health by some observations on the changes which have taken place in them since he was first appointed, now seven years and three-quarters ago. Speaking of the districts generally, he states that there has been a conspicuous abatement of nuisances, and that the nuisance inspectors do their work well, and maintain the greater general cleanliness of the district. The sanitary authorities themselves are more alive to the requirements needed for the proper sanitary administration of their districts. The offensive open ashpit and midden system, which in the beginning was in full operation throughout the district, is now much ameliorated by the substitution of better constructed ashpits and middens in some places, and by the covering up of hundreds in other places. The various water-supplies kept under constant supervision have been largely improved, the hospital accommodation for infectious diseases amended, and an immense quantity of detailed sanitary work done necessary to the improvement of the health-conditions of the districts. It seems almost an impracticable task to supervise the sanitary condition of the numerous districts under Dr. Britton's care. Nevertheless he contrives to do it to the full satisfaction of the authorities, to the very obvious and increasing benefit of the districts, and to present here an account of his doings in considerable detail for the combined district as a whole, as well as for the several districts entering into the combination. The report is a remarkable illustration of what may be done by a single individual working upon a thoroughly well-considered system.

St. Mary's, Newington (*Metropolis*).—Dr. W. Tiffin Iliff's annual report for 1880 for this district of the metropolis sets forth the annual work of a metropolitan health-officer when no special incidence of epidemic disease upon the locality under his supervision comes to disturb the even course of sanitary administration. He reserves general considerations on birth-rates and death-rates until the results of the recent Census can be obtained, feeling that estimates made of the population of his district at the present time must be misleading. Dr. Iliff, although convinced what sanitary work can do for the London poor is being done and slowly making progress, cannot avoid reflecting upon the gigantic task which is presented to health reformers. He admits the growth of pure and more open streets, the abolition of dire and ill-ventilated courts and by-ways; the destruction of "rookeries." "True," he says, "this is all good, but where are the hundreds and thousands to go? where are the healthy abodes and rents commensurate with their small earnings? How few really know the sad, sad story of the London poor, struggling, striving, and too often sinking, uncared for and unknown." But the causes producing this condition of things have been in operation for ages; the means of amelioration but a poor half-century, and yet we see progress.

Dorchester, Rural (*Eastern Division*).—Our attention has been directed to an error in our notice of Dr. Day's report for this district. The cesspool which we particularly referred to was unwittingly described as "*constructed*," when it should have been described as having been filled up and done away with.

Dawlish.—Estimated population, 1880, 3838; birth-rate 25·5 inhabitants; death-rate 22 9 (excluding the deaths of visitors 21·1).

A ROUND-ROBIN.

The Guardians of the Sedburgh Union, in Yorkshire, through the medium of their Chairman, have circulated a round-robin among other Boards of Guardians elsewhere, condemnatory of the proceedings of the Local Government Board, and trusting that Guardians in general will take part with them. This round-robin sets forth that the Sedburgh Guardians "whilst believing that the central authority should continue to be invested with the laying down and carrying out of general principles, subject to some elasticity according to different local circumstances, regret that the Local Government Board has gradually enforced to such an extent the absolute power with which they are invested that Boards of Guardians have now degenerated into mere machines, without authority or right to conduct their own affairs except on the hard and fast lines of the Central Department. On this subject my Board has recently addressed to the President of the Local Government Board a memorial, of which I enclose a copy, and I beg to request that you will bring it before your Board, with a view to their taking similar action."

THE SANITARY CONDITION OF NORTH WALES.

An important deputation, representing the sanitary authorities of four rural and five urban districts in the counties of Denbigh, Flint, and Merioneth, had an interview with the President of the Local Government Board a few days ago, with regard to the subject to which we referred the week before last—namely, the compulsory combination for the election of a single medical officer of health of the sanitary districts in question. The deputation protested against this course as against the feelings and the judgment of the ratepayers of the localities affected by it, and as not called for, in the opinion of the deputation, by the sanitary circumstances of the localities. It appeared, however, that the objections of the deputation dealt rather with the mode in which the Local Government Board had made its intentions known than with the intrinsic merits of the propositions. Mr. Dodson promised careful consideration of the objections brought before him, and hinted that he was not unwilling to delay action, if certain amendments were promised by the sanitary authorities in matters which he pointed out.

THE GRANTHAM HOSPITAL CASE.

We are exceedingly glad to have to state that the Supreme Court of Judicature have reversed the judgment of the Court below in the case of Eaton *v.* Basker so far as it concerns the Corporation of Grantham. Our readers will remember that Mr. Eaton claimed a sum of money from the Corporation or its sanitary committee for services rendered in a temporary hospital for scarlet fever during a severe epidemic in the town not long ago. Neither the services nor the justness of the charges were disputed, but the Corporation sought to escape responsibility on a legal point, which, although it was admitted by the judge in the lower court, Mr. Justice Stephen, was admitted in terms of stinging sarcasm. On appeal, however, the Supreme Court has now reversed Mr. Justice Stephen's judgment as concerns the Corporation of Grantham, and this most discreditable case as regards the local administration of Grantham will now end, we suppose, in the Corporation paying Mr. Eaton's rightful claim; we trust with the full costs to which he has been subjected also.

At a recent meeting of the Chelsea Vestry, the Sanitary Committee, among other matters, submitted with approval a series of suggestions made by the medical officer of health, Dr. Barclay, as to the manner in which the sanitary laws might be amended. The suggestions were as follows—namely, that penalties should be imposed by an Act of Parliament on people (other than duly qualified medical practitioners) who visited or attended any person suffering from any dangerous infectious disease, and who concealed the fact of such visit so as to endanger the health of other persons; secondly, on people who, after such visit, did not employ the best known means for the disinfection of clothing before coming in contact with other persons. A further penalty (suggested at £5) was proposed for neglect or delay of isolation. A motion that these should be sent to other vestries for their consideration was rejected, one of the members contending that such penal propositions would never be sanctioned by the Legislature, and that it was unlikely they would be tolerated by the British public. The propositions were withdrawn, and it was resolved to defer further action in regard to them until the receipt of the report of suggestions recommended by Kensington.

Among all the discussions which have gone on in the press about the infectious hospital dead-lock in the metropolis it has been reserved for our contemporary, the *Metropolitan*, to see that the true way out of the difficulty is to revert to the principles of administration in regard to hospitals found in the Sanitary Act, 1866. It justly condemns the cry for legislation, and, again fresh legislation and the difficulties raised about non-pauper patients, and roundly rates the Kensington people, and the Vestries and District Boards that have taken part with them, for their short-sightedness—a short-sightedness which tends to give them up, bound hand and foot, into the hands of the Local Government Board.

It is to be hoped that, as one of our contemporaries aptly expresses the matter, "the criminal craze of anti-vaccination" at Brighton will receive some check from the result of the recent election of guardians for that celebrated health-resort. Eight acknowledged anti-vaccinationists were brought forward as candidates for seats on the Board. Not only were all rejected, but an anti-vaccinationist who already had a seat on the Board, and was a candidate for re-election, was also rejected.

An instructive illustration of the extraordinary want of acquaintance not unfrequently found among the educated classes with the ordinary forms of local administration in this country, was recently furnished by a letter from a well-known gentleman printed in the columns of *The Times*. This gentleman in his anxiety to obtain better arrangements against fires ingenuously confounded the Local Government Board with Local Boards, and failed to distinguish questions which were for the Legislature from questions which local administration could deal with.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Urban mortality showed a further increase last week. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 4639 births and 3343 deaths were registered last week. The births were no less than 547 below, whereas the deaths exceeded by 86, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had steadily increased from 20·6 to 22·4 per 1000 in the four preceding weeks, further rose to 22·9 last week. The lowest rates in the twenty towns last week were 14·8 in Brighton, 15·1 in Leicester, 18·1 in Norwich, and 19·4 in Hull. The rates in the other towns ranged upwards to 24·7 in Sheffield, 25·8 in Wolverhampton, 27·8 in Liverpool, and 28·3 in Portsmouth. During the thirteen weeks ending the 2nd inst. the death-rate in the twenty towns averaged 23·9 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 315 and 339 in the two preceding weeks, further rose to 410 last week; these included 78 from small-pox, 81 from measles, 93 from whooping-cough, 65 from scarlet fever, and 47 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·8 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Leicester, to 3·4 in Liverpool and Newcastle-upon-Tyne, and 3·6 in London. Whooping-cough showed the largest proportional fatality in Manchester and Leeds, and scarlet fever in Wolverhampton. The 15 deaths referred to diphtheria in the twenty towns included 9 in London and 2 in Birmingham. The highest death-rates from fever, mainly enteric, were recorded in Plymouth, Liverpool, Sheffield, and Newcastle-upon-Tyne. Small-pox caused 85 more deaths in London and its suburban districts, and one in Oldham; no death from this disease occurred in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 820, 899, and 921 at the end of each of the three preceding weeks, further rose to 940 on Saturday last, exceeding the number under treatment at these hospitals at any time since the spring of 1877. The number of new cases of small-pox admitted to these hospitals last week was 244, against 255 and 224 in the two preceding weeks. The Highgate Small-pox Hospital contained 85 patients on Saturday last, showing an increase of 8 upon the number in the previous week; 28 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had slowly increased from 345 to 359 in the four preceding weeks, further rose to 395 last week; they were, however, 14 below the corrected average number in the corresponding week of the last ten years, and included 250 from bronchitis and 105 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 5·6 per 1000 in London last week. The rate from the same disease was no less than 7·6 in Liverpool, while it did not exceed 4·8 in Salford.

The causes of 75, or 2·2 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·3 per cent. in London, while it averaged 3·1 per cent. in the nineteen provincial towns. No uncertified deaths were recorded last week in Portsmouth, Norwich, Bristol, or Nottingham; while the proportions of such deaths were largest in Oldham and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 22·1 per 1000, against 20·7 and 23·5 in the two preceding weeks; this rate was 0·8 below the average rate in the twenty English towns. The rates in the eight Scotch towns ranged from 19·0 and 19·9 in Greenock and Leith, to 29·2 and 29·7 in Perth and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 69 and 82 in the two preceding weeks, declined again to 69 last week; they included 24 from whooping-cough, 12 from diarrhœa, 11 from diphtheria, 10 from scarlet fever, 7 from "fever," 5 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·7 per 1000 in the eight towns, which was slightly below the average rate (2·8) from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 0·6 and 1·9 in Greenock and Perth, to 3·6 and 3·9 in Edinburgh and Dundee. The fatal cases of whooping-cough, which had been 16 and 26 in the two preceding weeks, were 24 last week, of which 10 occurred in Glasgow, 5 in Edinburgh, 5 in Dundee, and 2 in Aberdeen. The 12 deaths from diarrhœa showed a decline of 8 from those returned in the previous week, and included 6 in Glasgow and 3 in Dundee. The 11 deaths referred to diphtheria were within one of the number recorded in each of the two previous weeks; 4 occurred in Glasgow, 3 in Edinburgh, and 2 in Dundee. The 10 fatal cases of scarlet fever exceeded the numbers in recent weeks, and included 6 in Edinburgh and 2 in Glasgow. The 7 deaths referred to "fever" (typhus, enteric or typhoid, and simple continued) were fewer by 4 than the number in the previous week, and included 3 in Glasgow; the annual death-rate from this cause scarcely differed from that which prevailed in the twenty English towns during the week. Four of the five deaths from measles occurred in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 138, 146, and 163 in the three preceding weeks, declined again to 144 last week, and were equal to an annual rate of 5·7 per 1000, against 5·1 from the same diseases in London. The greatest proportional fatality from lung diseases occurred last week in Glasgow, Perth, and Greenock.

HEALTH OF DUBLIN.

The rate of mortality in Dublin although still excessive showed a further decline last week. The annual death-rate in the city, which had been equal to 30·8 in each of the two preceding weeks, declined to 29·0 last week. During the thirteen weeks ending on the 2nd instant, the death-rate in the city averaged no less than 37·8, against 23·4 in London and 22·3 in Edinburgh. The 185 deaths in Dublin last week showed a decline of 12 from the number in the previous week, and included 12, or scarcely more than 6 per cent., which were referred to the principal zymotic diseases, against 19, 15, and 14 respectively in the three preceding weeks. These 12 deaths from zymotic diseases included 7 from fever (typhus, enteric or typhoid, and simple continued), 2 from scarlet fever, 2 from diarrhœa, 1 from whooping-cough, and not one either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases did not exceed 1·9 per 1000 in Dublin last week; whereas it was 3·6 both in London and Edinburgh. The deaths referred to fever, which had been 12, 7, and 8 in the three preceding weeks, were 7 last week; the annual death-rate from this cause was nearly four times as high in Dublin as the average rate in the twenty English towns. The deaths referred to the other principal zymotic diseases were again exceptionally few. The deaths of infants showed a decline, and those of elderly persons were fewer than in any recent week.

THE HEALTH OF CAPE TOWN.

We are in the receipt of a Government notice, issued by the Colonial Secretary of the Cape of Good Hope, which contains a return of vital statistics prepared by the Colonial Medical Committee, from information furnished by the Town Council of Cape Town, for the year 1880. We fear, however, that the statistics are scarcely of a character to afford much trustworthy information bearing upon the health condition of Cape Town. In the first place, the population is roughly stated to be 50,000, without any clue to the manner in which this estimate is arrived at; whereas a leader in the *Cape Times* declares 35,000 to be a reasonable estimate of the total population of the municipality of Cape Town. We shall presently see what an important bearing these wide variations in the estimates of the population have upon the vital statistics of the town. It is evident that registration of births, whatever may be the case as regards registration of deaths, is comparatively inoperative in Cape Town. A note to the first table in the report states that "the number of children registered at the Town House, as born during 1880, amounts to only 326 in a population of 50,000." This represents a birth-rate of but 6·5 per 1000 of the population; and as the death-rate is stated to be 21·8, the report adds the words, "At this rate the population must soon die out from want of recuperative power." It is quite evident that birth registration is a farce in Cape Town, and that the numbers recorded afford no clue to the number of births occurring among the population, and it seems somewhat surprising that this fictitious birth-rate should be referred to in the official return as evidence of want of recuperative power in the population. When we begin to analyse the mortality statistics they do not appear to be much more trustworthy than the statistics of births. The number of deaths registered at the Town House in 1880 is reported to be 1189; by exclusion of stillbirths, the number is reduced to 1092, which gives (calculated upon the estimate of 50,000) a death-rate of 21·8 per 1000. If, however, the *Cape Times* is justified in assuming that 35,000 is a more reasonable estimate of the population, it follows that the death-rate in Cape Town during 1880 was equal to 31·2 per 1000, instead of 21·8. Such a death-rate as 31·2 would afford the strongest evidence of insanitary condition. The return includes certain figures bearing upon the ages of the decedents and the causes of the deaths. The age statistics are materially depreciated by the fact that age is not stated in 13 per cent. of the deaths recorded. With regard to the deaths of children, 411 deaths are reported under five years of age; but it is impossible to estimate how many of the 136 cases in which the age was not stated were of children under five years of age. It is probable, however, that not far short of half the total deaths were of children under this age, and it appears that the 411 deaths under five years included 252 from such ill defined causes as convulsions, teething, and debility, in addition to 29 in which the cause was unknown. The causes of death are evidently most vaguely returned, very considerable numbers being returned under the headings inflammation, dropsy, consumption, &c. With regard to the so called zymotic diseases, whooping-cough is debited with 36 deaths, whereas only 2 deaths were referred to measles, 5 to diphtheria, including ulcerated throat, and not one to small-pox or scarlet fever. No less than 41 deaths, however, were referred to fever, including enteric and undefined fever, which affords conclusive evidence of dangerous filth contamination in some form or other. Perhaps the most satisfactory feature of the return of causes of death is the remarkably small proportion of deaths from acute diseases of the lungs, among which but three were referred to bronchitis. Before another annual return for Cape Town is issued a Census will have set at rest the serious discrepancies between the local estimates of population; and it may be further hoped that the value of the return as a contribution to sanitary statistics will be further increased in other ways.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DR. B. W. RICHARDSON, F.R.S., ON THE MANAGEMENT OF SMALL-POX ETC. IN THE METROPOLIS AND LARGE TOWNS.

On the 13th instant Dr. B. W. Richardson delivered an address before the Sanitary Institute on the Management of Cases of Small-pox and other infectious Diseases in the Metropolis and Large Towns. This, the first intervention, we believe, of Dr. Richardson in the question which at the present moment is agitating sanitary workers in the metropolis, brought together a large audience of persons having more or less responsible relations with metropolitan sanitary administration, and anxious to hear what new light the learned Chairman of the Council of the Sanitary Institute might throw upon the difficulties of the situation. The address first touched upon the obstacles that lie in the way of the practical management of persons suffering from infectious diseases in large cities and towns. It then treated briefly of the registration of diseases, and next entered upon matters of more immediate interest to the public at the present moment. Dr. Richardson declared himself utterly opposed to the collection together of great numbers of infectious cases in large hospitals, and to the management of such cases and of the institutions prepared for them by an organisation common to the whole of the metropolis. The results of recent experience in this matter confirmed an opinion formed on other grounds, and which he would now reiterate, that every parish should bear its own burden, and accept its own responsibilities for the retention and management of the infectious cases occurring within its own boundaries. He would have parish hospitals, each of which should be constructed to receive twenty-four patients (preferably twenty), and each constructed after a particular fashion. As many of these hospitals as may be found to be necessary should be constructed in each parish, and they should be placed under the supervision of the medical officer of health, and under the entire control of the sanitary authority, becoming an essential element in the sanitary administration of the parish. Difficulty of acquirement of sites he would meet by placing these small hospitals upon the upper part of terraces of houses, to be acquired by the parish authorities for the moment. The hospital should be constructed on the cellular system, built of iron (so that its walls could be purified both by fire and water), lighted and ventilated from the roof, and so arranged and managed that its presence above would not militate against the letting of the houses below. A more startling or bolder scheme was, perhaps, never before urged even by Dr. Richardson himself, and its novelty for the moment seemed to put out of sight the not less bold proposition to revert to parochial administration in the present difficulty as to the provision of hospital accommodation for the infectious sick. The discussion on the address was not completed during the evening, and it has been adjourned until the 27th inst. We reserve further observations on Dr. Richardson's suggestions until after the termination of the discussion.

THE DEATH-RATE OF DUBLIN.

A conjoint report of the King and Queen's College of Physicians and of the Royal College of Surgeons in Ireland on the death-rate of Dublin has been issued. The report begins with the admission that "the existence of an excessive mortality in the City of Dublin is proved beyond doubt;" and proceeds to set forth the causes to which this should be assigned, and the measures, both present and future, which in the opinion of the Colleges are requisite to combat the high mortality. First, it expresses the opinion that this high mortality is not to be attributed to the system of death registration peculiar to the city, a notable increase of population, the immigration of sick persons from the provinces, the geological conditions of Dublin, or the climatology of the city. The report next recognises the following conditions as the most potent in determining its excessive mortality—viz.: (*a*) The faulty structural condition, insanitary arrangements, and overcrowding of tenement houses ("the prime source and cause of the excessively high death-rate of Dublin"). (*b*) The insufficiency of public and domestic scavenging. (*c*) The presence and the unsatisfactory condition of numerous slaughter-houses, cow-yards, and manure depôts within the most crowded parts of the city. (*d*) The defective state of the drainage of many houses, even in the best parts of the city. (*e*) The defective construction of new dwelling-houses. (*f*) The use of cellars as human habitations or as receptacles for decaying animal and vegetable refuse. (*g*) The dissemination of noisome and poisonous vapours by chemical and other manufactories. (*h*) The very uncleanly and intemperate habits of certain classes of the people. (*i*) The saturation of the subsoil. (*j*) The spread of infection by—1, the concealment of infective disease; 2, the inadequate disinfection of rooms and clothing; 3, the injurious practice of wakes. (*k*) The insufficient provision for the conveyance of infected persons to hospitals. Each of these subjects is considered briefly, together with the remedial measures to which they should give rise, and finally the opinion is deliberately expressed that:—"The City of Dublin is, and has been, unhealthy in an excessive degree, and its extraordinary death-rate is attributable—not to errors of computation, or irremediable circumstances—but to long-continued disregard of sanitation, and the omission to enforce the legal means provided for a remedy." The report is signed for the King and Queen's College of Physicians by Dr. J. Magee Finney, and for the Royal College of Surgeons, Ireland, by Dr. Stannus Hughes, F.R.C.S., and it forms a most important contribution to the sanitary polemics of Dublin.

DIARRHŒA.

A combined meeting of the North-Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health was held at the Guildhall, in York, on the 7th inst., Mr. S. W. North, medical officer of health for York, in the chair. The subject selected for consideration was diarrhœa, considered with reference to its causes, the prevalence of infantile diarrhœa during the third quarter of the year, and the pathology of uncomplicated diarrhœa. The meeting derived a special interest from the presence at it of Dr. Ballard and Dr. Parsons of the Medical Department of the Local Government Board; the former gentleman, as is known, being engaged in an official inquiry on the subject for discussion by the meeting. After some brief remarks by the Chairman opening the proceedings of the meeting, papers were read by Dr. J. C. Reid "On Some of the Causes of Infantile Diarrhœa;" the Chairman on the "History of 100 Cases of Diarrhœa;" Dr. M'Cook Weir, entitled, "Is Diarrhœa a Zymotic Disease?" and by Mr. R. S. Low, "Infantile Diarrhœa from a rural point of view." After the reading of the papers an active discussion took place, in which part was taken by the Chairman, Dr. Britton (Halifax), Dr. Scott (Ilkley), Dr. Butterfield (Bradford), Dr. Eastwood (Darlington), Dr. Blacket (Durham), Dr. Wilson (Doncaster), Dr. Parsons, and Dr. Ballard. Dr. Ballard gave some account of the inquiry respecting diarrhœa upon which he was entering for the Government, and explained that his presence there was partly in the hope of enlisting the aid of the members present in his work. "He was seeking to form a brigade of earnest workers, and he should regard it as a favour to have the assistance of any medical man who would work on the lines laid down." Dr. Ballard's observations were very warmly received, and we gather from his remarks that his inquiry begins with a very fair promise of success.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

The following resolutions in reference to this subject have been adopted by the Executive Committee of the Dublin Sanitary Association:—"That, in the opinion of this committee, any Bill to provide for the notification of infectious diseases in Ireland should be compulsory, and should apply to every sanitary district in Ireland." "That the medical practitioner (if any) in attendance shall either note directly to the sanitary authority the existence of a case of infectious disease, or else hand a notification to the occupier of the house, or person in charge of inmate." "That a fee shall be payable only in case of the medical practitioner reporting directly to the sanitary authority." "That where no medical practitioner is in regular attendance on a person suspected to be suffering from an infectious disease within the meaning of this Act, it shall be incumbent on the occupier, &c., to obtain a certificate from a registered medical practitioner as to the nature of the disease, and in cases where the sick person is entitled to gratuitous medical attendance, said occupier shall obtain such a certificate from the medical officer of health of the district in which the sick person resides."

THE PUBLIC HEALTH (SCOTLAND) ACT.

The Magistrates and Council of Glasgow, as Local Authority under the Public Health (Scotland) Act, 1867, have approached the authorities of other cities and large towns in Scotland with the view of directing their attention to, and, if so arranged, conferring with them regarding the existing state of sanitary regulation. The magistrates and council desire also to arrange for joint and co-operative effort on the part of these authorities in the direction of approaching and inducing the Government to amend the Public Health Act for Scotland, and to embody in the amended Act such provisions as may be mutually deemed desirable and necessary. With this view they have transmitted to the authorities in question a statement regarding (1) the position of sanitary legislation for Scotland; (2) outlines of suggested amendments of existing sanitary laws; and (3) suggestions regarding the constitution and powers of the central and local authorities empowered to administer the sanitary laws of Scotland. The Local Authority submit certain suggestions in the way of amending existing provisions of the law.

VACCINATION AND REVACCINATION.

Dr. F. Chance has communicated to *The Times* a striking example of the value of revaccination as protective against small-pox. The master of a ship sailing from London for New York had before sailing taken on board the vessel a son suffering from small-pox. The surgeon, unwilling to denounce the master and have the case removed from the vessel, sought to obviate the evil effects its presence in the ship might have upon the crew by revaccinating them. Unfortunately the supply of vaccine lymph he was able to procure was insufficient for the revaccination of the whole of the men, and, as the event proved, while the revaccinated escaped the contagion of the disease, the men who had not been revaccinated suffered from it, the greater number contracting the malady, and three died.

Dr. Robert Cory, in a letter to *The Times*, has pointed out that the efficacy of vaccination does not rest upon statistical data alone—data of which it is not at all times easy to understand the whole meaning, or to avoid fallacies in dealing with them—but on the result of actual experiment. The efficacy of vaccination was in the first instance proved by very numerous but unsuccessful attempts to inoculate the vaccinated with small-pox, so numerous as to justify the Legislature to forbid the practice of inoculation by small-pox in any case, and to first facilitate and then enforce the practice of vaccination. It is to be regretted that Dr. Cory did not state his position at greater length. For the large use of complicated statistical data to show the efficacy of vaccination has to a great extent confused a very simple question, and tends still more to confuse it.

It is very gratifying to find architects beginning to take an active interest in the sanitary aspects of architecture. This interest was excellently shown by a lecture lately delivered before the Architectural Association by Mr. Ernest Turner, and which is now published from the columns of the *Builder* in a separate form. Professor Kerr observed, in the discussion which followed the reading of the paper, and which is stitched up with it, that he was very glad that the important subject dealt with "had at last reached the stage of being seriously discussed by architects." We are glad also, and feel assured that serious discussion of the subject by them will possibly not only remove one of the formidable obstacles in building healthy houses, but will also enlist heartily in practical sanitary work the only men we can confidently look to for the construction of wholesome dwellings and for the due development of the structural conditions on which this wholesomeness must depend.

A correspondent of *The Times*, writing under the initials "F.R.C.S.," sends a long letter on the unwholesomeness of houses, in which he instances the important principle as to houses in general, and particularly London houses, that they should be so furnished within as to afford the fewest opportunities for the collection of dust and dirt. He would have, in fact, the interior of the dwelling-house fitted up on the same principles as the interior of a hospital ward in regard "to dust-traps," and he thinks that he has succeeded in doing this in his own house, while at the same time giving sufficient regard to the æsthetics of the interior. The letter is deserving of attentive study.

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—The following prizes have been awarded at the termination of the winter session:—Junior Anatomy: J. H. Griffin, 1st; J. Neill, 2nd. Senior Anatomy: A. E. W. Ramsbottom and J. Niblock, equal. Surgery: P. Walsh, 1st; W. R. P. Jones, 2nd. Practice of Medicine: C. Kenny, 1st; W. R. P. Jones, 2nd. Physiology: T. Cashel, 1st; J. F. Russell, 2nd. Chemistry: J. Clancy, 1st; J. F. Russell, 2nd. Midwifery: D. W. Whitfield, 1st; A. G. Beacom, 2nd.

THE new infirmary in course of erection on th Castle House Estate at Homerton for the Hackney Union and designed for the accommodation of 150 pauper patients is to be opened on May 24th next.

THE SERVICES.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets John Bernard to be Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of the 1st instant. Fleet-Surgeon Timotheus John Haran to be Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of the 1st instant.

The following appointments have been made: Dep. Inspect.-General J. T. U. Bremner, M.D., to the Chatham Division of Royal Marines, vice Bernard; Deputy Inspector-General G. Mason, M.D., to Bermuda Hospital, vice Bremner; Fleet-Surgeon F. A. Brice to the *Britannia*, additional, for cadets' sick quarters; Fleet-Surgeon G. Jackson to the *President*, additional, for recruiting quarters; Fleet-Surgeon A. B. Messer, M.D., to the *Northampton*, vice Haran; Fleet-Surgeon W. Edney to Plymouth Hospital, vice Messer; Staff-Surgeon R. Hay to the *Duncan*, vice Brice; Fleet-Surgeon Henry Hadlow to the *President*, additional; Fleet-Surgeon James C. Eastcott to the *Revenge*, vice Hamilton, retired; Staff-Surgeon Mark A. Harte to the *Impregnable*, vice Hadlow; Staff-Surgeon Matthew Trevan to the *Britannia*, vice Telfer, retired; Surgeon Joseph Crowley, M.D., to the *Impregnable*, additional, for service in the *Nautilus;* Surgeon William J. Christie, M.B., to the *Impregnable*, additional, for service in the *Pilot;* Surgeon John J. Dinnis, M.D., to the *Implacable*, additional, for service in the *Liberty;* and Surgeon George F. Wales to the *Ganges*, additional, for service in the *Sealark;* Surgeon G. W. Low to the *London*, vice Boland; and Surgeon C. E. Godding to the Chatham Division of Royal Marines, vice Drew.

[In the list of retirements from the service published in THE LANCET of March 19th, page 478, Surgeon-Major James Atkinson West Spence is erroneously described as "surgeon."]

SUPREME COURT OF JUDICATURE.

COURT OF APPEAL—APRIL 12TH.

(*Sittings at Westminster, before* LORDS JUSTICES BRAMWELL, BAGGALLAY, *and* LUSH.)

EATON *v.* BASKER.

THIS was an action by a medical man to recover fees for attendance upon a contract made in the following circumstances:—In June, 1878, an outbreak of scarlet fever occurred in Grantham and the neighbourhood, and a committee was appointed under section 200 of the Public Health Act, 1875, by three urban sanitary authorities, to exercise the powers conferred by section 131 of the Act, enabling the authorities to provide hospitals or temporary places for the reception of the sick. The committee erected tents for the reception of the sick, and directed Mr. Ashby, the medical officer of the sanitary authorities, to apply to the plaintiff to attend the patients. The plaintiff agreed to do so at the rate of 5*s.* 3*d.* a day per tent, and his charge eventually amounted to £97 7*s.* 9*d.* The amount not being paid, the plaintiff brought this action to recover it from the members of the committee and the Corporation of Grantham, in whom the powers of the three urban sanitary authorities had become vested. At the trial, before Mr. Justice Stephen, the jury were discharged, and the learned Judge held that the committee were not liable collectively, because they were forbidden to contract by section 200 of the Public Health Act, 1875, and were not liable individually because the contract was not with the members of the committee personally; and that since eventually more than £50 became due it was a "contract whereof the value or amount exceeded £50" within section 174 of the Act, and ought to have been under seal; and that, not being under seal, no action lay on it against the urban authority, though they had had all the benefit of it. Judgment having been entered for the defendants, the plaintiff appealed.

Mr. Finlay argued for the plaintiff; Mr. Lawrance, Q.C., and Mr. Dugdale for the defendants.

Their Lordships were of opinion that the contract entered into between the parties was not at the time of making it known to exceed the amount or value of £50, and therefore did not come within section 174 of the Public Health Act, 1875. The judgment of Mr. Justice Stephen would therefore be reversed as against the corporation, but as regards the committee there could be no case against them, and the judgment in their favour would be sustained.

Correspondence.

"Audi alteram partem."

THE MEDICAL CONSULTATIONS IN THE CASE OF LORD BEACONSFIELD.

To the Editor of THE LANCET.

SIR,—I have to request you will do me the favour to republish in your columns the accompanying letter. I could have wished to have made some further remarks upon it, but I must forbear; silence becomes the chamber of death. When, in the course of time, the painful feelings of to-day have passed, something may remain to be said.

In the meantime, I am, Sir, your obedient servant,

WILLIAM W. GULL.

Brook-street, Grosvenor-square, W., April 19th, 1881.

"*To the Editor of the* '*Standard.*'

"SIR,—As, in the *Standard* of to-day, you express, as from a public point of view, some censure on Sir William Jenner for not complying with Dr. Kidd's request to meet him in consultation, will you afford me space to say that I desire to bear my part in that censure, whatever it may be?

"Sir William Jenner, as a friend and colleague, conferred with me before answering Dr. Kidd's note, and I entirely concurred with him in his reply, which was to the effect that, though ready to give his services in so anxious and important a case, he could not, consistently with his duty to the patient, co-operate with one who, according to his own statement, has a double set of convictions in the treatment of disease. For, whatever other objections might be raised as to etiquette and the like, it is certain that the welfare of a patient is endangered when there is a tendency to compromise. I am, Sir, your obedient servant,

"74, Brook-street, April 15th." WILLIAM W. GULL.

*** We gladly reproduce the letter addressed to our lay contemporary. It is a timely expression of opinion on the course taken by Sir William Jenner, which the medical profession cannot fail to appreciate. Sir William Jenner's action has been in the strictest accord with the views of the great body of his brethren; and it is pleasant to know that Sir William Gull is in sympathy with his colleague in respect to a line of conduct which has commended itself to the judgment of the profession, and which public opinion will hereafter not less warmly approve. For the moment our comments on the subject, in connexion with this particular case, are necessarily suspended; but later on, the matter must be reverted to on the highest public grounds.—ED. L.

THE MENTAL ELEMENT IN THE ETIOLOGY OF GOUT.

To the Editor of THE LANCET.

SIR,—Attention has recently been directed in your columns, and elsewhere, to the mental phase of treatment in cases of gout. Will you allow me to submit for the consideration—or, perhaps, I ought to say the recollection—of the profession the fact that mental conditions and forces play a conspicuous part in the causation of that disease. I cannot ask the necessary space to adduce demonstrative evidence, or even arguments, in support of this proposition, so I will content myself with a series of dogmatic assertions on the subject. If they are not held to be convincing, they may, at least, prove suggestive.

The morbid state in gout is characterised, if not caused, by the accumulation of uric acid in the blood. It disappears from the urine and is found in the blood; and *pari passu* the normal conversion of uric acid into urea is either arrested or diminished.

It is not necessary to show that the injection of uric acid into the veins of an animal will produce gout, just as it is not necessary to prove that diabetes can be induced by the introduction of sugar into the circulation. There is a special centre in the floor of the fourth ventricle which either excites to the formation of sugar or promotes its destruction—we do not know which, though Dr. Pavy has, as it seems to me, thrown new and true light on this subject in his singularly lucid lectures (THE LANCET, March 30th, 1878); and there is probably also a centre which determines the formation or the destruction of uric acid. These centres may be abnormally active or inactive in the respective maladies, so that they either produce too much of the several materials or do not destroy them with due speed. In any case, *it is the morbid state of the centres which constitutes the disease.*

The persons who suffer most severely from gout are those who either inherit or have acquired a considerable faculty for exertion—or, in other words, great potential energy—and the period at which they begin to suffer from the affection is usually that at which they cease to consume or pass off this energy by transforming it into kinetic force in work. Cases in which gout troubles its victim early in life are nearly always instances of a particularly strong inheritance, or of a complete change in the outlet of force. For example, a youth may inherit gout from his maternal or paternal grandfather, or great-grandfather—generally through the maternal line—and suffer early in life, because he is unable to take as much exercise as will consume or work off all the uric acid he generates; or he may be incapacitated for this chemico-physiological function by having adopted a habit of life which is at too great variance from the habit of his ancestors. Thus, perhaps, they have worked with their muscles, and he works with his brain. It is, however, commonly in adult life that the gouty diathesis begins to develop itself, and the appearance of marked symptoms is generally synchronous with the cessation of accustomed forms of individual work, whether intellectual or muscular. The man-of-muscle abandons his robust life, and the man-of-mind desists from or diminishes his cerebral exercise.

There is a perpetual effort in the gouty constitution to get rid of the uric acid. When it cannot be readily transformed into urea and passed away in the urine, or worked off by the combustive processes of a local inflammation—in some part where the venous circulation is slow, or the currents are embarrassed and the flow of blood towards the heart is retarded, as explained in Mr. Gay's admirable paper on the "Anatomy of Gout," THE LANCET, May 19th, 1877,—there is a perpetual tendency to lung-disturbance, and probably not only gouty bronchitis or catarrh, as shown by Sir Henry Holland in his Medical Notes, but gouty congestion of the lung, and a specific form of pneumonia is a very common consequence. It is precisely what we should expect that blood charged with uric acid would, in default of other ways of relief, set up irritation in the organ through which its organic elements receive their oxygen and get rid of their carbonic acid. These pulmonary affections of the gouty subject occur chiefly in cases in which the diathesis is either subject to the repressive influence of atavism, or the vitality of the body, as a whole, is of low type or depressed by circumstances.

As a rule, the most active organ at the period of life and under the conditions described, when the gouty symptoms occur, is that upon which the stress of the malady falls. Many cases of pain, disturbance, and disease are due to blood charged with uric acid circulating languidly, or, which amounts to the same thing, in relatively large quantities through the vessels of the cerebrum. Special paralyses and convulsions are caused by the uric acid poison—if I may call it so—acting on the nerve-centres. Numberless cases of hæmorrhoidal affection, and prolapse of the rectum, are occasioned by the irritation arising from this cause—namely, the accumulation of uric acid in the blood; and it may even produce a local urethritis resembling gonorrhœa, while prostatic inflammation and disease are in, perhaps, a large proportion of instances due to the same mischievous agency. In short, there is scarcely a malady of mind or body which may not have its origin in gout. The colchicum-test, as it used to be called, will often lead to the recognition of latent gout as a source of disease or discomfort ranging from diarrhœa to diplopia, from sleeplessness to eczema.

The reader will ask what has all this to do with mental causes or influences? Simply this, that in every case it is the equilibration of energy and force, of power and action, which is at fault. Either there is a relative excess of potential energy or a deficiency of kinetic force. Under normal conditions muscular action is followed by an increase of urea in the urine. This is commonly, and doubtless rightly, held to be the result of the decomposition of effete muscular tissue; but the *will*, or mental purpose, to perform muscular exercise *without* action may set up a nervous process which leads to the formation of uric acid in the blood, just as the thought of food will stimulate the salivary, and probably also the gastric and intestinal, glands to pour out their proper secretions. The whole body, with every constituent system, is energised by the same force that sets the brain in action, and produces thought; and every chemico-vital process, not excepting that of the formation of uric acid, is originated by the mind acting consciously or unconsciously, voluntarily or automatically. When the mind acts, so to say, without the body, the impulses are unsatisfied—as in nightmare—and there is no outlet for the products of this action, so that they have a tendency to accumulate in the blood. Myosin accumulates in the muscular tissue, and produces catalepsy, when, in the so-called "hysterical" state, the morbid mental condition inhibits action without arresting the impulse to act.

If I am right, the treatment of gout under all its forms and varieties of actual or abortive development should be in the first place and in the main *mental.* The gouty constitution requires to be treated for the reduction or diversion of its occult mental and nervous energies, not less than for the relief of their expressed physical indications. In short, suppressed or undeveloped gout is like the subterranean operation of volcanic forces, the attack being the earthquake or eruption, with an outpouring of lava. If we are to deal with the *cause* of the disease we must equilibrate the mental energy with the overtly organic or animal forces at work in the system. It is seldom enough to reduce the nitrogenous elements of the food, or to enjoin such exercise as may seem likely to lead to the consumption of the supplies assimilated. It is necessary to command those mental impulses which set up the processes that make life a round of continuous activities mutually destructive unless correlated and controlled. The inheritor or self-producer of mental and nervous energy which ought to find its natural expression in action, either cerebral or muscular, will be gouty if that expression is prevented while the mental motor impulse is not itself inhibited. Gout is the nightmare of an organism constitutionally bent on action, and automatically performing the collateral and contingent chemico-vital processes normally attendant on action, while the action itself is omitted or restrained. The remedy must be sought in grappling with the motive energy, rather than in striving to obviate the train of morbid consequences to which its repression gives rise. Or if this be impossible, as will often happen, a way of working off the products of volition or subconscious energy must be found. I am, Sir, yours, &c.,

Welbeck-street, W. J. MORTIMER GRANVILLE.

CASES OF SUDDEN OBSTRUCTION OF THE ŒSOPHAGUS.

To the Editor of THE LANCET.

SIR,—The case related by Mr. Thornton of cancer of the œsophagus, of which the first symptom was a *sudden* obstruction to the passage of food, is so important in relation to diagnosis that it may be well to draw attention to the accounts of two similar cases in order to show that, although the occurrence is very uncommon, it must nevertheless be accepted as one of the irregular modes of onset of the symptoms of this disease.

The first case is recorded in the Pathological Transactions for 1859 (vol. x., p. 165), by Dr. Baly. The patient, a gentleman fifty-six years old, while at dinner felt that the solid food he had swallowed lodged opposite the lower part of the chest, and he was obliged to leave the table and reject it. At the end of a week the same thing happened again, and was relieved in the same fashion. From that time it frequently occurred, and five or six months later the patient died from a tolerably extensive epithelioma two inches above the cardiac orifice of the œsophagus.

The second case is related by Dr. Traube in the *Archiv der Heilkunde* (Bd. xvi., S. 282). The patient, also a man of fifty-six, felt a piece of hard beef stick in the œsophagus one day during the month of October, 1873. From this time he experienced great difficulty in swallowing, and in May, 1874, died from widespread epithelial ulceration of the middle portion of the œsophagus.

In neither of these cases was the obstruction so complete after the sudden onset as in Mr. Thornton's case. Possibly the nervousness of Major —— rendered his symptoms more severe. I would suggest, as the most probable solution of the first case, that of temporary obstruction of the œsophagus in a lady, that the piece of meat which lodged in the œsophagus was still there when the bougies were passed, and was the immediate cause of the obstruction of the right side of the tube. I remain, Sir, yours obediently,

HENRY T. BUTLIN.

Queen Anne-street, W., April 16th, 1881.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I did endeavour "to use the utmost care not to misinterpret" Dr. Balfour's views. My statement, for it was not a criticism, to which he has taken exception, referred solely to the basic cardiac murmurs of chlorosis, as the context distinctly shows. I had taken it for granted that a murmur heard over the præcordia was *endocardial*, and in discussing the points for and against its being organic or functional, I say "the so-called functional murmurs are always systolic, and are either aortic pulmonary or mitral;" adding in a foot-note, "Naunyn, George Balfour, and others deny that the inorganic murmurs of chlorosis are ever arterial, and say that they are due to mitral regurgitation," *meaning by the term arterial aortic and pulmonary basic murmurs.* After again carefully reading Dr. Balfour's Chapter vi., and referring to the paragraphs quoted in my letter of Feb. 19th, I still think that my conclusion was *logically* correct. I also fail to see that Dr. Balfour anywhere indicates that "the *ultimate result* logically and pathologically must be a systolic aortic murmur."

I differ from Dr. Balfour in thinking the opinions of Hayden and Fothergill beside the mark; on the contrary, they seem to me forcible arguments against his explanation of the reduplicated second sound. I am aware that Ceradini states that the "systolic closure of the valves," as he terms it, is attended by the production of sound; but I understand that this point is difficult to prove and is not accepted as established by physiologists. If this systolic closure is noiseless, Dr. Balfour's explanation cannot hold. But granting, for the moment, that the "systolic closure" is attended by sound, I am still disposed to doubt the correctness of Dr. Balfour's view—viz., that the separation between the systolic and diastolic closure of the segments of the pulmonary valve, caused by the increase of the arterial blood pressure within the pulmonary circuit, is the only rational explanation of a reduplicated sound.

In the normal condition of the blood tension the diastolic closure of the valve, which results from the elastic recoil of the vessel, follows so immediately after the systolic closure that the resulting sound (the normal second sound) is single. Is there any reason for supposing that where the blood tension is increased the "diastolic closure"—i.e., the recoil of the vessel—will be postponed? Should we not rather expect that, if anything, it would be anticipated?

With all respect, then, to Dr. Balfour's great authority, I am disposed to think that the view which I adopted in my lecture is a more probable explanation than the one which he has advanced.—I am, Sir, your obedient servant,

Edinburgh, April 16th, 1881. BYROM BRAMWELL.

⁂ This discussion must now close.—ED. L.

PROVIDENT DISPENSARIES IN MANCHESTER AND SALFORD.

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 26th you refer to Provident Dispensaries as institutions of a public character with which several medical men are connected, and to which the working classes subscribe. It is time that publicity was given to what they really are, and to the manner in which they are conducted here.

About five years ago, in conjunction with five others, I was surgeon to a provident dispensary. It was quite an exception when the rules with regard to the admission of members were carried out, and when the members of the medical staff complained they were told that if these rules were enforced it would make the dispensary unpopular. THE LANCET is mistaken in imagining that these places are worked by any surgeons in the district who like to join. That was the case formerly, but not now. A doctor is engaged by the committee. He takes a private house in a district remote from the dispensary, so that his future private practice may not be injured. Handbills publishing his name and *private* address are circulated in the neighbourhood, and by means of a collector the private patients of the other doctors are canvassed and pressed to become members. As a matter of fact I can point to numerous instances of shopkeepers who are being attended at a provident dispensary. But what can be expected of an Association the President of which dared to state at a public meeting held in support of these places that doctors in Manchester kept black lists, and were frequently the means of bringing persons to the workhouse? *Theoretically* a philanthropical and generous scheme, at its commencement equally generously supported by the general practitioners; *practically* a scheme which has deliberately broken faith on every point with the medical men, and which is worked entirely on the principle of success, no matter at what cost of honourable and straightforward professional dealing.—I am, Sir, yours faithfully,

Broughton, Salford, April 13th, 1881. G. HOLTBY PINDER.

THE SIGNIFICANCE OF DESQUAMATION.

To the Editor of THE LANCET.

SIR,—I have noticed lately a very important discussion in your columns on the subject of desquamation after scarlet fever. My view of that subject is that the variation in the process itself is some excuse for the variety of opinion as to its duration which obtains in the profession. May I draw your attention to another cause of desquamation, as it seems to me—the administration or use of certain drugs, such as turpentine, perhaps copaiba, &c.? It would be extremely interesting to learn the experience of your numerous readers in regard to this point. I lately attended a gentleman in a large hotel for somewhat persistent hæmaturia, to which he had been liable for about twenty years. Gallic acid having failed, I gave oil of turpentine. Marked desquamation in large flakes of the skin of the hands followed, which suggested a scarlatinous element so strongly that he was detained on account of it, and disinfecting precautions were taken. The question was very important, involving questions of detention, and expense, and sanitary law. There was absolutely no other sign of scarlatina, which was indeed almost excluded by the history of the case, a very slow pulse, normal temperature, &c. I have seen two or three other cases more or less similar, with the particulars of which I need not trouble you, but we have a good deal to learn yet about desquamation. Your obedient servant,

March, 1881. VIGILANS.

"MISSED LABOUR."

To the Editor of THE LANCET.

SIR,—Reading the discussion on so-called "missed labour" at the meeting of the Obstetrical Society, I was reminded of a case I had a few years ago. A woman, aged about forty-five years, who had had six or seven children, consulted me as to her health. She said she was six months pregnant, had quickened six weeks ago, and had felt the movements of the child up to a few days ago, when they ceased, and she began to feel "out of sorts," complained of coldness and weight at the bottom of the body, loss of appetite, and general malaise. The abdomen appeared as large as that of a woman six or seven months advanced in pregnancy. She looked sallow, almost jaundiced. A short course of medicine soon removed these ailments, and she seemed quite well. I did not see her again until about two months after, when she said she was very well, and looked so. The abdomen was so much less that any enlargement could scarcely be seen, and she expressed a doubt as to having been pregnant at all, but thought it was "the change of life." She still felt a little weight at the bottom of her body. I told her I was sure she was pregnant, and would soon part with a dead child. However, time passed on, the natural period of gestation ended, and nothing came of it, and it was not until the lapse of *eleven months* from the beginning of pregnancy, or *five months* from the time when I first saw her, that she sent a hasty message for me, saying that, as she "was walking across the bedroom floor, her inside began to come out." I found her laying on the floor, half fainting, the unbroken bag of membranes protruding, which I removed, and liberated therefrom a six months' fœtus, withered and mummified. The placenta came away, of course, still attached to the membranes. Scarcely any blood was lost, and she quickly recovered. As such cases are not very common, I thought it might be worth while to record this.—I am, Sir, yours faithfully,

W. M. BURMAN, L.R.C.P. Lond., &c.

Wath, Rotherham, April 11th, 1881.

ABERDEEN.

(*From our own Correspondent.*)

THE outbreak of milk poisoning referred to in my last communication is now subsiding, no fresh families having been attacked last week, and very few new cases having occurred in families already affected. The stoppage of the supply of milk has effectually checked the spread of the disease,—an additional proof, if any had been required, that the milk was the cause of the outbreak. Careful inquiries made by the officials of the sanitary staff have shown that out of 110 families supplied from that dairy, 90, comprising probably about 300 individuals, have been attacked. As formerly mentioned, the sudden and severe onset of fever, and the great prostration which followed its subsidence, were the most marked of the constitutional symptoms; and it has turned out that this prostration has been the source of danger. Three deaths have occurred, all of old people—over seventy—in whom the prostration was never rallied from. Each of these fatal cases lasted from eight to nine days. Several other cases looked for a time very serious; but all seem now to be progressing towards convalescence. The local symptoms, as formerly mentioned, consisted in enlargement with tenderness of the lymphatic glands of the neck, first of those close to the angle of the jaw, and afterwards (if the disease continued) of those farther down in the upper triangle of the neck, and in some cases also of those in the lower triangle. The thoracic and abdominal glands were unaffected. Each fresh invasion of glands was marked by a sharp paroxysm of fever, lasting from twelve or twenty-four to forty-eight hours; thus giving rise to "relapses" separated by intervals of one or more days. The most common course has been two attacks, corresponding to the invasion of the two sides of the neck, with one two-days' interval between them; but in many cases the febrile paroxysms have recurred repeatedly, every second or third day, each attack accompanied by and corresponding to, the swelling and tenderness of a gland or glands in the neck further down than those previously affected. The swelling of the glands slowly subsided, and final convalescence was marked by the complete disappearance of the glandular swellings. The tissues around the glands did not seem to be affected, and in no case (as far as known) has suppuration occurred. A large proportion of those attacked were young persons, who seemed to throw off the disease comparatively easily; but middle-aged or elderly people when attacked, appeared to suffer more heavily. In one of the fatal cases a post-mortem examination was obtained; but, having been delayed until decomposition had begun, and having had of necessity to be somewhat hurriedly made, the result was not entirely satisfactory. With the exception of chronic affection of the kidney of old standing, insufficient to account for death, but sufficient to explain why the system could not stand the prostration following such a shock, nothing definite was discovered. The tonsils, lymphatic glands, and blood were reserved for microscopic examination; but as the tenderness and swelling had subsided before death, and as in fact death seemed to be due more to the prostration following disease than to the disease itself, it is hardly to be expected that microscopic examination will throw much light on the matter. The abdominal lymphatic system and the spleen were entirely unaffected.

In my last communication I mentioned that the disease had broken out suddenly on the 1st of April. It appears, however, on further inquiry, that for one or two weeks at least prior to that date there had been stray cases of this affection, all in families receiving milk from the same source; but which, from the novelty of the disease and the short period of its continuance, had at the time been overlooked. The full lists of cases and dates have not yet been received, but from those obtained it appears that the outbreak extended from at least March 25th to April 11th. Pretty extensive inquiries made in various places in Scotland have failed to show the existence of the disease elsewhere.

Although it is impossible now to reproduce the exact conditions which existed at the commencement of the outbreak, and also impossible satisfactorily to examine or experiment with the milk, yet, from what has been learned, it appears that the morning's milk was the worst and the evening's the best; that skimmed milk had less effect than sweet milk or cream; and that boiled milk had still less effect.

As to the nature of the disease, the most reasonable view seems to be that it is the result of an organic poison, of a nature similar to that which produces typhoid fever, which, entering the system by the mouth or fauces, spends its local action on the neighbouring lymphatics. As there is nothing about the cows or their surroundings to account for the outbreak, the condition of the water-supply seems the most natural source to look to, and, as I mentioned in my last communication, the water used in and about the dairy has been shown to be highly contaminated with organic matter. The following is the analysis:—

	Grs. per gallon.	Parts per 1,000,000
Total solids, containing	4·7	.... 67 143
Chlorine	—	.... 10·143
Free ammonia	—	.... 0·029
Albuminoid ammonia	—	.... 0·212
Nitric anhydride	—	.... 3·857
Sulphate of lime, carbonaceous matter, &c.	—	.... 52·902

The analyst adds this note:—"The contamination which the water has suffered in this case takes it from the 'excellent' into the 'dangerous' class. While the harmless ingredients remain at nearly the same point the injurious ingredients have been trebled."

With water of such a character as this used exclusively and continuously in the dairy, is it any matter of surprise that an outbreak should result? Is it not rather a matter for congratulation that no worse results have happened?—and is it not one other added to the many warnings we are constantly receiving that while pure water and pure milk are amongst the most easily obtained necessaries of life, being furnished by nature in a condition capable of sustaining health, yet by our own perversity and carelessness we can only too readily convert them into deadly poisons?

GLASGOW.

(*From our own Correspondent.*)

THE struggle which has been going on for the medical officership to the Scottish Provident Institution has resulted in the appointment of Dr. G. T. Beatson to the office. I understand that the canvas for this place was very keen, and that the disappointment now felt in some quarters is correspondingly great; few, however, will be disposed to grudge Dr. Beatson his success.

Dr. G. P. Tennent has obtained the new physicianship to the Western Infirmary.

Dr. H. C. Cameron leaves the Royal Infirmary, having been appointed surgeon to the Western. In thus having an outsider passed over their heads the dispensary surgeons feel somewhat disheartened, and fancy they have a grievance against the managers of the institution; having borne the drudgery of dispensary work, they not unnaturally think themselves entitled to the ward appointments. The managers, however, have doubtless been actuated by a desire to do the best they could for the great charity under their care. Dr. Cameron has resigned his appointment as examiner in surgery at the University. The withdrawal of Dr. Cameron from the Royal Infirmary renders vacant the post of surgeon to the infirmary and the lectureship in surgery in the medical school attached to the institution.

For the former post Mr. H. E. Clark and Dr. D. Foulis are mentioned as the most prominent candidates; both are excellent surgeons, and the interests of the Royal would not suffer were either appointed. Dr. W. McEwen is spoken of as the most likely candidate for the lectureship.

In the burgh of Hillhead, adjoining Glasgow, one of Ransome's patent disinfecting stoves has been fitted up for the use of the ratepayers. With the exception of one in Greenock, this is the only apparatus of the kind in use in Scotland.

At the annual general meeting of the subscribers to the Glasgow Dispensary for Skin Diseases, it was stated that during the past year 1192 new cases had been treated, making upwards of 23,000 since the opening of the dispensary. Eighty-four of the more important cases had been sent to the ward for cutaneous affections in the Western Infirmary.

The happy manner in which the proposed compulsory reporting of infectious diseases would work in Glasgow was well illustrated a few days ago. Dr. Russell thus refers to the case in his last report to the Town Council:—"During the fortnight we have registered the first case of genuine small-pox which we have seen in Glasgow for seven months. The patient was a seaman who had sailed between Calcutta and London in a ship in which small-pox appeared during the voyage. He left the vessel at London and came down to his home in Glasgow. Feeling ill on his arrival, a doctor was at once summoned, the disease detected, one of those blank certificates which I recently submitted to the committee filled up and posted, and the patient removed to hospital before he had been twenty-four hours in the city. I do not anticipate that any secondary cases will arise from this."

Obituary.

WILLIAM HARDWICKE, M.R.C.S. ENG.,

CORONER FOR CENTRAL MIDDLESEX.

AFTER a tenure of upwards of six years of the office of Coroner for Central Middlesex, Dr. Hardwicke died suddenly on the 14th inst. Whilst engaged in holding a number of inquests at Islington Dr. Hardwicke was seized with symptoms of cerebral hæmorrhage, and struggled sufficiently against them to complete the duties in which he was occupied. When conveyed to his house at Paddington he was seen by Dr. Danford Thomas and Dr. Westmacott, and the aid of Dr. Buzzard was soon after obtained. He was then in a comatose condition, with complete hemiplegia of the left side, evidently dependent upon cerebral hæmorrhage. The symptoms of apoplexy increased, and he died at 2.30 A.M. on the following day. Dr. Hardwicke was sixty-four years of age. Almost up to the time of his seizure he had enjoyed good health, though there had been a slight warning a few weeks previously in the shape of numbness of the left hand. There was a family proclivity to apoplexy, his mother and brother having succumbed to the same disease. It is curious that Dr. Hardwicke had more than once expressed the opinion that he should die, like his brother, the well-known medical publisher, of apoplexy. Dr. Hardwicke's loss will be severely felt.

ROTUNDO LYING-IN HOSPITAL, DUBLIN. — The Secretary of the Public Health Committee of the Corporation has recently drawn attention to the sewerage of this hospital, and has pointed out that the sewer into which the general sewage of the hospital is conducted is at all times, but more especially during high water, when its outlet is closed, charged with sewage gas, from which it can only escape through an imperfectly closed door which partially secures the opening between it and the drain which conducts the sewage from the hospital. The head of the sewer is about thirty feet from one of the principal doorways of the basement of the hospital, towards which the foul exhalations from it find their way through the door referred to. The breadth of the floor of this sewer is so great as to render its flushing by water impossible. Mr. Boyle suggests that a twelve inch pipe should be substituted for the present outfall, and that the existing sewer be filled up throughout its entire length.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen having passed the required examination for the diploma were duly admitted Members of the College at a meeting of the Court of Examiners on Tuesday last:—

Awdry, Walter Robert, Kidderminster.
Beyer, Henry Gustav, M.D. New York, Washington, U.S.
Black, William Gladholm, South Shields.
Cox, James, M.D. Melbourne, Melbourne, Australia.
Eames, William, L.R.C.P. Edin., St. John's, S.E.
Holberton, Henry Nelson, L.R.C.P. Lond., Hampton.
Howe, John Ernest, B.A. Cantab., Knowle.
Jennings, —, L.S.A., Malmesbury.
Kaeser, Jean, M.D. Bâle, Avenue-road.
Kelly, Thomas, M.D. McGill University, Ontario.
Oswald, Robert J. W., L.R.C.P. Edin., Kennington-road.
Palmar, Edward Talbot, L.S.A., Southsea.
Platt, Walter Brewster, M.D. Harvard Univ., Boston, U.S.
Pomfret, Henry Waytes, L.S.A., Hollingworth.
Potter, Edward Furniss, Knaresborough.
Shelswell, Oscar Berridge, L.R.C.P. Lond., Sibford, Oxon.
Stokes, Lennard, Lee, Kent.
Thornson, Wilfred Burrell, Ledbury-road.
Trotter, Walter Octavius, Stockton-on-Tees.
Walsh, J. H. Tull, Cheltenham.
Wells, Alfred Ernest, Brixton.
West, John Arthur, Bickley-park.
Wight, Ernest Octavius, Clarendon-road.

The following were admitted Members of the College on Wednesday last:—

Branthwaite, Robert Welsh, L.S.A., Willesden.
Browne, Oswald Auchinleck, M.A. Cantab., Lympstone, Devon.
Cory, William Howard, Bath.
Downing, Charles, Falmouth.
Hallowes, Herbert Chaworth, Chesterfield.
Hatton, Edwin Fullarton, M.D. Toronto, Peterborough, Canada.
Knowling, Ernest Mansford, B.A. Cantab., Wellington.
Luscombe, Thomas B., L.S.A., Hampton.
Maddison, William Thomas, Cardiff.
Makeham, H. W. Payne, L.S.A., Chelmsford.
Osborne, H. Rochester, L.S.A., St. Ives, Hunts.
Pearce, Walter, L.R.C.P. Lond., Maidenhead.
Row, Frederick Everard, Devonport.
Shaw, Frank Herbert, Hastings.
Stephens, Guy Neville, Lincoln.
Sturridge, Peter Frederick, Jamaica.
White, Percy Harry, M.B. Edin., Norwich.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 13th and 14th inst.:—

Alfred E. Hind, Thos. H. White, Charles B. Leaver, Samuel Stephens, James N. Vogan, and Albert Gresswell, St. Bartholomew's Hospital; Charles W. Biden, Charles Josling, and John J. Rowland, Charing-cross Hospital; Arthur W. Clark and William Watson, Guy's Hospital; William W. Robson, George W. Ford, Thomas Johnston, Walter B. Tomson, and Goolden Perrin, St. Thomas's Hospital; Charles T. Street, Charles J. Weller, and Clement S. Robinson, St. George's Hospital; Harry Littlewood, Thomas Wilson, and Frederick A. Dixey, University College; Thomas Wholey, London Hospital; Jas. R. Roberts, Middlesex Hospital; Albert W. Mitchell, Trevor Webster, Thomas Short, and Clifton Sturt, King's College; Charles D. Green, John L. C. Cox, Duncan B. Irving, and Frederick Bryan, St. Thomas's Hospital; Robert Caldwell and Charles S. Humphreys, Westminster Hospital; John Powell, Arthur H. Mason, and W. H. Brown, University College; Frank Percival, St. George's Hospital; Francis B. W. Phillips and William C. Blight, Guy's Hospital.

Of the 214 candidates examined during the last fortnight, 37 failed to satisfy the Board of Examiners, and were referred for three and 2 candidates for six months' further anatomical and physiological study.

[In the list published last week of gentlemen who passed the Primary Examination, the name "Charles H. Hall" should have been C. H. Hale.]

UNIVERSITY OF EDINBURGH. — The following gentlemen have passed the First Professional Examination for Medical Degrees:—

G. R. Ayshford, E. H. Bannister, John Barrie, G. B. Batten, Alexander Bisset, Ernest Black, J. A. Blair, T. M. Blumenreich, J. N. F. J. Boissière, H. R. Bramwell, G. T. Broatch, R. N. Buist, A. J. A. Campbell, J. G. Cassels, James M. Caw, R. L. Clark, John Cunninghame, A. E. Curtis, Richard Davidson, William Davies, William O. Dow, William Dutton, T. E. Dyson, H. S. Fairbank, W. C. Faulkner, J. E. A. Ferguson, Francisco Fernandes, W. H. Francis, Arthur Fuller, W. G. Galletly, F. W. A. Godfrey, G. B. Goodall, J. A. Haggart, F. W. G. Hall, J. H. Helm, John Henderson, G. V. Hewland, T. M. Hodgson, John Hoyle, John Hutson, E. M. Inglis, R. W. Jamie, J. S. Jones, D. K. Keith, Jas. Kerr, F. H. Knaggs, James Lamrock, A. E. G. Langschmidt, J. A. Lestrade, H. S. Lloyd, J. S. M'Cracken, George Mackay, J. S. M'Laren, Andrew M'Lennan, Jas. M'Leod, Jas. Macpherson, Adam Macvie, Alex. Menzies, W. J. van der Merwe, Gustave Michael, George Miller, R. S. Miller, David Milligan, S. C. Mitchell, G. P. Nicolet, Joseph Nielson, John Noble, F. B. O'Flaherty, A. M. Paterson, C. E. Paterson, R. J. Paton, A. W. G. Price, O. R. Pughe-Owen

A. S. Purves, Wm. Richards, W. G. Roberts, J. B. Robinson, Chisolm Ross, A. J. T. Roux, H. D. Rowan, C. F. D. Shaw, Herbert Shelmerdine, L. G. Smith, S. H. A. Stephenson, W. M. Sturrock, G. P. Taylor, George Thomson, C. G. Thorp, John Tomlinson, S. C. Townsend, C. G. Traill, E. M. Tyrrell, Edmund Vaudrey, T. W. E. Waddington, Joseph A. Wake, N. H. Walker, John Walther, E. H. Warner, Algernon Westlake, J. B. Wilkinson, John Williamson, S. H. Wilson, T. N. Wilson, A. J. Wood, George B. Wood, G. A. H. Woodforde, W. S. R. Woodforde, J. W. Wyncoll, Peter Yates, J. H. Zepero.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 14th:—

Batterham, John W., Maitland Park Villas.
Luscombe, Thomas Benjamin, Hampton, Middlesex.
Oakley, John Lewis Bagnall, Newland, Gloucester.
Stott, Hugh, West Kensington Park.
Whistler, Charles Watts, Ashburnham, Sussex.
Harvey, Fredk. W., Cromwell House, Gunnersbury.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Kenaz Goodall, Charing-cross Hospital; Arthur Augustus Lipscombe and Henry Frederick Iliewicz, London Hospital.

College of Physicians in Ireland.—During the April examinations the following obtained the licences in Medicine and Midwifery of the College:—

Medicine.—Hope Bridges Adams, Charles Dillon Barrett, John Geo. Cronyn, Patrick Arthur Daly, Charles B. Gaffney, William Gem, Wm. Henry Holden, John Laird, John Vincent Lentaigne, Edward Hayes M'Laughlin, Alice Kyme Marston, Isabella Mears, John O'Halloran, Vincent Adolphe Passanha, Francis John R. Russell, Edith Shove, William John Trotter.

Midwifery.—Hope Bridges Adams, Charles D. Barrett, John George Cronyn, Patrick Arthur Daly, C. Burke Gaffney, W. Henry Holden, John Vincent Lentaigne, Edward Hayes M'Laughlin, Alice Kyme Marston, Isabella Mears, Francis John Roberts Russell, James Quirke, Edith Shove.

The under-mentioned have been admitted Members:—

Wilberforce Arnold; Samuel Browne; Charles Edw. Dwyer, Surgeon, Army Medical Department.

Dr. J. H. Aldridge has been placed on the Commission of the Peace for the borough of Southampton.

The Earl Cadogan has been elected to the Presidency of the Chelsea Hospital for Women, which office had become vacant by the death of the Earl of St. Germans.

An application has been made by the authorities of the Preston and County of Lancaster Royal Infirmary for a grant towards the endowment to the institution out of the bequest of £200,000, for charitable purposes, by the late Mr. E. R. Harris, late prothonotary of Lancashire.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

Atkin, C., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Liverpool Eye and Ear Infirmary, vice J. Rose, L.R.C.P.L., M.R.C.S.E., resigned.

Bailey, J. B., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Sixth District of the Maidstone Union.

Buchan, G., M.B., C.M., has been appointed Surgeon to the Ironstone Workers of the Busbie Colliery, belonging to Messrs. James Dunlop and Co., of Clyde Iron Works.

Carter, R. W. F., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Workhouse of the Dulverton Union, vice Robinson.

Chadwick, W. F., M.R.C.S.E., has been appointed Medical Officer for the Second District of the Oldham Union.

Davies, B., M.D., F.R.C.S.E., has been reappointed Medical Officer of Health for the Newport Urban Sanitary District.

Dickinson, W. M., M.B., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Shire of Mount Rouse, Victoria.

Dobbyn, W. A., M.R.C.S.E., L.A.H.D., has been appointed Resident Surgeon to the Beechworth Hospital, vice Moussé, deceased.

Doyle, C. W., M.B., C.M., has been appointed Medical Officer for the Sixth District of the Norwich Union.

Harris, A., M.B., C.M., has been appointed Medical Officer for the Dalston District of the Carlisle Union.

Kiernan, L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Harrow District of the Hendon Union.

Malone, M. J., M.D., F.R.C.S.I., has been appointed Consulting Physician to Barrington's Hospital, Limerick.

Mason, S. B., L.R.C.P., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer and Public Vaccinator to the Pontypool District of the Pontypool Union.

Murrell, W., M.D., M.R.C.P.L., M.R.C.S.E., has been appointed Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, vice Phillips, resigned.

O'Connor, M. R., M.D., M.Ch., has been appointed Visiting Physician to Barrington's Hospital, Limerick.

Ogilvie, L., M.B., C.M., has been appointed Lecturer on Zoology and Comparative Anatomy at the Westminster Hospital, vice Carter Blake, resigned.

Pratt, R., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Royal United Hospital, Bath.

Row, F., M.D., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer for the Clowance St. John District of the Stoke Damerel Parish.

Snowball, W., M.B., B.Ch., L.R.C.S.Ed., has been appointed Honorary Surgeon to the Melbourne Hospital for Diseases of Children.

Stocker, C. J., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Plashet Industrial Schools, St. George's-in-the-East, vice Levick, deceased.

Sutherland, J. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Acting Resident Surgeon at the Melbourne Hospital.

Warren, W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Resident Surgeon at the Geelong Hospital, vice Scott, resigned.

White, J. A., M.R.C.S.E., L.S.A.L., of Pendleton, has been appointed Certifying Surgeon under the Factories Act, vice Davies, deceased.

Births, Marriages, and Deaths.

BIRTHS.

Chetwood.—On the 15th inst., the wife of William Chetwood M.R.C.S.E., of King-street, Finsbury-square, of a daughter.

Coward.—On the 9th ult., at Queen-street, Huddersfield, the wife of Frank A. Coward, L.R.C.P.Ed. &c., of a son.

Duke.—On the 8th inst., at 9, Cornwall-road, Westbourne-park, W., the wife of G. Amos Duke, M.R.C.S.E., of a son.

Evans.—On the 11th inst., at Fronheulog, Fourcrosses, Festiniog, North Wales, the wife of R. D. Evans, L.R.C.P.Ed., L.R.C.S.Ed., of a son.

Farrington.—On the 15th inst., at The Moat, Penshurst, the wife of W. H. Farrington, M.D. (prematurely), of a son, stillborn.

Hoar.—On the 12th inst., at Maidstone, the wife of Charles E. Hoar, M.D., of a daughter.

Muirhead.—On the 16th ult., at Gellahating, Assam, the wife of William Muir Muirhead, M.D., of a daughter.

Phelps.—On the 10th inst., at Highbury, the wife of A. M. Phelps, M.A., M.B., of a son.

Rigby.—On the 2nd inst., at Winckley-square, Preston, the wife of J. A. Rigby, Esq., M.D., of a son.

Rushbrook.—On the 15th inst., at Seven Sisters-road, Holloway, the wife of Henry George Rushbrook, L.K.Q.C.P.I. & L.M., of a daughter.

MARRIAGES.

Stott—Gurr.—On the 19th inst., at St. Michael's, Paddington, Hugh Stott, M.R.C.S.E., L.S.A.L., to Ellen, youngest daughter of the late A. J. Gurr, of Shepherd's-bush.

Tweedy—Mack.—On the 20th inst., at St. Paul's, Canonbury, by the Rev. William McCall, Vicar of St. George's, Tufnell-park, N. (uncle of the bride), George, second son of George Tweedy, of Bishop Auckland, to Rosa Courtney, eldest daughter of Robert Mack, Surgeon, of Canonbury, N. No cards.

Wilson—Balfour.—On the 9th inst., at St. John's, Edinburgh, by the Rev. T. J. Nunns, M.A., assisted by the Rev. D. Sandford, LL.D., Robert Morrison Wilson, M.D., of Old Deer, Aberdeenshire, to Charlotte Mary (Sissy), only daughter of the late Charles Anthony Balfour, Lieut. Royal Artillery.

DEATHS.

Alexander.—On the 12th inst., at Eastbourne-terrace, London, Mary Alice, widow of Thomas Alexander, C.B., late Director-General of the Army Medical Department, and eldest sister of T. Heath Haviland, Lieutenant-Governor of Prince Edward Island, Canada.

Chadwick.—On the 7th inst., at his residence, Butterworth Hall, Milnrow, Lancashire, John Chadwick, M.D., L.R.C.S.Ed., L.S.A.L., aged 66.

Charsley.—On the 17th inst., at Graham's Town, South Africa, W. P. Charsley, M.D., late Principal Civil Medical Officer, Ceylon, only son of the late William Charsley, Esq., of Her Majesty's Exchequer, aged 56. (By telegram.)

Hardwicke.—On the 15th inst., at Richmond Villa, Paddington, Dr. William Hardwicke, of Holders-hill House, Hendon, Coroner for Central Middlesex, aged 64.

Innes.—At High-street, Forres, N.B., John George Innes, L.R.C.S.Ed.

Jarvis.—On the 3rd inst., at his residence, Lea Side, Harrow, George Harvey Thompson Jarvis, M.R.C.S.E., L.S.A.L., aged 58.

Kirkman.—On the 11th inst., at his residence, Courtland-terrace, Kensington, John Moss Kirkman, M.R.C.S.E. &c., late of Ardwick-green, Manchester, aged 69.

Philp.—On the 2nd inst., at Brighton, Francis Richard Philp, M.D., in his 82nd year.

Shewan.—On the 16th inst., at Princes-square, Bayswater, Alexander Shewan, Deputy Inspector-General of Hospitals, Indian Medical Service (Retired List).

Stephens.—On the 12th inst., at his residence, Warwick Villa, Abbotsford-road, Redland, Henty Oxley Stephens, M.D., M.R.C.P., aged 75.

Waller.—On the 14th inst., at Spendhurst, Gipsy-hill, Thomas Waller, M.R.C.S.E., Retired Surgeon-Major, Bombay Medical Service, aged 76.

Waylen.—On the 10th inst., at Culver-street, Colchester, Edward Waylen, for twenty-nine years Surgeon to the Essex Rifles Militia.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 21st, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 15	29·91	S.W.	52	48	88	63	37	..	Fine
„ 16	29·94	S.	49	46	80	60	41	..	Foggy
„ 17	30·07	N.E.	48	45	99	69	40	..	Fine
„ 18	29 95	E.	57	48	98	66	44	..	Cloudy
„ 19	30.03	E.	41	38	54	44	38	..	Overcast
„ 20	29·87	N.E.	40	36	63	44	34	..	Cloudy
„ 21	29·77	N.	37	34	70	47	28	..	Cloudy

Medical Diary for the ensuing Week.

Monday, April 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M. ; on Tuesday, 9 A.M.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Regent's-park.—5 P.M. Dr. Julius Althaus "On Recent Researches in the Pathology and Treatment of Cerebral Paralysis."

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. R. J. Lee, "On the Special Character of Cutaneous Diseases in Infants and Young Children."—Dr. Allen Sturge will exhibit Two Patients illustrating some interesting points in connexion with Muscular Atrophy.—Dr. Gilbart Smith will exhibit Photographs of the Machines used in the Mechanico-therapeutic Institution of Stockholm.

Tuesday, April 26.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. George Thin, "On an Unusual Case of Warty Growths on the Face."—Dr. Champneys' Second Communication "On Artificial Respiration in Stillborn Children; Expansibility of various parts of the Lungs."

Wednesday, April 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations 2½ P.M.

Thursday, April 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

Friday, April 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Professor Blackie, "On the Language and Literature of the Scottish Highlands."

Saturday, April 30.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Scotland's Part in English Literature."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE VEGETABLE CELL.

AT a late meeting of the Edinburgh Botanical Society, Mr. J. M. Macfarlane read a paper "On the Structure and Division of the Vegetable Cell," in which he stated that he had observed within the nucleolus of the cell a body which he proposed to call the nucleolo-nucleus, and of whose behaviour in the process of cell development he gave a somewhat detailed account. Professor Dickson said that, whereas division of the cell was known to be preceded by division of the nucleus, Mr. Macfarlane carried the matter further back, and showed that division of the nucleus was preceded by division of the nucleolus; and that, again, although perhaps a little additional observation was still required, he believed to be preceded by the division of the nucleolo-nucleus. It might be a question whether the nucleolo-nucleus was the most important factor, or whether it might be subordinate to the nucleolus or the nucleus; but if the matter was as Mr. Macfarlane showed, that all went to show the probability or possibility of this newly-discovered structure proving of very great importance.

Mr. David Edgar Flinn's question had escaped our notice. We certainly think there is no district in which there is more need of a well conducted medical defence association than that of Birmingham, which on former occasions has done good service in the cause of medical reform.

CAUSE OF DEATH?

To the Editor of THE LANCET.

SIR,—Kindly allow me space in the next issue of your valuable journal to submit to the notice of your readers a few notes of the following case of sudden death.

On the 1st of this month, about 9 A.M., I was called to see a schoolboy, fourteen years of age, who had a history of having been suddenly seized at 4 P.M. the previous evening, without any assignable cause, with severe headache, accompanied by sickness and vomiting. Upon my arrival I found the patient lying partially on his face, with his back turned to the light, complaining of intense pain in the head and a feeling of nausea. When asked a question he showed marked signs of irritability and disinclination to be disturbed. His pulse was high and bounding; temperature 103°; tongue dry; scalp hot; his pupils contracted, and there was marked photophobia.

I diagnosed acute encephalitis; prescribed perfect rest and quiet, exclusion of light, and the application of cold cloths to the head; the patient to have milk and water to drink. Ordered a full dose of calomel to be given, and left with a promise to call later on.

At 1 P.M. we were informed that an attack of vomiting followed the administration of the powder which was returned, and that the patient was becoming delirious. A second calomel powder was ordered, and we promised to visit the patient as soon as possible. In a few minutes—twenty-one hours from the first appearance of the symptoms—a messenger came to say the boy was dying. My principal straightway went to see him, and found that the respiration had ceased, his face was purple, and that other signs of asphyxia were present. The pulse was still to be felt at the wrist. Artificial respiration was employed at once, but with no effect, the patient dying in about one minute after his arrival—three minutes from the onset of these last symptoms.

I should be glad if some of your correspondents could suggest to me the immediate cause of death in the above case. Was it due to thrombosis of the pulmonary artery? If so, how was it brought about? Apologising for trespassing on your space,

I am, Sir, yours obediently,

April 18th, 1881 M.R.C.S., &c.

"THE SURGICAL DISEASES OF THE HEAD AND NECK."

THE *Vienna Montags Blätter* states that in M. Edward Albert's work on the above subject, of which the second edition of the first volume has just appeared, there is a passage treating upon narcotics and containing the following anecdote:—When Sir James Simpson proposed the use of chloroform in confinement cases the religious zealots in England got up an agitation against it on the ground of the scriptural curse, "In sorrow thou shalt bring forth children." Sir James quickly answered this party, which even comprised some doctors, with the biblical fact that God narcotised Adam (*immisit soporem*—"caused a deep sleep to fall upon him") when he created Eve out of his rib.

AN ACEPHALIC MONSTER.

To the Editor of THE LANCET.

SIR,—As these cases are not commonly met with, I thought the following might be worth recording. The case occurred in my obstetrical practice on the 6th inst. Being called to attend Mrs. H. S——, a multipara, I found on examination a pouch of membranes projecting through a well dilated os, and had no difficulty in diagnosing a foot presentation. I ruptured the membranes, brought down the foot, and got the labour terminated in a short time. It struck me, however, at the time with what ease the head passed out through the lower outlet, and on examining the fœtus, which showed marked signs of life in moving its body and extremities, though not crying, I found the greater part of the head absent. The body was that of a well-developed female child, and the face, as far up as the lower part of the forehead, was also well formed, with the exception of the eyes, which were preternaturally large and projecting. There was no forehead, the whole of that part of the cranium originating in membrane, and its contents appearing to be absent. The skin and dura mater terminated abruptly with the bones, and the base of the skull supported little else than the pia mater, the cerebrum being wholly or almost wholly absent. There was very little trace of the cerebellum, but the medulla oblongata seemed to be intact.

I may mention that it lived only a few minutes, to the great satisfaction of its friends, who seemed shocked to find that it was not "like the world." As I was not allowed an opportunity of making a dissection, I can furnish no further particulars.

I am, Sir, your obedient servant,

Beith, Ayrshire, April 7th, 1881. C. R. MACDONALD, M.B.

Dr. H. J. Hardwicke is thanked for his communication; but it does not seem to us that the statements of the criminal he mentions are of any value.

Dr. Latham (Cambridge) is thanked.

Junius.—We do not see anything objectionable in the proceeding.

M. D. W. (Dundee).—Professor Moleschott's lecture will be given in whole or in part in an early number.

A Young Practitioner.—1. Barnes, Galabin.—2. Eustace Smith, Meigs.

Dr. T. Robinson.—We cannot promise insertion of the paper.

Mr. J. B. Sealy.—An account of the case will be found in THE LANCET of April 9th, p. 601.

EARLY MATERNITY.

To the Editor of THE LANCET.

SIR,—Those interested in such statistics will find recorded in THE LANCET for 1874 (vol. ii., page 436) an instance of maternity at the age of thirteen years; and in THE LANCET for 1873 (vol. ii., page 852) an instance thereof at the age of ten years and a half. We may set off against these two cases, and the still more remarkable one in to-day's LANCET, the case of a woman being delivered of triplets at the age of sixty-two, recorded in THE LANCET for 1867 (vol. i., page 727).

I am, Sir, yours, &c.,

Penzance, April 9th, 1881. A. B. B.

DRUGGISTS' CHARGES.

To the Editor of THE LANCET.

SIR,—"A Retired Surgeon," in your last issue, states that when he commenced his professional life, in a small country town, forty years ago, surgeons not only dispensed their own prescriptions, but also those of consulting physicians, with very considerable profit and little trouble.

I can assure him that in many parts of England the surgeon is still as much an apothecary as he was forty years ago, and strictly adheres to the above practices. In many towns in Scotland, too, and more especially in the Glasgow districts, the practitioner, often a university graduate, "dispenses" such articles as tobacco, snuff (in half-pennyworths), sweets, bottles of hair-oil, corn-plasters, and such like. He is not above "sending out his own remedies"; he is even sometimes not above sending out the remedies of Professors Holloway and Morison. This certainly does not look like what "A Retired Surgeon" designates as "pride interfering with pocket." The remuneration for this "brain work" goes into the practitioner's pocket.

So that the good old days have not quite gone yet. Why not improve on them, if possible? Why should not the practitioner become more general than ever, and sell ham and butter, or spirits and beer?

I am, Sir, yours truly,

April 15th, 1881. A SURGEON—NOT RETIRED.

FALSE EARS.

IN Paris false ears are a new manufacture for the toilette. Ladies who think they have ugly ears place these artistic productions under luxuriant tresses of false hair, fasten them to the natural ears, and wear them for show. False hair, false teeth, false breasts, false hips, false calves, false ears—what next?

FEES FOR MEDICAL EXAMINATIONS FOR INSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—I have seen some correspondence in your columns lately on the above subject, and there is one point which has not I believe been touched on, and which, I think, is well worthy the attention of the profession. It is the custom of some offices to give only half a guinea as fee when the proposal is for under some amount (in some offices £300, in some £500). This has always struck me as an anomaly, for surely the medical examination and report are, or ought to be, the same in all cases, whatever is the sum proposed to be assured. I examine for a good number of offices here (perhaps a dozen), and it has been my custom to write a protest to the secretary on receiving my first half-guinea fee, pointing out the inconsistency, and asking on what principle the office acts. I am happy to say that one of my offices last month reduced the minimum amount for the full fee of one guinea from £500 to £300, and that I have had a letter from the secretary of another only this week, saying that "they have pleasure in stating that a fee of £1 1s. will be allowed in all cases in future." This is encouraging, and shows, I think, that if other medical examiners for insurance offices would write similar letters we might soon have a guinea in all cases—not too large a fee, in my opinion, for any such report as most offices demand and, I think, have a right to expect for their own protection.

I am, Sir, yours, &c.,

Halifax, April 12th, 1881. E. WEST SYMES, M.D.

TALIPES AFTER ACUTE RHEUMATISM.—WHAT TO DO?

To the Editor of THE LANCET.

SIR,—I have under my care a girl nine years of age who some three years ago had an attack of acute rheumatism. During convalescence there suddenly appeared lameness, caused by contraction of the tendo Achillis, and since that time the case has remained apparently a simple case of talipes equinus.

I should feel very much obliged if any of your readers could tell me whether or not in such a case section of the tendon would be justifiable or likely to improve the limb. The girl is very well in health now.

I am, Sir, yours, &c.,

April 20th, 1881. E. G. W.

A Subscriber.—We do not know of the existence of such a society.

Mr. William Fraser, M.B.—We are not aware of any such necessity.

Union.—We fail to see that any practical benefit would arise from the adoption of our correspondent's suggestion.

Dry-as-dust.—We have no recollection of the article mentioned.

THE CONTINUED USE OF ERGOT IN SMALL DOSES.

To the Editor of THE LANCET.

SIR,—May I ask, through your columns, if any of your readers can give me information upon the continued use of ergot in small doses, as to how long it may be persevered with without inducing ergotism?

I have a patient who has been suffering for some time past from, I think, aortic obstruction. Four consultants have seen the case, two of them, at least, very eminent men. The advice given has always been to rest upon the iron and digitalis treatment; and this was done and seemed sufficient until lately, when it completely failed, and the patient looked like going altogether to the bad. Dyspnœa became extremely urgent, the action of the heart very tumultuous, and the pulse hardly perceptible. Stimulants appeared to increase the mischief, and all the ordinary remedies proved utterly useless. Anasarca first, then ascites supervened, then œdema of the lungs; and the patient appeared to be moribund, and not likely to last from hour to hour. In this extremity I had recourse to ergot, which had once before in my hands been successful for a time. The preparation used was the ext. ergotæ liq. (P.B.), and the dose given twenty minims every three hours, combined with five minims of tincture of digitalis. In a short time the most marked improvement in the pulse was observable, and in about three days the patient was breathing calmly and sleeping quietly, the pulse being full and soft, and not over sixty. Since then the dropsy has disappeared, and rest can be taken lying quite low in bed; the dose of ergot has been reduced to ten minims every fourth hour, and the exhibition of it has now been continued for three weeks.

In my previous case, as soon as good improvement was established, and the patient could leave her bed for a sofa, the ergot was discontinued, when immediately the whole trouble recurred, and the patient quietly succumbed. I should like now to push the ergot to the furthest possible extent to see if permanent improvement can be established; and I shall be very greatly obliged by any information upon the subject that any of your readers can give.

I am, Sir, yours obediently,

April, 1881. QUÆSITOR.

A NEW OPERATION FOR SOME FORMS OF NEUROMATA.

To the Editor of The Lancet.

Sir,—I hardly know whether I am justified in calling this a new operation, but it is not described in "Holmes's System of Surgery," and I never saw it practised. Holmes says, "The only effectual remedy for these morbid growths is the knife; the operation may consist either of excision of the tumour, with or without a portion of the nerve, or of amputation of the affected limb."

Now, my operation may be called excision of the tumour without a portion of the nerve, but it is not described minutely, and unless the surgeon remembers the pathology of neuromata he will probably not think of it, simple as it is. Let me tell my story. I will first describe an interesting case, in which I must confess that I and a friend of mine made a mistake, and then I will show what lessons I learnt from it. Last summer a man came to our hospital with a large tumour in the position of the median nerve, just below the axilla. There was also a large mass a little above the bend of the elbow, apparently connected with it, but not the same tumour. I supposed that both were enlargement of the median nerve. It was on the left side, and on the same side of the trunk was an immense number of small tumours, chiefly on the chest-walls, which looked like enlarged lymphatics, but I am inclined to think they were connected with nerves. There were about fifty of them, about the size of small nuts. The tumour under the axilla was very painful, and the patient wished this one to be removed.

My medical friend who was with me proposed to perform some operation. I asked him to do this, and promised my assistance and advice. He divided the tissues down to it carefully, and exposed the tumour. It was connected with the median nerve; the nerve was one with it, in fact, above and below, and there seemed to be no way of dealing with it but by removing a portion of the nerve, cutting it above and below the tumour. I had done this a year or so before in the case of a similar tumour, and though the patient lost more or less the use of the arm, he got rid of the pain; so I advised my friend to do the same. He did so. The mass at the bend of the elbow we deemed it wiser to leave alone. There was troublesome suppuration afterwards in the wound, but it finally healed. The man did not lose so much power of the arm as I expected, though it was considerably paralysed. The curious and satisfactory point was that the mass near the bend of the elbow disappeared gradually, and all the small tumours spontaneously disappeared also. We examined the tumour we had removed, and were struck by the way in which nerve fibres completely surrounded the tumour, which was in the centre and almost unconnected with the nerve. It was fibrous in its nature. I looked at Jones and Sieveking's Pathological Anatomy, and found these tumours very clearly described.

I resolved the next time I saw a neuroma to bear in mind the probability of it being what Jones and Sieveking call a false neuroma, which was evidently the nature of the tumour we had removed. In the course of the next six months I had three cases, and I applied the knowledge I had acquired. The first was a tumour on the outside of the leg, connected with the musculo-cutaneous nerve; the other two were in the axilla, and connected with the median nerve. All these three tumours were false neuromata; the nerve fibres had completely formed a covering for the tumour. I simply cut carefully through all the tissues down to the nerve; then hooking it up, I made a longitudinal incision through the nervous covering of the tumour, and turned out the fibrous tumour with the greatest ease, leaving the nerve uninjured except by the longitudinal incision. I stopped the bleeding and closed the wound with a suture or two. All these cases did well; the wound in two cases healed by first intention. In the case of a large neuroma of the median there was secondary hæmorrhage and a good deal of suppuration, but in all cases the wound finally healed, leaving the patient without pain and the nerve quite uninjured, the motion and sensation of the parts supplied being perfectly normal. This may not be a new operation. There is certainly nothing remarkable in it, but it is one of great practical use, and I have not seen it described, so I think the above might be worth publishing.

I am, Sir, yours, &c.,

Kashmir, March, 1881. E. Downes, L.R.C.P. Lond.

Erratum.—In Dr. Robinson's letter on Locomotor Ataxy, in our last issue, page 644, the word printed "parents" should have been "patients."

Communications, Letters, &c., have been received from—Mr. George, Dorchester; Mr. Taylerson, Whitby; Mr. Butlin, London; Dr. Jordan Lloyd, Birmingham; Mr. R. Jeffries, Chesterfield; Mr. E. Downes, Kashmir; Mr. T. P. Wright, Bingham; Dr. Reginald Southey, London; Mr. Tallack, London; Dr. Murrell, London; Dr. Naismith, Ayr; Dr. Bramwell, Edinburgh; Mr. Allen, Bollington; Messrs. Longmate and Co.; Mr. Rawson, Thornton; Mr. Stilliard, Birmingham; Mr. Gaddes, London; Mr. Sinclair, Fordruny; Mr. Ellis, Shipley; Dr. Fisher; Mr. Wilberforce Smith; Dr. Armstrong, Newcastle-on-Tyne; Dr. W. Fraser, Ashburton; Mr. Pinder, Broughton; Mr. Beck, London; Dr. Phillips, Reading; Dr. Steele, Rome; Dr. Hardwicke, Sheffield; Dr. Bull, Hereford; Mr. Dicker, London; Mr. B. Squire, London; Dr. Fulton, Toronto; Mr. Pugin Thornton, London; Dr. Joy Jeffries, Boston, U.S.A.; Mr. J. Johnstone, London; Dr. Dunnett Spanton, Hanley; Mr. Butterell, Hull; Mr. Wilkinson, London; Mr. Wall, Wigan; Mr. Simpson; Mr. Pearce, London; Mr. Merryweather, Guisboro'; Mr. Howard, London; Mr. Robinson, London; Dr. Williamson, London; Mr. Alexander, London; Mr. Thompson, Chelmsford; Dr. Charteris, Glasgow; Mr. E. J. Day, Dorchester; Dr. Ward Cousins, Southsea; Mr. Myatt, London; Mr. J. Duncan, London; Mr. E. H. Saunders, Plymouth; Mr. Shirley Murphy, London; Mr. Wallis, London; Mr. Lefevre; Dr. Gilbert Smith, London; Mr. Shaw; Dr. Ogilvie Will, Aberdeen; Mr. Chalmers, London; Dr. Andeer, Wurzburg; Mr. Horder, Cardiff; F.R.C.S.; M.D., Hammersmith; Alpha, Blackfriars; W. C. C., Chesterfield; Delta; M.R.C.S.E.; Emericus; A Cambridge Undergraduate; Union; A.M.D.; The Editor of the *Daily Independent*, Kimberley; Junius; Veritas; A Surgeon—not retired; A Young Practitioner; Nitrous Oxide; &c., &c.

Letters, ***each with enclosure,*** **are also acknowledged from**—Mr. Snoad, Leicester; Mr. Jackson, Sheffield; Mr. Evans, Festiniog; Messrs. Bleat and Leach, Bath; Mr. Boys, Pill; Mr. Chadwick, Milnrow; Mr. Nicholls; Mr. Watkins; Mr. Willey, Birmingham; Messrs. Keith and Co., Edinburgh; Mr. Brittain, Enfield; Mr. Wall, Wigan; Mr. Davis, Maidstone; Messrs. Leader and Son, Sheffield; Mr. Neil, Ayr; Messrs. Christy, London; Mr. Kennard, Lambourne; Dr. Ross, Oldham; Mr. Davidson, Carlisle; Messrs. Richards and Co., London; Mr. Kemm, Corsham; Mr. Rutter, Notting-hill; Mr. Brocklebank, Islington; Mr. Knapp, Newick; Mr. Tait, Birmingham; Dr. Atkin, Denton; Dr. Jones, Resolven; Mr. Robinson, Pelford; Mr. Parrett, Huddersfield; Mr. Foumartin, Woking; Dr. Jefferson; Mr. Legate, Guisboro'; Mr. Van Praagh, London; Dr. Alderson, Hammersmith; C. J. M., Whitstable; C., Robertsbridge; W. H. M., Brackley; Beta, Notting-hill; Chemicus, Birkenhead; T. C., Risca; L. M.; Beta, Burnley; Registrar, Bath; M.D., Eastbourne; Maidstone; Medicus, Birchington; A. B., Carnarvon; Medicus, Sheffield; W. B.; A. B., Bow; M.R.C.S., Norwich; M.D., Brighton; L.R.C.S., Leamington; A. Z. S.; Cantab.; A. B.; Surgeon, Grimsby; H. J., Nottingham; L.R.C.P., Kingston; Medicus; A., Attercliffe; Mrs. J.; Medical Officer; B. M. D., Lond.; Zetetic; H. F.; W. J.; J. E. L., Heckmondwike; Beta, Pentonville; Medicus, Clapham; Medicus, Harwich; C. G. H.; C., Chatteris; Medicus, Cambridge; A. S., Keighley; M. B. C.; M., Dulwich; M. W. H., Ivy-bridge; &c., &c.

Whitby Times, Manchester Courier, Sherborne, Dorchester, and Taunton Journal, Scotsman, Japan Weekly Mail, Dundee Advertiser, Hastings and St. Leonards Times, Pharmaceutische Zeitung, Aberdeen Free Press, Birmingham Daily Gazette, Anti-Vivisectionist, Newcastle Daily Chronicle, &c., have been received.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in The Lancet.

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Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

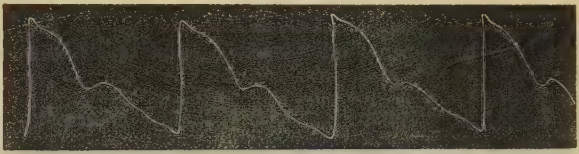
BY WALTER MOXON, M.D. Lond., F.R.C.P.

LECTURE III.—Part II.

The consideration of fainting, epilepsy, and the fatal coma of cerebral exhaustion has confined our attention so far to the influence of the circulation upon the nervous centres. But there are other bearings of the influence of the circulation on the action of the nerves which are worthy of some notice, and the chief of these is the condition known as angina pectoris. Perhaps no complaint has attracted more attention than this singular and painful affection, and perhaps the attention devoted to a complaint has never given rise to so large a record of somewhat incongruous anatomical lesions as causes of the disorder. To select among these in the hope of finding a proximate cause of the angina is not a promising task; for one might well say that every kind of disease of or about the heart has been found as cause of angina pectoris; so that pathologically angina pectoris had become a rather wearisome topic, when new interest in it arose through the clinical observation of its connexion with a certain state of the circulation. No medical discovery in recent years has received a more marked and more just attention than that made by Dr. Lauder Brunton as to the power of nitrite of amyl to relieve angina pectoris; indeed, it stands among a very few instances in which the physiology of a disease has enabled a trained and acute scientific mind to infer successfully the remedial powers of a physiological agent. It is well known that Dr. Lauder Brunton observed that in cases of angina pectoris the tension in the arteries is very high, and that nitrite of amyl, by relaxing the small arteries, reduces the tension and relieves the suffering. But whilst the benefit thus obtained in some cases of angina pectoris is most satisfactory, in other cases it is so utterly awanting that there must be some differences in the cause of the pain corresponding to so great a difference in the effects of the remedy. I will now ask your attention to some facts which may throw light on this difference. I will send round tracings from the pulse of a man who is in Guy's Hospital for angina pectoris, and who is always relieved by the amyl. Afterwards I will send round tracings from the pulse of another man who died of angina pectoris, which never was relieved in the slightest degree by amyl, but in whose case there is some good reason to believe the amyl acted injuriously. The man who obtained relief is in No. 10, Philip ward. He is sixty years of age, and has done no work for eighteen months on account of pain in the chest, which is not constant, yet is present for the most part as a moderate pain. But this pain seizes him at times in a much more severe manner; it then has all the characters of angina pectoris—an excruciating sense of pain and compression of the chest extending through the left shoulder, and down to the fingers of the left hand. This seizure of great pain generally occurs when he is walking. When he has persevered in spite of the pain, he has several times fallen, and been convulsed. Two such convulsive attacks observed in the hospital were seen to be epileptic. (I may remark, in passing, that the epileptic convulsions of this man are more nearly certainly due to anæmia of the brain than in any case I have met with. But the same association of angina with epilepsy has been observed before.) Examination of the heart and great vessels shows evidence of obstruction of the aortic orifice. The man never had rheumatic fever, so that the obstruction doubtless arises from disease of the aortic wall invading the valves.

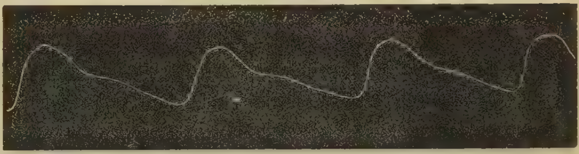
Dr. Galabin has been kind enough to take these tracings during an attack of the angina, and during the relief which the patient was obtaining from nitrite of amyl. When the paroxysm is at its height the traces show that the heart is labouring against high pressure.

Fig. 1.



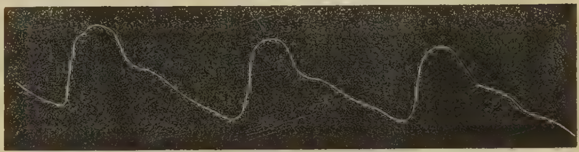
Four ounces. Ordinary pulse of G. B——.

Fig. 2.



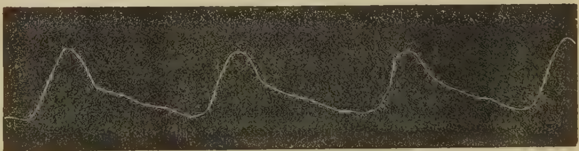
Two ounces. During attack of pain.

Fig. 3.



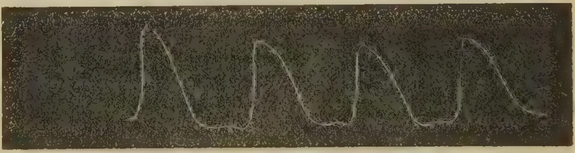
Three ounces. During attack of pain.

Fig. 4.



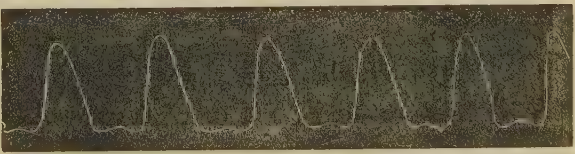
Four ounces and a half. During attack of pain.

Fig. 5.



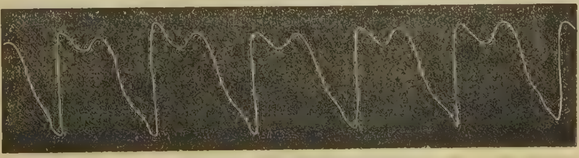
Three ounces. Nitrite of amyl just commenced.

Fig. 6.



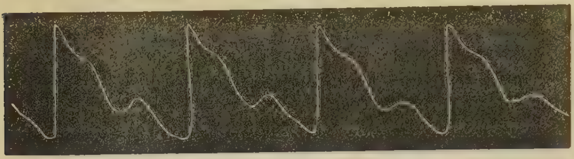
Three ounces and a half. Nitrite of amyl (2).

Fig. 7.



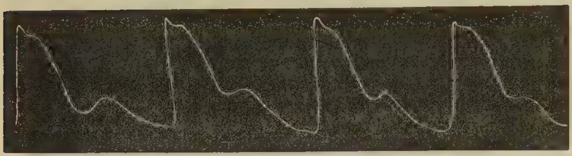
Three ounces. Nitrite of amyl (3).

FIG. 8.



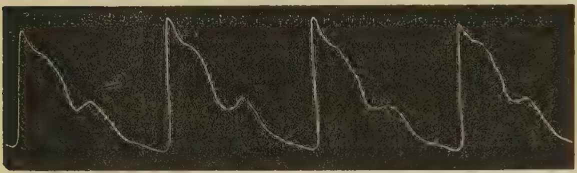
Three ounces. Nitrite of amyl. Pain relieved.

FIG. 9.



Four ounces and a half. Nitrite of amyl. Pain still relieved. Effect passing off.

FIG. 10.



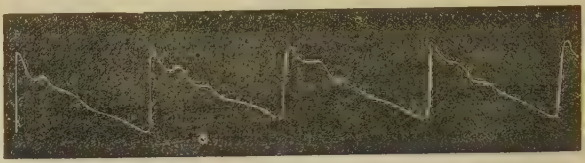
Three ounces and a half. Nitrite of amyl. Effect going off.

This is to be inferred because the pulse bears four ounces and a half pressure, and also because we find a slanting upstroke, a round top, and almost no dicrotic wave. As soon as the amyl begins to act and the pain to be relieved, these signs of "high tension" begin to rapidly pass off, and the pulse trace returns to the condition it usually shows in this man. The relief of the pain goes with evidence of more effectual circulation. But there is some doubt whether this more effectual circulation is brought about merely by reduction of the arterial tension, for the pulse in the natural state bore a rather higher pressure than it would bear during the angina, so that the actual tension appeared rather lower in the paroxysm, and the state of the artery during the paroxysm would be better ascribed to the heart's failing to keep it up to its hard work. The first trace after the nitrite of amyl shows rather slanting upstroke, then deep dip, but slight dicrotic rise. Next trace shows sharper upstroke and more dicrotism. It looks as if the drug first relaxed the arteries and reduced tension, and then a little later stimulated the heart to act more sharply. The trace with the effect of nitrite of amyl going off after the paroxysm is very like the ordinary trace without the drug. It may be observed that the pulse is slower, though the tension is lessened in the attack, so that the cardiac regulating apparatus does not act quite normally.

From this observation it would appear that the pain in angina pectoris occurs in persons whose arterial tension is high. But that the attack of angina does not coincide with an increase of tension; rather, indeed, with a decrease of it. The pain comes on through a temporary, and in fatal cases, a permanent failure of the power of the heart to cope with the high tension in the arteries. And the relief of the pain by amyl comes partly through the nitrite relaxing tension and partly through its stimulating the heart. In short, angina pectoris arises in this man whilst the heart is labouring in vain against an ordinary high tension—that is, through relative failure of the heart against high tension, and as pain occurs with a lower than normal tension, the painful parts must at the time have increased sensibility to such tension. In other words, we must recognise state of nerve as well as strain of vessel among the causes of the pain.

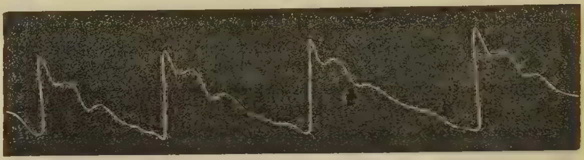
Now my second case, in which amyl did not in the slightest degree relieve the excruciating and overpowering suffering, shows in the pulse trace a very different state of affairs. The pulse in its ordinary condition has characters which appear like those of slightly higher tension than normal—about the degree of increase of tension that one meets with in chlorotic girls. A pressure of four ounces develops the trace best, and the trace offers a marked tidal wave and a slight dicrotic wave. But a pressure of five ounces flattened, and a little more crushed the pulse.

FIG. 11.



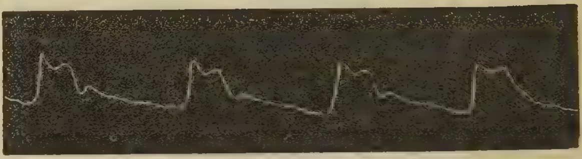
Three ounces. Mr. B——. Ordinary pulse.

FIG. 12.



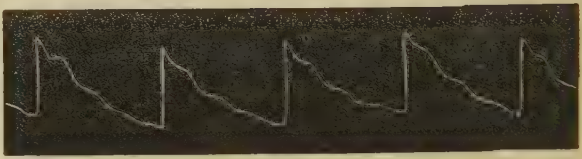
Four ounces.

FIG. 13.



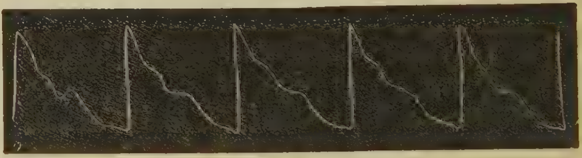
Five ounces.

FIG. 14.



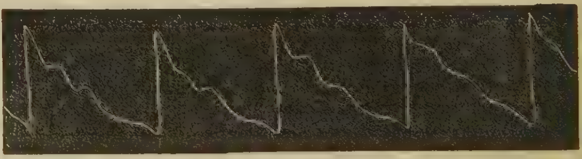
Five ounces. After exercise. Pain felt slightly.

FIG. 15.



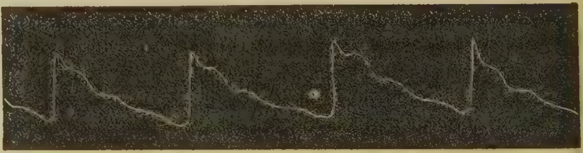
Three ounces and a half. Nitrite of amyl.

FIG. 16.



Four ounces and a half. Nitrite of amyl. Effect passing off.

FIG. 17.



Five ounces. Twenty minutes after nitrite of amyl.

These traces were taken by an authority whose skill in using the sphygmograph and ability in interpreting its writing are I had almost said unequalled. Dr. Galabin, who took these tracings, ascribes the condition of the pulse ather to inelastic arteries than to high tension, concluding this to be the case on account of the sudden crushing of the pulse by a moderate pressure. Now, when the gentleman whose pulse furnished these traces used some effort and produced the pains of which he complained, and when Dr. Galabin took a pulse-trace as speedily as possible, and whilst yet some of the pain remained, it was thereupon found that the pulse showed lower tension than in its natural condition; and when nitrite of amyl was at once administered there was scarcely any effect at all produced by it upon the pulse, hardly any dicrotism appeared, although there was a slight diminution in breadth and increase of height of the tidal wave, and the amyl produced no relief whatever. Shall I be excused for giving full particulars of this case, important as it is from the completeness with which the conditions of it during life and after death were allowed to be observed? The history is as follows:—Mr. B——, civil engineer, forty-two years old, a well-built, healthy-looking man, of younger appearance than his stated age, said that he had been ten years in India. When there had nothing beyond a very slight sunstroke, and "inflammation" of the bladder of a few days' duration, which, however, he said rather brought him down in the way of nerve-power. He got well on the way home, and has been well ever since, until a month ago when going up a hill he suddenly felt a pain which stopped him; the pain went across his chest at the level of the heart, and up the breast-bone, and down the left arm into the fingers. When he persevered in the attempts to walk the pain went up his neck to his jawbone, and seemed to fix his jaws; when he desisted from the effort his pain soon ceased. But since the day when he was taken he finds himself unable to go up a hill without a recurrence of the pain, and latterly it has been more easily brought on, and, in fact, stops him whenever he goes walking—stops him in the most absolute way. The pain is not accompanied by palpitation or any sense of effort of the heart, or fault of the heart's action, that he is conscious of; he ascribes the pain to his liver. There is no tendency to sickness when he perseveres in walking, or tries to do so. He praised his appetite and digestion. Up to that time he had not had a single attack that was not caused by exertion. The possibility of such a thing had not struck him. I examined his heart very carefully, and could not detect any abnormal murmurs. The sounds themselves were rather feeble, the apex beat was scarcely palpable. These conditions were not more evident than is the case in many quite healthy persons. The temporal arteries were not visible, nor were the radial arteries either thick or tortuous. The pulse was, however, slightly visible at the right wrist. This gentleman was advised to take with him in his walks some nitrite of amyl capsules, and when pain appeared to break the capsule and use it by inhalation. Dr. Bosworth of Sutton, wrote to me Dec. 14th: "He still has the pain; he has carefully tried the nitrite of amyl capsules, but they have not the least effect either in abating the pain or preventing its recurrence." Meantime Dr. Galabin kindly took the tracings I have shown. The next I heard of Mr. B—— was on Dec. 23rd, from Mr. Ewen of Exmouth, who said that Mr. B—— had been seized there with an attack of angina whilst in bed. Again, two weeks after that he had had a cerebral attack, including aphasia, and, finally, that Mr. B—— had died suddenly. An inspection was made, and the heart and root of the lungs were sent intact to me by Mr. Ewen for examination. The specimen is here, and it very clearly shows why nitrite of amyl failed to relieve the pain and failed to produce any marked effect at all upon the sphygmographic trace. The heart is of about natural size. Its left ventricle is dilated and the wall is thin. The portion of this ventricle near the apex for about two square inches is changed to a yellow fat-like substance, looking quite unlike muscle; a lesser degree of the change in the form of fibrous degeneration extends around this part, so that but a moiety of the whole substance of the thin wall of this ventricle is free from change. Where the change is most extreme at the apex there was seated an ante-mortem polypus of clot as large as a filbert. This was burst open and its contents partially gone. Microscopic examination showed the yellow leathery substance to be altered muscular fibre. Fully one-third of the ventricle wall was thus destroyed, and the rest was thin, wasted, and flabby.

Now, in this case the symptoms were those of angina pectoris in its most characteristic form, as described by Heberden, and the symptoms were utterly unrelieved by amyl; and when we consider the facts which are beyond doubt in this case, we must see reason to conclude that high arterial tension is not the only or the necessary cause of angina pectoris, even if it be the principal cause.

For the facts are these: First, sphygmographic trace showed rather inelastic arteries than high tension. Second, exertion, which brought on the pain, lowered the tension of the pulse, as shown by the sphygmograph. Third, nitrite of amyl produced very little change in the pulse, as shown by the sphygmograph, and brought no relief at all. And, lastly, the state of the left ventricle, as found on post-mortem examination, showed such extreme wasting and degeneration that it appeared impossible that tension could have been raised by its action, and to confirm this impression an old ante-mortem clot gave evidence of weeks of a passive and stagnant state of the blood in the left ventricle. The condition of the cardiac nerves, which, no doubt, caused the angina, I will presently describe. In short, the doubt as to high tension which the pulse contributed, the nearly certain assurance that there could be no high tension which the heart contributed, and the conclusive evidence that there was no high tension to relieve which the total inefficacy of amyl contributed,—all these sum up to prove that in this case the angina, typical as it was, must have arisen from some other cause than high tension in the arteries.

Let me now show another set of tracings, taken by Dr. Galabin from the pulse of a gentleman who has angina pectoris in a most typical form. In this case the disorder has lasted about two years; some of the attacks have been so severe that recovery appeared hopeless to the medical attendant: so intense was the pain he endured and so great was the consequent prostration. But in the height of the attacks no change was noticeable in the pulse, either in rate or quality. I could not obtain tracings of this pulse during the paroxysm. The tracings taken in the interval, and which are now before you, are thus described by Dr. Galabin:—"The pulse is fully developed by a very low pressure, one ounce and a half, but bears pressures up to three ounces (about the average pressure for a youthful normal pulse) without much change; a pressure of three ounces and a half destroys its characters, as you will see, and a very little more quenches it altogether. The curve differs from that of a perfectly normal soft pulse only in the fact that the tidal (predicrotic) wave commences too early in the descent. I should think that the general conclusion is that the arterial elasticity is in very fair condition, considering the patient's age, and that there is no excess of tension, the pulse being a soft rather than a hard one."

Now, in this gentleman's case the inhalation of nitrite of amyl produced no relief whatever. Injections of morphia were the only means by which the pain could be assuaged. Here, then, we have evidence that in the intervals between the attacks the tension was low. Whilst in the attacks we can infer that there was no high tension, inasmuch as amyl proved of no service whatever; in other words, relaxation of the arteries did no good.

In the series of three cases just related we have, first: a patient with signs of aortic disease whose pulse-trace during the paroxysm gave the characters of high tension and whose pain was relieved by nitrite of amyl, thus showing that the tension was an essential factor in the attack of pain. But, at the same time, it was observed that the tension of the pulse was lower in the attack than in the patient's ordinary condition, so that some other factor than the tension brought on the attack, although lowering the tension took the attack away. Thus, even where the relief of the tension removed the attack the tension is proved to have been but one factor in the causation of the pain. In the second case slight signs of high arterial tension were present in the ordinary pulse, but it was observed that in the pain this tension was lowered, whilst nitrite of amyl was utterly useless. Here we find tension reduced in the attack, as in the first case, but it is not in this case a factor in the production of the pain; relief of tension has no effect. In the third case there is no high tension, but quite the contrary; the pulse is of low tension, and amyl is again utterly useless. In this case tension passes out of sight altogether. The general conclusion is that high arterial tension is not to be regarded as the determining cause of angina pectoris, but as one factor of pain in some cases of angina pectoris; and that whilst it is true that amyl gives relief when high tension is present, there is reason to be cautious in pressing the amyl when it fails, for by lowering tension when already low the amyl may dangerously increase the tendency to stagnation of the blood. And there was evidence in two of the cases that tension was really lower during the pain.

Indeed, the achings which are suffered at the heart are of two distinct kinds, like the achings which are suffered in other parts, say the teeth. In either case there is a kind of ache which is more properly a tenderness of the part, so that it suffers in its ordinary service, as when a tooth cannot chew, or the heart cannot beat, without pain more or less severe. Here, in the case of the teeth, we are able to use the other side of the mouth, or, even if hard driven, to live on liquid diet, and give the tender organs a rest for their recovery. And in the case of the heart, when its work distends the aorta, and causes pain, we can take advantage of what Dr. Lauder Brunton has so well taught us, and can open the distal vessels with nitrite of amyl so as to relieve the tension.

The relief thus given lasts only for a while, and often only for a short while, and it is very desirable if possible to find means of lowering pressure permanently. If the angina pain which is relieved by amyl is caused by the pressure of a bulging aorta, there is a fair prospect of permanently lessening or removing such pain by any measures that would tend to permanently lower general arterial tension. But what means have we of permanently lowering arterial tension? Such a result is not so easily obtained as might at first be supposed. It is natural to think that if blood be drawn the tension in the vessels must be reduced with the loss of their contents. But it has been shown by experiment that this is not the case. Bleeding does not with any certainty, or to any large extent, lower the pressure in the arteries. Neither, indeed, will any attempt to suddenly alter the whole quantity of blood in the body succeed in suddenly lowering arterial tension. Yet it is certainly possible to lower vascular tension by lessening the quantity of liquid in the whole blood mass. This is shown in a rather horribly conclusive way in some experiments of Kussmaul and Tenner, in which they desired to remove the cerebrum, and then to examine the results of further sections of the cerebellum. But they found that all their normal rabbits bled to death before the ultimate conditions for their experiments could be reached. Hereupon the experimenters kept some rabbits on a dry diet of corn, &c., for two weeks, and the effect of this deprival of liquid in the food was so satisfactory, and the blood in the vessels fell to so low a tension, that such a rabbit could have its calvaria and cerebrum cut away, and its occiput and cerebellum mutilated to any desired extent, without dying too soon for Kussmaul and Tenner's purposes. Here we see the power of bleeding and dry dieting crucially contrasted, and the result is to show that the method of Valsalva for the cure of aneurism, so far as it proceeded by bleeding, did not correspond with the most hopeful line; neither, so far as it proceeded by starvation of solids, did it correspond with the most hopeful line. The experiment of Kussmaul and Tenner rather shows clearly that for reduction of blood-pressure it is not necessary to bleed, nor is it necessary to reduce solids in the diet, so far as they are truly solid, and not succulent; but that a very great degree of reduction of tension may be reached by starvation of liquids.

In the Clinical Society's Transactions, vol. iii., there is a case of angina pectoris relieved by nitrite of amyl. It is very ably and carefully reported by Dr. Lauder Brunton, and it shows well the signs of high tension in pulse-tracings taken during the pain, and also the relief of the tension as the amyl came into operation. The pulse was quickened during the attack of pain. The sphygmograph used by Dr. Brunton did not enable him to estimate the degree of pressure upon the pulse. His conclusion was that in this case the attack consisted in spasmodic contraction of some, if not all, of the small systemic, and probably of the pulmonary, vessels, causing great increase of the blood-pressure on both sides of the heart. He remarks upon the fact that with the high tension the pulse becomes quicker, thus showing a derangement of the cardiac regulating apparatus, which should cause the pulse to become slow as the pressure rises. But I believe that unless we can estimate the pressure borne by the pulse one cannot certainly conclude from the pulse-trace that the tension is positively high; all that can be said is that it is high relatively to the power of the heart. So that there may not have been unusually high tension, but rather a failure of the heart to cope with the existing tension, such as Dr. Galabin found in my case. Dr. Brunton concludes that the pain was not originally in the nerves composing the cardiac plexus, but was produced by a pressure of blood upon those of the heart and arteries, and that the pains were of a rheumatic character.

It appears, then, to be exceedingly difficult to decide what was the proximal cause of the pain in these cases; but it is a significant fact that Dr. Brunton's case which was relieved by amyl was one of aortic disease with regurgitation, and my case was also one of aortic disease; and as it was not rheumatic, it was in all probability of the nature of deforming aortitis. Indeed, I believe that it is chiefly for the relief of attacks of anginose pain in aortic disease that nitrite of amyl has come into such general use in our hospitals since Dr. Brunton's valuable discovery was made known, whereas I have been generally disappointed with amyl when there has been no sign of disease of the aorta. Cases of relief by amyl in angina in which there was no evidence of heart disease are recorded, but I do not know of any such cases which have been cleared up by post-mortem examination.

But we have seen that the cases of angina pectoris which are due to high arterial tension form only a part of the whole number, and there are other cases of angina which are more purely neuralgic and are not relieved by amyl, and these latter cases have an altogether different kind of cause. It may be that the pathological change which produces the more purely neuralgic angina is not always the same. But an example of what I have found in many cases to be a very evident cause of the pain is before me now in this specimen, which is the heart in my second case, that of Mr. B——, whose pulse showed reduced tension when under the pain, and whom amyl failed to relieve. The state of the nerve accompanying the anterior coronary artery of this heart is sufficient to account for any degree of pain. In searching for the cardiac nerves, I observed that the aorta was perfectly healthy; it was quite separable from the texture around. The cardiac nerves, in their course between the aorta and pulmonary artery, close to the origin of these vessels, were easily found; and on following them down they were quite natural in appearance, until the anterior branches came to a diseased part of the corresponding coronary artery. Now, the mouths of the coronary arteries were natural, and the anterior vessel was natural for about half an inch, then suddenly became swollen at a bifurcation so as to be thick and white. At the same spot it became impossible to separate the vessel from the tissue around so as to render visible the exterior of the artery. In fact, here dissection of the vessel could not be carried out, and the nerve could no longer be separated from the artery without tearing or cutting the vessel. At one inch from its origin the artery was quite blocked up, and full of pus-like detritus of old clot; the diseased part of the heart's wall corresponded to this part of the artery. Microscopic examination of sections of the vessel showed a good example of deforming arteritis. Whatever was the origin of this patch of inflammation in the artery, it extended to the tissue around, with the effect of causing a dense fibrous change, which involved the branch of the cardiac nerve. In short, the nerve was involved in the inflammatory decay of the artery in the same way as the branch of the dental nerve is involved in the inflammatory decay of a carious tooth.

Let me give one, perhaps, yet more striking case of neuralgic heartache. The most remarkable case of angina pectoris which I have met with occurred in a child of eleven years of age, who used to be seized with onsets of intense thoracic pain when at play. No physical signs of heart disease were found in her. In one of her seizures the child died, and on examining the heart I found the aorta in the first two inches of its length softened, and with almost gelatinous appearance, through subacute inflammation. At the point where the cardiac nerves passed between the aorta and pulmonary artery they were involved in the thickening and inflammation which surrounded the former vessel. Neither the valves nor the coronary arteries were at all involved in the disorder. But the implication of the nerve in the inflammatory disease of the vessel was most obvious, and the pain was as completely explained by the post-mortem appearances, as facial neuralgia is explained by finding an exposed branch of dental nerve. In both these cases the nerve was involved in inflammatory decay of the artery. A similar case of inflammation, including the cardiac nerves, and causing angina pectoris, is given by Lancereaux, and is figured in his Atlas of Pathological Anatomy.

From the foregoing observations it would appear clear that there are two distinct kinds of angina pectoris, one which is a result of tenderness and overstrain of the great vessels. In this kind of pain high tension in the arteries is a factor, although a morbidly sensitive state of the nerves must at the same time be present. Such pain corresponds to pain and tenderness in the teeth during mastication, and it is lessened by whatever will lessen the strain upon the tender parts; so that amyl nitrite, or less certainly nitroglycerine, will bring welcome relief, even when it does not give entire comfort. But the relief thus afforded is apt to be temporary and often only partial. So that even in these cases we have to bring in other means, and supplement the service which the amyl renders in relieving the strain upon the vessel by such further service as morphia can render by reducing general sensitiveness. A second form of angina pectoris is a kind of neuralgic heartache, arising from actual inclusion of a cardiac nerve in the inflammatory decay of an artery, and no signs of high tension in the vessels are present. This disease corresponds with such neuralgic toothache as arises when a branch of the dental nerve is involved in inflammatory decay of a tooth. It is more paroxysmal and violent than the first form, the intervals are more free, and there are usually no signs of disease of the heart or great vessels. The means of relief are those which are found useful in the similar neuralgia of the face, and lead us first to reduce morbid sensitiveness by such improvement of tone in the general health as may be possible; second, to employ such alterative drugs as, like arsenic and quinine, have proved themselves to possess some power of controlling the tendency to neuralgic pain; and, third and chiefly, the use of sufficient quantities of morphia to afford relief in the attacks. Morphia, given in the form of subcutaneous injection, will produce the most satisfactory result in the way of temporary relief of this form of angina pectoris. But angina pectoris does not always arise from organic changes in the heart or arteries. For, like facial neuralgia, it may occur secondarily as a reflected pain whose source is at a distance. The primary disturbance which gives rise to reflex angina pectoris is usually seated in the course of the pneumogastric nerves. A very remarkable example of this occurred in the person of one of the greatest surgeons of our own or of any past time. My late friend and colleague, Mr. Hilton, was attacked three years before his death with severe angina pectoris; so sévere that the cramping thoracic pain would not allow him to walk many steps, and he was obliged to have a cab to go a distance of 100 yards; this pain, after causing great suffering for several months, passed away, and then very gradually during the next two years the symptoms of cancer of the stomach developed themselves. The heart and great vessels were found post mortem to be entirely free from all morbid changes. But not only may the gastric branches of the pneumogastric thus influence the cardiac nerves and give rise to the special pains of neuralgic heartache; but, on the other hand, I have met with some remarkable cases which time will not allow me to detail, in which aortic disease has been associated with abdominal pain in the hepatic region of a neuralgic character, and in its mode of onset and conditions of relief behaving just like angina pectoris. Nor is it only the sensory fibres that thus vicariously suffer. A lady, fifty years of age, has been for three years under my observation with no other signs of organic disease than a weak heart and feeble pulse. This lady is reduced to a most sedentary mode of living by the fact that if she tries to walk but a few yards she is suddenly attacked with vomiting. Heberden, in his description of angina pectoris, mentions that some of his patients, who persevered in walking in spite of their pain, were attacked with vomiting. In this lady the vomiting appears without the preceding pain, the onset of gastric disturbance without previous nausea is as sudden and surprising to her as is the pain which seizes the chest in angina.

The largeness of the subject I chose when the College honoured me with an invitation to deliver these Lectures was not so broadly apparent to me as it is now that I have to take leave of it with so deeply felt a sense of the imperfection of the treatment it has received at my hands. I can only hope that the few points I have brought before you may contribute a little towards maintaining for the hour that interest which continuously belongs to everything affecting the brain.

In my first lecture, that part of it which spoke of the cornu of the fourth ventricle, I adduced Dr. Guy's observations as in support of the suggestion I made with respect to the function of the choroid plexus in the cornu. I inadvertently reversed the bearing of a part of his results, and they were thus made to appear more favourable to my suggestion than they really are. I did not say that the choroid plexuses of the fourth ventricle are overlooked in our anatomical works, but that the occupation of the cornu by the choroid plexus is not mentioned.

Gulstonian Lectures

ON

ANÆMIA.

Delivered before the Royal College of Physicians,

BY SIDNEY COUPLAND, M.D., F.R.C.P.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL.

LECTURE III.—PART II.

Fatty Degeneration: The most important Result of Anæmia—of Heart—of other Muscles—of Vessels—of Viscera—Liability to Hæmorrhages explained by Vascular Deterioration.—Treatment of Anæmia: Hygienic—Dietetic—Medicinal—Transfusion.

THE frequency with which fatty metamorphosis of the tissues and an anæmic state of the blood are associated is such that the connexion between the two must be an intimate one. Whenever a tissue is deprived of nutriment it undergoes this change, its albuminous particles becoming converted into fatty granules and oil-globules. It is the simplest instance of retrograde metamorphosis of the tissues, and occurs as a physiological event in their natural decay. Pathologically, although no tissue is exempt from this form of degeneration, the muscles are particularly prone to it, and this proneness is no doubt due to the muscles being so actively employed in the metabolic processes of the body. Deprived of their due supply of oxygen, their protoplasmic elements are unable to go through their normal changes, and, instead of complex stable products, they break up into fatty molecules. Such a conversion may be effected with remarkable rapidity, witness the widespread metamorphosis in acute poisoning by phosphorus, which may be established within a day or two,[1] and in such case I believe the change is effected by the deprivation of oxygen, and the disturbance to the normal tissue metamorphosis thereby established. More often there is reason to believe that the process is of slower duration, but important as it is to determine this question, I do not think it possible to do so yet. There may be links still wanting in the chain of knowledge, but it is to my mind one of the most reasonable facts in pathology that whenever the blood is impoverished the tissues must suffer degeneration, and it is important not to disregard the fact in the treatment of anæmia. The muscle of the heart—which of all muscles requires a constant and definite supply of oxygen for its renewal, its unceasing action denoting continual metamorphosis—is particularly liable to suffer. Nourished probably in two ways, by the blood circulating through its cavities and by the arterial supply to its walls, is there not reason enough why this muscular organ should be especially singled out to undergo this metamorphosis when the blood is deficient in oxygen-bearing elements? Hence it is that the occurrence of true fatty degeneration of the heart is recognised as the most constant and most striking effect of a grave and prolonged anæmia. Out of seventy-six cases of fatal idiopathic anæmia where post-mortem examinations were made, in sixty-four it is expressly stated that the heart was thus degenerate, sometimes extremely so; in six other cases no mention is made of its condition, and in only six is it said to have been healthy. This degeneration of the heart is, in fact, as I pointed out in my last lecture, the only constant anatomical feature of cases of idiopathic pernicious anæmia. It was originally pointed out by Addison, and the observation was abundantly confirmed by Wilks, and its occurrence has been noted, as above seen, with few exceptions in every case of fatal anæmia since attention was drawn to it. Wagner, in his treatise on Fatty Degeneration of the Heart, attributes some cases to anæmia, and Ponfick described in detail the "anæmic form" of fatty heart. There is, then, general concurrence of opinion upon the association, and it is probable that it has wider bearings than we generally admit. The recognition of this sequence as a pathological fact may possibly in time throw light upon cases of cardiac degeneration at present thought to be idiopathic—cases, that is, which do not arise secondarily to inflammation of the pericardium and myocardium, from disease of the coronary arteries, from alcoholism or from fever, or, as a final event, in long-standing valvular disease. It is hardly conceivable that an impoverished state of blood should follow upon an enfeebled fatty heart; at any rate, such an impoverishment as to fall under the head of anæmia. It is far more probable that the degeneration is the result of the blood change rather than the cause of it. There are many cases where the degenerative powers have been apparently of rapid evolution, cases of acute anæmia following loss of blood. As an example of this I might instance the case related in my last lecture (No. 6), where profuse and uncontrollable uterine hæmorrhage supervened in a chlorotic subject, and where the heart was found to be most extensively degenerated. Here is another case where one factor at least in the production of the degeneration was a similar loss of blood. A woman, aged forty-six, was admitted under my care into the Middlesex Hospital on Oct. 23rd, 1880, suffering from general dropsy dependent upon a dilated and degenerate heart. She had approached the climacteric, having previously passed a healthy life, but for the past five years the catamenia had been most profuse; she called it "flooding." Three months before admission the menses apparently ceased; to reappear in great excess during the past fortnight. Œdema of the legs began about one month before, followed by swelling of the belly; but prior to this she had been getting pale, and suffering from palpitation and breathlessness on exertion. She was somewhat obese, very anæmic, and the conjunctivæ were yellow-tinged. Accounting for the dropsy, there was evident dilatation of the heart, with epigastric impulse, a soft systolic apex bruit, and irregular intermittent pulsation. She suffered from œdema of the lungs, and treatment had no effect in reducing the dropsy or removing the anæmia, which even grew more intense, although no menorrhagia occurred whilst she was in the hospital. After her death, which took place on November 12th, the heart was not only overladen with fat, but its muscular walls were flabby and extremely degenerate. The kidneys were also fattily degenerated. Here, then, was a case (and it is one of a class) where the cardiac degeneration was the most pronounced feature and was the immediate cause of death, but where it seemed probably related to, if not wholly dependent upon, the menorrhagic attacks to which she had been subject. Dr. Green has recorded a striking instance of the effect of profuse menstrual loss in inducing fatty degeneration, in the eighth volume of the Clinical Society's Transactions. The case is that of an anæmic ill-nourished girl, the subject of mitral stenosis. The occurrence of menstruation, after an interval of six weeks, and the profuseness of the flux (possibly made so profuse by the presence of the mitral disease) so lowered the standard of the blood that within five days she died in a state of exhaustion. In addition to the mitral disease and an abnormally narrow aorta, the muscular tissue of the heart was found to be in an advanced state of metamorphosis, and similar regressive changes were met with in some of the voluntary muscles. Similar examples might be quoted. The degeneration of voluntary muscles observed in Dr. Green's case is very interesting, and it is probable that if such muscles were more frequently examined in anæmia they would be found occasionally affected.

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[1] See case recorded by myself in THE LANCET, vol. ii. 1879, p. 309.

One may, without transgressing the rightful limits of pathological speculation, attribute the origin of the areas of fatty degeneration observed by Virchow in the lining membrane of the aorta in cases of chlorosis to the same cause—the impoverishment of the blood. The well-known experiments of Cohnheim bearing upon the embolic process demonstrated the fact that the integrity of the walls of the blood-vessels depends upon their being filled with a due amount of healthy blood. The tendency to capillary hæmorrhages—purpuric spots, ecchymoses beneath serous membranes, and sometimes parenchymatous hæmorrhages — in pernicious anæmia is, I believe, due in great measure to such vascular deterioration. It has not always been found, however, in such cases; but I may say that the only opportunity of which I availed myself of examining the retinal vessels in a case of this disease where there were marked hæmorrhagic foci in the retina, enabled me to distinguish clearly that the endothelial cells of the small arteries, and those of the capillary walls themselves, were studded with minute oil-globules. That such ecchymoses are due to the condition of the blood only, is far less probable than that they are caused by actual damage to the vessel-walls through which the altered blood circulates; and when there is evidence of such vascular deterioration this explanation seems to be all sufficient. This, however, like that of the condition of the voluntary muscles, is a point which calls for further investigation.

Fatty degenerations of the gastric and intestinal glands, of the liver and of the kidneys, are met with in a certain number of cases of profound and fatal anæmia; but how far and in what way, whether as results or as causes of the anæmia, it does not seem possible yet to say. Certainly not one of these organs may be so affected; they are not so often found degenerate as the heart-muscle. The gastric glands are not often examined, and their derangement is possibly a factor in the production of the anæmia; whilst the intestinal and hepatic cells are liable to undergo a physiological fatty infiltration which must not be confounded with a morbid state. In one of the cases previously related (Case 5), the liver though certainly fatty was very remarkable, the cells affected being those nearest to the centre of the lobule, and not at the periphery, as in the ordinary fatty infiltration process. Some of the most advanced cases of visceral fatty degeneration which I have seen have occurred in cancerous subjects, especially uterine cancer; which more or less rapidly progresses in ulceration, impoverishing the blood more and more as it advances. Such instances of course differ from cases of phthisis where there is pyrexia and direct respiratory disorder to aid in the production of the fatty change.

I am not, however, now concerned with the subject of fatty degeneration as a whole, but only in relation to anæmia. We have, I think, ample evidence that there is a link between the blood condition and the tissue change, and everything points to the latter being the result of the former. At the same time we must not lose sight of the other alternative to which I have above alluded, for I do not think it is absolutely capable of disproof, at any rate in every case. I refer to the view that the anæmic condition is itself dependent upon what may be called an "inertia" on the part of the tissues, whereby they do not perform what is required of them, and failing to go through their normal metamorphosis pass into the fatty regressive state. In such a case there would be less demand for oxygen, and this would react upon the supply, and fewer corpuscles and hæmoglobin would be formed. Such an hypothesis requires, however, far more than the former, which has also received support from experimentation, the effect of continued loss of blood being found to produce fatty metamorphosis.

The treatment of anæmia, apart from the removal of its cause, when this can be ascertained, may be summed up under the head of hygienic, dietetic, and medicinal measures. On the first and second of these I need hardly dwell; their importance is self-evident. The necessity for rest alternated with moderate exercise, graduated according to the severity of the anæmia, is important. Even slight exercise is irksome and harmful until the blood is sufficiently reinforced to permit of it, and absolute rest is called for at first. The influence of air and light is of as much value in aiding restoration from the anæmic condition as their deprivation is powerful in inducing this state, and such hygienic measures as bathing act by promoting tissue metabolism. A valuable contribution to the treatment of anæmia by these means has lately been made by Drs. M. P. Jacobi and White[2] in what is a scientific exposition of the effects produced by those who practise hydrotherapy. These writers relate cases, accompanied by analyses of the urine, where wet packs and massage were employed, in addition to ferruginous medication. The effect of such treatment was to cause increased elimination of urea, to improve appetite, and to procure sleep; and the explanation afforded is that the treatment, acting through the nervous system and the circulation, promoted tissue change, and increased the capacity of the tissues and the blood for oxygen, the passive exercise of the muscles aiding also, by quickening the circulation, in the removal of the products of nitrogenous waste.

In diet the indication is to allow meat in considerable quantity as soon as the digestive organs are capable of the work imposed on them; but where, as so often happens, the digestive power is at a minimum, then recourse may be had to meat essences, peptonised foods, and (as an extreme measure) nutrient enemata. There is frequently a great distaste for nitrogenous food among these subjects, many of whom owe their anæmia in large measure to their preference for a diet of non-nitrogenous materials, and it follows, therefore, that chief attention should be paid to this point, especially as the organs of digestion are more or less deranged by the anæmic state. As I have before pointed out, digestive derangements both induce and are induced by anæmia, and by dealing with them we often strike at the root of the condition, which, however, requires also measures directed specially to it. These measures comprise the administration of certain drugs, which are comprised under the term "hæmatinic." Of these I pass now to speak briefly.

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[2] Archives of Medicine, August and October, 1880.

Of all remedies iron maintains, as it always has maintained, a pre-eminence in the treatment of anæmia. It seems to act directly upon the blood-forming viscera, and probably also upon the digestive organs—i.e., on the gastro-intestinal tract. No wholly satisfactory explanation has, I believe, been given of the mode of action of the iron in either of these directions, or of the reason why the best results in the most marked cases of chlorosis are obtained by the administration of heroic doses far in excess of what is actually required in blood formation, and much more also than is actually absorbed. Trousseau called iron as much a specific in chlorosis as mercury was in syphilis, and there was truth in the remark, although we may not know in what its specific action precisely consists. The application of methods of blood measurement enable us to estimate the rapidity with which iron hastens recovery from the anæmic condition. Sometimes it appears to act, at any rate in the first instance, by causing an increase in the number of corpuscles without a corresponding increase in the amount of hæmoglobin (Gowers, Baxter and Willcocks); but the reverse has also been noted (Hayem), and in a series of cases published by Moriez from M. Hayem's clinique the increase in hæmoglobin was marked from the first, and, of course, greater than the increase in the number of corpuscles, which was high at the commencement. Moriez gives several tables illustrative of the effects of this and other modes of treatment, using the symbols N, R, and G to represent respectively the number of the red corpuscles per cubic millimetre, their richness—i.e., the number of corpuscles in healthy blood to which they are equivalent, and their functional value or quality, G being equal to $\frac{R}{N}$. For the normal standard to be reached not only should the figures R and N be equal and of the full amount—(i.e., 5,000,000 per cubic millimetre), but they would then contain the same amount of hæmoglobin, when G of course = 1. The mean results of twelve cases thus tabulated gave before treatment (by iron) N – 4,031,745, R – 1,991,318, and G – 0·49; after treatment, N – 4,747,675, R – 3,940,000, and G – 0·83. I give the results of similar estimations in a few cases lately in the Middlesex Hospital (see Table), the most remarkable being No. 4, where the percentage of hæmoglobin was doubled within ten days. This case was treated with sulphate of iron and bicarbonate of potash, and it will be seen that although the number of corpuscles was but slightly affected, their functional value rose above the normal. Unfortunately no numeration was made on Dec. 24th, when the actual amount of hæmoglobin was much higher still, so I cannot say whether in point of number the corpuscles in this case still remained so much below the normal.

Cases of Anæmia treated by Iron and Arsenic.

No.	Date.	Number of Corpuscles.	Hæmoglobin.	Quality of Corpuscle.*	Treatment.
1.	Jan. 6th	2,090,000	——	—	Ferri sulph.
	" 14th	2,750,000	32 per cent.	0·57	"
	" 27th	3,170,000	42 "	0·66	"
	Feb. 2nd	3,600,000	——	—	"
2.	Jan. 12th	4,050,000	45 per cent.	0·55	"
	" 26th	4,430,000	52 "	0·58	"
3.	June 16th	2,400,000	——	—	Ferri arsenias.
	July 8th	3,300,000	——	—	Quin. c. ferro.
4.	Dec. 1st	3,700,000	40 per cent.	0·54	Ferri sulph.
	" 11th	3,800,000	80 "	1·05	"
	" 24th	——	104 "	—	"
5.	Dec. 3rd	3,800,000	52 per cent.	0·68	Liq. arsenicalis.
	" 28th	4,060,000	80 "	0·98	"
6.	Feb. 2nd	2,490,000	28 "	0·56	"
	" 8th	2,800,000	39 "	0·70	Ferri dialysat.
	" 21st	3,700,000	39 "	0·52	On & after Feb. 10

* Calculated by dividing the corpuscular richness by the actual number of corpuscles, the amount of hæmoglobin being the indication of the former.

Under the use of iron the corpuscles, according to Hayem, also increase in size, and the large number of hæmatoblasts which he finds in the blood of chlorotics appreciably diminishes during the treatment. These methods of blood-measurement might be applied to discriminate between the efficacy of the different salts of iron, and also to estimate the different modes in which it is administered—from the waters of a chalybeate spring to the concentrated doses in which we often give it medicinally. Indeed, as to the form and mode of the administration of iron, I can quite confirm the opinion of those who regard the sulphate as the most rapid in its effect, and who urge its administration in large doses. It is remarkable how well it can be borne, and for my own part I am content to prescribe it in almost every case of pure chlorotic anæmia. At the same time we possess so many different preparations of different degrees of astringency, that there are scarcely any cases in which some form of this metal is not tolerated.

Next to iron, and in some forms of anæmia to be preferred to it, is *arsenic*. This metal is a powerful hæmatinic. It acts on the tissues as well as on the blood and blood-forming organs; and its effect upon the cutaneous epithelium has been actually demonstrated. It is almost the only drug which has been successful in the treatment of severe idiopathic anæmia—which more often resists all medication. The patient under Dr. Cayley's care, where the anæmia was most profound and the corpuscles had fallen to a little less than one-half the normal, notably improved under arseniate of iron. A case was recently recorded from St. Mary's Hospital under the care of Dr. Broadbent,[3] which is a good illustration of the efficacy of arsenic. A woman, forty-two years of age, who had been progressively anæmic for about four months, and was in an extreme condition when admitted (estimated number of corpuscles two days later being 560,000 per cubic millimetre, or 11·2 per cent.), was placed upon liquor arsenicalis with digitalis. The dose of the liquor was increased from two to four minims, and was administered six times daily. In two months time the number of corpuscles had increased to 64 per cent. In the remarks appended to the report of the case it is held "that there can be little doubt that it was one of essential or pernicious anæmia; the patient had the appearance characteristic of this disease, and the sub-febrile temperature; while the red corpuscles of the blood were not only reduced in number to an unusual degree, but deformed. Whether this diagnosis be accepted or not, the failure of iron to do good, and the rapid improvement during the administration of arsenic, are remarkable. In little more than two months the patient passed from extreme anæmia to apparently perfect health, with wonderfully good colour of the cheeks and mucous membranes, and she continued well and strong for some months after leaving the hospital, up to the time when she ceased to present herself for examination." Such cases as this speak strongly in favour of the value of arsenic. I have sometimes prescribed it in simple anæmia (see Table, Nos. 5 and 6) with good result, but as a rule one prefers the use of iron, which acts more promptly and fully. Phosphorus has been sometimes administered with success in essential anæmia; as, for example, by Dr. Broadbent in a case where iron had failed; but it has on the whole but few, if any, advantages over arsenic, and its long-continued administration is to be deprecated.

It was at one time thought that manganese could replace iron as a hæmatinic, when that metal had failed to influence anæmia; but it never gained much favour, and has fallen into disrepute. Indeed, from some recent observations of M. Hayem referred to by Moriez, manganese would appear to have no influence in increasing either the red corpuscles or the hæmoglobin, at any rate in the right direction. Its administration appeared to diminish the effect of iron, which was given subsequently. Another treatment that has been sometimes prescribed is that of inhalations of oxygen. The same observers have studied the effects of this treatment also, and declare that although it increases the appetite and the power of assimilation, it has no influence in increasing the richness of the blood in hæmoglobin (Moriez). Lastly, quinine and strychnine, although not hæmatinics in the trict sense of the word, are very valuable as adjuvants, and the same may be said of the mineral acids and bitters.

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[3] Brit. Med. Journal, Sept. 25th, 1880, p. 508.

The subject of *transfusion* of blood is one which demands the most thorough examination in reference to the treatment of anæmia. In some forms of symptomatic anæmia, especially where the cause is a sudden and excessive loss of blood, there can be no question either as to the propriety of transfusion or its efficacy in saving life. It is another matter, however, when we have to deal with the insidious and progressive anæmia, which has been denoted by the term "pernicious." Transfusion has not yet been employed to a very large extent in such cases, and it has often failed of success. I find that it was performed in 20 out of 110 cases, to which I referred in my last lecture, and that the six recoveries (one of which was not permanent) all occurred in Quincke's practice. I think his success in these cases may be attributed to his having resorted to transfusion at a less advanced stage of the disease than is usually the case. His first cases were invariably fatal, and in his commentary upon them he pointed out the inutility of deferring transfusion until the heart is already advanced in degeneration, and restoration is well nigh hopeless. In one of his papers, where he summarises the results of five such transfusions, he says that defibrinated human blood was used, and from 80 to 100 cubic centimetres injected into the radial artery. (Professor Schäfer, in his valuable report to the Obstetrical Society of last year, advocates immediate injection from artery to artery as far preferable to intravenous injection, whether mediate or immediate. It will be seen that Quincke performs an operation the same as regards the recipient of the blood; but he uses defibrinated blood, and does not practise the immediate transference.) Usually, during the transfusion, the face became flushed, the pulse slowed, and sometimes very weak, almost a state of collapse occurring. In three cases a rigor, followed by fever, occurred a short time after the operation. On two occasions the transfusion was followed by hæmatinuria and casts in the urine, but not by the escape of actual blood-corpuscles. In one of these cases the amount of hæmoglobin passing off by the urine was estimated at $\frac{1}{16}$th of that injected, and Quincke points out that similar effects follow, according to Ponfick, the transfusion of an animal with blood from another of different species. In some cases petechial and other hæmorrhages follow transfusion. Quincke seems to be firmly of the opinion that by transfusion the blood is reinforced with functionally active elements, and the results of his cases apparently bear out that opinion. Transfusion, then, is a correct and rational procedure, and one which we are bound to adopt in these cases of progressive idiopathic anæmia if no ordinary treatment makes any impression on them. But its results can never be expected to be crowned with such success as in cases of acute anæmia following hæmorrhage, for the simple reason that we are dealing with a disease the origin of which lies deep in the organism, and the effects of which are already manifest in grave degenerative changes in the heart. Perhaps the less heroic measure of administering enemata of defibrinated ox blood, which was advocated by the Therapeutical Society of New York as of great value in conditions of exhaustion and anæmia, may be found of service. At any rate, it deserves the careful trial which Dr. Sansom in this country has claimed for it.

It only remains for me to thank you for the kind attention you have given me during this imperfect attempt to illustrate the leading features of anæmia. I have consciously left many points untouched, whilst many of which I have spoken are capable of much fuller analysis than I have attempted. For all the shortcomings of what has been little more than an abstract of the present state of knowledge on this subject I ask your indulgence.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. Henry Rogers, late of Leadenhall-street, bequeathed £500 each to the South Staffordshire General Hospital and the Wolverhampton Dispensary; and £500 more at the death of his widow. Mr. Samuel Courtauld bequeathed £2000 to the Essex and Colchester Hospital. By the will of Mrs. Elizabeth Baily, late of Clifton, the Bristol Royal Infirmary and the Bristol General Hospital have received £500 each, and the Redland Dispensary and the Hospital for Sick Children, £100 each.

THE annual dinner of the Pharmaceutical Society of Great Britain is announced to be held at Willis's Rooms on the 17th of May.

ON WOUNDS OF THE KNEE-JOINT.

By WALTER RIVINGTON, F.R.C.S. ENG.,
SURGEON TO THE LONDON HOSPITAL

(Concluded from p. 653.)

I WILL now give my own experience during the ten years of my service as one of the senior surgeons of the London Hospital. In December, 1872, a man, fifty-two years of age, was admitted into Bowley ward with a lacerated wound on the outer side of his thigh communicating with the knee-joint. It was a very severe case, for the wheel of a waggon, drawn by four horses and containing two and a half tons of potatoes, had gone over his limb, contusing the muscles and soft structures of the thigh, and blood had been effused freely into the intermuscular planes of connective tissue. Acting in consultation with Mr. Tay I sealed the wound with lint and collodion. Great swelling of the joint, leg, and thigh, inflammation, and suppuration ensued; profound constitutional disturbance, ushered in with chills and shivering; temperature rising within forty-eight hours to 105°, pulse to 144, and respiration to 33; extreme restlessness, necessitating repeated hypodermic injections of morphia; delirium, and death within a week. This was the progress and termination of the case. I am far from saying that in so severe an injury the issue would have been different if the carbolic spray had played upon the wound, and if the wound and the joint had been freely syringed out with a solution of carbolic acid, for it is not always possible to antisepticise severe and irregular wounds communicating with the intermuscular spaces, and I was informed at Edinburgh that the effect of syringing out freely the wounds accompanying compound fractures appeared in some instances to be to drive the germs inwards instead of outwards, and had not been attended with results uniformly satisfactory. I have now in the hospital a young woman with a compound dislocation of the elbow-joint, the radius and ulna having been displaced backwards with free laceration of ligaments and great bruising of the limb. Notwithstanding our best exertions, the carbolic injections were unsuccessful, the discharges became putrefactive, and the gauze dressings had to be abandoned. Nevertheless, I feel convinced that if the patient with the lacerated knee-joint could have been saved, he could only have been saved by the free use of carbolic acid and antiseptic dressings. Mr. Tay and I discussed the propriety of adopting the carbolic-acid treatment. Unfortunately that treatment had not then taken a firm root in London, and we were both sceptical concerning its alleged virtues, and inclined to believe that a strong irritant like carbolic acid was not an advisable application to delicate membranes, serous or synovial. A case had recently occurred in the hospital, and had been reported in one of the journals, in which the knee-joint was said to have been wounded, and syringed out successfully with carbolic acid, but the house-surgeon who treated the case was by no means certain that the joint had been entered either by the wound or the carbolic acid, and he remained in doubt when I had last the opportunity of seeing him. These considerations led us to reject the Listerian system. Cases have occurred in which the patella has been fractured, and considerable effusion of blood has taken place over the fracture, obscuring the injured bone. Inflammation has set in, and a fluctuating swelling, accompanied by redness, pain, and increased heat, has presented itself to the surgeon beneath the skin and superficial fascia, and apparently over the patella. Believing that he had to deal with an abscess, the unwary practitioner, be he general practitioner, surgeon, or house-surgeon, has taken a scalpel or lancet, and made an incision, letting out nothing but blood. With the emission of the blood the swelling has subsided, and to his mortification the practitioner has discovered the transverse fracture of the patella, and becomes painfully alive to the fact that he has opened the knee-joint.

Two such cases came under my observation some years ago, and what was the issue? In both severe inflammation and suppuration, calling for free incisions into the joint and limb and insertion of drainage-tubes; in both a serious illness, in one instance terminating fatally, in the other more fortunately in recovery with a stiffened limb. Similar catastrophes have followed interference with bursæ communicating with joints. Can we doubt with our present experience that the fluctuating swellings over the fractured patellæ might have been opened safely under the protection of the carbolic spray? And as to bursæ, I have now in the hospital a case of ganglion communicating with the knee-joint which I dealt with successfully by removing a portion of the wall of the sac under complete antiseptic precautions.

A case of compound fracture of the patella occurring in my practice nine years ago, in which an attempt was made to save the limb without the use of carbolic acid, terminated fatally from pyæmia. Malgaigne's hooks used for the treatment of fracture of the patella have been known to penetrate the knee-joint. One authentic case at the hospital has been communicated to me, resulting in the amputation of the patient's limb. There is a loose cartilage in the knee-joint. The septic surgeon adopting the best precautions known to him, makes the lauded subcutaneous incision of the capsule and synovial membrane, and squeezes the cartilage beneath the common integuments. Violent inflammation, rigors, pyæmia, and death are the results. Here again the operation might have been performed with perfect safety if Lister's method had been used. A young man, eighteen years of age, came under my care in February, 1875. Five weeks before admission he had injured his knee with a chisel. The wound healed and he went to work. He struck the cicatrised wound and it broke out again. On admission into the hospital there was a small tortuous wound at the lower and outer part of the left thigh above the patella. There was a good deal of pain as well as some swelling of the joint. I could not ascertain to my satisfaction that the wound communicated with the knee-joint, and I treated the case for a few weeks with rest on a McIntyre's splint, evaporating lotions, and ice. Shortly it became evident that the joint was implicated and contained pus. The patient suffered from hectic fever, his appetite failed, and he passed restless nights. He had not had any rigors since his admission into the hospital. It became evident that something further must be done. Three courses were open. 1. To make free incisions into the joint, insert drainage-tubes, and wash out the cavity daily. 2. To amputate the limb. 3. To excise the knee-joint. Looking to the condition of the patient I was myself inclined to amputate. A consultation was held, and as my colleague, Mr. Hutchinson, thought that the limb might be saved by excision, and that excision was preferable to amputation, I adopted his suggestion. The synovial membrane was found generally inflamed, and passing into a state of pulpy degeneration; there was an abscess deep in the popliteal space. The patient did well for a couple of days, when part of the flap sloughed, abscesses formed at the lower part of the thigh, and amputation was performed. Two days later pyæmia set in, with rigors and distension of the right knee-joint with pus. The aspirator was used on two or three occasions to empty the joint. Death took place three weeks after the excision, and pyæmic abscesses were found in the lungs. The case corroborates the conclusion at which surgeons not practising Lister's system have gradually arrived that excision is not a favourable mode of treatment for a suppurating knee-joint. Nor has amputation been much more successful. Preference is given to free incisions, but uniformly good results by these means cannot be expected. The case also leads us to inquire what would have been the result if Lister's plan had been applied when the joint was first wounded with the chisel?

It was with an experience of the kind just related that, at the Edinburgh meeting of the British Medical Association, I saw Professor Lister in an obstinate case of hydrops articuli incise and explore the knee-joint under the carbolic spray, with the most perfect confidence that he was not exposing the patient to any risk of life or limb. The favourable progress of the case subsequently I found to be but a type of what occurred in other cases under the like conditions. The demonstrations of Professor Lister at Edinburgh, acting I trust upon a candid mind open to the reception of truth, convinced me at once that it would be no longer justifiable, at least in regard to wounds of joints, to adhere to the old unreliable lines of treatment. Since then the advent of Professor Lister to the metropolis has rendered us all familiar with what may be accomplished safely under the protection of the spray and gauze. For a surgeon deliberately to convert a simple fracture of the patella into a compound fracture would assuredly have been deemed by surgeons of the old school as a procedure almost criminal. Nevertheless, Professor Lister and his disciples have shown that an ununited fracture of the patella may be treated advantageously by exposing the separated fragments, and wiring them together. Whether this practice should be imitated, exposed as patients would be to some accidental incompleteness or failure in the antiseptic details, is another question. For my purpose here it suffices to know that under complete antiseptic precautions a free opening of the knee-joint appears to be attended with as little risk as the division of a tendon.

With these facts before us can we doubt that Lister has established the claim which he has advanced, that he has introduced a new principle into surgery? If this be so it cannot be wrong to attribute the successful issue of the case which I related at the commencement of this paper to the application of the antiseptic treatment. But, if any further corroboration were needed, it would be found in two cases of compound fracture communicating with the knee-joint which occurred a few weeks ago at the London Hospital in the practice of my colleague Mr. Couper, who from the first has been a warm adherent to Lister's system. Mr. Couper has kindly given me permission to refer to them. On Oct. 3rd two young men of nineteen years of age were riding in a dog-cart. The horse became restive, and kicking out vigorously struck with his hoofs the left knee of each of the occupants of the dog-cart, inflicting on one a compound transverse fracture of the patella, and on the other a compound fracture of the internal condyle of the femur, the wound communicating with the knee-joint. After their admission into the Hospital Mr. Neatby (Mr. Couper's house-surgeon) injected the joints with a solution of carbolic acid (one in nineteen), carefully cleansing the wounds, and removing from the case of compound fracture of the femur a small fragment of loose bone. Drainage-tubes were inserted, and the wounds dressed with the protective and gauze. The progress of both cases has been most satisfactory. In the case of compound fracture of the patella there has been no suppuration at all, nothing but the exudation of some reddish serum. The wound has closed, and the fragments are in apposition, but not as yet firmly united. The temperature rose on the second day to 101·4°, and on the 7th to 100·8°; otherwise it has been little above the normal. In the other case some bagging of pus took place in the thigh, the abscess being opened by the house-surgeon on the fifth day. The highest point marked by the thermometer has been 102°. In both cases there has been a remarkable freedom from complications and constitutional disturbance. It is too early to predicate the ultimate issue as regards the mobility of the articulations.

Here, then, are three consecutive cases of wounds of healthy knee-joints, all of a severe character, and treated in a hospital with an established reputation for pyæmia, recovering perfectly without any of those serious sequelæ so familiar to surgeons of the last generation, and to some of the present, as to produce a profound dread of accidental or intentional wounds opening into the cavity of the articulation. And these results have been demonstrated by Lister's justifiable surgical procedures to be the rule and not the exception, when the details of his method are faithfully carried out under the immediate superintendence of the surgeon. It follows that such results would alone be sufficient to establish the immense value of the system which Professor Lister has perfected with the "prolonged patience" which has been regarded as the essence of genius. Slowly as scientific truth is received, and Syme, I believe, used to aver that after a truth had been established in Edinburgh it was ten years before it reached London, we have advanced thus far at any rate, that it is no longer a question whether Lister's system is to be accepted or not, for surgeons generally accept it in whole or in part, and gratefully acknowledge the debt which they owe to the founder. The question which now remains to be debated is the relative value of Professor Lister's system and other methods of treating wounds in particular classes of cases.[1] For joints I can imagine nothing that can be greatly superior to Listerism, but how far it may be superior in amputations, in ligature of arteries, in compound fractures, in wounds of the peritoneum (accidental or surgical), has not been finally determined. All these must be debated upon their own merits, and even if it should be proved that other treatment is as good or superior in any, or in all, for there is no finality in surgery, the decision could not detract aught from the grand results achieved by the antiseptic system in the diminution of the mortality in hospitals after injuries and operations, or lessen by one iota the obligations which surgery owes to Lister by extending its power for good, by introducing precision and certainty in place of doubt and chance, and lessening the anxiety felt by all who have serious and responsible cases committed to their care.

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[1] Some excellent results have been obtained in compound fractures of the patella by Mr. Jessett of Erith, and Mr. Corner of Poplar, by the use of carbolic oil as a dressing after washing out the joint with a solution of carbolic acid. For Mr. Jessett's case see THE LANCET, 1873, vol. ii., p. 663.

Finsbury-square.

THE DIAGNOSIS AND TREATMENT OF WHOOPING-COUGH.

By ROBERT LEE, M.A., M.D., F.R.C.P.,
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The history of whooping-cough, or chin-cough, would almost lead to the belief that the disease must have existed long before it was recognised as a specific malady and designated by a special name.

I do not propose to enter fully into the historical narrative, but there are two or three facts which I shall briefly state, the explanation of which is worthy of consideration.

In the year 1678, or about two hundred years from now, there was a mortality in London of 20,471, amongst which one case of whooping-cough and two cases of chin-cough are mentioned, this being the first entry in the returns. For fifty years after chin-cough and whooping-cough were registered separately, as though they were different in their nature, till in 1730 they were entered together, when the mortality was 152 in 27,000, or 1 death in 177. Gradually the mortality increased, till it reached an average of 1 in 29 for London; and during the last few years the whole country has suffered, and now there is a higher mortality in the total of deaths in Great Britain than has ever been registered before. Are we to explain these facts by supposing that the disease has actually increased, or that we have been slow to recognise it? I shall say no more in detail on this point, except that it is a far more important one than might be imagined, and has a distinctly practical bearing on the questions of diagnosis and treatment.

It is now about nine years ago since I began to observe, with the opportunities afforded by the practice of a large children's hospital, the various features of whooping-cough, noting any facts which appeared to be important, as they occurred from time to time. It is probable that those who have been occupied in similar practice will agree with me that among the poorer classes of a large city the average of whooping-cough cases may be estimated at nearly 10 per cent. of all cases under treatment.

The first point which forces itself on the attention is, that whooping-cough is far more prevalent in infancy than is generally supposed. Sir Thomas Watson's opinion that the disease is rare in very early life is certainly not confirmed by my experience; and as this opinion has been evidently received and restated in works on medicine—as, for example, in one of the most recent and popular in use in America, which says that the disease rarely affects children before weaning—it is well to direct attention to a possible source of error in diagnosis. I am quite satisfied that if an infant of only a few days old be in the same apartment with another child suffering from whooping-cough, whether it be weaned or not, it will, in all probability, take the disease; at least, its age will not protect it. And just as the mortality is greater among children from whooping-cough before the age of twelve months than later, so the occurrence of the disease is more general.

The next point of interest is the degree to which whooping-cough is infectious. Of late the possibility has been discussed of the principle of imitation being involved in the symptoms, and there has been a tendency to refer them to nervous derangements, much in the same way that the disease found its place in the nosology of Cullen, along with asthma, in the class of spasmodic diseases. But when it is clearly shown that whooping-cough is very infectious, and that it must be regarded properly to belong to the class of which scarlatina and measles are typical members, I need hardly remark on the little practical use of discussing how far a child may control the cough by effort, or what is the precise physiological explanation of the nervous symptoms. It will be time for that when we have ascertained how to prevent the spread of the malady and have diminished its mortality.

The following are a few cases out of a large number of which I made notes at the time that the subject of the infectious character of the disease was under investigation, and here I may remark that every precaution is taken to separate the whooping-cough cases from others.

In 1876 a child aged eighteen months was brought, on May 11th, to be treated for convulsions, being otherwise well. On July 3rd whooping-cough was clearly diagnosed—that is, fifty-three days later.

On May 22nd a child was brought with enlarged cervical glands. On June 12th the first symptoms of whooping-cough showed themselves. On July 10th a brother of the child, not attending the hospital, had the disease.

A child (male, aged ten weeks) was brought to the hospital with eczema of the head and body on May 29th. Had whooping-cough on July 10th. Another member of the same family was brought with it. A boy, aged thirty-seven months, was brought in for congestion of the brain on June 15th. On July 20th the disease was well-marked. A child (male, aged seven weeks), emaciated from ill-feeding, was brought in on May 11th. On June 19th the disease first showed itself. The mother would not allow that it had whooping-cough till four weeks after this. Another child was brought for rickets on May 22nd, and on July 14th the disease was well-marked.

In my note-book for 1878 there are the following instances: A child (female, aged four weeks) was brought with congenital syphilis on May 30th; the disease was well-marked on June 20th. Another on the same day with eczema, and after the same period showed symptoms of the disease. Another child (nine months old) was brought with eczema on Oct. 19th, and on Nov. 24th there was well-marked whooping-cough. Another child (aged three weeks) was brought with obstinate constipation on Nov. 3rd, and on Nov. 20th symptoms of whooping-cough first showed themselves. There are eleven more cases, of the respective ages of eighteen months, fourteen months, three months, six weeks, three months, eight months, seven months, four months, thirteen months, thirteen months, and eighteen months, none showing any symptoms of the disease when they were first brought, and suffering from rickets, eczema, improper food, or other causes of illness.

Taking an average from these twenty-one cases we have thirty-two days as the period which may elapse between exposure to infection and well-marked symptoms of the malady. Very frequently I have noted in cases the first symptoms of whooping-cough from a week to a fortnight before the mother would admit the fact, and in stating the average at thirty-two days I should deduct ten days or more for the obscure symptoms of the early stage of the malady, thus making the period of incubation generally three weeks.

It is singular to notice how obstinate most women are in denying that their children have whooping-cough, so that their evidence or opinion is of little value. Among these cases there was one of a mother who caught the disease. She lost her infant and had two other children ill with it. In another family two others at home caught it, one an infant five weeks old. In another the infant caught it, aged seven months.

Without dwelling long on the law of infection as regards adults, to judge from seven cases in hospital practice, and an equal number in private life, in which the father, mother, or nurse caught whooping-cough a second time, I think we may conclude that close and constant exposure to the influence of infection is the almost invariable cause of such an occurrence.

(To be concluded.)

Society for Relief of Widows and Orphans of Medical Men.—The Directors of this Society held their usual quarterly meeting on Wednesday, April 13th, at 5 P.M. Dr. Pitman, V.P., was in the chair. Applications for relief were read from fifty-nine widows, fourteen orphans, and four recipients of grants from the Copeland Fund. A sum of £1250 was recommended to be distributed at the next quarterly court, should the visitors report favourably on the cases. There were no fresh candidates for membership or for relief. The death of one member was reported. It was resolved to advertise once a quarter in the medical journals with the desire of making the Society better known. Dr. Temple, Dr. Self, Dr. Cumberbatch, Dr. Augustus Brown, Mr. Spencer Watson, and Mr. Vasey were the members selected to fill the annual vacancies in the directorship. The annual general meeting is to be held on May 18th, at 5 P.M.

ON TRICUSPID STENOSIS.

BY BEDFORD FENWICK, M.D.

(Continued from p. 656.)

THE collated cases are summarised in the table already published (No. 1), and I will discuss the subject in the order there followed :—1. Sex. 2. Age. 3. Previous History. 4. Diagnosis, Prognosis, and Treatment. 5. Size of the Tricuspid Orifice. 6. Size of the Mitral Orifice. 7. Concurrent Cardiac Changes.

1. *Sex.*—Out of these 46 cases, *41, or 89·1 per cent., were females, and only 5, or 10·9 per cent., were males.* This appears to me to be very significant, interesting, and conclusive—significant of some great and hitherto undiscovered cause, interesting as a curious statistical fact, and conclusive as a proof that tricuspid stenosis is *not* of congenital origin; for it will not, I think, be asserted that the female is more subject than the male to cardiac changes. In the ten years from 1871 to 1880 there were 31 cases of all kinds of congenital malformation of the heart exhibited, and tested therefore, before the Pathological Society. Of these, 17, or 54·8 per cent., belonged to males, and only 14, or 45·2 per cent., to females. Dr. Peacock[1] writes: "Malformations are certainly *most common in males.* Of 91 cases, 52 were males and 39 females, or 57·2 and 42·8 per cent. respectively." Nor I think would the assertion be correct of adults. Of 157 cases of all forms of heart disease treated in the London Hospital in one year, 88 were males and only 69 were females, or almost exactly 4 men to every 3 women. Finally, these 46 cases can in no sense be called "selected." They are collected from very varied sources, recorded by numerous observers, and extend over a period of fifty-five years. They are all that are noticed in Schmidt's or Virchow's Yearbooks since the early part of this century.

I may add that Dr. Norman Moore has had the great kindness to search the post-mortem register of St. Bartholomew's Hospital, and has found 13 cases there recorded. Of these, 12 were women, and only 1 a man.[2]

2. *Age.*—The youngest age at death in women was seventeen, in men twenty-one. The oldest age at death in women was fifty-eight, in men sixty-four. The average length of life in women was thirty-one years, in men 36·4 years. The majority of cases died between twenty and forty, and a rather larger number in the first than in the second decade. Only two cases lived beyond the age of fifty, and only three died before the age of twenty. This will be more clear on reference to Table II. Dr. Peacock[3] exhibited a specimen of congenital stenosis of the tricuspid from a child who only lived seven months.

3. *Previous history.*—From its birth this child was livid, and it became almost black when coughing, and it suffered much. In only one case of these forty-six is it noted (No. 18) that the patient suffered from "darkness of the surface" from birth. A few others are noted as "always delicate," "stunted in growth," and so on; but surely it will not be asserted that every delicate girl—that every badly-developed woman necessarily suffers from some congenital cardiac defect. And unless this assertion be made it seems to me most illogical to infer that this delicacy, this stunted growth, must have been the sequence of latent disease in these cases. I am inclined to believe it to be the cause of the cardiac changes. In the great majority of cases it is distinctly noted that the patient's previous health had been good. Now, I suppose it will not be insinuated that tricuspid stenosis is conducive to health or long life, or that it does not produce marked results, or even that it can exist for long without these results becoming apparent. In this connexion the previous history of the second case I have here recorded becomes very important. Here a woman enjoys good health, does hard work often, for eighteen years, suffers from and shakes off an attack of acute rheumatism; some years later is found to have her heart (presumably only) slightly diseased; five years later again shows signs of mitral stenosis, and commencing disease of the aortic orifice. This latter, after another year, and another attack of acute rheumatism, is found to have progressed into a state of stenosis. Finally, in one more year, a fresh attack of articular rheumatism has exhibited fresh inflammatory power, and it is found by post-mortem examination that the tricuspid orifice is stenosed also. Is not this the history of the march of a disease? Finally, in 23 out of 46 cases, there was a well-marked antecedent history of acute or subacute rheumatism. Out of 304 cases of all kinds of heart disease, I find that there was a previous history of rheumatism in 152, or again exactly 50 per cent. It seems to me that all these facts are powerful proofs that tricuspid stenosis in adults is an acquired disease, and is therefore *not* of congenital origin.

On reference to the following table, it will be observed that 35 of the cases died before forty, and only 10 after that age; that every male case had suffered from rheumatism; that the average length of life in rheumatic cases in men was 36·4 years, and in women 30·1 years; and that the average length of life in women with no rheumatic history was 33·2 years.

TABLE II.—*Age, Sex, and Previous History.*

Ages.	No. of Cases.	Rheumatism.			No Rheumatism.			Not noted.
		M.	F.	Total.	M.	F.	Total.	
15 to 20	3	—	1	1	—	2	2	—
20 to 30	17	2	8	10	—	6	6	1
30 to 40	15	2	6	8	—	6	6	1
40 to 50	8	—	3	3	—	4	4	1
50 to 60	1	—	—	—	—	1	1	—
60 to 65	1	1	—	1	—	—	—	—
Totals ...	45*	5	18	23	—	19	19	3
Percentages ...		100·0	48·6	50·0	—	51·4	—	—

* In one case (No. 10) no age or previous history is noted.

4. *Clinical features.*—These were noted in 28 cases. Of these cyanosis or lividity was well-marked in 22; dropsy, generally extreme, in 15; dyspnœa, often orthopnœa, in 27. In most cases there was great hepatic tenderness (and enlargement), in many severe epigastric pain. In 13 cases the area of cardiac dulness is said to have been much increased laterally. As the right auricle was in every case, save one, found after death to be (often greatly) dilated, a well-marked lateral increase of the heart's space may, I think, be considered a diagnostic feature of the disease. In three cases it is stated that there was a marked undulation of the whole left anterior chest with the cardiac action. As it was remarked in many cases that the heart's impulse was very powerful, this phenomenon was probably present even more frequently than noted. In 9 cases a very marked turgescence of the jugular veins was visible. For anatomical reasons I imagine that this condition in a less degree perhaps must be present in every case of advanced stenosis. The urine was generally very scanty, and contained albumen. The temperature, when recorded, was normal or subnormal. The pulse varied so greatly that it furnished no definite conclusions. *Murmurs* were noted in 32 cases. Of these a bruit was audible at the base in 12; in 7 being purely systolic, in 2 purely diastolic, and in 3 occurring with both sounds of the heart. A presystolic bruit was audible at the point of impulse alone in 10 cases, at or about the ensiform cartilage alone in 5 cases, and at both the right and left apices in 6 cases.

A systolic murmur was noted at the point of impulse in 15 cases, at or near the lowest part of the sternum in 9 cases. Thus in 31 out of 32 cases there was an evident mitral bruit, and in 20 cases out of 32 there were murmurs which probably were caused by the tricuspid changes, and these murmurs were audible over a limited and well-defined area, which I would thus delineate. If the point of junction of the sternum and the fourth right costal cartilage be taken, and from thence one line be drawn vertically downwards, and another obliquely to the junction of the sixth left costal cartilage with its rib, a third and horizontal line from the latter point, drawn to the right, will cut the first or vertical line just below the tip of the ensiform cartilage, and complete what I would venture to call the lower tricuspid triangle, or the area within which tricuspid stenosis murmurs are chiefly audible. I use the term "lower" because a similar figure might in like manner be drawn rather above and to the right of this which would cover the area of tricuspid regurgitant murmurs. I am aware that this is not only a smaller space, but greatly diverse in position from that assigned to general tricuspid murmurs by a great authority, Professor Gairdner of Glasgow. It is also rather different and somewhat smaller than that given by a very careful clinical teacher, Dr. Hayden of Dublin, after a thoughtful review of three well-marked cases. But, with all deference to these very accurate observers, I am inclined, after a somewhat careful review of these 32 cases, to believe that the above defined area is mainly correct, especially as, after deducing the triangle from the facts, I found that its highest point lies almost exactly over the tricuspid orifice, and that it covers the course which the blood must take on being propelled downwards from this opening towards the apex of the right ventricle. With regard to the murmurs heard, the mechanism of the cardiac cycle, the analogy of tricuspid and mitral stenoses, and the fact that a presystolic murmur is pathognomonic of the latter disease, justify, I think, the assertion that the former may also, and probably does, produce a bruit heard during the cardiac pause. And this is proved by the fact that the disease has been diagnosed during life from the presence of this one sign by Dr. Hayden and Foster, and that in 11 out of 32 cases there was a well-marked harsh, presystolic bruit heard during life within the lower tricuspid triangle.

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[1] Malformations of the Heart, p. 117.

[2] Since writing the above Dr. Peacock has been good enough to send me a paper on two cases of Tricuspid Stenosis published in Toronto some years ago. One of these was an old museum specimen, and its sex unstated. The other was from a woman. Dr. Horrocks has also still more recently brought a well-marked example of the disease (from a woman) before the Pathological Society.

[3] Pathological Society's Transactions, vol. v., p. 64.

A. Diagnosis.—The presence, however, of this murmur in this area does not necessarily mean the existence of true orificial stenosis. Professor Gairdner diagnosed tricuspid obstruction from this one physical sign in a man in 1862. Ten years afterwards the man died, and obstruction of the tricuspid was found, not from any disease of the valves, not from any change in the orifice, but from the presence of a small globular pedunculated tumour of the auricular wall, which descended into the aperture after the manner of a ball valve. Again, Dr. Ernest Sansom informs me that a patch of roughening on the pericardial surface of the right auricle may give rise to a rubbing sound audible in the lower tricuspid triangle, and simulating a presystolic murmur even to the most practised ear. To summarise then the diagnostic features of this disease, I think it may be asserted that—

1. If there be clear evidence of mitral stenosis, which exists in every case of the analogous tricuspid condition, a well-marked murmur in the lower tricuspid triangle, if it be harsh in tone, and especially if it be presystolic in time, the patient an adult female, the systemic venous circulation more embarrassed than the pulmonary, and the right auricle much dilated, there is probably stenosis of the tricuspid.

2. If the same signs be present in a man, and the murmur in the lower tricuspid triangle be very clear, or very clearly distinct from that at the apex, and plainly presystolic in time and tone, the disease is tricuspid stenosis. If the latter conditions be not well marked it is probably a case of tricuspid regurgitation.

3. If there be a distinct presystolic murmur at the apex, not much systemic venous obstruction, and *no evidence of mitral stenosis*, the bruit is caused by some congenital malformation of the tricuspid valves, or due to roughening of those valves, to the presence of some such condition as found in Professor Gairdner's case, or to a patch of pericardial roughening localised to the right auricle.

4. If the patient be a female, has suffered much from acute rheumatism, is known to have previously exhibited signs of mitral stenosis, has great dilatation of the right auricle, a feeble cardiac action and greater systemic than pulmonary venous obstruction, even though no murmur be heard at all, or only a faint systolic bruit be audible, tricuspid stenosis may be present to an extreme degree.

(To be concluded.)

DENTAL EXAMINERSHIP.—It is stated that the Committee on Examinations in Anatomy and Physiology of the Royal College of Surgeons will meet on Monday next to consider and report to the Council on the applications and nominations of "persons skilled in dental surgery."

CASE OF MYXŒDEMA.

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ELLEN D——, aged fifty-four, was admitted into the Cleveland-street Infirmary, London, on August 26th, 1879, during my absence from home. She was being treated for dropsy, and I found this note taken, that the abdomen appeared to be ascitic, but gave no fluid wave on percussion. There was no albumen in the urine, and the patient had remained neither better nor worse.

From the description Dr. Ord gave of the disease in a paper read at the Clinical Society, early in the session 1879–80, I at once came to the conclusion that the patient under my care, who was being treated for dropsy, was the subject of myxœdema. I say from his description, for I did not see the patient shown on that occasion; indeed, this is nearly the first case I have seen; one other that I can recollect occurred in Edinburgh. I did not attend the lady, but I well remember her features and manner, which are so very characteristic of the disease. I mention this case in addition to the one I am about to give, because they were both women in somewhat advanced years.

The patient states that she was born in Tipperary; her mother died at sixty (disease ?), her father died at forty of fever. There were nine children; the patient is the eldest, two only remain beside herself, the rest died under fifteen years. She had always been healthy until she "got the dropsy," nine months before, when the skin became rough and peeled off, together with weakness in the back and breathlessness on mounting stairs. She has been married and has had eleven children; six died young, and the five living are twelve, nineteen, twenty, twenty-three, and twenty-nine years respectively. Her husband was gouty. She could never write, but can read a paper. Has been a charwoman of late. It was difficult to get much history from the patient, but she did her best, so I tried her relations. Her son-in-law had known her for seven years. She was always a slow speaker, but he thinks she is slower in speech now. She is not so hasty in temper as she used to be, and her voice is deader than formerly. Another person said she had known the patient for eight years. She was always stout and slow in manner, but she looks yellower than formerly and speaks slower, and she cannot understand her so well as before. For some reason I could not induce a daughter to come and be questioned.

The case so closely resembles Dr. Ord's very graphic description that I think I need not give all the clinical features at length, but add that it was noted that the face was puffed and waxy-looking, with a delicate colouring of the cheeks, lips somewhat pouting, no expression, and when the patient smiled the eyes almost disappeared. The tongue was characteristic, being large and flabby; there was often observed an œdematous swelling of the uvula and soft palate. The patient in disposition was quiet and cheerful; certainly very slow of understanding, for to every question she always answered, "What's that, doctor?" As an example of her disposition, I remember that on one occasion a medical friend asked her to show her teeth; she said slowly, "I haven't got none, doctor," and seemed highly amused at the joke. Her chief occupation was knitting stockings, but the needles worked slowly. She took part in the ordinary work of the ward, such as helping the nurse; and I never saw her out of temper for the eight months that she was under my constant observation. She was somewhat inclined to sleep, and occasionally was found nodding in her chair.

As to the thyroid gland, the neck was too fat to enable anyone to say whether it was small, or even present. Occasionally there were glandular enlargements in the neck, below the jaw and above the clavicle, these swellings being usually preceded by well-marked rigors. Back pain was tolerably constant. The skin was always dry, harsh, and rough, not more so on the hands and arms (she had been a washerwoman) than elsewhere. The hair on scalp was plentiful, and black. In order to test the skin I experimented with pilocarpin injected hypodermically. On December 22nd a quarter of a grain was given, the next day half a grain, without result; but on the 28th one grain acted in a few moments, and she began to wipe her face. The nurse reported that the sweating was general and lasted one hour and a half, no inconvenience being complained of, the patient saying that "there was more water in her mouth."

On December 30th the note runs: "Skin unaltered by the sweating. Extensive area of ecchymosis near pin puncture in a vein." On November 12th, also, it was noted that a pin scratch on her chin had produced some subcutaneous ecchymosis in its track of unusual character.

The œdema was general, and really was not œdema proper, for it only pitted on firm and rather prolonged pressure, very differently from what is seen in ordinary dropsy. The urine was never found to contain albumen, was repeatedly examined, the quantity passed was natural, and the colour always pale; minute analysis was never gone into. The blood I began to examine with the hæmacytometer, but on my resigning my appointment this was in an unfinished state. I made repeated examinations with the ophthalmoscope, but nothing abnormal was seen; the media were exceptionally clear, and pupils well dilated with atropin or duboisin. The laryngoscope found the larynx and vocal cords quite natural. The examination of the vagina and cervix was intended but never accomplished; in one of Dr. Ord's cases the vulva, os uteri, rectum, and anus were noted as showing change. Sight, smell, taste, and hearing were not noticeably altered in any way, neither was any bloody urine observed. The hands were as Sir W. Gull has described them—swollen, broadened, and shapeless, but this may have been accidental, seeing that she was a stumpy, clumsy woman generally. The abdomen was flabby and pendulous, always looked ascitic, but no fluid was ever detected by percussion. The temperature was recorded from October 29th, 1879, to November 18th; one thermometer was used, and from then until April 27th, 1880, two were used twice daily in each armpit without a single intermission, nurse Westell taking the greatest care and interest in these observations, for which she deserves the order of St. Katherine. There was never any marked difference on the two sides, the up and down strokes corresponding nearly exactly. The average temperature was 95° and 96° F.; 97° was reached forty-one times in eight months, 98° five times, and the temperature was above normal once only, when on November 2nd it was 99°. The note taken was: "Pain and swelling in throat inside and out, and on the following day fauces œdematous." This rise may have been due to some catarrh. I regard, then, this constant subnormal temperature as very characteristic and remarkable.

During the eight months she had fits once, on Feb. 22nd. The notes run thus: "Seems dull and heavy this morning, having had two fits yesterday. She stated that previously there was pain in her heart, her sight left her, and she felt faint." There was nothing unusual observed about the size of the heart and its action. The lungs were healthy, and no increase in size was found in liver or spleen. The digestive organs acted well. She never vomited, and had always a moist clean tongue. Her diet was a plain one always, and she was easy to please in this respect. Several medicines were given by mouth, such as diuretics, but without any result, and, as far as I noticed, she was not markedly worse at the end of eight months than she was at the commencement. Her mental state I cannot give better than as described by Sir W. Gull as that of "senile placid indifference." There was no syphilitic history. I have nothing to place on record of the pathology of this disease at present, but Dr. Ord has given the results of examinations in some of his cases, which terminated in the usual manner.

The case in point was shown, as occasion permitted, to several medical men, amongst whom were Mr. Hutchinson, Dr. Barlow, and Dr. Douglas Powell, who quite agreed with me as to diagnosis.

Carlisle.

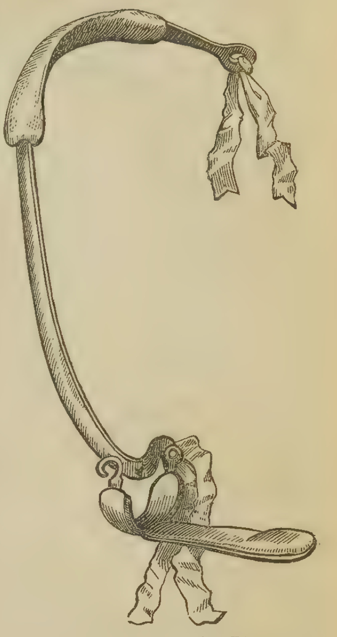
A NEW SPLINT FOR THE ARM.

BY NORMAN PORRITT, L.R.C.P. LOND.,

HOUSE-SURGEON TO THE HUDDERSFIELD INFIRMARY.

THE splint figured below consists of a flat piece of iron moulded at one extremity to fit the shoulder, and at the other to support the hand. It procures complete immobility of the elbow-joint, while possessing the following advantages over the wooden rectangular splints used for that purpose:—

The splint is not bandaged to the limb, and there is, therefore, no fear of tight bandaging and its attendant evils, circulation being in no way interfered with. There is sufficient space between the elbow and the splint to apply any dressings, antiseptic or otherwise, without removing the splint or disturbing the position of the limb. It acts as a sling by supporting the arm, and although movement of the whole arm is allowed, no movement at the elbow is possible.



In applying, the bandage is carried across the back over the opposite shoulder, round the front of the chest, again to the back, where it passes horizontally between the end of the splint and the bandage over the shoulder, once round the body, when it is tied behind. The end of the splint is thus prevented from moving outwards or upwards, and in practice it is found that the splint keeps its position. The splint is light and cheap, and can be made by an intelligent blacksmith, the length of the shoulder-piece being ten inches, of the shaft eleven inches, and the support for the hand measures six inches. If made of soft iron, the comparative lengths of the shaft and shoulder-piece can be altered by bending to suit different-sized individuals, and with a little padding for the hand and shoulder-pieces the splint is complete. Mr. A. Kempner, of Woodhouse-lane, Leeds, has very efficiently made most of the splints, and Messrs. Matthews Brothers, of Carey-street, are the London makers. It has been used by myself and others in nearly thirty cases: for example, after excision of the elbow, in cases of injury to the elbow, especially when attended with much swelling; in disease of the elbow, or where bony anchylosis is desired, and in fractures about the joint without much displacement—e. g., fracture of the head of the radius. It may be used in any case where complete immobility of the joint is desired. It is very comfortable, and patients who have worn it prefer it to others. In one case it was worn continuously for eight months, and after its use in a case of synovitis of the elbow, where the limb was bandaged to a wooden splint, an immediate improvement took place. It is not taken off at night, and when the shoulder-piece is concealed under the armhole of the waistcoat or other article of dress, it is hardly possible to see that the patient is wearing any apparatus, the hand, kept in position by a bandage carried over the wrist from side to side of the lower part of the splint, being the most prominent figure.

Huddersfield.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

TWO CASES OF SARCOMA OF CHOROID; ONE OF TRAUMATIC HÆMORRHAGE INTO THE VITREOUS.

(Under the care of Mr. STREATFEILD.)

FOR the following notes we are indebted to Dr. Silcock, clinical assistant.

CASE 1. *Sarcoma of Choroid.* — J. B——, aged seventy, pilot, a hale old man, well preserved for his age, attended the out-patient department on Jan. 3rd, having lost the sight in his left eye. In Nov. 1880, he accidentally discovered that he could not see things on his left-hand side; since then his sight had been gradually getting worse; but he had never suffered from any pain in the affected eye. With the exception that he was "gouty," his general health was, and had always been, excellent. Vision, normal in the right, amounted only to the bare perception of light in the left eye, and was entirely lost in the outer part of the left field. By direct examination, a round, slightly nodulated mass could be seen, growing apparently from the inner ciliary region, about as large over as a pea, and yielding a yellowish-red reflex. The cornea was clear, the anterior chamber of normal depth, and the pupil active. In the lens were a few incipient striæ. The globe was nowhere tender; its tension decidedly minus. The right eye, on examination, was healthy.

On the day of admission, Jan. 31st, the left eye was excised, care being taken to divide the optic nerve as far back as possible. With the exception of an attack of gout whilst in the hospital, the patient did well, and was discharged on Feb. 2nd. Dr. Brailey, curator of the museum, found that the growth was a soft, white, vascular sarcoma growing from the inner side of the ciliary body. The cells were round or oval, many drawn out into a short tail, having one, sometimes two, large oval or round granular nuclei.

Case 2. *Sarcoma of Choroid.*—J. M——, aged sixty-nine, bootmaker, a well-nourished, healthy-looking man, was admitted on Feb. 7th. He stated that nine months previously he noticed that he could not see objects on his right-hand side. Latterly his sight had been getting rapidly worse. He had never had any pain in the affected eye. His health had always been good. On direct examination, a large mass could be seen springing from the inner ciliary region of the right eye, having much the same appearance and occupying a similar position to that described in the first case, but covering a somewhat larger area. The cornea, anterior chamber, and pupil were unaffected, a few commencing striæ being observable in the lens. The globe was not tender, its tension minus. The left eye, on examination, seemed healthy. Vision was good in the left, but almost totally lost in the right. The eye was excised, the optic nerve being "cut long," as in the previous case. The patient was discharged on Feb. 14th. Mr. Brailey reported that the growth was a sarcoma apparently starting from the choroid, but filling up half the eyeball, though not reaching to the optic disc. The cells were spindle-shaped, many tripolar, with large oval granular nuclei.

Case 3. *Hæmorrhage into the Vitreous.*—A. G——, aged twenty-six, attended as an out-patient on February 14th, having lost the sight of his right eye. Four weeks previously whilst loading a gun it exploded, blowing his right thumb off. Half an hour afterwards he found that he could not distinguish anything with his right eye. He was taken to Guildford Hospital, where he remained some time. Four or five days after the accident he could count fingers held up in the lower and outer part of the right field. He had never had any pain in the damaged eye. When tested there was total loss of vision in the upper and inner part of the right field, light objects and shadows being distinguishable in the remaining portion. On the lower eyelid, close to the outer canthus, was the recent cicatrix of a small wound; the ocular conjunctiva in this region was a little injected. The cornea, anterior chamber, iris, and lens were unaffected. With oblique illumination a bright-red reflex was obtained from the lower and inner ciliary region; no normal fundus reflex elsewhere. The vitreous anterior to the extravasation was a little cloudy. There was no tenderness of the globe, its tension slightly minus. He complained of slight photophobia and lacrymation, but of no pain.

Remarks by Mr. Streatfeild.—The three cases can only be considered in one group, inasmuch as they were attending at the Moorfields Hospital at the same time, and as they afforded an opportunity of some comparative observations to be made in practical diagnosis, which, as regards the intraocular sarcomata, is always a matter of urgency and importance, inasmuch as in such cases the eyeball must be immediately excised. In these two cases the eyes, it has been observed, were of less than the normal tension, whereas it is generally supposed that intraocular growths are accompanied by an increase of tension. This is true only of growths which have attained larger size than had either of these tumours; and that in the early stages the tension is, on the contrary, diminished may be due, as Dr. Brailey has remarked, to loss, by the growth, of some part of the secreting surface. In neither of these two cases had the tumour attained such a size as to distend the eye and cause the hardness of a later stage of the disease. Neither of the patients had had any pain, the media were clear, and the anterior chambers not shallow. By observation at first, with the naked eye, in ordinary daylight, an unusual light reflection from a part of the fundus could be seen in these cases, and much more distinctly seen, of an orange-red colour, with the concentrated light of the ophthalmoscope lens (oblique illumination). With the ophthalmoscopic mirror, looking obliquely, the tumours could be seen in profile, and retinal vessels on their convex surfaces. The retinæ were evidently detached and lifted up, but these were no ordinary detachments of the retinæ; their colour and dense opacity, their steep convexity, and the absence of any folds or creases on the surface of the elevations showed this. The ages of the patients excluded the probability of their being gliomatous growths. Nor could they be tubercular; they were too large, abrupt, and regular in shape, and, again, the patients were not young. Were they subchoroidal effusions? Excepting the consideration of their ages the same objections prevailed. What could these large, single, rounded, prominent elevations in the anterior part of the periphery of the fundus in each of these cases be but sarcomatous growths from the choroid or ciliary body? I thought they were both of the nature of sarcoma, and operated at once. The growths were not yet comparatively very large, and the optic nerves, cut across in the excisions, were healthy, so that the prognoses are good. The third of the three cases, herein reported by Dr. Silcock, seen at first by daylight with unaided vision, and without a knowledge of the history of the case, might have been also taken for an intraocular growth in that part of the fundus from which the sarcomata had their origin, a reddish glare being reflected from a part of the periphery of the vitreous chamber. But this appearance was not so exactly localised as it was in the cases of the tumours, and oblique illumination made the contrast with them greater, and the diagnosis certain. Instead of orange-red, with retinal vessels on the surface, it was uniformly of the colour of blood recently effused, partly occupying the back of the vitreous chamber, and partly in contact with the posterior lens capsule, irregular in outline instead of being rounded, and evidently concave instead of projecting forwards. It could be nothing but a blood-clot moulded to the shape of the surrounding parts. The man thought the thumb which was "blown off" struck his eye, but the correspondence of the small cicatrix of the outer part of the lower lid, and a little hard mass which could be felt in the centre of the corresponding patch of the injected ocular conjunctiva, which I took to be another scar of the same date, made me think that, not improbably, a shot had penetrated the lid, and also the sclerotic, and may be found hereafter in the eye, if it should become necessary to excise it. The tension was already deficient, the eye beginning to waste.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

CRUSHED FOOT; AMPUTATION; SALICYLIC-SILK DRESSING.

(Under the care of Mr. T. D. Ransford.)

J. G——, aged thirty-seven, admitted January 6th, had previously been a patient, under the care of Mr. Hamilton, with injury to the knee of the left leg, which resulted in a stiff knee. He was at work in the Mersey Steel and Iron Works, when a ton weight of iron fell on his ankle and crushed it to a pulp. After consultation it was determined to amputate the limb at the lower third, which was done with a long anterior and a short posterior flap, with Lister's antiseptic method, and dressed with gauze. The dressing was repeated every morning, on account of the extensive serous oozing soaking through all dressing, till some salicylic waste silk had arrived from Leeds on the morning of January 12th, when it was determined to try it, as recommended by Mr. MacGill. Temperature 100°; pulse 72. The wound looked well, the sides had been left open to allow of free drainage. One drainage-tube came away with the dressing, the other was left in. The wound was covered with the protective, and one or two layers of wet gauze were put over this, then about a quarter of a pound of the waste salicylic silk was picked out and spread over some gutta-percha, and the stump laid in it. The whole was then bandaged to the limb by gauze bandage. This dressing was kept on till January 19th, seven clear days, the temperature being about 98° to 99°, and the pulse 70 to 76. No discharge showed through anywhere, and the dressing was only changed to remove the drainage-tube. The wound was dressed in the same way again, and, as the temperature and pulse were normal, it was allowed to remain on for ten days, up to January 29th, when the dressing was removed and the whole stump was found soundly healed, with the exception of two small points on each side, less than half the size of a threepenny piece; these were dressed with lint and boracic acid lotion, and took longer to heal than might have been expected, seeing the rapid progress made with the silk dressing. Sent to the country, quite well, on February 14th.

Remarks.—Although this case was not dressed from the very first with the silk dressing, yet, as far as it goes, it bears out all that Mr. MacGill has said in its favour in THE LANCET of January 1st, page 10.

HORNY TUMOUR OF LIP.

(Under the care of Mr. T. D. RANSFORD.)

For the following notes we are indebted to Mr. Ward.

R. B——, aged fifty-seven, admitted Feb. 16th into the Albert ward. Five years before a small white blister appeared on the middle of the lower lip at the junction of the skin and mucous membrane, and remained as such for two years, after which it began to grow steadily. The patient never noticed that it grew more rapidly at one time than another. He said that there never had been any discharge from it, and that the mass had always grown from underneath. During the last two years he had suffered from indigestion and attacks of bronchitis. No history of syphilis.

On admission he was in good health, but rather delicate-looking. A large mass extended nearly at right angles from the margin of the lower lip, its base occupying about an inch of the space of the lip, and protruded about three-fourths of an inch. At its free border it was divided into two unequal parts, the break having been caused by a removal of part of the mass by the patient. There was no hardened base, but the mucous membrane on the left side of it looked white. There was no enlargement of the neighbouring glands, but the patient stated that the glands under the jaw occasionally became enlarged and painful. The mass was quite painless at the free border, the patient being able to remove pieces of it with his finger nails. On compressing the base it was very painful.

The tumour was removed on the day of admission by cutting parallel with the lip with a pair of scissors, the white-looking mucous membrane being also removed and the skin and mucous membrane were drawn together, and the wound dressed with lint and boracic acid lotion. Discharged well five days later, the 21st inst.

Remarks.—The interest of this case arose from its growing from the usual site of an epithelioma, but the long history and the absence of any infiltration of the neighbouring tissues or glands were alone enough to establish its innocent character. The tumour, with the exception of a piece reserved for the microscope, has been sent to the Royal College of Surgeons Museum, Lincoln's-inn-fields. It was an ordinary papilloma.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cylindroma of Popliteal Space. — Cancer of Rectum. — Villous Polypus of Bladder. — Cirrhosis of Liver in a Child.—Membranous Tracheitis following Tracheotomy.

THE ordinary meeting of this Society was held on the 19th inst, Dr. Wilks, F.R.S., President, in the chair. The chief communication was by Mr. Harrison Cripps upon "cancer" of the rectum; it was admirably illustrated by a large series of microscopical specimens, drawings, and diagrams. Mr. Godlee showed in the ante-room a curious case of arrested development of all the limbs.

Mr. BUTLIN exhibited a specimen of Cylindroma. It was the primary tumour removed from the ham of a boy aged nine, who had died from recurrent sarcomatous growths, which had been brought before the Society by Mr. Cripps (see THE LANCET, p. 213). The primary growth apparently sprang from the posterior ligament of the knee-joint; there was rapid local recurrence as well as widespread secondary dissemination, tumours being connected with the ilium, one of the ribs, and occurring also in the abdomen and pelvis. The microscopical characters of the primary tumour were those of cylindroma, composed of cylindrical, polygonal, and hexagonal cells within a hyaline matrix which apparently proceeded from change in the vessel walls. This form of new growth has been described in connexion with the skull and in the submaxillary and parotid glands; it has only once been observed in lymphatic glands. It belongs to the sarcomata, and in this case the recurrent and secondary growths were typical specimens of round-celled sarcoma. Mr. Butlin attributed the peculiar shape of the cells to their mutual compression and removal of intercellular substance.

Mr. HARRISON CRIPPS exhibited a series of specimens and drawings illustrative of the development of so-called Rectal Cancer. He found them all to conform to one type, the adenoid; the different appearances in various specimens representing different stages in its growth, which assumes two main forms—viz., one where it begins between the muscular and mucous coats, and, when ulcerating, makes an ulcer with a base formed by the hypertrophied muscular coat, and spreading at the margins; the other where it forms from the first a projecting tumour, clinically innocent. The latter is usually described as a papilloma, the former as an epithelioma, but they are both probably opposite types of the same disease. Section through a well-marked slowly-growing tumour shows spaces lined by cylindrical epithelium resting on retiform tissue. In the rapidly-growing tumour the same spaces and epithelium are present, but in a less defined form, both the cells and fibrous tissue being embryonic. The mode of development of these spaces is ascertained by observing the growing margin, which exhibits epithelial buds and processes arranged in dendritic fashion. These leaflike processes bend over and coalesce, forming the spaces lined by epithelium, which at an earlier stage was on the surface. Secondary outbuds of epithelium grow in these spaces by the proliferation of the cells. He had not been able to trace a direct continuity of growth between the Lieberkühnian follicles and surface epithelium and the deeper-seated new formation, a greater or less amount of retiform and fibrous tissue intervening. But in this intermediate tissue there is, especially near the new epithelial growth, a large amount of leucocytes, and their presence has suggested the view taken of the origin of the deep-seated epithelial new formation. The rectal mucous membrane is composed of cylindrical epithelial cells on the surface of retiform tissue, the number of cells on a given area (there are about 50,000,000 to the square inch) being very large, owing to the existence of numerous depressions of the mucous membrane the Lieberkühnian crypts. Each epithelial cell may be regarded as having an individuality of its own; its nucleus is capable of division and of passage into the subjacent retiform tissue. There is no morphological distinction between the epithelial nuclei and the retiform cells, and Mr. Cripps believed he had seen in some specimens an actual transition of the former into the latter. If such a transition or migration take place, the subsequent transformation of the retiform cells into deeper-seated epithelium is feasible—the nuclei being considered as embryonic forms of the surface epithelium, which subsequently develop into adult epithelium. Dr. Moxon's observation of cancer in the liver, secondary to rectal cancer, reproducing all the structures of Lieberkühn's follicles, is explicable on this hypothesis, which requires only the transplantation of lymphoid elements originally derived from epithelium to a distal organ. The various names applied to these rectal new growths, as sarcoma, epithelioma, &c., are so far erroneous that they are only descriptive of particular parts of the growth—the nuclear or immature part, the epithelial or adult parts, &c. As to the cause of this malignant disease, it might be supposed that an obstruction of the lymphatics would cause a tumour to develop, hindering the removal of the potential epithelium, but that view does not account for the dissemination of the growth. It must be assumed that the cells in the retiform tissue cannot find their way into the lymph stream, that being fixed they develop into epithelium in the deep tissues, and give rise there to a formation reproducing the characters of gland tissue.—Mr. DORAN pointed out that the intestinal epithelium was rather shed than reabsorbed, and that it was more probable that the lymphoid cells should be the progenitors of the epithelial cells than the converse; and that, under morbid influences, they should undergo that transformation before coming to the surface. Such a view explains the origin in deep tissues of cysts well lined with epithelium. In the ovary such cysts may be derived from the epithelium of the tunica albuginea and Graafian follicles; but the ovary has the power of forming any tissue (e.g., in dermoid cysts) without any impregnation.—Dr. THIN said that Mr. Cripps, by his careful research, had done for cancer of the rectum what Thiersch had for cancer of the lip, and Waldeyer for cancer of the breast. But his valuable facts were supplemented by theories to which he (Dr. Thin) could not assent. This was the third occasion on which he had heard the doctrine put forth that connective tissue could be formed from epithelium. Dr. Saundby had applied this view to the histogeny of granular kidney and cirrhosis of the liver. It is no sufficient reply that this contradicts our knowledge of the embryonic conditions; but in neither instance can any appearance be found suggestive even of the probability that there is a formation of connective tissue from epithelium. No doubt in many specimens the nuclei were visible and not the cells which contained them; but the explanation that the epithelium sheds its nuclei is purely hypothetical, and depends upon the interpretation of the specimens given by the observer. He himself held the view that leucocytes in contact with cancerous epithelium became converted into such epithelium, and that generalisation is accounted for by the transportation of such leucocytes by means of the bloodstream to distant organs, where they give rise to new development of cancer cells.—Mr. GODLEE thought great care should be exercised before tracing a connexion between connective-tissue cells and epithelium. The term "cylindroma," employed by Mr. Butlin to a tumour which appeared to be a round-celled sarcoma, was confusing, as implying an epithelial or cancerous structure; whereas the growth in question seemed to be one of those sarcomata which have fibrous spaces like a carcinoma, but which in their recurrences in other parts have purely sarcomatous characters.—Mr. BUTLIN said he showed the specimen as an example of what had been called "cylindroma;" which is, however, a round-celled sarcoma. It had no relation with the columnar-celled epithelioma which had sometimes been spoken of under the same name. He could not admit that Mr. Cripps had done for rectal growths what Thiersch and Waldeyer had for those of the lip and breast. Waldeyer traced the origin of mammary cancer immediately from the epithelium to the ducts; and in all Thiersch's plates the surface epithelium could be seen extending downwards in direct continuity with the new growth. In neither case had there been any necessity to adopt such a theory as that given by Mr. Cripps. Dr. Thin appeared to have changed his views as to the part played by the epithelium, which a few years ago he described as not doing anything except dying out. There was one link wanting in Mr. Cripps's argument; he had not been able to show any transitional form between the nuclei and the new epithelial cells.—Dr. THIN was not aware that he had changed his views; he still held that epithelium does not beget epithelium, but that the dying cell gives out an influence which causes leucocytes to be transformed into epithelium.—Mr. R. W. PARKER asked whether Mr. Cripps really held that cancer could be developed primarily from structures which were originally formed from the mesoblastic elements of the ovum. Such a view would be contrary to the most modern doctrine which accepts as correct a purely embryological classification of all morbid growths. He (Mr. Parker) had recently examined a tumour from the humerus, which was said to be a primary one. It very closely resembled a cylindrical epithelioma of the rectum, such as those shown to-night. On making subsequent inquiries, it turned out that the patient had been ovariotomised some years previously. He was inclined, therefore, to the belief that the ovarian tumour was the primary lesion and was a cylindrical epithelioma, and that the growth in the humerus was a secondary manifestation. He was strengthened in this view by the examination of an ovarian tumour removed by Mr. Thornton, which on section was found to consist of a similar cylindrical form of growth. The questions, therefore, arose, were the present views regarding the development of the ovary correct—viz., that the ovary is formed entirely of mesoblastic elements, or must we give such a disease, when it recurs in the ovary, some other name than cancer; or must we give up the embryological doctrine of tumours, which teaches that cancer cannot occur primarily in tissues of the connective (mesoblastic) series. For his part, the embryological doctrine held good in nine-tenths of all the cases, and he believed, as our knowledge of embryology improved, that it would be found to hold good in all cases, and that it might even be possible to correct our physiological views by the aid of pathological specimens such as the one he had just alluded to.—Mr. CRIPPS, in reply, said that a gradual investment of the nuclei by protoplasm, on their way to become epithelium, could be seen in some specimens, especially in the adipose tissues. The lymphoid cells between the fat cells could be seen of increasing size, gradually displacing the latter. He felt absolutely certain of the conversion of lymphoid cells into epithelium, and he pointed out that in the liver not only do these cells develop into epithelium, but form the definite tissue of a Lieberkühnian follicle, and in that fact the view that they are direct offspring of the original cells of the rectal mucous membrane receives confirmation.

Mr. TREVES showed a specimen of Villous Polypus of the Bladder from a woman forty-eight years of age, who died of pyloric cancer, and had been subject to hæmaturia for fourteen years. The polypus was attached midway between the summit of the bladder and the urethral orifice, and had a flocculent appearance. Sir H. Thompson had made a distinction between the hæmaturia due to cancer of the bladder and that due to villous disease—viz, that in the former it is intermittent, and in the latter constant, but not profuse. However, in this case the hæmaturia was not only intermittent, but often very severe, so that large clots were passed. The hæmorrhage, when present, was also increased by the slightest movement.

Dr. SEYMOUR TAYLOR showed a specimen of Cirrhosis of the Liver from a child nine years of age, who had been under Mr. Osborn's care for a congenital hydrocele of the left side. Death took place rather suddenly. The child had been subject to epistaxis and morning sickness; it had never been jaundiced, and there was no history of syphilis or of spirit drinking. After death there was much ascites, slight œdema, no sign of intestinal hæmorrhage, and no evidence or appearance of inflammation. The liver had the characteristic hobnailed character, with general capsular thickening. The spleen was large and firm. Dr. Murchison records a case in a boy nine years of age, where there was evidence of alcoholism; and Dr. F. Taylor last year showed a specimen from a child in whom the history was negative.

Dr. CARRINGTON exhibited a recent specimen of Membranous Tracheitis, following an impacted nutshell in the larynx. Tracheotomy had been performed. The case was not exposed to the diphtheritic poison. The nutshell was lodged below the vocal cords, and its presence did not apparently give rise to the membranous inflammation which started from the tracheal wound.

The following specimens were exhibited by card:—Fracture of Spine, by Dr. Carrington; Hygroma of the Neck, by Mr. Treves; Congenital Malformation of Foot and Hand (photographs), by Dr. Mortimer Balding; Stenosis of Tricuspid and Mitral Valve, by Dr. Burnet.

CLINICAL SOCIETY OF LONDON.

Cross-legged Progression. — Excision of the Tongue.

THE ordinary meeting of this Society was held on the 22nd inst., T. Smith, Esq., Vice-President, in the chair. It was marked by a prolonged and interesting discussion upon excision of the tongue for cancer, arising out of a paper read by Mr. Stokes of Dublin.

Mr. W. J. TYSON (Folkestone) read notes of a case of Cross-legged Progression. J. W——, aged sixty-seven, a waggoner for many years, at the age of fourteen fell on a barn floor and injured the right leg. This accident kept him in bed for four months. He says from this time he could never straddle a horse, and always walked lame. Sixteen years ago he began to have difficulty in keeping up with his horses, his legs becoming more and more approximated. The last fifteen months he has walked cross-legged. This latter position is maintained day and night. With some force the legs can be unlocked and brought parallel, but not without causing pain. There is only the slightest movement in each hip-joint; the surrounding bone appears thickened. When he gets up in the morning, or when he starts to walk, a crackling noise is distinctly heard. Both extremities are extremely adducted and everted; the heels are far apart and the toes close together. The legs cross one another just above the knee-joint, the right being in front. The hip-joints are the only ones at all affected in the body. Both knee-joints *can* be fully flexed, but these are scarcely moved except in sitting or lying down. He can walk with two sticks very slowly and for a short distance, but he nearly always uses two crutches. In commencing to walk, the crutches are first placed forwards, and then the body is thrown on to them; the lower part of the spine appearing to take—in fact, it really does take—the place of the hip-joints; there being hardly any movement in hip or knee on either side, the body is thus raised by the crutches and swung forwards. The absence of knee movement in progression constitutes a difference between the present case and those exhibited by Mr. Lucas, in one of which the knee movement was considerable. The following description best explains the cross-position of the limbs. In the original accident some injury to the right hip-joint occurred, and during its repair adduction of the right leg took place. This condition then would naturally account for the difficulty he had as soon as he was able to get about of sitting across a horse's back. The right hip became anchylosed, and as time went on, and the right leg became more adducted, there was a tendency for the left one to pass across to the right side in order to maintain equilibrium, and as movement in the left hip-joint became less, so anchylosis would gradually come on here, and thus, after a time, both hips would become fixed, the movements lost in these joints being supplied to a great extent by a complementary movement occurring in the lower part of the spine. The cause of the cross-position of the legs was discussed when Mr. Lucas brought forward his two original cases before this Society on Oct. 22nd of last year, but more fully by him subsequently in a paper in THE LANCET in the following December. Three theories were mentioned in Mr. Lucas's latter communication—(1) the adduction, (2) the gravitation, and (3) the optional, or when the leg on the same side of the injured hip is thrown on the limb of the opposite side for the purpose of rest and relief of pain. It seems that adduction of the limb must be the commencement of all these cases, it making no difference whether the adduction is at first produced optionally, or whether it comes on in the course of the hip-joint disease, and providing that the limb is sufficiently and permanently adducted so as to interfere materially with progression, the other leg will naturally be passed across its fellow to keep the body in the erect position, and also as the easiest way for walking. In the commencement of these cases there is probably the usual inversion accompanying the adduction, but as soon as the patient attempts to walk this is slowly changed into eversion, as this latter position allows greater scope for the movements of the knees and ankles.—Mr. CLEMENT LUCAS regarded these cases as little more than pathological curiosities; he had only heard of two other cases besides Mr. Tyson's since he drew attention to the subject, and he thought the condition must be very rare and invariably the result of double hip disease. He had not committed himself to any theory of its production, but agreed with Mr. Marsh that adduction was the main cause. Mr. Croft's view could not hold. He himself had thought that the position of the limbs was at first optional in order to relieve pain, and that it increased because the knees were used in progression. His cases showed that the disease might be of a different character, one of them being a man with osteo-arthritis of the hip, and the other a lad with ordinary pulpy degeneration and dislocation.—Mr. HOWARD MARSH said the condition consisted mainly in adduction and fixation of the limbs, which would not occur unless both hip-joints were diseased. Cases of progression with considerable, but not such extreme adduction, were more common; indeed, in every case of chronic hip disease there is very marked adduction, not to the extent of producing the cross-legged position, but compensated by the up-tilting of the pelvis on the affected side. He did not understand in Mr. Tyson's view how the opposite hip could become anchylosed without having been previously the seat of disease.—Mr. T. SMITH agreed with Messrs. Lucas and Marsh, because certainly there is adduction in old hip disease, and yet the cross-legged position is rare. It was difficult to see how the cross-legged progression could occur unless both hips were diseased, and if they are diseased, its non-occurrence was certainly remarkable.—Dr. WILTSHIRE inquired whether the affection might not be neurosal, and related the case of a lady who, after a slight blow on the hand, became the subject of a condition attributed to an ascending neuritis.—Mr. TYSON, in reply, said that the original accident occurred many years ago. If adduction be extreme, then the cross-legged posture must occur. The patient had only walked in this way for the past eleven months, and the peculiarity of the case was that he made no use of his knees in progression, obtaining all his movement from the lower part of the spine.

Mr. WM. STOKES (of Dublin) read a paper on Excision of the Tongue. He commenced by alluding to the change that surgical opinion has lately undergone in reference to the merits of excision of the tongue, and mentioned the views of Professor Gross and Mr. Collis on this subject. The particulars of six cases in which the writer had excised the tongue were then briefly stated, in which relief from suffering caused by enlargement of the tongue, difficulty of deglutition and articulation, discharge and pain, was obtained in all as an immediate result of the operation. In two of the cases a considerable time—twenty-two months and eighteen months—elapsed without any recurrence of the disease; in two others three months and four months elapsed; in one the patient was lost sight of immediately after the wound healed, and in only one of the cases was almost immediate return of the disease observable. Performing the operation at an early period of the development of the disease, if possible before glandular complications, was strongly advocated, and Sir J. Paget's views stated, as regards the small risk attending the operation. The question of unilateral or bilateral ablation was then discussed, and the advantages of the latter pointed out. The question of what is the safest and best method of excision was then considered, as well as the two special dangers of the operation, hæmorrhage and septic complications. The author observed that removal of the tongue by a cutting operation is not only more liable to be followed by hæmorrhage, but also by septic infection, the outcome of which latter is in a large number of cases either pulmonary gangrene or septic pneumonia. These are not observable at all to the same extent in the cases operated on by the écraseur. In proof of this, the statistics of Dr. Scheffer and Mr. Collis were considered, in the former of which it was found that the percentage of mortality from septic causes in the cases operated on by incision reached the startling figures of 60, and in those of Mr. Collis 61. Mr. Barker's cases were also alluded to, but the number of cases (3) operated on by incision, in which there were no septic consequences, was not considered sufficiently large to materially affect the conclusions arrived at. The disadvantages of certain of the écraseur operations were then pointed out, and the author concluded by describing the method of operating he preferred. He commences by transfixing the cheek at a point corresponding to the last molar of the lower jaw, and makes an incision downwards and forwards towards the angle of the mouth, terminating a few lines above it. All bleeding vessels being secured, and the parts retracted, a ligature is passed through the tip of the tongue to facilitate the drawing forwards of the organ by an assistant. This being done, a straight Liston's needle, armed with a double strand of carbolised silk, is passed through the base of the tongue at a point behind the foramen cæcum. In front of this the chain of an écraseur is passed round the tongue, and the organ gradually severed. This portion of the operation is done very slowly, taking from thirty-five to forty-five minutes. The author never witnessed in any of his cases any secondary hæmorrhage, immediate or remote. The wound in the cheek is then brought together by a few points of interrupted suture. The free ends of the strand of silk passed through the base of the tongue are then fastened temporarily, by adhesive plaster, to the side of the cheek or forehead. This double thread, which in the event of secondary hæmorrhage or traction, would be of much assistance in enabling the surgeon to draw forwards the base of the tongue and secure the bleeding vessels, is removed usually on the third or fourth day after the operation. The author believed that, by the use of the écraseur employed in the manner he described, coupled with antiseptic measures during the healing of the wound, the operation is attended with little pain, with the minimum of risk as regards either primary or secondary hæmorrhage, or those septic troubles which, after all cutting operations, are so fruitful a means of raising the mortality attending this important operation.—Mr. HEATH said that in this country the tongue was more freely operated upon than was assumed by the author. As to the question of growth, after removal, in Mr. Barwell's case there was a considerable increase; and in his own case, where more than half was removed, the stump of the tongue, nine years after, appeared to have enlarged. The mode of operating was different in different cases. He had now entirely given up the galvanic écraseur, in favour of the chain écraseur, and had never found occasion either to pierce or incise the cheek; for, by bending the écraseur and pulling forwards the tongue, the instrument could be applied far back. Whether a unilateral or bilateral operation should be performed depended on the merits of the case; and he agreed with Mr. Baker that a unilateral operation should be done when necessary; it also enabled the surgeon to examine the two halves of the organ when split in the median line.—Mr. MORRANT BAKER advocated the unilateral method when the disease was sufficiently limited. The median incision avoided the severance of arteries and rendered the detachment of the organ more easy, and it allowed of removal of the other half if the disease were found to encroach near the median line. He thought division of the cheek might be more often done with advantage, especially when the disease extended far back. It allowed also of a better control of hæmorrhage. He thought the tongue could not grow after incision, but that an apparent increase in size might result from the contraction of the cicatrix. And as to the retention of speech, it must be remembered that the tongue was not wholly removed when only the portion in front of the foramen cæcum was excised. When completely removed the mouth has a very different appearance; there is a large hollow in the place of the root of the tongue, and the arches of the palate are approximated. Mr. Gant had recently exhibited a case of nearly entire removal, which had been effected much on the plan adopted by Collis. That patient could hardly articulate. Mr. Baker had not himself found tracheotomy necessary; but in a case where he assisted, tracheotomy had to be done on account of blood flowing into the trachea. A fresh hæmorrhage occurred just before the removal of the tongue was completed, and the blood flowed more readily into the trachea than when there was no tube in it. Of course it might be said that the pharynx should have been plugged.—Mr. MACCORMAC pointed out that the trachea itself might have been plugged. He asked Mr. Stokes what measures had been taken to remove the diseased glands, which occurred in some of his cases. Permanent success depended upon this. Any modification of the operation, by splitting the cheek, &c., was justifiable if it facilitated the removal of the diseased tissues in the floor of the mouth. The difficulty of removal of infiltrated glands was considerable, and he should like to know whether the plan followed by Mr. Stokes enabled him to effect their removal. He was surprised to learn that an operation producing a crushed and bruised surface (as did the écraseur) is followed by less risk of septic processes than a simple cut wound. However, the fact remained. He had once or twice divided the tongue without any hæmorrhage of moment occurring. — Mr. BARKER said that the list he had furnished to Mr. Stokes somewhat altered the relative rate of mortality after different methods of operation. At University College Hospital, from 1871 to 1879 inclusive, there had been 51 cases of lingual epithelioma, in 34 of which excision was performed. Eleven of these cases died in consequence of the operation — 5 from septic pneumonia, 2 from septic bronchitis, 2 from septicæmia, 1 from pyæmia, and 1 from œdema of the glottis. A large proportion thus died from septic causes. Of these cases 25 were operated on by the galvanic écraseur, with 9 deaths; 7 by the wire écraseur, and 1 death (from pyæmia); 3 by the knife, no deaths; and 1 by ligature, fatal (from septicæmia). These figures, although few, condemned the galvanic écraseur. Did Mr. Stokes include the galvanic écraseur in his statistics. Mr. Barker agreed with Mr. MacCormac as to the preference to be given to the knife. The tongue should be split in the median line, and the base cut across, this measure allowing of the ready control of bleeding vessels and of their ligature in the ordinary way, and was far less open to danger of septic trouble than after crushing. Tracheotomy was sometimes called for in cases where much hæmorrhage was to be anticipated, or the diseased tissues were of wide extent. The risk from hæmorrhage could then be met by plugging the trachea, or by means of a sponge in the pharynx. In three cases he had no trouble in retaining a sponge there; but if the trachea were to be plugged Trendlenberg's tampon should be used, care being taken in its inflation, since, as Dr. Sémon had shown, its over-inflation caused dyspnœa.—Dr. DOUGLAS POWELL asked Mr. Barker what was meant by "septic" bronchitis and "septic" pneumonia. Did he imply that in such cases there was general septic infection; and were other organs affected, as in such septicæmia. If there were only bronchitis or pneumonia, that might possibly be produced by the passage of irritant matter into the bronchi or lung, and would be met by measures preventing such gravitation.—Mr. T. SMITH asked whether Mr. Stokes made any incision in the sublingual tissues. He believed that only a portion of the tongue could be pulled forward, and that the organ could not be wholly removed unless the subjacent tissues were divided. As he understood it, the septic pneumonia of these cases is produced by blood &c. trickling down the air-passages. The discharges were more copious after the use of the galvanic écraseur, owing to the slough it produces.—Mr. MARSH, in two or three instances of unilateral excision, had been disappointed with the result, the longitudinal cicatrix holding the tongue down, and the muscles of the remaining half turning it over, a condition giving rise to discomfort. It was plain that opinion was adverse to the galvanic cautery. He was acquainted with cases of secondary hæmorrhage following its use, and with one or two of fatal complications. By first dividing the muscles attaching the tongue to the lower jaw the base of the epiglottis can be reached. The experience of St. Bartholomew's Hospital did not accord with the statistics given by Mr. Barker.—Dr. COUPLAND urged Mr. Barker to reply to Dr. Powell's question. In post-mortem examination of cases of cancer of the tongue, foci of broncho-pneumonia were common, and to be attributed, not to septic infection in the ordinary sense, but to the inhalation of irritant and putrid materials.—Mr. BARKER said the question was an important one. No doubt sometimes there were pulmonary abscesses of truly pyæmic (embolic) kind; but the lungs might be also affected by blood trickling down the trachea during the operation, or fetid discharges similarly passing; also, he believed, by the simple inhalation of very acrid emanations from these wounds. In one instance the house-surgeon and nurse in attendance on the case became affected with sore-throat. He did not think these different modes of lung complication should be confused.—Dr. POWELL said the point was one of great practical importance. He had asked if there was any evidence of general blood-poisoning to which the lung disease was secondary. If in all such cases the infection was local, then a remedy might be sought in antiseptic inhalations and in enforcing a prone position, so that the blood and discharges might not pass down the air-passages.—Mr. BARKER said that in one case there was distinctly a general pyæmia, developing long after the operation, with abscesses in the liver and in the vicinity of the kidney, as well as the lung. In the other cases there was no involvement of other organs.—Mr. STOKES, in reply, said that he had not included Mr. Barker's statistics in his lists, but he had made a percentage mortality of about sixty in the cases of simple excision by the knife; and he admitted that it was remarkable that there should be apparently less danger from septicæmia in such cases than in those treated by the cautery. He was glad to find Mr. Marsh preferring the bilateral method, and could endorse what he had said as to the greater inconvenience both as regards deglutition and articulation resulting from one-half of the organ being excised than when both sides are removed. He knew of one case where the patient came to have the other half removed because of the difficulty in articulation and because it kept getting between his teeth. He was also pleased to hear Mr. Barker suggesting a preliminary division of the cheek, which greatly facilitates the operation. He had performed division of the sublingual tissues in such cases where the thickening and enlargement of the tongue called for it.

MANCHESTER MEDICAL SOCIETY.

AT the last meeting of this Society a number of very interesting cases were brought forward, notably one of Lymphatic Disease, affecting the left leg of a young girl, and causing great hypertrophy of the limb, shown by Mr. Walter Whitehead. Dr. Leech exhibited a case of Alopecia universalis, occurring in a man aged forty-one, the most careful examination of whose whole body failed to discover the slightest trace of hair. Dr. Helme showed a Sarcomatous Tumour of the Testicle, weighing twenty pounds, which he had removed post mortem from an old man aged seventy-one, who in life had declined operative interference. Dr. Lloyd Roberts exhibited two Ovarian Cysts, one of gigantic size, weighing thirty-four pounds, and the other, which was remarkable as being the smallest ovarian tumour he had ever removed, weighed five pounds; the woman from whom it was removed was only twenty-one years of age. Both patients are convalescent. Dr. Ransome read a very painstaking paper on Characteristics of Chest-movement in Chronic and Acute Cases of Phthisis, and their bearing on prognosis, illustrated by numerous diagrams, enlarged from tracings taken by the stethograph.

THE

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THE General Medical Council met on Tuesday last, April 26th, at 2 o'clock, Dr. Acland, President, in the chair. Four members were absent—Dr. Rolleston, Dr. Banks, Dr. Quain, and Dr. Haughton.

Dr. Alfred Henry McClintock was introduced by Mr. Macnamara as Crown Nominee for Ireland, for five years from March 2nd, in place of Dr. Hudson, deceased.

Mr. James Spence was introduced by Mr. Turner as representative of the Royal College of Surgeons of Edinburgh, for three years from Feb. 17th, in place of Dr. Andrew Wood, deceased.

The PRESIDENT delivered the following address :—

The business for which it has been thought desirable to summon the Council for this its thirty-second session need not detain it long. In the same way that it was necessary that the Council should meet last February to make legal the issue of a correct Dentists' Register, and only thus to avoid inflicting hardship on members of the dental profession, possible injury to the public, or violation of the Dentists Act, so now it has appeared to members of the Council and myself of urgency to consider without delay certain questions affecting the education and examinations of schools and colleges throughout the country. In consequence of the funeral of the Earl of Beaconsfield, which takes place this afternoon, it might have been in accordance with public sentiment that our proceedings should have been this day deferred. But seeing that the deceased statesman has left the most express desire that his obsequies should be conducted privately, and not in the metropolis, it has appeared more in harmony with his desire, and more agreeable to the Englishman's sense of steady duty, to proceed with the work and the arrangements of the day, undisturbed by any thoughts but those which hover about the close of a long life that has largely influenced our nation and age. And let it be added in this Council, that it has good reason to express its gratitude for the steady and courteous manner in which, under circumstances of much difficulty, the Earl's Government, through His Grace the Duke of Richmond and Gordon, laboured to carry through Parliament (and, on two occasions, successfully through the House of Lords) Bills for the settlement of vexed questions in regard to medical education and examination, the rights of colonial practitioners, and several other particulars. I need only refer to the Act for the Education and Registration of the Profession of Dentists, which, like every such initial measure, presented complications that could not be at once removed. It is to be regretted that the time which seemed suitable to many has not been so to all. The Council will remember that the meeting in this Easter recess was much urged by Professor Haughton, a proposal to which reference will hereafter be made. It has indeed been pressed upon me by more than one person whose opinion I value, that it is not desirable, pending the Report of the Royal Commission, which is shortly to meet, that the Council should continue the educational work already in hand, or initiate any other matters, however urgent. Had I acted on this opinion I am satisfied I should have incurred, and justly, the displeasure of the Council. It is true enough that for ten years the Council has been hampered, and the medical profession disturbed by agitation, which had no real bearing upon duties imposed on the Council by the Medical Act of 1858, except so far as to keep up a constant feeling of uncertainty as to the nature of the examining boards of the future. This circumstance made it impossible to bring to a successful termination questions which had long occupied the attention of the Council and of the licensing bodies throughout the country. Neither this agitation, nor the expectation of a more permanent settlement of those questions through an investigation of the working of the Medical Acts by a Royal Commission, would now justify us in causing suspense or uncertainty as regards educational regulations in schools frequented by youths destined for the medical profession, to any greater extent than may be absolutely necessary. It will be well for the Council to bear in mind on the present occasion the report which was presented by Dr. Storrar so far back as August of the year 1859, on the subject of general education. The principle which pervaded that report was that the superintendence of the general education of the medical profession should be left to the great national educational bodies, meaning thereby the universities of the United Kingdom. This principle was based upon the conviction, first, that intellectual fitness and a good general education were of primary importance in order to enable youths of average intelligence to master the facts and laws of physical science, and of the principles and practice of medicine directly and indirectly connected with them; and, secondly, that in the then transitional state of education in Europe, and notably in Great Britain and Ireland, it was of consequence to the future culture and social status of the medical student that his education should not be inferior to, but as far as possible the same as, that of the educated classes of society. Upon the whole the Council has never, in the twenty-two years that have since elapsed, wavered in this opinion. It has persistently maintained, time after time, that a sound education in arts should of necessity precede the entrance on professional studies, and that the purely medical institutions should neither conduct, nor be judges of, the nature and extent of attainments in preliminary education. This opinion, however, did not and could not exempt the Council from the obligation to see that the conditions which its members, as representative professional men from every part of the country, held to be desirable were fulfilled by the Examining Boards. Of these Boards no fewer than seventy-three, besides the "abiturienten" examinations and "entrance examinations" on the Continent are at this moment on the list recognised by the Council. It became accordingly, in the judgment of the Council, its duty to determine the subjects which should be compulsory in any arts examination for medical students. The Council issued last year a notice embodying its then conclusions, pointing out to the Arts Examining Boards the [subjects which they desire to be comprised in the preliminary education of a medical man, and without a knowledge of which students should not be allowed to enter on medical study. This list of subjects is to be in force at the end of the present year. It is the effect of this notice to which your attention has to be directed on the present occasion. There can be no doubt that the list is a good one, and that it implies a great advance in the educational arrangements of schools, and also in the requirements from the students. But you will have evidence brought before you that it is not easy and perhaps not possible to carry out the scheme in its entirety on so short a notice. The arrangements for examination now existing throughout the country are extensive and elaborate, and cannot at once be altered, even if should be considered desirable that they should be altered. Nor can the Council compel the alterations. And further, it is to be admitted that there are various ways of forming a true and firm character in a youth, and of training him to habits of observation and accuracy. To specialise our young medical students into a class at a very early period, so as to remove them from the best devised methods of higher education, whatever that may be in the judgment of the educators of the nation, would in the end prove disastrous to the medical profession. The specialisation asserts itself in most men with sufficient force at a later period of life. This subject is to some extent further complicated by the expressed wish of the Council that there should be a special examination in the rudiments of natural science—physical, chemical, and biological—before the student enters on the purely medical curricula. On this proposal there have been received, from the various medical licensing bodies, communications which form the subject of a special report from the committee appointed for the purpose, and therefore it would be out of place here to comment upon them in detail. But I cannot forbear from stating at once that several of the answers show the risks that would attend any instant attempt at coercive regulations in this matter. The Council may have to consider whether it would be expedient to defer the exact requirement of the Council's list of subjects proposed for general education till after the report of the forthcoming commission. This might be desirable in the true interests of the schools for the purpose of securing the steadiness and uniformity in the examinations. The report of the Executive Committee dealing with the letters from Cambridge that are presented to you to-day, suggests even more than this, as regards the local and other examinations of the two old universities. But this does not meet the whole difficulties of the case. Other bodies besides these may send in similar applications. And it might be imprudent to guarantee the same confidence in all applying Boards. These and other considerations must make all wish that the Royal Commission may quickly and with completeness settle what changes, if any, are to be made in the Examining Boards of the kingdom; and to what extent it is desirable that the Central Council should be empowered to enforce detailed regulations on all local institutions. Letters of importance from Mr. Tomes and others will be laid before you. In the construction of the Dentists' Register a difficulty arose with regard to the real fitness of many persons who professed to be in practice and to possess a legal qualification as dentists. This became at once a question of legal interpretation of an existing Act rather than one which this Council has at heart —namely, the education and professional character of registered dentists. When the Council met in February for purposes connected with the Dentists Act only, they decided in accordance with the legal opinions laid before them, giving their judgment upon the facts as furnished to them. One of the results at which the Council had previously arrived was to exclude from the Register all titles other than those definitely stating a qualification in dentistry. It is not to be wondered at that persons such as Mr. Tomes, a Fellow of the Royal Society and an eminent member of the College of Surgeons, and persons who are Fellows of the Royal College of Surgeons, should resent as a hardship, and even an injury, that a title so honourable as a Fellow of the College of Surgeons of England, implying without question surgical knowledge and education of real value for the purposes of the higher problems of dentistry, should not be entered in the Dentists' Register. On the legal advice we have such knowledge, and such titles are considered not to be higher in respect of dentistry in the terms of the Act. If this be so, it is certainly a question for argument whether the Act should not be amended. I do not presume to offer the opinion that the Council would act illegally if it inserted such titles as higher titles, nor to say that a penalty would accrue if it did. The value of so-called higher titles has been made the subject of a question in the House of Commons, and will doubtless be considered at some future occasion. A motion will be brought before you on this subject so far as it affects the Dentists Act. Cases of alleged misconduct in a professional respect will be brought before you for decision in the course of the meeting. One of them, that of Dr. Levenston, asks to be heard by counsel; it has been of long standing, and should for obvious reasons, if possible, be disposed of. Since the lamented death of Dr. Andrew Wood, the Executive Committee has considered some of the arrangements according to which, from usage, the business of the Council has been hitherto conducted. Were it not for the appointment of the Royal Commission, it would be prepared to suggest changes which would tend to diminish expense and facilitate the work of the Council, both at its meetings and in the intervals of its business. Some of these have reference to the times of meeting of the Council and of the Executive Committee, to the constitution and duties of Standing Committees, and to the powers of Committees generally—all matters already brought to your notice by Mr. Teale and by others. I do not venture to indicate what an experience, derived from the whole history of the Council, has taught in these directions. There are few here who must not have often deplored the loss of time and the abstraction from their real duties which Parliamentary agitation, apparently attractive to some minds, has caused within the last ten years. It has rendered a fixed time of meeting, whether for the Council or for the Executive Committee, virtually impossible. It has forced the Council to spend whole meetings in considering whether improvements could be made in machinery, when they would have endeavoured to work the machinery which Parliament had made, and it has practically had the effect, through long delay and by reason of deferred expectation, of throwing several institutions charged with the medical education of the country back upon themselves, and has checked mutual co-operation, which ten years ago seemed not only possible, but certain. It will hereafter be a matter of astonishment that two Governments so powerful as those of Mr. Gladstone and Lord Beaconsfield should, after much labour and full mastery of the subject, have carried Bills in three successive years—1871, 1877, 1878—through the House of Lords, and should not have thought it well to risk opposition in the House of Commons to carefully considered Bills which gave increased powers, and rectified anomalies at home and in the colonies. To one other subject only would I draw your attention—the visitation of the examinations that is now in operation. You need not be reminded of the valuable Reports which were prepared on the condition of all the examinations throughout the kingdom in the years 1865–6, 1868, 1873–5, nor of the reports on the state and needs of education from the principal teachers in all departments of medical science and practice in the chief schools of the country.[1] The Executive Committee, acting on your instructions, has made arrangements for the visitation this year of the Colleges of Physicians and of Surgeons in England, in Scotland, and in Ireland respectively. The visitors are Mr. Teale, Crown Nominee on the Council, Professor Gairdner of Glasgow, and Professor Stokes of Dublin. These gentlemen have undertaken that which the Committee could hardly venture to ask, to visit all those bodies in the course of the present year, and to state a full and careful educational report—the conclusions at which they arrive on the state of medical education, actual and comparative, according to the data which are obtained through their inspection. It would not be well here or now to speak of the qualifications of these eminent persons, of the debt which the Council and the public will owe to them, nor of the value which will be attached to their services. The comparison between England, Scotland, and Ireland, made by the same visitors, will be far more instructive than a separate inspection by different visitors could have been. And the value will be further enhanced by reference to the opinions of the numerous teachers recorded in 1869, as showing the progress of ideas, the results of experience, and the nature and extent of alterations that are needed. It is not possible to forecast what changes are yet needed in teaching so intricate a branch of knowledge as the science and practice of medicine. Pessimists no doubt love to dwell on failure; but those who know the high character of a large proportion of our modern medical students, the immense progress of medical science, whether in the prevention, or cure, or alleviation of disease, in the last twenty-five years, are not likely to despair of the future, or to doubt that the foundation has been laid for successful and united effort towards greater improvements and disinterested work for public good. These are shown in the progress of gained scientific truth by more logical methods of thought, and by more widely diffused skill, by reason of better general education in the application of both to the needs of common life. It remains for me only to add a few words in reference to the subject of "Conjoint Boards," or "State Examinations," a subject which, at the present moment, is, as for ten years it has been, entirely unsettled. It is well known to the Council that a complete board, with all the regulations necessary for its management, has been long agreed to by all the medical authorities in England. But, as years passed by and legislation failed, it became clear that, so long as no such combined or State Examination existed in any form in Scotland or Ireland, the English board was not likely to come into operation. The Medical Act of 1858 gave permissive powers of combination to the nineteen licensing bodies. It gave no compulsory powers to the Council. To the majority of this Council, therefore, there appears, without legislation, no prospect of change, however, desirable. Under these circumstances the Council has done, and is doing, what it can by stimulating education and inspecting examinations, both of which have been much improved. In some respects the examinations may be becoming too severe for many students, unless systematic and careful measures can be taken to secure in the weaker schools as good opportunities and as effective teaching as in the best. To ask this is to ask what may be impossible; therefore, at present, the examination test, however imperfect an instrument, must be chiefly relied upon. Competition in schools, if the examining boards can be made thoroughly judicious for attaining the object in view—viz., sufficient practical professional skill—will simply mean a competition for ensuring the best education. The Royal Commission will doubtless seek a solution of this problem with the least possible delay, and we may be sure will endeavour to leave the administration of its recommendations to the executive best adapted to the existing state of things and to the public interest. It would not become me to suggest any fresh action in new matters on the part of the Council, pending the labours of the Commission, which this Council has every reason to desire may be speedy, complete, and final. We have at this meeting to continue steadily, and, it is hoped, rapidly, the discharge of the necessary and appointed duties which we have in hand.

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[1] Reports on Professional Education and Examination, 1869.

On the motion of Mr. TURNER, seconded by Mr. SIMON, the address was ordered to be entered on the minutes.

The Business Committee, consisting of Dr. Pitman (chairman), Dr. Aquilla Smith, and Dr. Haldane, was reappointed, as was also the Finance Committee, consisting of Dr. Quain (chairman), Dr. Aquilla Smith, Dr. Pitman, and Dr. Scott Orr.

Dr. PITMAN moved, "That a committee be appointed to consider and report at a future meeting on the preparation of the next edition of the Pharmacopœia, and that it consist of the following members, Dr. Quain (chairman), Dr. Aquilla Smith, Dr. Leet, Dr. Pitman, Mr. Macnamara, Dr. Haldane, and Mr. Bradford." He expressed a hope that the Council would not consider that the object of this motion was to take immediate steps for the republication of a new edition of the Pharmacopœia, because there were at present about 4000 copies on hand. For nineteen years the committee was appointed and reported annually; but by some oversight a few years ago that was not done. There was, therefore, now no such committee in existence to perform one of the duties specially required by the Medical Act. The present Pharmacopœia was published about fourteen years ago.

Sir WILLIAM GULL seconded the motion. He considered that it was a disgrace to the Council to have gone so long without improving the Pharmacopœia. To make it of any use to the profession the committee ought to prepare an addendum year by year containing all new remedies.

Dr. AQUILLA SMITH approved of Sir William Gull's recommendation.

Mr. TURNER suggested the addition of Sir William Gull's name to the committee.

After a few remarks from Mr. Macnamara and Mr. Simon, the motion was agreed to, with the addition of Sir William Gull's name.

On the motion of Sir WM. GULL, seconded by Dr. PYLE, it was agreed, "That it be an instruction to that committee to report to this Council year by year as to addenda to be made to the Pharmacopœia."

A table showing the results of professional examinations held in 1880 for qualifications granted under the Medical Act by the bodies named in Schedule A was laid on the table and ordered to be entered on the minutes.

The usual returns from the Director-General of the Medical Department of the Navy, and from the Army Medical Department, were received, and ordered to be entered on the minutes.

A communication was received from the King and Queen's College of Physicians in Ireland, in accordance with the recommendation of the Council to the licensing bodies to instruct examiners in professional subjects to report to them any cases in which decided ignorance in general education had been displayed by the candidates, with the name of the board or boards before which the preliminary examinations had been passed. The communication stated that in the examinations conducted by the College in 1880 eight candidates for the licence in medicine had been deficient in orthography, of whom six held the licence of the Surgery of the Royal College of Surgeons in Ireland, and two that of the Royal College of Surgeons of England.

Dr. SMITH called attention to the fact that the King and Queen's College of Physicians in Ireland was the only body that had complied with the recommendation of the Council, and added, in explanation of the largeness of the proportion of the candidates referred to holding the licence of the Royal College of Surgeons in Ireland, that three-fourths of the candidates coming before the King and Queen's College of Physicians in Ireland were licentiates of the former body.

Mr. TURNER pointed out that the King and Queen's College of Physicians had not complied with the recommendation of the Council as to the bodies which had passed the candidates in preliminary examinations.

Dr. HALDANE asked if the candidates in question had been rejected by the King and Queen's College of Physicians.

Dr. SMITH.—Certainly not.

On the motion of Sir WM. GULL, it was resolved that the College be requested to furnish the Council with the names of the bodies before which the candidates had passed their preliminary examination.

A communication was read from the Royal College of Surgeons stating that the Council of the College had decided that the preliminary examinations for the diplomas of the College, at present conducted by the College of Preceptors, under the authority of the College, should cease from and after Dec. 31st, 1881. A letter was also read from the College of Preceptors on the same subject, expressing a hope that means would be taken to replace the examinations by some special scheme of a similar character, placed under the control of the Medical Council, and adding that it would give pleasure to the Council of the College if it could be in any way instrumental in carrying such scheme into effect. A report on this subject was presented by the Executive Committee, but before it was read,

Dr. STORRAR complained that the Executive Committee had reported upon a subject which had not been referred to it. The committee, he said, was becoming an *imperium in imperio*, and was practically superseding the action of the Branch Council for England.

Dr. PYLE said he was about to give notice of a question as to whether the action of the Executive Committee was in accordance with the standing orders of the Council.

The PRESIDENT said that Standing Order No. 8 stated, "The Executive Committee shall consider and prepare reports upon any subjects that may seem to require the attention of the Medical Council"; and the object of the committee was to expedite the business of the Council.

Dr. HUMPHRY said that if the committee had not taken action in the matter nothing would probably have been done in reference to it till next year, when the question would be formally referred to the committee.

Dr. STORRAR said the College of Preceptors might have been asked to wait upon the Council to-morrow; but he objected to the whole character of the proceedings of the Executive Commtttee having been altered. Of late years several matters had been considered by the Executive Committee which ought properly to have come before the Branch Council for England. The result had been that the Branch Council had had no meeting for a whole year.

Dr. SMITH said formerly the Executive Committee consisted entirely of English members, but now the objections to the committee had been removed by the change in its constitution.

Dr. PITMAN said it would be only common courtesy to let the Report be read. Any objections to it would be heard afterwards.

The Report was then read.

REPORT TO THE GENERAL COUNCIL BY THE EXECUTIVE COMMITTEE.

In regard to the letter received from the Royal College of Surgeons of England (Clause 11 of this programme), and the foregoing letters (in Clauses 14 and 16) from the College of Preceptors, the Executive Committee reports to the General Council as follows:—"The Examinations in General Preliminary Education under the authority of the Royal College of Surgeons previously to 1875 were held in June and December. Since that time they have been held in March and September, because those months were found to be more suitable to the medical student, as they immediately precede the summer and winter sessions; and the convenience of this arrangement has been proved by the great number of candidates who have resorted to them. It is therefore important that preliminary examinations, suitable and accessible to intending medical students, should be held in those months. After the present year, the 'Registration

Examination for medical students' by the University of Durham, and the 'Examination in Arts' by the Apothecaries' Society of London, will be the only examinations in England which take place in those months. If the often repeated recommendation of the Medical Council, that the preliminary examination of medical students should be conducted by the National Educational and Examining Bodies, is to be carried out in England, it is essential that examinations suitable for intending medical students should be conducted at times convenient to them. The committee would gladly have been able to report that the University Local Examinations and the Oxford and Cambridge Schools Board Examinations are able to supply the deficiency. Those examinations are held in May, June, July, and December, which are the months most suitable to the several schools; and they will probably be more and more resorted to as avenues to registration by medical students; but the times at which they are at present held are inconvenient to many medical students. The letter from the Secretary to the College of Preceptors indicates that that body is willing to institute an examination similar to that which it has conducted under the authority of the College of Surgeons, and by means of local centres to render it more accessible to most medical students. The committee therefore recommends that the Council should delegate to the Executive Committee to make arrangements with bodies willing to institute preliminary examinations suitable for medical students."

The Draft Scheme was ordered to be entered on the minutes, and the Report was received and also ordered to be entered on the minutes.

The Council then proceeded to consider the charges against Samuel Levenston, M.D., of 6, Hope-street, Glasgow. Mr. Anderson appeared as counsel for Dr. Levenston, and Mr. Dickens attended on behalf of the Council as a legal assessor.

Mr. OUVRY read a declaration by a Mr. Bayne, an officer of the Glasgow Mendicity Society, in which he stated that he had frequently in the streets of Glasgow been handed copies of handbills and pamphlets by Dr. Levenston's distributors. Specimens of these were produced and verified by the witness. In other portions of the document there were statements of what Mr. Bayne had heard about the results of Dr. Levenston's treatment.

An affidavit by a man residing near Galashiels was also read. It stated that he had paid five guineas to Dr. Levenston for a parcel containing eight bottles of medicine, and subsequently fifteen guineas for three other parcels. He was not benefited by the medicine, but, on the contrary, was getting into a state of despondency.

Mr. ANDERSON protested against the document being laid before the Council, on the grounds that the notice with which Dr. Levenston had been served contained no intimation of such a charge, and that the person was not present to be cross-examined.

Dr. S. LEVENSTON, in answer to questions by Mr. Anderson, said some of the pamphlets produced had been out of print for a great number of years. A handbill, headed "Elixir of Life," had been circulated in the streets of Glasgow for the last twenty years. His directions were that it should be given only to men. A book, entitled "Nervous Debility, its only Cause," was also distributed in the same manner. The "Elixir of Life" was a strong tonic, sold in bottles. His charge was 35*s.* per parcel of four bottles. He had no recollection of the case referred to from Galashiels, and he kept no books to which he could refer. He had no knowledge of ever having been asked to return the fifteen guineas. If he had expected such an examination as the present he could have brought letters from persons who had been benefited by his treatment. He certainly did not think that the pamphlet on "Nervous Debility" was morally injurious to the persons who read it. To the best of his ability he had given honest and good advice, as an ordinary practitioner, to those who applied to him.

In cross-examination by Mr. OUVRY, the witness said he did not believe that any of his agents had ever sent one of the pamphlets to an educational establishment in Belfast. The medicine he prescribed was the result of long study. He did not think he was entitled to answer the question as to whether it consisted largely of proof spirit.

After a brief discussion between Mr. ANDERSON and Mr. OUVRY the latter withdrew the deposition from Galashiels, and consented that it should not be considered proper evidence.

Mr. ANDERSON then addressed the Council on behalf of Dr. Levenston. He urged that "a due inquiry," as required by the Act, required something more than the statements which had been laid before the Council, many of which were mere hearsay statements that ought never to have been made. He also complained that Mr. Ouvry had not furnished Dr. Levenston with a copy of the documents which were to be brought forward against him. Reference had been made to Dr. Levenston's "victims," but none of them had been brought before the Council for examination, and no adequate evidence of "infamous conduct" had been forthcoming. It had been said by a witness that the medicines were "worthless," but no inquiry had been proved with reference to the accuracy of that statement. Dr. Levenston's conduct might have been unprofessional, and it was a matter of regret that he should have circulated the bills and pamphlets produced; but that, he maintained, was not infamous conduct within the meaning of the Act. A vulgar, puffing announcement of some quack medicine, such as Dr. Levenston had put forth, was certainly unprofessional, but nothing more. If the medicine itself had been worthless, evidence of it would have been given, as he had no doubt that some tests had been made. As to the pamphlet on self-abuse, the subject was no doubt one from which they naturally shrank; but it could not be ignored; it must be treated medically, and he maintained that the work in question, which contained salutary warnings to those who needed them, had nothing in it which could be considered as disgusting or infamous, as alleged in the declaration. The habit in question was a disgusting one, but a medical essay upon it could not be so styled. The manner of its circulation might be open to question; but could it be contended that the circulation in large numbers of a pamphlet in itself unobjectionable was infamous conduct within the meaning of the Act of Parliament?

Mr. OUVRY, in reply, called attention to the fact that the circulation of the pamphlets had been admitted, and said that the matter now rested with the Council.

Strangers were then directed to withdraw while the Council deliberated. At a few minutes to six the doors were again opened, when, on the motion of Dr. PITMAN, seconded by Dr. HUMPHRY, the following communication from the Privy Council Office was referred to a small committee to be considered and reported upon.

"Council Office, March 9th, 1881.

"SIR,—I am directed by the Lord President of the Council to transmit to you the enclosed copy of the latest regulations published respecting the conduct of Swiss Medical Examinations, and I am to request that you will lay that document before the Medical Council, and that you will move that body to favour his Lordship with their remarks on the subject.

"I am, Sir, your obedient servant,

"C. L. PEEL.

"To the Registrar of the General Medical Council."

This letter was accompanied by a pamphlet of thirty closely-printed pages, containing the "Règlement pour les Examens de Médecine Féderaux."

The PRESIDENT then announced that the Council would resume the consideration of Dr. Levenston's case to-morrow, and the Council adjourned.

WEDNESDAY, APRIL 27TH.

At the meeting of the Council to-day, the consideration of the case of Dr. Levenston was resumed. The Council deliberated in private, and ultimately came to the following decision: "That Samuel Levenston, M.D., is adjudged, after due inquiry, to have been guilty of infamous conduct in a professional respect. That, as it has been proved to the satisfaction of the General Medical Council, that Samuel Levenston has been guilty of infamous conduct in a professional respect, the Council does, by this order in writing, direct his name to be erased from the Medical Register, and gives orders to the registrar to erase his name accordingly."

Dr. HUMPHRY, in moving the adoption of the recommendation contained in the report of the Executive Committee respecting preliminary examinations, referred to the recent announcement of the College of Surgeons as to the abandonment of the examinations of the College of Preceptors. That announcement, he said, was a very important one, inasmuch as a very large proportion of the medical students in England resorted to that examination. The College of Surgeons had renounced the power of superintending the preliminary examination of those students, and at the same time renounced not inconsiderable pecuniary advantages in following the recommendation of the Council. It had often been said that the corporate bodies did not attend to the Council's recommendations; but in the case of the College of Surgeons there had been a great concession to the wishes of the Council. It could hardly be supposed that a body like that would have adopted that course had it not been for the relations existing between the College and the Council, maintained by means of its representative. The College had expressed a hope that under the circumstances the Medical Council would, as far as possible, require that the examinations recognised in lieu of those abandoned should be held at such times and places as would be most convenient for the candidates—viz., in March and September. The committee had ascertained that the greater number of examinations were not fixed at those times. The only examinations in September were those of the University of Durham and the Apothecaries' Society. In abandoning the examinations of the College of Preceptors the College of Surgeons hoped that they would be continued, not by the other corporations, but by the general examining bodies of the United Kingdom. The Oxford and Cambridge School Board held an examination in July, but their requirements were too high for ordinary medical students, and a proposal was about to come before the Board to have an examination in July for a certificate of a lower character. It had been proposed by the College of Preceptors to institute another examination in place of the one which had been given up. The Executive Committee had considered the subject, and thought that it required deliberation as to whether, if the examinations were continued, they should be subject to some sort of visitation. Dr. Humphry concluded by proposing "that it be delegated to the Executive Committee to make arrangements with bodies willing to institute preliminary examinations suitable for medical students."

Sir WM. GULL seconded the motion. He believed that in the making of a violin the first requisite was to select the wood, and in an intellectual profession like the medical the first requisite was to select the very best material they could find. He had before suggested that there should be an examination which would cut off 33 per cent.; and the late Professor Stokes had expressed his belief that if that were done all the rest of the examination might go. He was glad that the College of Surgeons had given up the examination hitherto conducted, but it ought not now to be left to chance. As to the proposed examination of the College of Preceptors, if it were adopted by the Council it ought certainly to be subject to some supervision. They could not supervise all the examinations, but they might do what they could in that direction.

Mr. SIMON thought that the matter ought not to be delegated to the Executive Committee without some fundamental instructions. The preliminary education required was not one specially designed for medical students, but an examination common to all among the educated classes; and hence the Council had been anxious to have the examinations conducted by the general educational bodies of the country. The College of Preceptors had a general examination, and it could arrange for one of them at a convenient time for medical students, without arranging any special examination for such students alone.

Dr. QUAIN hoped that the Council would not go back to the old system of preliminary examination by the corporations. Very few of the bodies now retained the examinations; and as to the suggestion of the College of Preceptors, for a special examination for medical students, it was the most monstrous proposal that could be made.

Dr. STORRAR referred to the appointment of a committee of the Council twenty-two years ago on the subject of arts education, and to the struggle that had been required to enforce such education for medical students—not a special one, but one suitable for all classes. The exact subjects were not so important as the adoption of *some* means of mental discipline; and the committee expressed its opinion that no new educational machinery was required. Every effort had been made to induce the Medical Corporations to give up the arts examinations, and he was highly gratified at the example which had been set by the College of Surgeons in that direction. The proper course was for the Council to recognise the examinations of the educational bodies, including those of the College of Preceptors.

Sir JAMES PAGET said the object of the committee was only to recommend that the examinations should be so adjusted as to include all the subjects required by the Council, and to be held at the most convenient times.

Dr. HUMPHRY said it was never intended that the examination should be of a special character.

The PRESIDENT said he had never understood the recommendation otherwise than in the sense expressed by Sir James Paget, that the examinations should include all the subjects required by the Council, and be held at convenient times.

Dr. STORRAR regretted that the Council had last year increased the number of subjects of examination, believing as he did that it would have the result of sacrificing thoroughness to variety. He thought there should be a preliminary arts examination in one or two subjects, and afterwards a preliminary science examination. He wished to ask Sir J. Paget whether the College of Surgeons, in parting with the special examination of the College of Preceptors, would recognise the preliminary examinations of the other medical bodies?

Sir JAMES PAGET said the College wished to discuss the whole subject of preliminary examination. It required the registration of the student by the Council. There were certain cases of students coming from India wishing to study medicine, and in rare cases of the kind the College reserved to itself the right of deciding as to their admission.

Dr. STORRAR hoped that the College of Surgeons would have nothing whatever to do with the preliminary examinations of other medical bodies. For himself he would sweep away a large number of the seventy-three bodies now recognised. They had recognised certain universities in the American colonies, in the United States, in India, and at the Cape of Good Hope; but those recognitions should, he thought, cease, and the Branch Council could deal with individual cases as they presented themselves. If an Indian student had received a mental training through the medium of Sanscrit, his case could be separately considered and decided by the Branch Council. If the Medical Council would divide itself into two committees, one to consider the subject of preliminary arts education, and the other to consider the preliminary science examination, the result, he thought, would be very profitable.

Dr. HUMPHRY said he would substitute the following motion for that which he had made: "That the Executive Committee be requested to communicate with the universities of the United Kingdom and with the College of Preceptors with a view to promote that such of their examinations as most nearly correspond to the minimum requirements of the Medical Council in respect to preliminary education, and are open to all classes of candidates, should be held, or in part held, at times which should be generally convenient to medical students intending to enter upon their professional curriculum in either the winter or summer sessions."

Mr. MACNAMARA hoped that the Council would not be satisfied with written to the exclusion of *vivâ voce* examinations. The Council of the College of Surgeons in Ireland would willingly resign their functions to other hands, but there were great difficulties in the way, and they would not be contented with written examinations only. The present examination of the College was a very complete one, and included subjects, as required by the Medical Council, not required by the university itself. The Schools of the Board of National Education gave instruction in all the required subjects except Greek, but the difficulty was to get an Examining Board.

Dr. Humphry's motion was then put and adopted.

The following report was presented by the Executive Committee with reference to certain letters that had been received from the Oxford and Cambridge Schools Examination Board, the Cambridge University Local Examinations Board, the University of Cambridge, and the Medical Committee of the Hebdomadal Council of Oxford, on the subject of preliminary examination, in reply to a circular letter addressed to them by the Council:—

"It appears that if the new regulations with regard to preliminary examination passed during the last year's session of the Council be strictly enforced, none of the examinations conducted by the University of Cambridge, and the same may be said of those conducted by the University of Oxford, will fulfil the required conditions. It is not probable that those examinations could be altered into conformity with the new regulations; the Executive Committe, therefore, bearing also in mind the recommendation of the Council that 'it is desirable that the examination in general education should be left to the universities, and to such other bodies engaged in general education and examination as may from time to time be approved by this Council,' recommends that the examinations in general education conducted by universities should be accepted as heretofore."

Dr. HALDANE, in moving the adoption of the recommendation of the report, said that some of the university examinations were of a higher standard than were required by the Council, but did not in all respects conform to the letter of the Council's regulations as to the subjects included. In some cases dynamics, dictation, and composition did not form part of the examination, but as the universities had acted in the spirit of the recommendations of the Council, he thought that the examinations should be recognised as heretofore.

Mr. TEALE seconded the motion.

Dr. STORRAR asked if the matter had been referred to the Executive Committee.

Dr. HALDANE said it had not; but the committee thought that time would be saved by their considering the letters that had been received in reply to the circular, and bringing the matter before the Council.

Dr. STORRAR said he heartily approved of the proposal to recognise the university examinations, though they did not embrace all the required subjects, but he renewed his protest against the system which had crept into the proceedings of the Executive Committee, in first dealing with subjects of that character and then handing them over to the Council for consideration. He would vote for the proposed recognition, but not for the report of the Executive Committee.

Dr. HALDANE thought that would amount to a distinct censure upon the Executive Committee.

Dr. FERGUS said the standing orders required the Executive Committee to "prepare reports upon any subjects requiring the attention of the Council."

Dr. STORRAR objected to the business of the Council being "filtered" through the Executive Committee.

Dr. HUMPHRY said that it had often been said that the business of the Council would be better done if it were considered and arranged beforehand; and the Executive Committee was the body required by the standing orders to do that very work. It was for the Council to accept or not the recommendations of the committee. The fees of the Executive Committee had been increased, and he imagined that it was expected that their duties should be increased also.

Dr. SMITH said that Dr. Storrar's amendment involved a censure upon the Executive Committee, and he could not therefore vote for it.

Mr. SIMON thought the committee should distinguish between the preparation of matter for consideration by the Council and the initiation of judgment. He thought it would be better to adopt the recommendation proposed as a separate motion, but not as part of the report. A report was often argumentative, and they might not be able to adopt the arguments as presented.

The PRESIDENT expressed his concurrence with the views of Mr. Simon. He did not think the proposal involved any censure on the committee, but believed that the course proposed by Mr. Simon was the most convenient one to adopt. The committee had only intended to frame a motion for discussion, and not to express any judgment in the matter.

Dr. HALDANE said he would withdraw his motion, and substitute, "That the examinations in general education conducted by the universities be accepted as heretofore."

Mr. MACNAMARA said the Council had spent a good deal of time last year in considering the subjects which the student should be acquainted with, one of the most important of which was "The Elementary Mechanics of Solids and Fluids"; and now it was proposed to undo what the Council had already done, several of the universities not examining in the subjects required by the Council.

Mr. TURNER thought that the motion should be enlarged, and that the Council should distinctly express its opinion that if any of the university examinations which it was proposed to accept did not include the subject of the Elementary Mechanics of Solids and Fluids, the candidate should be required to pass an examination in that subject before he was admitted to his professional examination.

Dr. HALDANE'S motion was then carried, with the following addition suggested by Dr. Storrar: "But that if in any of these examinations the subjects of Elementary Mechanics of Solids and Fluids are not included, a knowledge of those subjects should be required at a subsequent examination."

Mr. SIMON said that the first-class examination of the College of Preceptors was accepted, of course, with the same condition as had been put upon the universities. It was, in reality, a higher examination than was required by the Council, and he would suggest, for the consideration of the Executive Committee, whether the second-class examination of the College might not also be accepted. It was somewhat under the required standard, but that might be compensated for by requiring the candidate to pass in some of the higher divisions of the examination.

The following report was brought up from the Executive Committee:—

"The Executive Committee begs to call the attention of the General Council to cases of students, coming from India, who have passed the Matriculation Examination at the several Indian universities. The examination at these universities includes Latin as an optional subject, but the students, as a rule, take up Sanscrit or some other language in place of Latin. The regulations of the Council require that the Certificate of Examination from these universities should include Latin. Certain students from Bombay who have passed the university examination there, not including Latin, have applied to be allowed to enter for examination, on condition that they shall now pass an examination in Latin, and this the Executive Committee has acceded to. Certain other students in the same condition have applied to the Executive Committee to allow them to enter for examination without any examination in Latin. The committee, under the special circumstances of the case, has considered that the passing in Sanscrit may be accepted in place of Latin, and has granted their request. As, however, this is not in accordance with the words of the recommendation of the General Council on education and examination, the Executive Committee thinks it right to submit the matter to the General Council, in order that the matter may be amended, and a rule laid down for the future guide of the committee. The committee suggests that the General Council delegate to the Executive Committee power to make exception to the recommendations on education and examination, in cases in which such exception shall seem to them to be reasonable."

Dr. STORRAR inquired how the question had come before the Executive Committee.

Dr. HUMPHRY said that the cases referred to in the report had from time to time been brought before the Executive Committee. Strictly they should, no doubt, have been brought before the English Branch Council (Hear, hear, from Dr. Storrar), but the Executive Committee had thought it better to assume the responsibility of making the exemptions instead of calling together the Branch Council for that particular purpose, which would have involved considerable expense, and would have been an unnecessary piece of red-tapeism.

Dr. STORRAR said he had given notice of a motion for the reconsideration of the standing orders relating to the proceedings of the Executive Committee.

Mr. TURNER did not wish to enter into the pretty quarrel which was impending, but would leave the bodies concerned to fight it out between themselves. He would only say that if the recommendation of the committee were adopted, the Scotch Branch Council would be put into a difficult position. It had often had similar cases brought before it of young men coming from the Indian universities without passing an examination in Latin, and it had positively refused over and over again to register them, thus complying with the recommendations issued by the Medical Council. Now, however, it appeared that the Executive Committee had been overriding the resolutions, not of the English Branch Council, but of the General Medical Council itself. With all deference to the committee, he could not help thinking that they had taken a liberty with the Council's recommendations which they had no right to take, and which certainly had put the Scotch Branch Council in a difficult position.

The PRESIDENT said, in reference to the motion of which Dr. Storrar had given notice, that the Executive Committee would only be too glad to have some of the difficult points that had arisen definitely settled. They were anxious to do their best under the circumstances, and desired to have their powers clearly defined.

Dr. STORRAR said that, in taking up the cudgels against the Executive Committee, he did not wish to reflect upon the members individually, who, he had no doubt, had done what they considered their duty; but, filling somewhat the position of Her Majesty's Opposition, he hoped it would not be considered improper that he should express his views clearly and strongly.

The further consideration of the report of the Executive Committee was adjourned.

On the motion of Dr. PITMAN, seconded by Dr. SMITH, Sections I. and IV. of the Standing Orders were referred to the Business Committee to report whether they would recommend any, and if so what, alterations and additions in those sections.

The Council then adjourned.

THURSDAY, APRIL 28TH.

At the meeting of the Council to-day, the adjourned consideration of the report of the Executive Committee in regard to certain students from India was resumed, and after some discussion it was resolved, "That in cases where for some special reason candidates for admission to professional examinations by the licensing bodies may not be able to comply with all the recommendations of the Council as regards examination in general education and registration thereon, exceptions may be allowed;" and it was referred to the Executive Committee to prepare for the consideration of the Council draft rules defining the classes of cases in which such exceptions might properly be allowed.

The remainder of the sitting was occupied with dental business and the discussion of a motion by Dr. Storrar, "That every registered dentist holding any of the surgical qualifications recited in Schedule A of the Medical Act shall be entitled to have such qualification or qualifications recorded on the Dentists' Register, as evidence of a higher degree of knowledge." After an animated debate the motion was carried by 13 against 5, thus reversing the action of the Council at its previous meeting, when it was decided to erase the additional qualifications that had been placed in the Dentists' Register. The Council then adjourned.

A fuller report of this sitting will appear in our next issue.

RECENT DISCOVERIES IN PHYSICS.

SEVERAL very remarkable discoveries in physics have appeared during the last few months. The connexion of physics with chemistry has of late years become more intimate than ever, and many of the most distinguished chemists, both in England and abroad, have in consequence been working in physical lines, hoping by the investigation of molecular physics to gain light in regard to what are commonly called chemical phenomena and chemical laws. A short review of some of the more striking of the results so obtained will interest our readers.

Professor Carnelley's singular discovery of "hot ice" deserves the first notice. It has long been known that the melting-point of ice is lowered by pressure. Ice subjected to the rapid action of an hydraulic press liquefies, and when the pressure is removed freezes again, taking, of course, the form of the mould or other vessel which contains it. The movement of a glacier through a tortuous valley is explained on this principle, the ice in turning corners being melted by the pressure and freezing again into the new form. Professor Carnelley now finds that reduction of the pressure on ice raises its melting point to an extent that could never have been anticipated. A large globe is connected by a short thick india-rubber tube with a glass tube five feet long. The whole is filled with mercury, and the free end of the tube opened under mercury. Of course the mercury leaves the flask and falls in the tube until it stands at a height of about 30 inches. The flask and upper part of the tube are now vacuous, and in fact the instrument is a barometer. The flask is then bent over on its side, and covered with ice and salt. A little water is then injected into the tube, and soon freezes by its own evaporation. We have now practically a cryophorus. A thermometer has previously been fixed in the tube in such a position that its bulb is surrounded by the newly formed ice. If now the heat of a large flame is applied to the outside of the tube the ice evaporates but does not melt, and the thermometer immersed in it is seen to rise, in some experiments as high as 356° F., or very much higher than the boiling point of water. That the ice is really hot is proved by another experiment—a piece of ice prepared in vacuo in the above manner is allowed to fall into water at about 56° F. The water is actually *heated*, and not cooled by the ice.

Similar experiments can be made with corrosive sublimate and with camphor. Camphor is melted in a tube and the air pumped out. It solidifies at once, and no further application of heat will melt it; but when air is let in, instant liquefaction takes place and the camphor boils furiously.

Not less important, though less popularly interesting, are Mr. Crookes's lately published experiments on the viscosity of gases. This curious property of gases is defined as their internal friction—the resistance they offer to the gliding of one portion over another. Now, in 1859, Professor Clerk Maxwell deduced from the mechanical theory of gases the remarkable conclusion that the viscosity should be independent of the density of the gas; and a few years later he supplied experimental proof that within certain considerable limits this theoretical law was true. But it was seen that the law could not apply if the density of the gas were reduced below a certain point not reached in Maxwell's experiments. The viscosity of a gas is intimately connected with what is called the "mean free path" of its molecules. This mean free path is most simply described as the average distance through which each molecule passes before coming into collision with another molecule, and in all ordinary vacua it is a very small distance. But Mr. Crookes, with his wonderful experimental skill and scientific acumen, has pushed the research into regions of gaseous matter where tension is measured in millionths of an atmosphere. Gas in this state is not gas in the common sense of the word, but a fourth condition of matter. The number of its molecules being so greatly reduced, their mean free path is greatly increased, so that it can be measured by inches, or even by feet, and as a consequence the viscosity of the gas almost fades away. In fact, the curve which represents the increase of mean free path also represents approximately the diminution of viscosity. No one can yet appraise the value of this discovery, or the importance of the consequences which may flow from it.

Professor Tyndall's latest contribution to science is but a confirmation, with new apparatus, of results which he had previously obtained, and is an application of a well-known and recent discovery. But the application is so novel, and the thought which suggested it is so brilliant, that science has gained a most important method. Years ago Professor Tyndall showed that gases differed greatly in their power of absorbing and emitting radiant heat. Oxygen, hydrogen, and nitrogen absorbed and emitted almost none, and aqueous vapour—to take a single example—very much. These observations have been controverted by scientific men of recognised skill, and Professor Tyndall has therefore sought for a method perfectly unlike his old one by which to test their truth. No one can deny that his search has been successful.

Rays of electric light—for which, in subsequent experiments, rays of lime light, candles, and even those of a bar of hot iron not visibly luminous, were substituted—were allowed to pass through slits or notches in a revolving disc, and thence to a flask containing the gas or vapour to be examined. On the other side of this flask a tube was placed, by which any sound could be carried to the ear of the observer. When the flask contained perfectly dry air, or any gas which was unable to absorb obscure heat rays, no effect of any kind was perceived; but when any trace of aqueous vapour or any of the gases or vapour which had previously been found to absorb heat were present, a musical note was at once produced. The rays of heat are broken and converted into successive impacts by the slits or notches; and these impacts, if absorbed by the gas, produce momentary expansions, which, repeated with sufficient frequency, give rise to musical notes.

Professor Tyndall finds ordinary fire-damp to be a good absorber of radiant heat. The sounds which it emits are very powerful, and it is hoped that a really satisfactory fire-damp indicator may at last be obtained from this totally unexpected source.

A TESTIMONIAL has been presented to Mr. G. W. Hamilton Cumming, on his resignation of the office of house-surgeon, by the weekly board, medical staff, nurses, and friends connected with the Torbay Hospital, as a mark of their high appreciation of services rendered at a critical period.

THE LANCET.

LONDON: SATURDAY, APRIL 30, 1881.

THE meeting of the Medical Council at this particular time is a mystery. There is nothing in the President's opening speech, or in the proceedings up to the moment of our writing, to explain or to justify the calling together of the Council at the present time. When we announced, some weeks ago, that the Council was summoned for the 26th inst., we confessed ourselves quite unable to understand the fact. We find that many members of that august body labour under a similar disability. As usual, when there is nothing particular for the Council to do, it spends hours upon hours in reviewing its old or its recent Recommendations on Preliminary Education. It is within our knowledge that the meeting was arranged for without any consultation with the Irish members; and it is proper to mention that Dr. HAUGHTON, more competent, perhaps, than any member of the Council to speak on matters of Preliminary Education, is conspicuous by his absence, the time being inconvenient to him. The apologetic tone of the President's own speech is the best proof that nothing in the nature of business is the real explanation of the meeting at the present moment. The speech is full of allusions to the pending inquiry by a Royal Commission, and to the undesirableness of any serious changes in the regulations of the Council. The Council, it is suggested, had better defer requiring the observance of its regulations of last year in regard to preliminary and preliminary scientific subjects till after the report of the forthcoming Commission. "Were it not for the appointment of the Royal Commission," the Executive Committee would have been prepared to suggest changes for diminishing the expenses and facilitating the work of the Council, &c. In the face of such reflections we are increasingly puzzled to know what has brought the Council together for a fragmentary sitting—the second this year. The business that has been done would all have kept till July. The President's speech, including the suppressed or implied denunciation of those wicked persons who delight in parliamentary agitation, would have been as effective in July as in April. The removal of a name from the Register would have been as effective in July as now. The appointment of a Committee to consider the preparation of the next edition of the Pharmacopœia, and to report year by year as to addenda to the Pharmacopœia, is a very proper step, but equally fails to explain the meeting of the Council at present. It may be said that the Recommendations of the Council last year as regards the institution of a preliminary scientific examination, and the answers of the Bodies thereto, demanded a meeting of the Council. But what says the Report of the Committee that was appointed specifically to watch over this subject? It says that some answers have not yet been received; and as it would manifestly be undesirable to present a final Report, which would necessarily be incomplete, the Committee proposes to report fully at the next meeting. Clearly, therefore, this subject cannot be taken up at this meeting of the Council, even if the impending Royal Commission did not, as Dr. ACLAND suggests, make any disposal of it at present impossible. There remains the reported determination of the College of Surgeons to discontinue its Preliminary Examinations, conducted at present by the College of Preceptors under the authority of the College. But this decision is not to take effect till December of this year. Altogether, we are completely puzzled to explain the meeting of the Council, and more than ever amazed at the undignified position in which it places itself year after year in nibbling at Preliminary Education, to the embarrassment of the universities and other national educational institutions. Under these circumstances we are driven to seek for other explanations of the meeting of the Council at this particular moment, and to attribute it to some social feeling on the part of the President or some of the more influential members. We should not venture to imply that the President is perplexed with "thoughts of change" and a desire to see the Council a few times more in its present form. No such thought is possible to one who believes so devoutly in the absolute perfection of the body over which he presides, and who regards so complacently everything that it has done and left undone. We can only hope the members of the Royal Commission will study the proceedings of the present meeting in connexion with those of the last and preceding years, to see how interminably the Council revolves round the question of Preliminary Education, leaving the great subject of Medical Education, for promoting which it mainly exists, to take care of itself.

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THE question raised by the line of conduct adopted—and, as it would seem, specifically recommended by the then President of the College of Physicians and others—in relation to the consultations held in a recent case between a Fellow of the College and a reputed homœopathist, is one of exceeding gravity, and concerns the public as urgently and as seriously as it concerns the medical profession. It is, above all other considerations, important that the discussion, which must proceed until the issue is finally adjusted, should be lifted out of the region of professional politics. Some of our lay contemporaries, not looking at the matter from a practical standpoint, have characterised the controversy as the outcome of a system of "trades-unionism," conceived in a spirit of "exclusiveness," among men animated by a feeling of selfishness and regard for "trade interests." If the truth were known, the facts would direct the judgment of every impartial on-looker to a totally opposite conclusion. In reply to such a charge it may be contended that it is clearly to the advantage of a profession to be united, and the exclusion of any class of practitioners from the fellowship of the body as a whole must entail loss and inconvenience upon the community. The medical profession suffers in a variety of ways daily because it cannot recognise homœopathists. It is misunderstood and maligned for its supposed obstinacy, while its members are compelled to make many and grievous sacrifices of personal feeling and interest to discharge the obligations of honourable independence which the profession has imposed upon itself. It is strange that those who charge us with "exclusiveness" do not perceive that this is a fault—if fault it be—which carries with it a deterrent penalty. Obviously the consultee does not desire to be hindered in the exercise of his calling, or circumscribed as regards his constituency and *clientèle*. He is not likely to throw obstacles in his own path. He would rather consent, than decline, to meet any practitioner who asked for his assistance. In short, the profession has nothing to lose, but much to gain, by admitting homœopathists into its fellowship. It is past comprehension that this is not universally recognised. Why then do we not go when we are sent for to meet homœopaths? The answer is simply and finally that we *cannot* do so with clear consciences and as honest men. We should like to waive all difficulties. It is clearly our interest to do this; and if the case be an important one, it is perhaps not unnatural that we should chafe a good deal under the bonds of honour which hold us aloof, and strive might and main to make the divergent lines of inclination and duty seem to coalesce. The public may fairly assume that when a professional man is asked to render his aid, he wishes to comply with the request. Every sort of interest and inclination impels him to do so, and if he refuses it must be against his impulses, and because some weighty consideration coerces him. Again, the opposition we offer cannot arise from any desire to "crush out homœopathy," because there is everything in the mode of practice under that "system" to render it attractive to the professional man who adopts it. In so far as it is consistently practised, it goes by rule of thumb, and must relieve the physician from an infinity of scientific labour, thought, and anxiety. In short, the profession has no interest to be served, or object to be gained, in opposing homœopathy, or in declining to fraternise with homœopathists, and in so far as it restrains itself from a compliant course of conduct, and suffers the loss and annoyance entailed by "exclusiveness," it has a right to claim the respect due to an honourable policy and to resent the imputation of selfishness. We are unable to meet homœopathists because the light in which they view disease, and the principles on which they propose to treat it, are wholly at variance with those which every step forward in the cognate sciences of pathology and therapy confirms and demonstrates. There is no common ground for the homœopathist and the ordinary practitioner, and they cannot therefore consult; still less can they work together.

Now comes the question why we cannot—or, as our censors put it, will not—co-operate with homœopaths when these gentlemen lay aside their peculiar views, with the tenets of their distinctive school, and consent to act on ordinary principles, or to place themselves under the control of the consultee, engaging—and honourably fulfilling the engagement, even against their own better judgments—to carry out all his directions and prescriptions? We cannot answer this interrogation more explicitly than by adopting the phrase employed by Sir WILLIAM GULL last week, and saying we are unable to respect or trust any man who has "two sets of convictions." If the question at issue were a matter of taste, or even policy, in respect to a subject of minor importance, we might subordinate our opinions to the exigencies of the moment; but the greater the urgency of the summons addressed to us, and the more important the case, the greater is the need of strict rectitude. We cannot honestly beg the question, because the issues at stake may be those of life and death. These are not less solemn than the tenets of religion. We could not offer a dying man a choice of Judaism or Christianity—that is, if we ourselves believed in either. Of course, if we started by being sceptics in religion, it might be possible to meet the need of the moment by gratifying the wishes of the sick person or his friends; but this is not the attitude which the profession assumes towards science. Whatever other faults it may have, it is not faithless. Nor can we take the position occupied by those gentlemen who, having "two sets of convictions," assert their right to pick out the "good" things of all systems! Is the minister of religion entitled to serve GOD and Baal alternatively? Is the physician at liberty to obey the dictates of science or of his own instinct, at pleasure? Is it conceivable that Nature has contradictory laws at work in her system? Is it not rather likely that we err by misreading the lessons of her work? We, from our standpoint, are prepared to contend that the "law" of cure by similars is, in every case and under all its forms and applications, a scientific fallacy. We regard it as a misleading and mischievous dogma based on a misapprehension of the data from which it is professedly derived. Therefore we reject it; but those who hold it to be a law of nature are bound to obey it. How is it possible for us to meet a man who avows an alternative or an eclectic belief in the blackness of white and the whiteness of black? The proposal to consult with a physician who has "two sets of convictions" as to disease and its treatment, is an insult to common sense. Such a man must either be hopelessly lost in a fog, or he cannot be thoroughly in earnest in respect to matters of the highest and most urgent concern. Of the two we should have less objection to meet a "homœopath" pure and simple than a practitioner who either becomes all things to all men or claims to be eclectic. The "eclectic" school of physic is the most mischievous extant. It is just now a thorn in the flesh of humanity in America, and this claim to the exercise of a discretionary right to use all systems alike, seeking "the good in each," is the worst possible embodiment of *eclecticism!* The position assumed is that of an empiricist, bound by no law of the science of Nature, but prepared to undertake the treatment of disease, and to fight the battle against death, in obedience to some inner instinct to which no sane man is justified in giving heed. If the treatment of disease is to become a matter of feeling, akin to inspiration, either physic will degenerate into charlatanry, or the healing of the body must be handed back to the care of the priests. Society cannot be safe in the presence of medicine practised by inspiration unless the mission is worked out by a recognised clergy subject to ecclesiastical discipline. Science has nothing whatever to say to such a system or practice. If this pretension is to be admitted, the practitioners of scientific medicine must quit the field.

It is important that the public should understand this question fully and clearly. What we call "scientific medicine" is the science and art of healing based on a patient and ever-progressive investigation of the laws of life in health (physiology) and of the causes and effects of disease (pathology); side by side with which there is a ceaseless search for new remedies, new methods of treatment, and new light on the action of known drugs, and old modes of treatment (therapeutics and materia medica). These principal branches of science are pursued with the aid of other branches (e.g., anatomy, chemistry, botany, &c.), also comprised in the architectonic of Medicine. All the provinces investigated lie within the domain of Nature, and the natural method is adopted in research. It follows that, even if *similia similibus curantur* were true—whereas it is false,—science could not accept it as the dogma of a school, because it arrests, and affects to supersede, the necessity for deep inquiry, by dignifying with the name of a "law of action" what is simply a surface feature of the *seeming* relations subsisting between a certain class of causes and effects. When, therefore, a man says, sometimes "like cures like" and at other times "contrary cures contrary," he is surrendering the last vestige of a claim to be recognised as a scientific practitioner, seeing that he professes to have "two sets of convictions," which are mutually destructive, and neither true, because they are *incomplete.* The parade of either, or both, of these alternative doctrines is as rational as, and no more reasonable than, it would be to say "like cures like" because the cold of a thaw is followed by the end of a frost, and "contrary cures contrary" because the light of day dispels the darkness of night! There is an egregious fallacy underlying each proposition, and the supreme folly of the attempt to embody either as a doctrine of science is apparent on the face of the fact that they are surface deductions from data which have neither been tested nor explored. Whether we regard the alternative "sets of convictions" held by those gentlemen who practise homœopathy and what they are pleased to call "allopathy," at discretion, as relating to sound systems or to misconceptions of fact, it must be obvious that it is equally impossible we should consult with those who hold them. No man can honourably engage in the practice of medicine who is not severely and righteously in earnest, and who is not fairly grounded in the principles of his scientific belief; and the profession, as a whole, is convinced, and will adhere to its conviction, that no two physicians can, or ought to pretend to, consult together except they be agreed.

There can be nothing but compromise—and compromise inimical to the health-interests of the patient, reducing instead of increasing his chances of recovery—when "homœopath" meets "allopath" in consultation. In the, hitherto unprecedented, case in which one of the two voluntarily divests himself of his professional character and consents to act as an assistant or nurse, carrying out "all the directions and prescriptions" of his chief, there could, of course, be no *consultation*, and the patient is simply treated by the so-called consultee. When "homœopath" and "allopath" meet, one treats symptoms, the other treats causes and states. The one looks for "indications" for the application of the principle "like cures like," while the other is striving to penetrate the underlying conditions of the morbid state, and searching for remedies to modify them, and so change it. The one is acting against the disease, the other acting with it. We will, for the sake of argument, concede that either method might, perhaps, benefit the patient; but it must be self-evident that a compromise of two modes of procedure so antagonistic as these are must end in the negation of both, and that the patient can be helped by neither system, while both stand in the way of his possible relief. Scientific medicine can never be made subservient to such a compromise as this, and honourable men must refuse to be parties to it. We are not actuated by any prejudice or stirred by any spirit of "trades-unionism" in making this avowal. It must, sooner or later, be seen to be the only logical and tenable position in the matter. We cannot trim our sails to catch the wind of popular doctrine on this subject. Sir WILLIAM JENNER embodied the mature judgment of the profession in his action in the recent most regrettable difficulty, and Sir WILLIAM GULL has adopted the view taken, and endorsed the decision. Sir WILLIAM JENNER is now President of the Royal College of Physicians, and we may, therefore, cherish the hope that a better and healthier state of professional morals will prevail in the medical body than that which led to a sacrifice of principle when the patient was an "illustrious invalid."

IN a recent number of THE LANCET we directed the attention of the profession to Battey's operation, or spaying of women. Since that time an article by Dr. SAVAGE, entitled "Oöphorectomy," has appeared in the April number of the *Birmingham Medical Review.* This paper gives a brief account of "twenty-five consecutive successful cases" in which the ovaries had been removed. Both ovaries were ablated in twenty-four of the cases, and one only in one case, the removal of the other being found impracticable owing to adhesions, as well in a first as in a second attempt made fifteen months subsequently. The operations in the series were undertaken for various reasons, such as ovarian pain, dysmenorrhœa, absence of the vagina and undeveloped uterus, myoma, prolapse of the ovaries, and hystero-epilepsy. In the course of the operations, or after, various pathological conditions were found, such as adherent ovaries, shrivelled ovaries, and cystic ovaries. The ovaries were manifestly diseased in nineteen of the cases, while they were apparently healthy in six only. The parts removed—these being ovaries or ovaries with portions of the Fallopian tubes—varied in weight from 30 grains to 310 grains. The first case of the series was operated upon in January, 1878; the second in January, 1879; and the remainder during 1880 and 1881. It appears that besides this series of twenty-five cases, the author has "had a few cases (of myoma) where simply an exploratory incision has been made, and nothing else done, either because the tumour for some reason, as size, thickness of stump, relations, &c., was incapable of removal, or the ovaries could not be reached, and yet in the course of a few weeks afterwards, the tumour showed a clear decrease in size." Moreover, "In the case of E. H—— not in this series, and which I class as one of incomplete oöphorectomy, both ovaries were so tied down by adhesions that I felt it impossible to remove them."

We have made the above quotations in order to draw attention to the fact that we do not think the author has done justice to himself, the profession, or science, by publishing a series of successful cases, while he had had in the course of his practice some cases in which the operation could not be completed. The operation of spaying is at present on its trial, and it is neither right nor just to publish successful cases only, withholding those that are unsuccessful. In saying this, we entirely acquit Dr. SAVAGE of any unworthy motive in publishing his successful cases; but we are of opinion that he has fallen into error in not adding his unsuccessful ones. We trust that he will soon publish them.

The paper presents some points deserving of attention, and at the same time demands criticism. The author evidently has no little faith in the capabilities of the operation, for he states "as experience increases I am sure that the field for its benefits widens, and that it will gradually attain to a well-deserved reputation, and be carried out in many more and different cases than were at first proposed for its adoption." Unfortunately, in so far as this series of cases goes, such a conclusion is by no means justified, for the cases are so briefly recorded that it is not possible for the reader to form for himself any conclusion as to the necessity or desirability of the procedure. In an operation like spaying, which holds a peculiar position, and differs from all or most other operations, in that it unfits the subject for one of the chief objects of her existence; in the fact that the condition of the organs to be removed can, as a rule, not be diagnosed beforehand; and, further, in the fact that the conditions (reflex neuroses and pain) for which the operation is often undertaken have not and cannot at present be proved to be dependent upon the organs to be removed—an operation which is on its trial, and, we must add, one open to abuse,—every case in which it is performed, be it successful or fatal, complete, incomplete, or exploratory, should be recorded in detail, with the reasons for undertaking the operation. It is in this way only that the necessity or desirability of oöphorectomy can be judged of, and it is by this means also that a scientific estimate of the operation can be ultimately formed, and the limitations formulated with which it should unquestionably be hedged about. Every operation of this kind performed in our present state of knowledge is necessarily an experiment in physiology and pathology, and for this and reasons already named a full history of the case before and after the operation, as well as a minute description of the parts removed, should be placed on record. Not only should all cases in which the proceeding was successful as far as the possibility of the removal of the ovaries was concerned be recorded, but all exploratory and incomplete operations having removal of the ovaries as a chief or alternative object should be published. Such cases occur to all operators, and these contribute, no less than the successful ones, to the formation of a correct estimate of the value of spaying. The results of the operation should also be published. The cases should be watched for a protracted period afterwards—months or perhaps years; for the real effects of the mutilation do not appear to show themselves immediately in all cases. Speaking of ovarian dysmenorrhœa, Dr. SAVAGE says: "The effects of oöphorectomy in this class of disorders are well known not to be always immediate, and hence we must allow a certain time—say twelve months or so—before we can form a reliable opinion as to its benefits or otherwise in a particular case; and it is not difficult to conceive of the continuance of painful impressions and other abnormal sensations even for some time after the cause which produced them has been taken away." It should also be added that the reverse of this may happen: suffering may be relieved for a time and return after several months. This necessitates the watching for a prolonged period of all cases operated upon, for without a knowledge of the ultimate result no case can contribute to place the operation upon a proper and scientific basis. Now, in the series before us twenty of the cases were operated on since the beginning of last July—some as recently as last February,—and consequently a sufficient time has not elapsed to enable trustworthy conclusions to be formed with regard to them. Moreover, the author states: "I have not taken accurate notes of the question of menstruation afterwards, but I have a strong impression that it has not occurred more than once or twice in any of the patients, and that the large majority have not menstruated at all." We cannot refrain from asking: What is the value of cases so imperfectly recorded? They justify one conclusion, and one only—viz., that the ovaries in a large number of cases can be successfully removed, an inference we should have been perfectly warranted in forming from the success which has been obtained in ovariotomy.

There is one other point we would draw attention to—the fact mentioned by Dr. SAVAGE, that in some cases myomata diminish in size after an exploratory incision only has been made. This is very curious and very important, and is certainly not in favour of the operation of spaying. We deeply regret that the record of these cases is so meagre, for it is no small loss to science. A full and complete account of these twenty-five cases, and of the others upon which the author has operated, a full past history of the patient, a detailed description of the parts removed, and a full history of the patient for a year or two after the operation, would have been invaluable in the present state of our knowledge. We trust that the author will be able at some future time to supply these data, for without them this series of operations can be of but little value; it serves not to establish the operation upon a proper basis, but to make immediate recovery from it prominent, and, at the same time, to put out of sight the great object of the operation, permanent restoration to health, and in so far it is misleading. In making these observations we do not intend them specially for the author of this paper, but for all who undertake Battey's operation. There has been a great deal too much of immediate publication of results, especially when successful, and there have been too many scanty records of the operation published, so that it is not possible to form any trustworthy estimate of the value and place of spaying as a remedy for disease.

Annotations.

"Ne quid nimis."

THE ROYAL COMMISSION ON MEDICAL LEGISLATION.

WE have reason to believe that the following names will be submitted to the Queen:—The Master of the Rolls (Sir George Jessel), the Bishop of Peterborough, Lord Camperdown, Lord Reay, Mr. Sclater-Booth, M.P., Mr. Cohen, M.P., Mr. Huxley, Sir William Jenner, Bart., K.C.B. (President of the Royal College of Physicians), Mr. Simon, C.B., Professor Turner (of Edinburgh), and Dr. Macdonnell (of Dublin). We should gladly have seen the name of Mr. Erichsen (President of the Royal College of Surgeons), who has long been identified with medical education, examinations, and legislation during the last quarter of a century, on the list. There is, however, ample promise of energy in the *personnel* of the Commission as provisionally constituted, and it includes names which afford a guarantee for the earnestness and completeness of the inquiry to be prosecuted.

MURDER, NOT "SUICIDE," OF THE SULTAN ABDUL AZIZ.

WHEN the official statement appeared to the effect that the ex-Sultan Abdul Aziz had committed suicide, we discussed the story at length on medical and general grounds, and wrote as follows (THE LANCET, June 10th, 1876):—"The ex-Sultan was of a singularly inert temperament. Those who saw something of him when in England are not likely to be the first to accept the story of his self-slaughter by the method alleged. He might, it will be contended, have taken poison if he could have procured it, but scarcely stabbed himself in the *arms* with a pair of scissors! Setting these and many other considerations aside, it is difficult, we repeat, to conceive that suicide, by an act of this nature, is probable. We hear nothing of any measures being taken to secure a free flow of blood from the opened veins, such as were familiar to the old-fashioned phlebotomists. There might even appear to be a sinister intention in the statement that an ex-Sultan, dying by his own design, selected as an instrument an implement so exclusively the tool, or possibly the weapon, of a woman. The sudden death, the strange story told in explanation, and the hasty interment, combine to make the whole affair a mystery. This is the impression produced by the story, and such are the inferences derived from the general facts and circumstances of the case. We are, however, confronted by a document signed by nineteen physicians of various nationalities describing the appearances, and attesting that in their judgment the case was one of suicide." The accuracy of the conclusion at which we arrived, after a careful examination of the evidence available at the moment for the formation of an independent judgment, is now, it seems, demonstrated by the confession of one of his assassins. "At the instigation of a certain Mohmoud Bey, who was formerly a high official, and has been for the last four years a member of the State Council, three servants of the Sultan Murad, and a Palace secretary, called Bahú Bey, have been arrested, and the three former have, it is said, confessed to having taken part in the assassination of the late Sultan. One of the three, a professional wrestler, celebrated for his great muscular strength, is said to have held His Majesty while another opened the principal veins of his arm with a pair of scissors."

OVER-WORKING THE UNDEVELOPED BRAIN.

"OVER-WORK," properly so-called, can only occur when the organ upon which the stress of the labour falls is as yet immature, and, therefore, in process of development. When an organ has reached the maturity of its growth it can only work up to the level of its capacity or faculty for work! Fatigue may produce exhaustion, but that exhaustion will come soon enough to save the organ. Repeated "efforts" may, under abnormal conditions, follow each other too rapidly to allow of recuperation in the intervals of actual exertion, and as the starting-point will, in each successive instance, be lower than the previous state, there may be a gradual abasement; but even this process should not seriously injure a healthy and well-developed organ. In short, a great deal of nonsense has been said and written about the "over-work" of *mature* brains, and there are grounds for believing that an excuse has been sought for idleness, or indulgence in a valetudinarian habit, in the popular outcry on this subject which awhile ago attracted much attention. Nevertheless there can be no room to question the extreme peril of "over-work" to growing children and youths with *undeveloped* brains. The excessive use of an immature organ arrests its development by diverting the energy which should be appropriated to its growth, and consuming it in work. What happens to horses which are allowed to run races too early happens to boys and girls who are over-worked at school. The competitive system as applied to youths has produced a most ruinous effect on the mental constitution which this generation has to hand down to the next, and particularly the next-but-one ensuing. School-work should be purely and exclusively directed to development. "Cramming" the young for examination-purposes is like compelling an infant in arms to sit up before the muscles of its back are strong enough to support it in the upright position, or to sustain the weight of its body on its legs by standing, while as yet the limbs are unable to bear the burden imposed on them. A crooked spine or weak or contorted legs is the inevitable penalty of such folly. Another blunder is committed when one of the organs of the body—to wit, the brain—is worked at the expense of other parts of the organism, in face of the fact that the measure of general health is proportioned to the integrity of development, and the functional activity, of the body as a whole in the harmony of its component systems. No one organ can be developed at the expense of the rest without a corresponding weakening of the whole. These faults of "training" attain their supreme height of folly and short-sightedness when they are committed in reference to the youths destined for the public services. They are especially illustrated by the "Regulations respecting Naval Cadets" just issued, and which will take effect in June of the present year. The work of the Civil Service Commissioners in respect to these classes of the possible servants of the State is personally and racially *destructive*. Sooner or later public opinion must recognise this fact, and then perhaps the Government or the Legislature may be moved to interpose—not before, but when it is too late.

THE MEDICAL SOCIETY OF LONDON.

THE last ordinary meeting of the Medical Society for the session took place on Monday, the 25th inst., under the presidency of Dr. Broadbent. A remarkable case of so-called "villous" tumour of the rectum was shown by Mr. Goodsall, the tumour being the size of an orange, lobulated, vascular, and pedunculated. Dr. Allen Sturge read a lucid and interesting paper upon muscular atrophy, especially that form which is dependent upon affection of the anterior grey cornua of the spinal cord, seen in the acute inflammatory form in infantile paralysis in the parallel affection in the adult, and in a chronic form in progressive muscular atrophy. One of the main points raised by Dr. Sturge was the fact that the muscles involved in such cases were not those which are related together by their anatomical distribution or nervous supply, but those which are physiologically connected in the execution of movements, a point more difficult to establish in the case of complex coördinated acts than in the simpler ones. This was exemplified in two patients, the subjects of muscular atrophy. In one, the muscles flexing the elbow-joint—namely, the supinator longus, biceps, and coraco-brachialis—were wasted, the other muscles of the arms and forearms being of full size; and in the other, these flexors of the elbow were the only muscles of the limb which were not affected. Applying the same reasoning to lead palsy, Dr. Sturge thought that the selection of the affected muscles pointed to a central rather than a peripheral lesion. Dr. Gilbart Smith exhibited some of the apparatus, and many photographs in illustration of its various forms, invented by Professor Zander of Stockholm, and largely employed in the system of mechanico-therapeutics. He read a short paper descriptive of the measures aimed at in the exercise of muscles, and enumerated the affections in which it had been found most useful.—It was announced that on Monday next, May 2nd, the Annual Oration would be delivered by Mr. Durham, and the usual conversazione would take place.

DR. BROWN-SÉQUARD'S RESEARCHES.

DR. BROWN-SÉQUARD is indefatigable in his experimental investigations, and gives the results to the profession without delay. Three papers by him were read at a recent meeting of the Société de Biologie. One related to the methods of investigating the action of poisons. He believes that the methods are unreliable which are at present in use to determine whether a poison acts, after its absorption into the blood, on the nervous system or other organs, as the heart, or by an irritation of the peripheral nerves of the surface to which it is applied. His researches with chloroform, chloral, prussic acid, and other substances, have led to another mode of experimentation, which has already yielded important results. After having placed the poison in contact with the skin, or injected it beneath the skin on one side of the body, he ascertains the differences which exist between the two halves of the body in voluntary movements, sensibility, reflex action, the sensory organs, the bloodvessels, the colour of the blood, the involuntary contractions, the excitability of the nerves, the muscular irritability, cadaveric rigidity, putrefaction, the state of the kidneys, of the lungs, of the two halves of the cerebro-spinal centres, &c. The striking differences found between the two sides in the case of the animals on which Dr. Brown-Séquard has experimented with chloroform and other poisons have shown him how fertile is this new field of observation. It seems to him needless to insist that the unilateral effects which he has found to occur, on the side to which the poison has been applied, or on the opposite side, are clearly the result of an influence on the peripheral nerves, acting on the central nervous system, and not on an action produced on the latter by the presence of the poison in the circulating blood. Continuing his experiments on the effect of anæsthetics applied to the skin, Dr. Brown-Séquard has found that anhydrous chloral differs in its action from chloroform in that it can produce all its inhibitory and dynamogenetic effects when it is applied to a part of the skin which has been paralysed by the section of the dorsal spinal cord, or of the principal nerves. A larger dose of anhydrous chloral is, however, necessary to kill an animal which has been rendered paraplegic, when applied to the skin of the sacrum or loins, than is necessary to kill another animal of the same kind and size, but not paraplegic. A concentrated solution of chloral hydrate applied to the skin produces nearly the same general and unilateral effects as the anhydrous chloral. A rabbit weighing 1850 grammes died at the end of two hours by gradual arrest of the heart, the respiration being also weakened and retarded, and the temperature lowered. Twelve or thirteen cubic centimetres of a concentrated solution of chloral hydrate had been applied to the skin of the lumbar region, in small quantities, during twenty-five minutes. Anhydrous chloral must produce its effect by some other means than by its absorption in the form of chloral hydrate, for a cubic centimetre of anhydrous chloral killed a rabbit weighing 1600 grammes, when applied to the skin of the back, while the application of five, six, or seven cubic centimetres of a concentrated solution of chloral hydrate did not kill such animals, although it produced very marked toxic effects. The next day they had recovered their normal condition. The third communication related to the production of anæsthesia by stretching the medulla and cervical spinal cord, by bending down the head of the animal. The anæsthesia thus produced is often so pronounced that it is possible, without causing any notable suffering, to perform an operation ordinarily very painful—such, for example, as exposing the spinal cord and dividing it unilaterally. This experiment usually succeeds better in small than in large animals, but the anæsthetic effect is often very marked, even in dogs. Dr. Brown-Séquard reminded his hearers that he discovered long ago that this experiment causes a diminution, and even arrest, of the circulation and respiration, lowering the temperature, and even changing the colour of the venous blood, which, instead of its ordinary dark colour, becomes bright red.

POISONOUS FISH.

A "VICTIM" writes to the *Manchester Guardian* to complain of the diseased state of certain "very fine mackerel which are being sold in that town," and he says that two out of three of the purchased fish were "covered with hair worms or trichinæ, coiled up just under the outer skin in small rings, enveloped as it were in a small capsule." He then goes on to say that these parasites when "embedded in the body cause intense pain and very serious danger." In view of lessening the constant alarm which announcements of this kind occasion, we beg to inform our readers that the parasites in question are little nematoids, well known to helminthologists under the names of *Agamonema capsularia* and *A. papilligerum*. They are sexually immature worms awaiting their final destiny within the body of some larger fish. The human frame is not the ultimate bearer of these parasites, and therefore it matters little whether the mackerel be eaten well cooked or otherwise. More than a dozen species of entozoa plague the unfortunate mackerel, but none of them are dangerous to man.

VACCINATION IN JAPAN.

THE medical men despatched last year from the Ozaka Hospital to Riukiu are (says the *Japan Weekly Mail*) likely to be in much request among the islanders. Measures are about to be taken for performing vaccination on a large scale, and, small-pox having always been regarded with great horror by the people, they are quite ready to fall in with the proposal. The disease has hitherto been looked upon as a judgment from heaven; if one member of a family fell ill with the malady the whole household was shunned, and the victim, from want of medical care and treatment, invariably died. Isolation appears to have been rigidly enforced in the case of infected districts, and this measure has kept the disease in abeyance; but prophylaxis commends itself to the thinking part of the population, and the Ozaka surgeons will probably have a busy time from the commencement of next month, when vaccination will be inaugurated.

FRACTURED SKULL IN AN INFANT.

THE difficulty of diagnosing a fractured skull in an infant is well known, and the necessity of being aware of its possibility in a case of accident, even when there are no marked symptoms, is brought strikingly before the profession in the case which has occupied so prominent a place in the papers during the past week. An infant, aged two years, was run over on the 1st inst., and was taken to the Seamen's Hospital, Greenwich. The child was kept in the hospital until the 5th inst., and showed no symptoms whatever. There were no convulsions, vomiting, coma, or partial paralyses—indeed, except the bruises, there was no indication of anything serious having taken place, and so the child was discharged on the non-appearance of anything that would warrant its detention. The mother, on its discharge, was urged to have medical superintendence, so that if anything untoward should occur, prompt action should be taken. Two days after the discharge from the Seamen's Hospital it was removed to the East London Children Hospital at

Shadwell, where it died on the next day. On post-mortem examination a fractured skull was found to be the cause of death. At the inquest it was attempted to be shown that the child was improperly discharged from the Seamen's Hospital, and that the sister of the ward was to blame, but the evidence at once cleared her from any such interference with treatment of the case. Mr. Johnson Smith, the resident surgeon, had ordered the removal of the child because there had been scarlet fever recently in the hospital, and because the child had shown no symptoms except from the bruises. In so doing he acted quite properly and in accordance with the instructions of the Hospital authorities—viz., to detain cases of emergency (not being sailors), until the urgent symptoms have passed off. Some of the comments on the case which have appeared would seem to have been written in complete ignorance of the elementary surgical principle that a fractured skull does not necessarily betray its existence by giving rise to marked symptoms.

THE LONDON FEVER HOSPITAL.

THIS admirable institution is living on its capital, and unless an unusual sense of its claims takes possession of the public very quickly there is a fear that it will have to be closed or greatly curtailed in its usefulness. The subscriptions amount only to £699 per annum, and, at the present rate of expenditure, the funds will hold out only two years more. We know no hospital more worthy of public support than this. Last year there were under treatment in it 1012 patients, most of them cases of scarlet fever. When it is remembered that this hospital has every provision and accommodation for the treatment of patients themselves, and that by taking them in the remaining members of the household would probably be saved from infection, the claim of the charity upon the benevolent public will be seen to be strong, indeed—a claim which is not lessened by the fact that the hospital is now devoted to the care of those who can pay more or less towards their maintenance.

THE CORONERSHIP FOR CENTRAL MIDDLESEX.

DR. DANFORD THOMAS, the Deputy of the late Dr. Hardwicke, is now the only medical candidate in the field for the vacant coronership of Central Middlesex. As such he is entitled to, and has an irresistible claim upon, the support of the profession. The question at issue is one of principle, and Dr. Danford Thomas may be trusted to discharge loyally and efficiently the duties of the office for which he is a candidate.

DRUNK OR DYING?

ANOTHER lamentable case has occurred to warn medical men of the difficulty of deciding the exact nature of cases of insensibility brought suddenly under their notice. The case in question was the subject of an inquest before Mr. Humphreys. It was that of a young woman picked up insensible in the City-road last week. She was carried about from place to place in a way that is not pleasant to think of. First she was taken to Dr. Powell's house, who very naturally sent her to St. Bartholomew's Hospital. Here, after the use of the stomach-pump, and having so far recovered as to "answer questions incoherently," she was remitted to the care of the police at the Station for six hours. Thereafter she was sent to the Holborn Infirmary, City-road, where she died. Dr. Yarrow, at a post-mortem, found the cause of death to be extravasation of blood. There is a difference of opinion as to whether alcohol had anything to do with her condition. Dr. Powell, in a letter to the *Daily Telegraph*, says that she did not smell of alcohol, and sent a very careful message to the hospital by the police, expressing his opinion that the case was one of injury to the brain, and not of drink. Under all the circumstances, we regret that the patient was not detained at the hospital. As errors of diagnosis are so easy, and yet of such grave consequence, it surely would be a safe rule to keep doubtful cases at least twelve hours under observation, if not longer. The jury returned a verdict of "Accidental death."

THE VICTORIA UNIVERSITY.

THE new northern university has decided to grant degrees in Science without requiring from the graduates any knowledge of Greek or Latin. Even the graduates in Arts are only expected to satisfy the examiner in Latin and Greek at the preliminary examination. Whether the neglect of the classics in favour of more "useful" subjects is likely to be of permanent benefit to the interests of education or not may be a moot question, but there can scarcely be any doubt that no place is more appropriate for testing modern ideas of the nature of education than a modern university. If the accumulation of knowledge be the end and aim of education, no means to attain this object is more suitable than that offered by a brand-new university in a thriving commercial city. The older seats of learning at Oxford and Cambridge are too closely attached to their traditions to be trusted to identify themselves at once and for ever with the utilitarian theory of education. The future alone can show whether a man will be a better physician, or chemist, or engineer, or mathematician, when he has had no other training than that obtained by the study of his own special branch of science, and knows nothing that lies outside that narrow region.

THE APPOINTMENT OF MEDICAL OFFICER OF HEALTH FOR HASTINGS.

THE following memorial is, we are informed, being numerously and influentially signed for presentation to the Mayor of Hastings:—

"We, the undersigned inhabitants of the borough, do respectfully ask you to convene at your earliest convenience a public meeting, to protest emphatically against the late appointment of Medical Officer of Health against the general wish of the inhabitants, and which we consider calculated to do infinite damage to the trade and prosperity of the town by bringing disrepute upon it as a health resort, which is assuredly evinced by strictures passed in the leading medical journals, and is thus brought under the notice of the profession, who will assuredly refrain from recommending their patients to come here if such appointment be maintained."

CLOSING THE FULHAM SMALL-POX AND FEVER HOSPITALS.

THE Association for closing the Fulham Small-pox and Fever Hospitals is making head-way in an assault on the institution alleged to be injurious to the immediate neighbourhood. A large and influential committee has been formed, and guarantees and subscriptions have been received to an amount enabling the enterprise to be carried out in its entirety.

THE question of Hospital Reform is agitating the minds of the medical community at Melbourne. The *Australian Medical Journal* says the first urgent necessity is the appointment of a senior resident surgeon in the hospital of that city, in whom should be vested the powers in connexion with the internal administration of the charity now exercised by the secretary. Our contemporary declares that the statistics at present furnished are utterly worthless, and that many other matters of no slight importance require alteration to make the working of the institution satisfactory.

THE medical depôt at Allahabad, under the charge of Surgeon-Major J. B. S. Brown, medical storekeeper, was completely burned to the ground on the 2nd April; only the quinine and opium were saved. The fire broke out at 2 P.M. in a room containing ether and acids. The loss to Government is estimated at £30,000. This important depôt, which supplies the whole of the North-West Provinces and Oude, had only recently been removed from the fort to an old thatched and tiled barrack far away from the present cantonments, but near the old cantonments now occupied by a native cavalry regiment.

THE first examination this year of candidates for medical diplomas in Japan was brought to a conclusion in Tokiyo on the 3rd instant. The number of applicants was seventy, of whom thirty withdrew in the early stages of the trial, and of the remaining forty, not more than half are believed to have been successful.

THE Introductory Lecture to the Course on Public Health at University College will be delivered by Professor Corfield on Tuesday next, May 2nd, at 4 P.M., and the course will be continued on succeeding Thursdays and Tuesdays at the same hour.

THE death is announced of Dr. Richard Oswald Cowling, Professor of the Principles and Practice of Surgery in the University of Louisville.

THE Harveian Lectures this year will be given by Dr Alfred Meadows. The subject will be "On Menstruation and its Derangements."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Erith (*Urban*).—Mr. Fredk. B. Jessett's report for this district for the past year shows that the sanitary authority has not been entirely inactive, and that "they are considering even an elaborate and thoroughly exhaustive plan" for draining the whole parish, but that this question has not yet passed beyond the stage of consideration. Nevertheless we learn that in this charmingly situated locality "the privies are as bad as ever," and that one foul ditch, at least, and a stinking open cesspool, may be permitted to exist without apparently disturbing the equanimity of the sanitary authority. In one respect, however, the sanitary authority is setting an excellent example to the several river-side sanitary authorities which exist on both banks of the river from Bow Creek to Gravesend. Mr. Jessett reports that the local board has been taking very active measures to abate the nuisance arising from the different factories along the river, and with a result that ought to encourage even more active efforts, and induce the other river-side sanitary authorities to join with them. The offensive trades which have been driven out of the metropolis—the artificial manure makers, workers of various kinds in tallow, glue and varnish manufacturers, &c.—have taken up their abodes in the long line of marshy districts situated on both banks of the Thames below Bow Creek. There wholly uncontrolled they have been suffered to settle, and have reproduced and are reproducing in the most reckless manner the nuisances which rendered their presence in the metropolis intolerable. The sail along the Thames to and from Greenwich, which only a few years ago was one of the greatest enjoyments to the Londoner, is gradually becoming, from the offensive trades practised and increasing on the banks of the river, one of the most unpleasant experiences in stinks and smoke which can be conceived, and this wholly from the neglect of the local authorities. Self-interest, in view of the slowly approaching destruction (if this be not stayed) of the residential value of the higher grounds bordering the Thames on this part of its course, it might have been thought would have induced earlier protective action on the part of the river-side authorities. But no; hence the action of Erith is all the more welcome. The death-rate of Erith in 1880 was 14·64 per 1000 of the population.

Doncaster (*Urban*).—Estimated population, 1880, 22,000; birth-rate 34·5 per 1000 inhabitants; death-rate 24·8 per 1000. Mr. J. B. Withington gives great attention to the death-rate among infants and young children in the district, "more than half" of the deaths recorded in 1880 having been among children under five years of age. This "startling fact," as he justly phrases it, calls for the most earnest consideration of the sanitary authority, and Mr. Withington devotes the main portion of his report to discussing it. Of the large proportion of deaths among infants assigned to wasting diseases and diarrhœa, he observes: "The extreme fatality from these two classes of disorders points very strongly to want of proper feeding and attention during infancy, a general experience being that mothers of the poorer class very commonly give their young infants solid or otherwise improper foods, whereas it is an established rule that, generally speaking, nothing beyond the nourishment afforded by nature should be given for the first three or six months; and improper feeding is a most frequent cause of diarrhœa and wasting." Doncaster has just completed a system of new water-works for the supply of the population, but this important town does not appear to possess any hospital accommodation for infectious diseases.

Newton Abbot (*Rural*), *and Walborough and Dawlish* (*Urban*) *Combined Sanitary Districts.*—Mr. Leonard Armstrong's reports for 1880 for these combined districts are full of interest as showing their condition during a period when the presence of fatal epidemic disease among children disturbs the even current of sanitary administration. Newton Abbot, with an estimated population of 25,619, had a birth-rate of 29·4 per 1000 inhabitants, and a death-rate of 18·42. Measles and whooping-cough troubled the year, and diarrhœa, which had been little fatal in 1879, again became prominent in the mortality of 1880. Writing of the diarrhœa, Mr. Armstrong says: "This increase is due to the higher temperatures of the year. Warmth by itself does not, probably, produce sickness, but acting on inorganic matter in and about our dwellings, it promotes decomposition, and fills the atmosphere with unhealthy exhalations that envelop, as in a fog, the houses and inmates of ill-ventilated localities. Children get fatal diarrhœa from breathing these unwholesome exhalations, and fever is, I believe, the consequence in some of older growth."

Bisley, Urban (*Gloucestershire*).—Dr. Partridge reports for this district during 1880 a birth-rate of 30·3, and a death-rate of 18·2, per 1000 of the inhabitants on an estimated population of 5273. He comments on the high infantile mortality, and confesses to the difficulty he experiences in tracing the swollen rate to its true origin; but he expresses the opinion that to some extent he has reason to believe that it arises from bad nursing and dietary.

THE SMALL-POX HOSPITAL DEADLOCK IN THE METROPOLIS.

Instances of the evil consequences of the present stop put to the increase of hospital accommodation for small-pox cases in the metropolis are beginning to multiply, and it will be well if we have not to learn from experience that there may be worse evils than those which have already arisen from the incidental augmentation of small-pox cases about existing hospitals. We learn from various parts of the metropolis that the present hospital accommodation for small-pox is exhausted, and that patients are accumulating in their own dwellings without any check upon the spread of the disease among their neighbours or other occupants of rooms in the same house. This state of matters is apt to have far-reaching consequences when the family affected is engaged in tailoring, or as seamstresses, or in laundry work. More than one instance of laundry work being carried on in houses in which one or more cases of small-pox existed have been brought to our knowledge. Some feeble efforts are being made by the local sanitary or Poor-law authorities to supplement the hospital accommodation of the Asylums Board, and we learn with pleasure that there is a likelihood of the Poplar Sanitary Hospital being now brought into use for districts in the east of London.

INFECTIOUS DISEASES.

A deputation from several societies concerned in promoting public health waited upon the President of the Local Government Board on Tuesday last, to urge the desirability of securing the public notification of infectious diseases, and the provision of more efficient means of isolating persons suffering under such diseases. The deputation was introduced by Mr. Hastings, M.P., and Dr. Farquharson, M.P. Mr. Dodson, after listening to the arguments of various members of the deputation, expressed his sense of the importance of the subjects brought forward, but referred to certain difficulties in the way of carrying out the suggestions advanced, and reminded the speakers that the sanitary authorities throughout the country had power to provide hospitals, though it had not been exercised to any large extent. In answer to a question by the right honourable gentleman as to the comparative danger of concentrating patients in a few centres, or distributing them in a large number of small districts, Mr. Dudfield said a district like Croydon, for instance, should have a hospital to itself; but it would be absolutely dangerous to have a separate hospital in the forty different districts of the metropolis.

PUBLIC HEALTH MATTERS IN KENSINGTON.

Dr. Orme Dudfield's report on the health of Kensington for the four weeks ending March 26th is, perhaps, not so much of interest as concerns the district to which it specially refers, as from the incidental matters it deals with affecting the metropolis at large; not that it does not contain matter even as regards the Kensington district which deserves careful perusal, particularly in reference to the spread of small-pox by unrecognised and modified cases of disease. The cases related by Dr. Dudfield of this sort and of the mischief arising therefrom are of considerable value; but to persons living outside the limits of Kensington the interest of the report will chiefly consist in the observations made on the Hampstead Hospital Case, the action of the Fulham District Board of Works with reference to the Fulham Small-pox Hospital, on the desirability of local hospitals, the action of the Kensington Vestry with reference to the question of the compulsory notification of infectious diseases in the metropolis, &c. On these several subjects Dr. Dudfield conveys information which we are glad to have in an authoritative and readily accessible form.

A notice has been given for discussion at the Fulham Board of Guardians "that it be a suggestion from this Board to the Local Government Board that it is desirable to provide accommodation for small-pox patients in hulks on the river at its broadest part below Erith with all requisite arrangements as to disinfectants, and for kindly removal of patients, with the object of providing perfect hospital accommodation and avoiding the alarm in populous districts of hospitals being placed in their midst." It is curious how the practically insuperable difficulties of placing infectious disease hospital-ships along the course of a great highway should have escaped the attention of the proposer of this suggestion.

Colonel Bolton's report, as water examiner, of the water supplied by the Metropolitan Companies in March shows that the water in the Thames was good in quality from the 1st to the 4th of March, when it became bad and continued so until the end of the month. The water in the River Lea was generally good throughout the month. As a rule the water delivered was efficiently filtered, the Chelsea and Grand Junction Companies alone, according to Dr. Frankland, failing in this matter.

In consequence of the increase of small-pox in the City, Dr. Sedgwick Saunders has thought it desirable to suggest the provision of additional hospital accommodation. A member of the Commission at a recent meeting suggested the use of the port-hospital ship at Gravesend, and was surprised to find that this ship was not even used for cases of small-pox occurring in the Pool. It seems to us that the suggestion was impracticable.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a slight decline last week. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 4986 births and 3211 deaths were registered last week. The births were 200, and the deaths 40, below the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had slowly but steadily increased from 20·6 to 22·9 per 1000 in the five preceding weeks, declined last week to 22·0. The lowest rates in the twenty towns last week were 17·2 in Portsmouth, 17·5 in Norwich, 17·7 in Salford, and 17·9 in Bradford. The rates in the other towns ranged upwards to 25·8 in Wolverhampton, 27·3 in Liverpool, 28·3 in Plymouth, and 29·9 in Newcastle-upon-Tyne. During the first three weeks of the current quarter the death-rate in the twenty towns averaged only 22·4 per 1000, against 25·0, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 315, 339, and 410 in the three preceding weeks, declined to 382 last week; these included 85 from small-pox, 84 from whooping-cough, 71 from measles, 63 from scarlet fever, 22 from diphtheria, and 31 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·6 per 1000 in the twenty towns, and ranged from 0·4 and 0·8 in Hull and Bradford, to 3·1 and 3·8 in Newcastle-upon-Tyne and Portsmouth. The general fatality of measles, scarlet fever, and whooping-cough was considerably below the average for the season. The 22 deaths referred to diphtheria in the twenty towns exceeded the numbers in recent weeks, and included 10 in London, 7 in Portsmouth, and 2 in Plymouth; this disease has been more or less fatally prevalent in Portsmouth for some months, but the fatal cases last week considerably exceeded any recent weekly number. The highest death-rates from fever occurred last week in Portsmouth and Bristol. Small-pox caused 88 more deaths in London and in its outer ring of suburban districts, and one in Liverpool; no fatal case was, however, recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 820 to 940 in the three preceding weeks, further rose to 963 on Saturday last; the number of new cases admitted to these hospitals last week was 227, against 224 and 244 in the two previous weeks.

The deaths referred to diseases of the respiratory organs in London, which had slowly increased from 345 to 395 in the five preceding weeks, declined to 338 last week, and were 38 below the corrected average number in the corresponding week of the last ten years; they included 211 from bronchitis and 89 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 4·7 per 1000 in London last week. The rate from the same disease was no less than 8·8 in Liverpool.

The causes of 80, or 2·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 0·9 per cent. in London, whereas it averaged 4·0 per cent. in the nineteen provincial towns. No uncertified deaths were recorded last week in Brighton, Portsmouth, Norwich, Leicester, or Nottingham; whereas the proportions of such deaths were largest in Sheffield, Salford, Bradford, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 20·9 per 1000, showing a further decline from the rates 23·5 and 22·1 that prevailed in the two preceding weeks; this rate was 1·1 below the average rate in the twenty English towns. The rates in the eight Scotch towns ranged from 12·1 and 14·6 in Leith and Greenock, to 23·7 and 29·2 in Aberdeen and Perth. The deaths referred to the principal zymotic diseases in the eight towns, which had been 82 and 69 in the two preceding weeks, rose last week to 84; they included 24 from whooping-cough, 15 from scarlet fever, 15 from measles, 12 from diarrhœa, 11 from "fever," 7 from diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·3 per 1000 in the eight towns, which was 0·7 above the average rate from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 0·6 and 1·0 in Greenock and Dundee to 4·9 and 5·8 in Edinburgh and Perth. The 24 fatal cases of whooping cough corresponded with the number in the previous week, and included 10 both in Glasgow and Edinburgh. The deaths from scarlet fever, which had been 6 and 10 in the two previous weeks, further rose to 15 last week, of which 9 occurred in Edinburgh, 3 in Glasgow, and 2 in Leith. The 15 deaths from measles also showed a considerable increase upon recent weekly numbers; of these 13 were recorded in Glasgow and 2 in Aberdeen. Nine of the 12 deaths from diarrhœa were returned in Glasgow. The 11 deaths referred to "fever" (typhus, enteric or typhoid, and simple continued) showed an increase of 4 upon those in the previous week, and included 6 in Glasgow and 2 in Aberdeen; the annual death-rate from this cause considerably exceeded that which prevailed in the twenty English towns during the week. The 7 deaths from diphtheria showed a decline from the numbers in recent weeks; 3 occurred in Edinburgh and 2 in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 163 and 144 in the two preceding weeks, further declined to 135 last week, and were equal to an annual rate of 5·3 per 1000, against 4·3 from the same diseases in London. The greatest proportional fatality from lung diseases in the Scotch towns occurred last week in Glasgow, Aberdeen, and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin increased again last week. The annual death-rate in the city, which had pretty steadily declined in the twelve preceding weeks from 47·4 to 29·0, rose again last week to 32·6. During the first three weeks of the current quarter the death-rate in the city averaged 30·8 per 1000, against 22·4 in London and 21·5 in Edinburgh. The 208 deaths in Dublin last week showed an increase of 23 upon the number in the previous week; they included, however, 9, or little more than 4 per cent., which were referred to the principal zymotic diseases, against numbers declining from 19 to 12 in the four preceding weeks. These 9 deaths from zymotic diseases included 4 from whooping-cough, 2 from fever (typhus, enteric or typhoid, and simple continued), 2 from scarlet fever, 1 from diarrhœa, and not one either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases did not exceed 1·4 per 1000 in Dublin last week; whereas it was equal to 3·5 in London and to 4·9 in Edinburgh. The deaths referred to fever in Dublin, which had been 8 and 7 in the two previous weeks, further declined to 2 last week, and were fewer than in any week for many months; the annual death-rate from this cause in Dublin last week was only slightly in excess of the average rate in the twenty English towns. The 4 deaths from whooping-cough in Dublin exceeded the numbers in recent weeks, while the fatal cases of other zymotic diseases were again remarkably few. The deaths of infants were more numerous last week, whereas those of elderly persons showed a further decline from recent weekly numbers.

VITAL STATISTICS OF MELBOURNE IN 1880.

Mr. H. H. Hayter, the Government Statist of Victoria, has just published an analysis of the vital statistics of Melbourne for the year 1880. The population of the Statistical District of Melbourne and Suburbs, embracing a radius of ten miles, was estimated at 270,264 persons in the middle of 1880. The birth-rate in the city was equal to 32 per 1000 persons living, and was considerably lower than in any year of the preceding decade; the mean birth-rate in the ten years 1870–79 was 34·3 per 1000. The recorded deaths were equal to a rate of 19·2 per 1000, corresponding with the rate in 1879, but 1·3 below the mean rate in the ten years 1870–79. The deaths of children under five years of age were equal to 40 per cent. of the total mortality in the city, differing but slightly from the proportion prevailing in recent years. The 2088 deaths of children under five years of age included 1439 infants who had not completed their first year of age; these showed a rate of infant mortality equal to 166 per 1000 births recorded. Compared with the low gross death-rate, the rate of infant mortality in Melbourne showed a marked excess during 1880. Rather more than 9 per cent. of the deaths were of persons aged upwards of sixty years; this proportion, however, was considerably below that which usually prevails in English towns. The deaths referred to zymotic diseases in Melbourne and suburbs during the year were 1062 or 20·5 per cent. of the deaths from all causes; these included 174 from measles, 138 from enteric fever, 55 from whooping-cough, and 370 from diarrhœal diseases. These zymotic deaths showed a decline of 104 from the number in the preceding year. Measles, however, appeared in an epidemic form for the first time since 1875. It caused, however, only 174 deaths, whereas it caused 508 deaths in 1875. Typhoid fever was less fatal than it had been for many years, and the 138 fatal cases were fewer by 57 than the number in 1879. Puerperal mortality caused 45 deaths, of which 3 resulted from childbed fever; these gave a proportion of 5 deaths of mothers to each 1000 infants born alive, which differs but slightly from the average proportion in England and Wales. The high rate of infant mortality, and the comparatively large proportion of deaths from zymotic diseases, suggest that the true gross death-rate must be higher than that reported by Mr. Hayter. This return, however, does not afford the means for surmising whether this under-statement of the death-rate is due to incomplete registration, or to an over-estimate of the population of the city. It is beyond question that the mortality statistics of Melbourne for 1880 afford abundant evidence that the sanitary condition of the city is not so satisfactory as would be indicated by a gross death-rate of 19·2 per 1000.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE ISLEWORTH SEWER-BROOK.

The Thames Valley sewerage question in its broad aspect is still we fear as far from solution as ever, and the sooner therefore the different localities along the river-bank begin to look after their own interests the more likely they will be to escape those epidemics which are inevitably in store for those who neglect the first laws of health. By the side of the Station-road at Isleworth there runs what might be called a brook, but which is really nothing but an abominable stinking open sewer, which carries the sewage of Spring-grove and part of Hounslow to the much suffering Thames. That in a district where every house has its garden, and where market-gardens are measured by the thousand acres, such valuable matter should be allowed to work mischief instead of good is to us a mystery. We believe an action has already been brought by a public-spirited inhabitant against the local Board to compel them to abate or abolish the nuisance; but such action was unsuccessful, and indeed it seems to us a very difficult matter for a Board to deal with. It is a matter which concerns individuals rather than Boards. No man by the present law of England is allowed to pollute a river, and we should advise that, instead of bringing an action against a "Board," actions should be brought against the individuals who pollute the stream. Let the public-spirited parishioner who brought the previous action bring another against his neighbour on the banks of the sewer-brook, and compel him to dispose of his sewage either upon his own garden or the gardens of the market-gardeners. One successful action would carry the rest; the individuals would recoup by their increased garden produce what they expend in alterations, and the district would be saved a high "rate" to pay for some sewerage scheme, the success of which must necessarily be a matter of doubt.

THE ABERDEEN EPIDEMIC.

The outbreak from diseased milk has now subsided, no new cases having been reported, and most of those who were attacked having recovered. A public inquiry into the cause and nature of the outbreak has been ordered by the Board of Supervision, and a commission consisting of A. Rutherford, Advocate, and Dr. Littlejohn, Edinburgh, began its sittings on Monday, with the view of obtaining all the evidence available to facilitate the inquiry.

The Factories Act, 1881, recently promulgated in India, prohibits the employment of children in factories other than indigo and tea and coffee factories under seven years of age, and provides for the regulation of the employment of children employed in factories between the ages of seven years and twelve, as also for the due inspection of factories.

The National Health Society has arranged for the delivery of a series of drawing-room lectures at 23, Hertford-street, Mayfair (the residence of Chas. Matthews, Esq.), on every Friday until and including May 27th. Among the lecturers are Dr. Robert Farquharson, M.P., Mr. C. N. Cresswell, Mr. Henry Power, and others. Communications should be addressed to Miss Lankester, the Secretary, at the Society's Offices, 44, Berners-street, Oxford-street.

THE SERVICES.

THE TRANSVAAL WAR.

Papers and letters by the last Cape mail supply us with some details of information which will be read with interest by the many friends of our medical officers at the front. The base hospital of the Transvaal Field Force at Fort Amiel, Newcastle, consists of thirteen huts and two marquees. Each hut holds twelve patients. The hospital accommodation was also temporarily increased by utilising some ordnance store-sheds for the heavy and unexpected influx of wounded after the battles of Ingogo and Majuba Hill. Altogether provision was made by Mr. Holloway, the Principal Medical Officer, for over three hundred sick. Surgeon-Major J. A. Scott, M.D., has assumed the duties of senior medical officer, Transvaal Field Force, vice Surgeon-Major T. Babington, who remains in charge of the field hospital, Mount Prospect. Mrs. Hawthorne, wife of Colonel Hawthorne, R.E., Miss Williams, three sisters from Bloemfontein, with a staff of trained orderlies of the Army Hospital Corps, are detailed for nursing duty under Surgeon-Major Stokes, the medical officer in charge. Many of the wounded are described as being very serious cases: one man was riddled with eleven bullets; but owing to a good climate, skilled nursing, with ample supply of medical comforts, food, &c., the mortality has been very slight, and the wounded are reported doing well. Milk is brought to the hospital daily from a farm in the neighbourhood. The ladies of Newcastle have been most kind in sending jellies, pillows, easy chairs, papers, and books for the invalids.

The Bearer Company was inspected by Deputy Surgeon-General Holloway on Feb. 28th at Pietermaritzburg, previously to its marching for the front. Convoys of sick and wounded able to travel are ordered to proceed from Newcastle and the frontier posts towards Durban, so as to relieve the field hospitals. Rest camps have been formed at Ingegane, Pilgrim's Rest, Sunday River, Colenso, Est Court, Moore River, Carey's Fort, and Howick. At Ladysmith a field hospital complete for thirty beds has been established under a medical officer. The trained nurses sent out from Netley arrived at Cape Town in the *Warwick Castle* on Feb. 28th, and proceeded at once to Durban *en route* to Newcastle.

Deputy Surgeon-Generals C. D. Madden, M.D., and J. Hanbury, C.B., are on passage home from India.

Brigade Surgeon Ekin has obtained leave of absence from India on medical certificate.

Surgeon-Major F. B. Scott, M.D., has been ordered to Dover for duty in the South-Eastern District on return from the Cape.

War Office.—1st Life Guards: Surgeon Seton Guthrie Hamilton, from the Army Medical Department, to be Surgeon, vice T. W. Thompson, resigned.—Grenadier Guards: Surgeon Ernest Harrold Fenn, from the Army Medical Department, to be Surgeon, vice W. H. Pickford, promoted into the Scots Guards.—Scots Guards: Surgeon William H. Pickford, M.B., from the Grenadier Guards, to be Surgeon-Major, vice F. Robinson, M.D., retired.

Army Medical Department.—Surgeon-Major Henry Hummerston Burford has been placed on temporary half-pay on account of ill health; Surgeon Albert Kirwan to be Surgeon-Major; Surgeon Francis George Adye-Curran, M.B., to be Surgeon-Major.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881, Fleet-Surgeon John Caldwell has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets. Fleet-Surgeon John Frederick Mitchell has been placed on the Retired List of his rank from the 18th inst. Fleet-Surgeon Leonard Lucas has been placed on the Retired List from the 18th inst., with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets from the same date. Surgeon Matthew Fletcher Ryan has been promoted to the rank of Staff-Surgeon in Her Majesty's Fleet, with seniority of 1st inst.

The following appointments have been made:—Henry Mark Scott to be surgeon and agent at Enniscrone, vice MacMann; Robert Roberts to be surgeon and agent at Portmadoc (new appointment); Staff-Surgeon A. G. Colquhoun to the *Iris*, vice Johnson; Staff-Surgeon T. D. A Bromlow, M.D., to the *Pembroke*, vice Colquhoun.

DR. KIDD'S "LAWS OF THERAPEUTICS."

As Dr. Kidd has not replied to our queries appended to his letter of the 16th inst., and as there is some little doubt in the minds of the medical profession as to the exact attitude assumed towards it by Dr. Kidd, we think it advisable to print a few extracts from the second edition of his book on "The Laws of Therapeutics," published in 1881. In Chapter I. we find—

"I have endeavoured to forget men and their systems, and to search for truth—for all truth. The true student of nature ever delights to lay self aside, to present his offering to the growth of knowledge and withdraw.......The physician should endeavour to ascertain if the good providence of God has ordained exact laws for the selection of curative agents in the treatment of disease. If such laws exist, how solemn the position of those who would reject them! The most pressing question at the present time for the physician is whether the treatment of disease is to depend on mere opinion which varies with each doctor, and perishes with the individual, or on laws which, founded on the immutable truth of facts, can never perish, but must endure through all ages?......The practice of physicians thirty years ago is at present regarded as worse than useless. If law had governed their practice, the truth in that practice would have remained as the inheritance of science, available for their successors—truth can never perish."

Of Hahnemann he says, "It then occurred to him that *the reason why cinchona cures ague* is because of the power inherent in it to *produce symptoms* in a healthy person similar to those of ague. From this the system of homœopathy became gradually evolved, after many years of patient labour in proving upon his own person the qualities or actions of various medicines. Gradually also he began to lessen the amount of dose, not by any logical deduction from facts, but rather from an arbitrary conceit of his own fancy, till he broached the mystical doctrine of infinitesimal doses and of dynamisation" (p. 29)......."Truth is greater than Hahnemann, and of late years his speculations about psora and infinitesimal doses have been tacitly given up by all the most skilful and intelligent of his followers.......Twenty-seven years ago I saw that the essential truth of Hahnemann's law was totally independent of his speculations about dynamisation. Adopting with great delight the law of *similia similibus curantur* as the chief though not the only foundation for therapeutics, I learnt for myself that Hahnemann 'sober,' teaching the use of the pure undiluted tinctures, was a far better guide to heal the sick than Hahnemann 'drunk,' with mysticism calling for the exclusive use of infinitesimal doses. The latter I gradually cast aside *in toto* as untrustworthy and unjust to the sick, whose diseases too often remained stationary under treatment by globules, but were most effectually and quickly cured by tangible doses of the same medicines which failed to cure when given in infinitesimal doses."

The law of "*similia similibus curantur*" being "the chief though not the only" law of therapeutics, what, it will be asked, are the other laws which are to guide us in the treatment of disease? On p. 94 we find:—"Looking to the observations of facts, apart from the theoretic speculations, two primary laws of therapeutics unfold themselves. As Galvani and Faraday have afforded names for Galvanism and Faradism, those two laws of therapeutics may well be called Galen's law, or the antipathic founded upon the rule of *contraria contrariis*, and Hahnemann's, or the homœopathic law, founded upon the relationship of similars." Again, at p. 121:—"Rejoicing to enlarge the boundaries of knowledge, true science cannot ignore any law, though its sphere of action be limited and not of universal application. Galen's law of *contraria contrariis* has its place, and a very prominent place, still in the practice of every physician."

We are ready to admit that, to the superficial observer, it may sometimes appear that diseases are cured by drugs which produce symptoms similar to the disease. For example, a glass of brandy will sometimes steady a tremulous hand. Again, diseases are sometimes cured by drugs which produce opposite symptoms. These stray facts, however, are quite distinct from laws, and we cannot understand how any man can be found to give the name of exact laws to a few scattered facts which, if they are to be regarded as "laws," are evidently mutually destructive. When Newton stated that "*masses attract each other with a force which varies according to the inverse square of the distance*," he enunciated a "law," but Dr. Kidd's "Laws of Therapeutics" have clearly no claim to be placed in the same category.

The closest resemblance which exists between the effect of a disease and the effect of a drug is to be found between tetanus and the action of strychnia, and it is natural to turn to these instances to see whether Dr. Kidd has succeeded in curing many cases of tetanus by adhering to those laws which have, according to him, been ordained "by the good providence of God." At p. 106 it is stated that "it would be justifiable, I conceive, to give the strychnia in the hope that it might occasion a morbid action which would supersede the morbid action of the disease [tetanus], and yet be less perilous and more manageable than it. This, were it successful, would be a cure according to the Hahnemannic doctrine—*similia similibus curantur*—a doctrine much older, however, than Hahnemann." This is a quotation from Sir Thomas Watson, and on p. 128 is another quotation from the same author. "Sir Thomas Watson, writing of the use of strychnia, says, 'If the dose be too large, a temporary aggravation of the disease may show itself for a time.'" These two quotations might lead the non-medical reader (and Dr. Kidd probably has many such) to think that Sir Thomas Watson advocates the use of strychnia in tetanus. A reference to the last edition of his classical work shows such not to be the case, but no reference to the exact source of the quotations is given.

On p. 127 we find "when the reflex irritability of the spine is increased, as in tetanus, a most minute dose of strychnia, $\frac{1}{200}$ of a grain, will increase that irritability and bring on muscular jerking." These are all the references we can find to the most exact parallel which is known to exist between a disease and the effects of a drug, and of these three references for only one is the author responsible, and this shows clearly that if the law of Hahnemann (and "how solemn the position of those who would reject it!") is to be followed, Hahnemann "drunk," as Dr. Kidd says, would be a far safer person at your bedside than Hahnemann "sober."

Let us leave this trifling exception to "law," and turn to Dr. Kidd's book for examples of the real good of following up the dogma of "*similia similibus.*" The prevention of small-pox by vaccination is claimed as an example of the law, and in 1850 Dr. Kidd cured an obstinate case of eczema in a child by revaccinating it, "the principle of *similia similibus* suggesting the remedy." "*Scores of vaccine vesicles* appeared all over the back, shoulders, arms, and chest" (p. 101), and the child got well. Now, eczema is, perhaps, the commonest of the chronic diseases of childhood, and Dr. Kidd must have had opportunities of curing thousands of other cases in the same way, unless he has incurred the solemn responsibility of upsetting his divine law. No other case is mentioned, however. On page 102 we find, "The action of diuretics is very closely allied to the process at work in certain diseases of the skin. The benefit to be derived from such is well illustrated by Dr. Tilbury Fox." In 1854 Dr. Kidd cured a lady of gall-stones by giving her ox gall (p. 103). On p. 104 a woman is mentioned who was cured of acidity and spasm by taking lemon-juice after meals. In 1869 a woman was cured of floodings and threatenings of miscarriage by four leeches over the right ovary. In 1850 a case of exophthalmic goitre was relieved by belladonna. In 1868 chronic cough, in a young lady, was cured by Fowler's solution, and in 1861 an irritable bladder was relieved by one drop of tincture of cantharides every four hours, and another man, with the very opposite symptoms of suppression of urine of four days' standing, was relieved in half an hour by the same means. A few cases such as this are clearly not sufficient to establish a law.

Dr. Kidd's attitude towards the rest of the profession is, to say the least, not friendly. On p. 14 we find: "To discourage drugging and substitute wise regulations of habits of life, is still an unpardonable sin to the orthodox practitioner." At p. 46 we find an allusion to "such exploded things as bleeding, leeching, blistering, and mercury," but on p. 74 we find that Dr. Kidd is acquainted with the action of mercury; on pp. 76 and 105 he recommends leeches to the temple and ovaries; on pp. 46 and 127 he speaks of the good effect of blisters in pericarditis. Physicians are often mentioned by name in this book; one is spoken of as overfeeding his patients in acute diseases, another is alluded to as having made more drunkards than any man living; Frazer, Crum-Brown, Brunton, and Ringer are spoken of as "afraid to teach the laws of fundamental principles which underlie the science of therapeutics." Some of our foreign brethren are strangely miscalled, thus: Czermak becomes on p. 52 Zermach, Binz, at p. 56, is apparently spoken of as Dr. Binns, Duchenne, at p. 196, is miscalled Duchesne, and at p. 123 there is a curious reference to "*Hanover Correspondence* Blatt."

On p. 81 there occurs the following paragraph: "How often do we see the energetic practitioner, unable to find the key, trying in vain to open the casket with smart blows of a hammer. On the other side stands the mild disciple of modern expectant medicine for months watching the casket, examining the lock, but unable to find the key, till to his horror the friends bring in a more dexterous operator. The cure of the disease soon speaks for the perfect workman. . . . . It is then that the *gift of healing* [the italics are our own], which the true physician derives from the knowledge of the principles or laws of cure, comes in to assist in extricating the patient from the tendency towards death and the destruction of organs."

And again (p. 229): "Doubtless there will always be a large field for empirical medicine; genius often overleaps the boundaries of science when the latter degenerates into routine or safe orthodoxy. When strict theorists and dogmatists give an uncertain sound, it needs a dash of empiricism to cast aside conflicting theories and arrive at truth by *insight*." (The italics are ours.)

Turning from theory to practice, and glancing at the *cases* which are scattered throughout the book, we fail to see that in his treatment of disease Dr. Kidd is at all careful to observe the laws which he lays down, or that the treatment, except in a few instances, materially differs from that pursued by other practitioners. It is true that the bulk of the profession have not found dilute nitric acid or hydrastis of much use in curing fistula in ano (of which Dr. Kidd gives two examples at pp. 174-5), nor has hydrastis canadensis in other hands than his proved of service in curing cancer (p. 237). Dr. Kidd does not, however, tell us whether his successful treatment of fistula and cancer is due to an adherence to Hahnemann's or Galen's law. The book is full of sneers at those whom the author styles "orthodox practitioners."

In a recent letter Dr. Kidd states that he is no homœopath, but that he is in the habit of making use of "homœopathic remedies." It is needless to say that there are no such things as "homœopathic remedies" recognised by the profession, which is ready to use for the benefit of the sick anything which may prove of service, no matter by whom suggested or discovered. There is no mention of "homœopathic remedies" in Dr. Kidd's book, and the majority of the medicines used in the cases quoted are such as have been known to many generations of practitioners, whether orthodox or heterodox. Although Dr. Kidd enunciates what he is pleased to call the "laws of therapeutics," a careful perusal of his book clearly shows that no such laws exist, and that in the treatment of disease, wherein Dr. Kidd strives, as he says, "to be a workman approved by my Master, and a servant fit to minister among the sick, the sorrowful, and the weak," he is a law to himself, and the rules which are followed are not those of Hahnemann or Galen—but merely of Kidd.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is the Third Report, dated March 17th, 1881, of the Committee on the necessary arrangements for the institution of additional Examinations for the Diplomas of Member and Fellow of the College, and adopted by the

Council at the meeting held on the 13th inst., as we announced last week :—

1. That it is not at present desirable that examinations in chemistry, materia medica, medical botany, and pharmacy be instituted at the College.

2. That the extended examination in medicine, as proposed in the Second Report of the Committee, and approved by the Council on Jan. 13th last, do come into force from and after Jan. 1st, 1882.

3. That the four examiners in medicine be chosen from the Fellows of the Royal College of Physicians, and be elected at the quarterly council in July.

4. That the two examiners in midwifery be chosen either from the Fellows of the College or from the Fellows of the Royal College of Physicians, and be elected at the quarterly council in July.

5. That the examiners in medicine and in midwifery be elected by the Council after nomination by a committee.

6. That the examiners in medicine and in midwifery be paid for their services by a capitation fee, and that the amount of such fee be hereafter determined by the Council.

7. That it be referred to this committee to confer with the examiners in medicine and in midwifery, and, after discussion with them, to determine the nature and extent of the examinations in medicine and midwifery respectively.

8. That it be at the same time referred to this committee, after such conference with the examiners, to advise the Council as to the amount of the capitation fee to be paid to the examiners in medicine and in midwifery respectively.

The committee also recommended to the Council the adoption of the following resolution :—

That a committee of seven members of the Council, to be called the "Nomination Committee," be appointed to nominate candidates for the several examinerships of the College, excepting candidates for the Court of Examiners and for the Court of Examiners' section of the Dental Board, subject to such rules and regulations as the Council may hereafter enact.

The committee again reserved to a future report the result of their deliberations with respect to the curricula of professional education of this College as compared with those of other institutions.

THE EXHIBITION OF THE ROYAL ACADEMY OF ARTS.

There is but little to interest us from a medical point of view in the present Exhibition. Amongst the sculpture are busts of the late Drs. Murchison and Leared, the former intended to be placed in St. Thomas's Hospital. There is a fair suggestion of Murchison's massive head, but the likeness, which we suppose is posthumous, is not striking. Mr. Bruce Joy exhibits the statue of Harvey, executed by him for the Harvey Tercentenary Memorial at Folkestone. Amongst the paintings we would especially note Mrs. Butler's (*née* Thompson) "Defence of Rorke's Drift." This is a very powerful work. It contains portraits of Messrs. Chard and Bromhead, and of Surgeon-Major Reynolds, who is conspicuous amongst the defenders. There is some comparatively new work of promise, and we would especially refer to "Peace and War," by John R. Reid; "St. Ann's Almshouses, Antwerp," by W. Logsdail. "A Frightful State of Things," by Gaetano Chievici, full of humour and admirably painted, will, we predict, be one of the most popular pictures in the Exhibition. The feathered inhabitants of a farmyard have penetrated into a cottage where a child has been left alone, and its consternation at the intrusion of the unexpected visitors, all of which are portrayed in a marvellously truthful and humorous way, is exceedingly funny. The Exhibition contains some good examples of Tadema, Leslie, Marks, Prinsep, Stone, Fildes, Hardy, and other favourite painters. A good deal of interest attaches to a portrait of the late Earl of Beaconsfield, by Millais, which is placed on a screen in the large room. It is a striking painting, which represents, we believe, the work of only three sittings. An extraordinary idea of the wide range of subject traversed by this remarkable painter is conveyed by turning from the figure of the lovely young girl in the picture called Cinderella to this portrait. Mr. Propert sends a mezzotint etching, which is an effective rendering, in what is perhaps the form of engraving most nearly allied to colour, of a subject which the artist has already treated with great success in etching, "A Relic of the Past." There are also some clever etchings by Dr. Evershed, whose work is always true and good.

ROYAL COLLEGE OF PHYSICIANS.

A meeting of the Fellows of this College was held on Thursday, the 28th inst., under the presidency of Sir W. Jenner, Bart., K.C.B.

The following gentlemen were admitted to the Membership of the College :—

Bradshaw, James Dixon, M.B. Oxford.
Haynes, Frederick Harry, M.D. London.
McAlister, Donald, M.B. Cambridge.
Meeres, Edward Evan, M.D. London.
Moritz, Siegmund, M.D. Wurzburg.
Nall, Samuel, M.B. Cambridge.
Taylor, Seymour, M.B. Aberdeen.

And the following members nominated by the Council were duly elected to the Fellowship :—

James Lewis Siordet, M.B. London.
John Wale Hicks, M.D. London.
John Baptiste Potter, M.D. Edinburgh.
James Watt Black, M.D. Edinburgh.
Francis de Havilland Hall, M.D. London.
William Ewart, M.B. Cambridge.
David Bridge Lees, M.D. Cambridge.
Francis Charlewood Turner, M.D. Cambridge.
Joseph Ewart, M.D. St. Andrews.

It was decided that the first Bradshaw lecture should be delivered, in accordance with the terms of the bequest, on the 18th of August next, the President being empowered to nominate the lecturer.

MEDICAL NOTES IN PARLIAMENT.

In the House of Commons on Monday a petition for alteration of the Lunacy Laws was presented from Limerick. A petition was presented from Lambeth in favour of a motion of which Mr. Reid has given notice for the prevention of vivisection. The general abstract for 1880 of marriages, births, and deaths in Ireland was laid upon the table. Amongst other returns presented were the Charter of the Royal University of Ireland, and a list of the members of the Senate. The Alkali Works Regulation Bill passed through Committee *pro formâ*. Earl Percy gave notice that he would move to refer the Metropolitan Open Spaces Bill to a Select Committee.

On Wednesday, a Bill for better securing the purity of beer was brought in by Colonel Barne, Mr. Storer, and Mr. Hicks, and fixed for second reading on July 20th. Mr. Hopwood gave notice of a question for May 5th, as to the operation of the Contagious Diseases Acts at Dover, and the attempted suicide of a girl named Elizabeth Burley, through fear of the police officer appointed to carry out these Acts.

Non-Vaccination Penalties.

On Thursday, Mr. P. A. Taylor asked the President of the Local Government Board whether it was true that Mr. John Abel, of Farringdon, has been prosecuted thirty-four times for refusing to have his children vaccinated; and whether he proposed to bring in any measure to limit the amount of punishment inflicted for non-compliance with the Vaccination Acts. Mr. Dodson said he believed the statement was correct, but the Local Government Board were not responsible for these repeated prosecutions. They had in more than one circular advised boards of guardians to act with caution and moderation. As to the last part of the question, looking to the scant encouragement which was given last year to his Bill, limiting the number of prosecutions, he was not prepared to bring in another Bill this year.

Small-pox Hospitals.

Mr. Pell asked the President of the Local Government Board whether the Metropolitan Boards of Guardians and Vestries had replied to the letters addressed to them by the Local Government Board on February 23rd, 1881; and if he could inform the House what extent of provision had been or was being made for hospital treatment and isolation of pauper and non-pauper cases of small-pox in the metropolis. Mr. Dodson said all the boards had replied. Fourteen

Boards of Guardians had undertaken to provide some accommodation for cases belonging to the pauper class, and fourteen district boards and vestries had given similar undertakings with regard to cases belonging to the non-pauper class. He could not say the extent which that accommodation would reach, but looking to the extent of the epidemic he feared it would be inadequate. The beds in the hospitals under the Asylums Board, numbering 968, were at present full.

Colonel Makins gave notice that to-morrow he would ask whether the authorities have cut off and annexed a portion of the public road leading from the Fulham-road to the River Thames, and are erecting upon it a temporary building for the reception of small-pox patients, and whether it is the intention to remove pauper patients to that building within the next twenty-four hours.

Correspondence.

"Audi alteram partem."

THE OLD UNIVERSITIES AND THEIR MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—Your leading article of this day on the medical degrees of the old universities and Dr. Morgan's pamphlet respecting them render it desirable that the case of the old universities in relation to their medical degrees should be clearly stated. You rightly say that a doctorate in medicine "ought to mean something more than a common minimum qualification," and that "nobody who has the reputation of the profession at heart wishes to see graduation made too easy." By this you doubtless mean that a higher standard of education, general, scientific, and professional, should be required for a degree than for a minimum qualification, and that if it were not so the degree would be no more worth having, no more an object of ambition, than the minimum qualification. In short, it will be admitted, I suppose, that medical degrees, like most other things, bear a value somewhat proportionate to the difficulty of obtaining them; and there is little doubt that the difficulty of obtaining the degrees at the old universities, in time past, gave a prestige to medical degrees generally, and so enhanced the value of the degrees which were obtained on easier terms in other places. To maintain the character and high estimation of their degrees is therefore a duty which the old universities owe to the profession, to their graduates, and to themselves. They have done it hitherto, they do it now; and you and others will desire that they should continue to do it by the education required, as well as by the social benefits resulting from a residence in them, and from the free intermingling in them of students preparing for the various higher walks of professional, political, and other life.

Now, bearing in mind the fact that higher education necessitates longer time, and therefore proportionately more expense, and that every father who wishes to give his son the advantage of a university education and a university degree must be prepared to incur somewhat greater expense than if he were content with a minimum qualification, the questions we have to answer are these. Do the old universities offer reasonable facilities for obtaining their degrees by intelligent and industrious men—the men, that is, who ought to have them? Do they in any way discourage such men who seek the medical degrees? or do they hold out a welcoming and assisting hand to them?

At Cambridge, and I speak of this university only, the case is as follows: The student must undergo a test of his general education, which he may do at the "Previous Examination" in his first term of residence, or, which is better, before he comes into residence through the "Local Examinations." The "Higher Local Examinations," or the "Oxford and Cambridge Schools Board Examinations." The real difficulty lies in this matter of general education; and considerable experience, as teacher, examiner, and member of the Medical Council, convinces me that not very much progress will be made in improving medical education till an improvement in the early school teaching of our boys has been effected. To make them more apt and intelligent as medical students they must have better mental training in their school work. The Cambridge student must reside three years in the university; but, if he has had sufficiently good school training to enable him to satisfy the requirements at one of the examinations above-mentioned, he may devote his whole time in the university to the scientific and practical study of medicine, may obtain the B.A. degree through the Natural Sciences Tripos, and have completed his botanical, physical, chemical, anatomical, and physiological studies, as well as have made some progress in clinical study at the hospital, before the expiration of these three years. That is to say, he will have advanced himself in his medical course during the three years at Cambridge as much as he would have done during the same period at any other place, or nearly so. I say or nearly so because the examinations in these subjects here are somewhat more difficult and take a somewhat wider range, and therefore need somewhat longer time for preparation, than do the corresponding examinations for the ordinary qualification. The standard of the examinations ought not to be lower than it is, and the time spent in preparation for them ought not to be less. But the facilities for the study of these subjects are as great and as good in Cambridge as they are elsewhere; and a youth who is ready to come to Cambridge, as evinced by the fact that his general education will meet the requirements I have mentioned, will find that three well spent years in Cambridge will carry him to the point in his professional course which I have denoted. Naturally, if he has not been able to give the required proofs of general education before he comes, or in his first term, his university period will be partly occupied in work which ought to have been done at school, and a longer time will be required before he can pass the medical examinations. The proper proceeding, which I hope ere long will be the general proceeding, is to satisfy the requirements in school education through the "local" or "higher local" or the "Oxford and Cambridge Schools Board" Examinations *before* coming to Cambridge, so as to be able at once, on coming here, to commence medical study and continue it steadily through the whole period of residence.

With regard to expense, £150 a year is a fair average estimate for those who belong to a college, and who have the advantages, supposed or real, of college life, superintendence, and associations. Some spend more, and some, not a few, spend less. The non-collegiate students, who can regulate their mode of life as they please, spend, in many instances, not more, in some less, than £80 or £90 a year. At Cavendish College, which has been instituted for the purpose of enabling students to come to the university at an earlier age than they could otherwise do, and at less cost, which is under excellent management, and which already contains several medical students, the entire sum, including university, lecture, and other fees, is £80 a year. Selwyn College is growing up for a similar purpose, and, by a simple mode of living, expects to limit the whole charge for tuition, room rent, board, and attendance, to about £80 per annum.

I do not take into account the great number of scholarships, exhibitions, and prizes which are scattered among those whose school education is somewhat above the average, and which fail to produce the effect they long ere this ought to have had upon school teaching. These are open to men who intend to pursue medical study as well as to others, and a good many are given for natural science, but I am never anxious to hold them out as a bait, and I never particularly desire to divert them, to any great extent, into being rewards for medical study. The purer and less money-seeking we can keep that study the better, relying upon the genuine interest of the work, and the stimulus afforded by the hope of future success in the profession.

The University looks with no unfriendly eye upon the natural science and medical students, supplies the means of teaching them with liberality, and regards its growing medical school with interest and satisfaction. There are good laboratories, museums, dissecting-rooms, lecture-rooms, &c., a good hospital, and a staff of able earnest teachers. The fees required of the students are small in consequence of the stipends of the teachers being paid, in part, out of the university chest; and the teaching and work are not, as in former times, restricted to the terms, but are continued in the vacations.

It is not to be expected that the medical and surgical degrees, with qualification to practise, can be obtained in less than five years of medical study. Of these, as I have said, the first three may be spent in Cambridge. Some students remain longer; but I think it will be generally agreed that in the case of this and other non-metropolitan schools it is advisable that the latter part of the period should be spent in the wider field of observation which a metropolis affords.

I think I have shown that the university is not unmindful of the wants of the profession and of medical students, and that its medical degrees are obtainable as easily, with as little expense and in as short a period of time, as ought to be the case with the medical degrees of a university, certainly of a university which holds the high rank of one of the old universities of England. I may add that the profession shows its consciousness of this by the annually increasing number of those who come into residence with the view of pursuing their medical studies, and obtaining the medical degrees. I am, Sir, yours, &c.,

Cambridge, April 9th, 1881. G. M. HUMPHRY.

To the Editor of THE LANCET.

SIR,—In order to remove any misconception of the position of the Durham University in regard to medical graduation may I be permitted to direct your attention to the steps lately taken by the Senate to remove the restrictions by which candidates for its medical degrees have until recently been hampered.

Firstly, as regards preliminary education. Instead of graduating in arts, or passing an arts examination equivalent to that for graduation, candidates are now required to pass in four arts subjects only in addition to the ordinary registration examination. Of these subjects two are compulsory — viz., Greek (Xenophon, Book ii.) and Euclid, Books iii. and iv.; the other two being selected at the option of the candidate from the following list — viz., Latin (Cicero, "De Amicitiâ"); French (Sainte Beuve's "M. Daru"); German (Freytag's "Der Staat Friedrich's der Grossen"); mechanics, with hydrostatics and pneumatics; and English History before the Norman Conquest. From this examination candidates are excepted who have graduated at, or passed the extra-professional examination of, a recognised university, or have passed the preliminary examination qualifying for the Membership of the College of Physicians of London.

Secondly, as regards professional education. Candidates must fulfil a curriculum very similar to that required by the College of Physicians of London; but of the time spent in study one winter and one summer session must be passed at the University College of Medicine, Newcastle-upon-Tyne. Two professional examinations must also be passed—one the First M.B., including anatomy, physiology, chemistry, and botany; the other the Second M.B., including medicine, surgery, midwifery, and allied subjects. Candidates may pass the First M.B. examination before they commence their attendance at Newcastle, and before they pass the extra arts examination. As the regulations stand at present, therefore, there is nothing to debar any student from graduating at Durham, even should he not determine so to do, until late in his course of study. As a matter of fact, the reforms indicated were introduced three or four years ago; the numbers of those graduating have doubled year by year. During the present session there will have been between fifty and sixty candidates, many of them already qualified as practitioners, examined at the First M.B. examination. It is probable, then, that the great field for practice here alluded to in your article of April 9th will soon be fully utilised, and that it will no longer be thought that Durham has failed in its duty to the profession.

I trust you will be able to find room for this explanation, though somewhat lengthy, since, I fear, some misconception might arise as to the present position of the University from a perusal of the article in question.

I am, Sir, yours faithfully,
LUKE ARMSTRONG, M.D.,
Registrar of the University of Durham
April 12th, 1881. College of Medicine.

IRELAND.

(*From our own Correspondent.*)

A GRAND fancy dress ball was held in Cork last week in aid of the funds of the North and South Charitable Infirmaries, and proved a brilliant success. Nearly 400 attended, and great credit must be given to the Ball Committee, whose arrangements were carried out in a most satisfactory manner.

The usual annual election of examiners for the Royal College of Surgeons in Ireland will take place on Tuesday next, May 3rd, when the Council will proceed, according to the provisions of the Supplemental Charter, to elect from among the Fellows eight examiners to examine candidates for fellowship and letters testimonial; three examiners for the diploma in midwifery, and a similar number to examine students as to their proficiency in general education.

The President of the Royal College of Surgeons in Ireland, in recently conferring the Honorary Fellowship of the College on Professor Helmholtz of Berlin, stated that the distinction had been accorded to foreigners on five occasions only, and that the only ground upon which it was conferred was eminent service in the science of surgery, or in any of the branches of knowledge auxiliary thereto. Professor Helmholtz, the President added, had, by his invention of the ophthalmoscope, wonderfully increased the knowledge not alone of diseases peculiar to the eye, though there its utility was most marked, but in the recognition and differential diagnosis of many other diseases, especially those implicating the nervous system. The College most cordially and respectfully tendered to him this tribute of their admiration, and begged his acceptance of the honour he so well deserved, the only regret being that it was not more proportionate to the magnitude of his services to science, and his life-long devotion to its successful cultivation.

At a special meeting of the Guardians of Newry Union, held last Saturday, the salary of Dr. Mills, Medical Officer of Donaghmore Dispensary District, was, at the recommendation of the Dispensary Committee, increased to £120 per annum, the same amount as the other medical officers of the union receive.

At Rathmines, near Dublin, a gentleman named O'Hare died recently at the alleged age of 103 years and three months.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 21st inst.:—

Bontein, Courthope Sims, Victoria-park.
Burroughs, Leopold, Lee, Kent.
Collings, Charles d'Auvergne, Guernsey.
Copner, Arthur Lewis, Bedford.
King, Ernest Edward, L.S.A., Saffron Walden.
Kinneir, F. W. Edward, L.S.A., Sherborne, Dorset.
Knaggs, Henry Valentine, L.S.A., Camden-road.
M'Lennan, Warwick Guy, Devonport.
Morgan, William Pierce, L.S.A., Dowlais.
Pedley, Frederick Newland, Camden-road.
Robinson, Wilford Vidal, Sydney-place, S.W.
Rooke, Charles, Melbourne, Australia.
Sellers, W. H. Irvin, M.B. Edin., Preston.
Trevor, Henry Octavius, L.S.A., Nether Stowey.
Van Buren, E. C. Haward, Leavesden, Herts.
Warner, Percy, Fareham, Hants.
White, Edwin Francis, L.S.A., Putney.
Yeatman, John Walter, Kilburn.

Of the 77 candidates examined on the 19th, 20th, and 21st inst., 51 passed to the satisfaction of the Court and obtained their diplomas; 5 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 21, having failed to reach the required standard, were referred for six months' further professional study. Seven candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical qualification recognised by the College, were also admitted Members.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

Ernest F. Neve, F. Ashwell, Francis W. C. Haultain, J. W. Whyte, William A. Giles, Alfred J. Neale, Herbert Fitton, Charles H. Bourne, William C. Woods, Herbert J. Gilbert, Harold F. Watkins, John B. Nash, Alfred P. Hillier, Arthur C. Keep, Thomas A. Fraser, William Hunter, Rivis Mead, Alexander Stables, A. S. Bowman, and Thomas R. Bailey, Edinburgh; Elliott W. Welchman, Edward D. Vinrace, Charles Arblaster, and Arthur W. Scott, Birmingham; Alfred B. Taplin, Alfred B. Bake, Bernard Blower, Joseph Walker, Frederick C. Larkin, and Thomas D. C. Barry, Liverpool; Thomas J. Walker, William E. Bennett, George T. Woods, and Edward J. Byrd, Leeds; Louis Verrey, Leipzig; Walter F. Chappell, Toronto; Oliver Sunderland, Albert E. Tunstall, and John W. White, Glasgow; Frederick Maude, Aberdeen; William A. Jones, William J. T. Barker, and Harding H. Tomkins, Bristol; Alfred W. Hunton, Owens College, Manchester; George F. Gutheridge, St. Mary's Hospital and Edinburgh; Thomas P. Beddoes, Cambridge; Harold G. Hathaway, St. Bartholomew's Hospital; Arthur H. W. Clemow, Liverpool and Edinburgh; Vernon J. Greenhough, Cambridge and Edinburgh; Ernest C. Arnold and Maurice J. Doidge, Cambridge and St. Mary's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 21st:—

Griffiths, Ernest Edward, Heber Villa, Kingston-hill.
Heron, Alexander Woodburn, Lorne House, Westcroft-road, N.W.
Robinson, Alfred, West Cross, Swansea.
Roe, Robert Bradley, Melbury Osmond, Dorset.
Thomas, George Trevor Harley, Gloucester-street, Warwick-square.
Williams, John Frederick, Cosham, Hants.

The following gentleman also on the same day passed the Primary Professional Examination:—

Teevan, Henry, Middlesex Hospital.

At the Preliminary Examination in Arts held at the Hall on April 22nd and 23rd, 149 candidates presented themselves, of whom 97 were rejected, and the following 52 passed and received certificates of proficiency in General Education:—

George F. Aldous, George R. Anderson, Frederic Barker, Mark A. Barr, Edwin A. Barton, William H. Booth, W. H. C. Candler, H. H. Corbett, A. T. Croucher, Albert W. Daggs, P. J. Denysson, G. F. W. Ewens, C. E. S. Fleming, William Hall, C. R. Harper, Edward J. Hawkes, A. W. Hayles, Edward Howard, D. L. Hubbard, James A. Hutton, L. P. Jackson, Alfred F. J. W. Jones, James Jones, Lión V. O. de Lassasic, K. W. J. Mackenzie, James F. Magill, S. Mellor, Colin D. Morris, Theodore Murphy, William Murphy, C. E. Oldacres, W. J. Olivey, Arthur J. Owen, N. A. Partridge, H. H. St. J. Pickstock, J. B. B. Protheroe, S. W. Read, Joseph A. Rogers, W. R. Scoging, Edmund Symons Smith, Henry Sandford Smith, H. A. Spencer, P. C. H. Strickland, Horace L. Swete, C. Terry, Lucy Alice Vick, L. Whitehead, Alexander Whyte, Lionel H. Williams, T. Gill Williams, Arthur E. Wilson, Richard Trood.

UNIVERSITY OF ST. ANDREWS. — The following gentlemen, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on the 21st inst.:—

Call, Thomas James, M.R.C.P. Edin., L.F.P.S. Glasg., L.S.A. Lond., Ilkley, Yorks.
Chaple, Charles, L.S.A. Lond., London.
Finucane, Thomas Dawson, L.F.P.S. Glasg., L.A.H. Dub., L.M., Black Rock, Dublin.
Lycett, John Allan, M.R.C.S. Eng., L.S.A. Lond., L.R.C.P. Lond., L.M., Wolverhampton.
Mackay, John Sutherland, M.A. Edin., M.B. & C.M. St. And., Huelva, Spain. (In absentiâ.)
Murray, William Fettes, F. & L.R.C.S. Edin., Forfar.
Oxley, Martin Gay Black, M.R.C.S. Eng., L. & M.K.Q.C.P. Irel., Liverpool.
Spooner, Edward Monro, M.R.C.S. Eng., L.S.A. Lond., Blandford.
Tibbits, Herbert, M. & F.R.C.P. Edin., L.R.C.P. Lond., M.R.C.S. Eng., London.
Tily, James, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., L.M., Richmond.
Trend, Theophilus W., M.R.C.P. Edin., M.R.C.S. Eng., L.K.Q.C.P.I., Southampton.

At the same time the following gentlemen had the degree of Bachelor of Medicine and Master in Surgery conferred upon them after examination:—

Hanson, John Edward, L.R.C.S. Edin., London.
Lowe, George, L.R.C.P. Edin., Darlington.
M'Munn, John Alexander, L.R.C.S. Edin., Belfast.

The following passed the 1st M.B. Examination:—

Bowie, Alexander, Edinburgh.
Redpath, Robert Knox Wighton, Edinburgh.

UNIVERSITY OF EDINBURGH. — The following degrees have been recently conferred:—

M.B. & M.C.—Robert Scott Skirving, Scotland.
M.B.—Robert Wilkie Smith, Scotland.
B.S. IN PUBLIC HEALTH.—Robert C. Smith, M.D., Ardwick; James Anderson, M.B., Ulverston.

The following candidates have passed the Second Professional examination for Medical Degrees:—

F. Ashwell, T. R. Bailey, G. J. H. Bell, J. S. Bolton, J. R. H. Bond, C. H. Bourne, John Bowie, A. S. Bowman, William Brydon, W. A. Buchan, George Burn Murdoch, P. B. Bury, W. H. Calvert, S. G. Campbell (with distinction), A. K. Christie (with distinction), Philip Cockburn, P. B. Cousland, John Craig, William Davidson, D. R. Davies, A. S. Delépine (with distinction), C. V. Delépine (with distinction), R. G. Dempster, William Dutton, A. B. Dymock, H. J. Fletcher, J. M. Ferguson, B. E. Fordyce, T. A. Fraser (with distinction), G. W. Galletly, Lawson Gifford, F. W. Grierson, C. B. Gunn, G. F. Gutheridge, M. W. Gutteridge, W. W. Hall, H. C. Hallows, F. H. Hawkins, T. K. Hill, A. P. Hillier, Richard Humphreys, William Hunter (with distinction), Granville Jameson, A. C. Keep, Arthur King, P. B. Le Franc, R. T. Lorraine, W. B. M'Donald (with distinction), A. F. Mackenzie, W. G. Macpherson, Robert Mackinlay (with distinction), E. O. Macniven, F. P. Marais, Rivis Mead, A. J. K. M. Mill, J. B. Nash, A. M. Neethling, G. R. Nelson, E. F. Neve, Diarmid Noel-Paton (with distinction), E. S. Palmer, R. W. Philip, G. C. Purvis (with distinction), Herbt. Rendall, G. J. Renwick, R. H. Rozenzweig, T. L. Shearer, G. F. Shiels, David Smart (with distinction), G. A. van Someren, A. E. C. Spence, William Spence, Alexander Stables, Joseph Stapleton, J. N. Stark, Charles Stein, R. T. Sutherland, J. R. Suzor, William Taylor, A. H. Thomas, W. F. Thompson, P. E. Todd, David Treharne, J. A. Turner, W. O. Walker, H. F. Watkins (with distinction), John Whitaker, J. M. Whyte, Ernest Wilcox, H. M. Wilson, Thomas Wood, William Younan.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

CLARK, H. E., L.R.C.S.Ed., L.F.P.S.G., M.R.C.S.E., has been appointed Surgeon to the Glasgow Royal Infirmary, vice Dr. H. C. Cameron, resigned.

DANIELL, R. T., M.B., F.R.C.S.I., has been appointed Surgeon to the T Division of Police, vice A. Godrich, resigned.

EVANS, E., M.B., C.M., has been appointed Public Analyst for the County of Anglesey, vice Owen, resigned.

EWBANK, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Senior House-Surgeon to the General Hospital, Cheltenham, vice Carden, resigned.

GROGONO, W. A., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Divisional Surgeon to the West Ham Subdivision of K Division of the Metropolitan Police, vice Levick, deceased.

HILL, W., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Obstetric Surgeon to the St. John's House Maternity Home, Chelsea.

HODSDON, J. W. B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Physician in the Royal Infirmary for Sick Children, Edinburgh, vice Fligg, resigned.

HORSFALL, J. S., L.K.Q.C.P.I., M.R.C.S.E., has been reappointed Medical Officer and Public Vaccinator for the Sowerby Bridge District of the Halifax Union.

JACOB, E. H., M.A., M.D., has been appointed Demonstrator of Physiology to the Leeds School of Medicine.

LLOYD, J. J., L.R.C.P., L.M., L.S.A.L., has been appointed House-Surgeon to the Denbighshire General Infirmary, vice W. F. Jones, M.R.C.S., L.R.C.P., L.M., L.A.H., resigned.

MAHOMED, G., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Bournemouth Dispensary.

MILLER, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Witham District of the Braintree Union.

RYGATE, B. R., M.B., M.R.C.S.E., L.S.A.L., has been appointed District (St. George's-in-the-East) Surgeon to the Royal Maternity Charity.

SHERWOOD, A. P., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Eastbourne and Seaside District of the Eastbourne Union.

SUTTON, Mr. F., has been reappointed Public Analyst for the Borough of Thetford.

WHIPP, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Burton District of the Kendal Union.

YOUNG, W. MUSSEN, M.D., has been appointed Assistant Medical Officer to the Suffolk County Asylum, vice Davie Harris, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BAINES.—On the 19th inst., at Birkdale, Southport, Lancashire, the wife of A. H. Baines, L.R.C.P.L., M.R.C.S.E., of a daughter.

BROOKES.—On the 11th inst., at Kennington-road, the wife of Frederick William Brookes, M.R.C.S.E., of a daughter.

BURNEY.—On the 21st inst., at Greenwich Infirmary, the wife of Walter Charles Skardon Burney, M.D., of a son.

MARRIAGES.

ADDY—KNOWLES.—On the 23rd inst., at St. Augustine's, Pendlebury, by the Rev. Dr. Dewes, assisted by the Rev. Dr. Browne, Boughton Addy, M.D. Lond., M.R.C.S.E., of Eccles Old Road, Pendleton, to Jane Agnes, eldest daughter of Andrew Knowles, of High Bank, Pendlebury, Manchester.

HOWSE—MARSHALL.—On the 27th inst., at Effra-road Chapel, Brixton, by the Rev. E. S. Howse, B.A., of Altrincham, Henry Greenway Howse, M.S., of 10, St. Thomas's-street, S.E., to Alice Elinor, youngest daughter of the Rev. T. S. Marshall, of 6, Church-road, Brixton-rise, S.W.

PEARCE—GOOLD.—On the 20th inst., at the Convent Church, Upper Norwood, Henry Pearce, of Hurstpierpoint, to Margaret Matilda (Queenie), daughter of the late Frances Goold, Surgeon in H.M. Bombay Army, and stepdaughter of the late J. R. Roe, M.D., of Bridgenorth. No cards.

ROBINSON — FAWCETT.—On the 21st inst., at St. Nicholas Church, Newcastle-on-Tyne, by the Rev. Canon Martin, M.A., assisted by the Rev. J. A. Sharrock, M.A., Arthur H. Robinson, M.D., of Hull, to Isabel Kate, eldest daughter of J. Fawcett, Esq., of Newcastle.

WALSH—CARTER.—On the 26th inst., at the Roman Catholic Church, Blackley, near Manchester, J. G. Walsh, M.D., of Ormskirk, to Annie, eldest daughter of the late William Carter, Esq., of Crumpsall, Manchester.

WANOSTROCHT—BROWN.—On the 26th inst., at 19, Lutton-place, Edinburgh, by the Rev. J. McLaren (uncle of the bride), Vincent Wanostrocht, M.B., of Escrick, York, to Margaret Lawrie, eldest daughter of Alexander Brown, Esq.

DEATHS.

LYSTER. — On the 20th inst., at his residence, 72, Devonshire-road, Prince's-park, Liverpool, C. E. Lyster, M.D., F.R.C.S.I., aged 46.

STOKES. — On the 15th inst., at Mullingar, Gabriel Stokes, M.D., aged 74.

WILLIS. — On the 17th inst., at Waverley-terrace, Bray, Thomas Willis, sen., L.A.H.D., aged 91.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 28th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 22	29·77	N.W.	43	38	67	52	34	..	Bright
„ 23	30·14	N.E.	43	39	83	57	37	..	Cloudy
„ 24	30·02	N.W.	50	49	91	59	40	·08	Cloudy
„ 25	29 91	W.	55	52	76	61	45	..	Overcast
„ 26	29·98	W.	47	44	91	57	41	..	Overcast
„ 27	30·18	N.W.	48	44	72	58	40	·01	Overcast
„ 28	30·26	E.	50	46	77	59	42	..	Fine

Medical Diary for the ensuing Week.

Monday, May 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL INSTITUTION.—2 P.M. Annual Meeting.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Conversazione and Annual Oration, by Arthur E. Durham.

Tuesday, May 3.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following specimens will be shown:—Specimen illustrating Molluscum Contagiosum; Two Cases of Liver-abscess following Dysentery; Dysentery with Abscess of Liver; External Hydrocephalus; Specimens of Calculi, &c.; Fractured Cervical Spine; Probable Fracture of Spine; Extra-renal Sarcomatous Growth; Two Cases of Intestinal Obstruction; Sarcoma of Kidney; Heart with Calcareous Plates; Heart with Stenosis of Tricuspid Valve; Atresia of Aortic Aperture in an Infant (card); and other Card Specimens.

Wednesday, May 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be exhibited. The President, "On a Case of Phlegmasia Dolens with Lymphatic Varix."—Dr. Galabin, "On a Case of Extra-uterine associated with Intra-uterine Fœtation, in which Abdominal Section was performed."—Mr. George Rigden, "On Statistics of Midwifery in Private Practice."

EPIDEMIOLOGICAL SOCIETY.—8 P.M. Mr. John Spear, "On the Woolsorters' Disease, or Anthrax Fever."

Thursday, May 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

HARVEIAN SOCIETY.—8½ P.M. Dr. John Williams, "On a Case of Ovariotomy during Labour."—Mr. James R. Lane, "On Experiences of Antiseptic Surgery."

Friday, May 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M

ROYAL INSTITUTION.—8 P.M. Hon. Geo. Brodrick, "On the Land Systems of England and of Ireland."

Saturday, May 7.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Scotland's Part in English Literature."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

AT the primary examination in Anatomy and Physiology, on the 22nd instant, there were 185 candidates, to whom the following questions were submitted:—Anatomy, from 1 to 3 o'clock, when they were required to answer four and not more out of the six questions on both subjects.

1. Describe the upper third of the femur.
2. Describe the tempore-maxillary articulation, and the movements of which the lower jaw is capable. Mention the muscles by which these movements are respectively effected.
3. Give the dissection necessary to expose fully the adductor pollicis in the palm of the hand.
4. What structures are in relation with the several portions of the duodenum?
5. Describe the course and relations of each phrenic nerve.
6. Describe the azygos veins. Give the course, relations, and tributaries of each.

The following were the questions on Physiology, from 4 to 6 o'clock:—

1. State the changes which take place in the various food-stuffs while in the mouth and stomach.
2. Describe the minute structure of the iris. What are its functions? Describe its innervation, and give the central connexions of the nerves supplying it.
3. Describe the structure of the smallest arteries and the capillaries, and the movement of the blood through them.
4. How is the act of vomiting accomplished? By what nerve-mechanisms is it regulated?
5. State and explain the phenomena observed after unilateral section of the spinal cord—e.g., in the dorsal region.
6. What are the changes which take place in the blood while passing through the capillaries of the lungs and those of muscle?

J. B.—We think the physician was in fault in expressing an opinion he knew to be contrary to that of the ordinary adviser without first seeking a consultation.

Mr. J. Poole.—We cannot recommend any work. In any case a medical practitioner should be consulted.

CASE OF SPINA BIFIDA.

To the Editor of THE LANCET.

SIR,—On the 17th December, 1880, I delivered Mrs. Y—— with Barnes's long forceps of a female child. The infant has a spina bifida of the lower dorsal and lumbar vertebræ. The tumour measures four inches by three, and is as large as a moderate-sized orange, and covered with skin partly and thin transparent membrane. The child is also afflicted with hydrocephalus and talipes varus of the right foot, and talipes valgus of the left foot. A shield of gutta-percha has been fitted to the spina bifida to prevent injury.

I am, Sir, yours faithfully,

Braintree, Essex, April 12th, 1881. C. E. ABBOTT, M.R.C.S.

"TALIPES AFTER ACUTE RHEUMATISM.—WHAT TO DO?"

To the Editor of THE LANCET.

SIR,—In reply to "E. G. W.," I would advise that tenotomy be performed, and the limb afterwards put into a proper apparatus. It might be necessary to have recourse again to division of the tendo Achillis. Operation is justifiable, as likely to improve the limb.

I am, Sir, yours, &c.,

SPENCER T. SMYTH, M.D., &c.,
Consulting Surgeon to the Infirmary for Sick Children,
April 25th, 1881. Sydenham-park, S.E.

DEATH FROM CARBOLIC ACID POISONING AFTER INJECTION OF SOLUTION INTO ABSCESS.

DR. E. H. BRADFORD relates, in the *Boston Medical and Surgical Journal*, a case in which death followed the hyperdistension of an abscess with a solution of carbolic acid (1 to 40). The patient was a boy aged five years afflicted with hip disease. A cold abscess had formed on the thigh, pointing on the outer side, which was incised under anæsthesia, and injected with the solution, which was allowed, and by squeezing assisted, to flow out. A drainage-tube was inserted and layers of antiseptic gauze were applied. The next night the patient was seized with vomiting, which persisted. A fresh gauze dressing was employed, but the abscess was not syringed out. Death took place two days later, with symptoms of collapse. At the autopsy diffused hæmorrhage was found in the left lung. The heart contained dark clotted blood. The myocardium was paler than normal, its muscular fibres finely granular. The kidneys were enlarged, firm, and pale; on section the cortex was found increased in volume and of a yellowish-grey colour. The microscope showed general fatty degeneration of the convoluted and straight tubes. The liver was enlarged, firm, and anæmic.

A FRESH START.

MR. COMMISSIONER KERR last week, on taking the chair to which he had been elected by the new Board of Guardians of St. Pancras, gave expression to his views on some important points in parochial administration. The learned gentleman urged an improved system of out-door relief, and offered a suggestion which, in the interests of the class on the borderland of pauperism, we should be glad to see carried out generally by guardians of the poor—namely, that in suitable cases loans might be advanced in place of the distribution of doles, which were soon exhausted, leaving the recipients as badly off as before. He was likewise in favour of the boarding-out of pauper children—a plan the benefit of which has been demonstrated beyond all cavil. Finally he spoke of the need of more careful scrutiny into the circumstances of the inmates of the workhouse and their fitness as objects of indoor relief. The doings of the St. Pancras Board in the past have ofttimes been open to criticism; let us hope that under the able leadership of its present chairman its future career may be characterised by fewer mistakes.

Dr. John Cavafy.—The communication has not been received.

CASES OF SUDDEN OBSTRUCTION OF THE ŒSOPHAGUS.

To the Editor of THE LANCET.

SIR,—I find that I omitted to put in the date of my first seeing Mrs. ——, Case 1, in my paper of the 16th inst. It was on February the 28th, 1880, and therefore the piece of meat, which Mr. Butlin suggests might have been the cause of the obstruction, would have blocked up the œsophagus for nearly three weeks, a long time surely for meat or even gristle.—Apologising for my omission, I am, Sir, yours faithfully,

W. PUGIN THORNTON.

Devonshire-street, Portland-place, W.,
April 25th, 1881.

CASE OF OBSTRUCTION IN THE BOWELS.

To the Editor of THE LANCET.

SIR,—I beg to forward particulars of the following case, if you think it of sufficient interest for insertion:—

On Monday evening, the 7th of March, a female child, two years old, was brought to me with the following history. On the Sunday previous she had passed a natural motion in the morning and appeared well till the evening, when she seemed restless and in pain, and was screaming at intervals all the night and the next day. She had been frequently sick and was constantly straining and passing a little blood from the rectum. There was a perceptible tender swelling in the left flank, dull on percussion. I ordered hot opiate applications to the abdomen and small doses of opium and belladonna every hour. The next morning there was no alteration, and in the evening she seemed worse, so I passed my finger into the rectum, which I found much dilated and containing a soft substance, around which I could sweep the finger, and having at the lower end an opening like a small os uteri (evidently an invagination of the lower colon into the rectum). I tried reduction by injecting water, placing the child on its face and raising the nates, but the water was forcibly returned, and on removing the tube a portion of the colon protruded through the anus. I returned this, and with the finger pushed up the colon as high as I could reach (about the upper edge of the iliac bone), but on removing my finger the colon again descended; so, after again pushing it up, I introduced a large gum-elastic catheter, and, guiding it along the finger in the rectum, passed it some inches above into the colon (as much as appeared to be necessary), and was gratified to find that the reduction was accomplished.

The little patient had no more sickness and slept well all night. She continued her medicine at longer intervals until the following Friday morning, when she passed (in her sleep) a large-sized motion, since which time she has gone on comfortably with one or two motions daily, and is playing about as usual.—I am, Sir, yours &c.,

Kingston-on-Thames, March 23rd, 1881. E. M. SHIRTLIFF.

Nitrous Oxide.—Nitrous oxide, prepared by heating ammonium nitrate, must be purified from nitric oxide by passing through sulphate of iron, and from chlorine by passing through potash, before it can be inhaled with safety.

A Physician (Kensington).—We believe satisfactory arrangements for horse-foraging can be made with Messrs. Hall, of Park-lane, W.

FEMALE INEBRIATES.

To the Editor of THE LANCET.

SIR,—No cases are so difficult to deal with as those of married women who are habitual tipplers; homes are made wretched, husbands get neither peace at their meals nor rest in their beds, are unfitted for their daily work, and can find no "modus vivendi" with such partners—no remedy and no escape! These women are sometimes maniacal and dangerous, but lunatic asylums will not receive them; addicted to pilfering and pawning their husbands' property, but not admissible into prisons; on the verge of brain-softening, paralysis, or liver disease, but ineligible for hospitals. There is an indefiniteness about these cases; they are on the borderland, but not within the territory, of the insane, the criminal, and the diseased. Time and the slow but sure operation of natural laws bring them, sooner or later, within it, and then we can deal with them; but it is quite wonderful how long they will go on before some definite form of disease or crime solves the problem, "What is to be done with them?" and they sometimes wear out and destroy the lives of their husbands and those about them before they themselves become inmates of hospitals, prisons, or asylums. And yet I have known many such women who were, otherwise, good and amiable, who only required separation from certain people and surroundings, removal to a distance, proper associates, a salutary environment, and judicious supervision to make them ornaments and comforts in their homes, and blessings, instead of curses, to their husbands. But how is all this to be accomplished? True, there are "homes" for such women, but they are much too expensive for most men, and the wife must consent to go into them, and this consent is not easily obtained. Then, again, a man's duties may fix him in one spot, and he may thus be unable to change his wife's associates and surroundings, and he may be too poor to give her the benefit of travelling, proper attendants, and so forth; so that in a vast proportion of cases he has no remedy for and no escape from a life that is scarcely endurable. He must bear his heavy trial with patience, and wait for those catastrophes which, sooner or later, result from a persistent violation of moral and physiological laws. I have written this letter in the hope that some of your readers may be able to supply valuable hints and suggestions as to the management of a most painful and difficult class of cases.—I am, Sir, yours truly,

DANIEL HOOPER, M.B. & B.A. Lond.

Trinity-square, S.E., April 27th, 1881.

COLOUR-BLINDNESS.

To the Editor of THE LANCET.

SIR,—At the recent meeting of the Ophthalmological Society, Mr. Carter inquired as to the possibility of colour-blindness being overlooked unless the eyes were separately examined. It may be interesting to mention, therefore, that in an article on colour-blindness in Denmark, by Fontenay (published in the current number of Knapp's *Archives of Ophthalmology*), the author states that each eye was tested in 217 cases, and the two were always found alike. On the other hand, a case, coming under my observation at the Sheffield General Infirmary last summer, appears to indicate the importance in faulty colour-perception resulting from head injury, at all events, of testing the two eyes separately. The patient was a young man aged twenty-one, and about twenty months previously had fallen from one of the large Liverpool docks and sustained a series of injuries, consisting of fracture of the frontal bone, of the inferior maxilla, of the right femur, and of the left wrist. He was stated also to have suffered from concussion of the brain, and quite recently had been the subject of "fits." At the time of his coming to me there was a large depression on the left side of the forehead. He complained of his sight having become worse since the accident, but I regret I find no note respecting its exact condition. Ophthalmoscopically there appeared nothing abnormal. He was hypermetropic, and later I find it stated that R.E. + 1·8th = 20·50, and L.E. + 1·8th = 20·70. But the points I wish to refer to especially have regard to his colour defects. When about to test him, he told me he was not so accurate with colours as he used to be before his accident. But he arranged the wools in Holmgren's test correctly, though he was slow in doing so, and hesitated somewhat. On testing each eye separately, however, he behaved differently. With the right eye he picked out the wools, and arranged them as a red blind would do, whilst with the left he placed the wools, though not so distinctly, as a green blind; he thus seemed red blind with the right, and incompletely green blind with the left. Again, placing the wools before him, with both eyes open, he sorted them once more correctly. It would thus appear that while using both eyes the faulty sense in either eye was counterbalanced by that which happened to be good in the other. The repetition of the tests led to similar results.

I may add that Fontenay, in the paper before referred to, mentions that Niemetscheck has reported four congenital monocular cases, but states that he himself regards them as very doubtful.

I am, Sir, yours faithfully,

Sheffield, April 26th, 1881. SIMEON SNELL.

APOMORPHIA.

At a recent meeting of the Boston (U.S.A.) Society for Medical Improvement, Dr. Fifield reported a case in which a man having swallowed a pint and a half of kerosene, one-third of a grain of apomorphia, given as an emetic, afforded complete relief in a very few minutes.

Mr. Thos. Malpass.—We cannot depart from our rule.

T. F. J.—Certainly.

Student, 81.—Huxley's "Vertebrata and Invertebrata," Gegenbaur's "Comparative Anatomy and Zoology," Nicholson's "Zoology."

A. M. K.—The papers are not published.

"CHRYSOPHANIC ACID IN PSORIASIS."

To the Editor of The Lancet.

Sir,—I am gratified by the repeated testimonies in your columns as to the excellent effect of chrysophanic acid in psoriasis. When I first introduced the drug as a remedy for psoriasis, now several years ago, professional opinion was by no means so unanimous in its favour as it has since become.

Dr. Lee's arguments in favour of the "constitutional" action of chrysophanic acid are excellent, but as I think by no means conclusive. That psoriasis will disappear from parts to which there has been no "direct" application of chrysophanic acid is true, provided always that these parts are fairly near to where the acid has been applied. But this results from the friction of the underclothing, which is capable of causing ointment to travel a considerable distance beyond where it has been applied, and partly perhaps from a certain degree of volatility of the acid, although it is not very volatile. Wherever the acid thus travels it will, if present in sufficient force, always produce the characteristic lurid-hued "chrysophanic erythema." Now, wherever this erythema is met with it is an evidence of the direct—that is to say, the local—action of chrysophanic acid on the skin, but certainly not of any constitutional effect. Chrysophanic acid administered internally to healthy persons does not produce an erythema of the skin.

As to the "congestion of the conjunctiva, no matter where the ointment may have been applied," that is certainly not a constitutional effect. It results from the accidental conveyance of a small quantity of the ointment to the patient's eyes by means of his fingers. I have used chrysophanic acid ointment very largely for several years, but ever since I directed my patients to cleanse very carefully their fingers after applying the ointment to their eruption, I have never had a case where the least "congestion of the conjunctiva" has occurred. The patient first wipes his hands with a rag moistened in benzine, which dissolves off not only the lard, but the chrysophanic acid itself, and after that he washes his hands in soap and water. I began to adopt this precaution shortly after I first discovered the effect of chrysophanic acid in psoriasis.

However, would it not be better that those who think that chrysophanic acid administered internally will cure psoriasis should try the experiment and see whether it will turn out as they suppose? Before doing so, however, Dr. Ashburton Thompson's paper, in the *British Medical Journal* of May 19th, 1877, should be consulted. He relates his experience of 319 observations, and finds that a scruple is a moderate dose for an adult, and that the drug acts as an emetic purge.

The question as to whether chrysophanic acid becomes more altered in the intestines than on the skin may probably be answered in the affirmative. In the form of ointment (if the ointment be made according to my original directions) the acid is in a state of solution in fat; but in the intestine, while a certain portion of the dose of acid would undergo solution in the fatty portions of the patient's food, another small portion would become converted into the soluble chrysophanate of soda.

I am, Sir, obediently yours,

London, April 16th, 1881. Balmanno Squire.

Dr. J. C. Reid (Newbiggin-by-Sea).—We are unable to answer the question put to us, and would suggest that our correspondent write to the author of the paper which appeared in The Lancet of the 23rd April or to the health officer for Aberdeen.

Erratum.—In our notice of "Beri-beri" in The Lancet of the 16th inst., the name of the principal civil medical officer of the Straits Settlements was inadvertently spelt Russell instead of *Rowell*.

Communications, Letters, &c., have been received from—Mr. Eccles, Glengarrif; Mr. Green, Portsmouth; Mr. Jeffreys, Chesterfield; Mr. M'Donogh, Clapham; Mr. Highet, Troon; Mr. G. P. Field, London; Mr. Watson, Bolton; Mr. Gilbert, London; Mr. W. J. C. Miller, London; Dr. Reid, Newbiggin; Mr. W. A. Frost, London; Mr. Startin, London; Mr. Collins, London; Dr. Macleod, Garlands; Mr. T. P. Wright, Bingham; Mr. R. H. Cowan, London; Dr. Sumpter, Cley-next-Sea; Mr. W. K. Rix, Bradford; Dr. Macphail, Liverpool; Dr. Smith, Ardwick; Mr. Galbraith, Edinburgh; Mr. B. Roth, Brighton; Mr. Vassie, London; Mr. Gyles, London; Dr. B. Lee, Philadelphia; Dr. Bateman, London; Mr. Thomas; Dr. Prickett, London; Dr. Lowe, Lincoln; Dr. Wallace, Greenock; Dr. Tyndale Watson, Tottenham; Mr. Shirley Deakin; Dr. Adam, Dumfries; Mr. Griffin, London; Mr. Rivington, London; Mr. Shirley Murphy, London; Dr. Latham, Cambridge; Dr. Hooper, London; Mr. Snell, Sheffield; Mr. Dolan, Halifax; Mr. C. H. Green; Dr. Stanley Eale, Manchester; Mr. Hitchin, Weston-super-Mare; Mr. Laffan, Cashel; Dr. Hughes, Brighton; Dr. Thursfield, Bridgnorth; Mr. A. T. Brett, Watford; Mr. Blackett, London; Dr. Bantock, London; Mr. Poole, Sellafield; Mr. Roberts, Buckhurst-hill; Mr. Johnson, St. Leonards; Dr. Corfield, London; Mr. Saunders; Dr. Robinson, Newcastle; Mr. Horsfall, Leeds; Mr. Holden, Liverpool; Mr. Symons, Dumfries; Messrs. Wyley and Co., Coventry; Mr. Robertson, Liverpool; Messrs. Kidd, North Shields; Mr. Johnson, London; Mr. Day, London; Surgeon-Major Orton, Glencorse; Student, 81; J. B.; Inquirens; M. S.; T. F. J.; The President of the Metropolitan Branch of the B.M.A.; A. M. K.; A. C.; Medicus; Dr. G.; G. S. A.; W. M.; A Colonial Surgeon; A Public Vaccinator; &c., &c.

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ABSTRACT OF A

Clinical Lecture

ON THE

TREATMENT OF SOME FORMS OF EPILEPSY.

Delivered at the Hospital for Epilepsy and Paralysis.

BY J. S. RAMSKILL, M.D. LOND.,

SENIOR PHYSICIAN TO THE HOSPITAL, CONSULTING PHYSICIAN TO THE LONDON HOSPITAL.

GENTLEMEN,—You will recollect we gave L—— thirteen grains of bromide of potassium with eight and then twelve grains of carbonate of ammonia, besides the zinc pill and the chloral hydrate and camphor inunction. With respect to ammonia, it has long been known that it increased the action of iodide, and I think it does the same for bromide of potassium. It has also the advantage of being an antacid and stimulant. It is of great use in cases where you administer the iodide and bromide together, and, indeed, in every case where there is much depression. Now, as to bromide of potassium. It is a salt of high diffusive power, readily entering and quickly leaving the blood. It should be given freely diluted, otherwise part escapes from the system without getting absorbed. Besides its well-known power of diminishing central irritability, it has a similar effect on mucous membranes, on the motor and sensory nerves, and even on voluntary muscles. Witness the effect of the salt on the fauces and pharynx, on irritable bladder, in which, however, the ammonium is superior to the potassium salt. The same effect is seen in the mucous membrane and muscular coat of the stomach and intestine, as evidenced by the gastric catarrh, anorexia, torpor of intestine, flatulence, &c., and not less indirectly evident in the manner these evils are removed by capsicum and double acids. We would say, then, that the bromides act wherever the blood carries them, sometimes more energetically. Remembering this, I had a tincture of bromide made after the formula for tincture of iodine, and used it for similar indications; but whether the free bromine was too caustic, or whether bromine has any action at all in epilepsy, I can only say the combination fails to act after the manner of the iodide and its tincture. I am still more disappointed with hydrobromic acid. An acid combination of bromide has seemed to me a most desirable one, but the potassic salt is decomposed by even vegetable acids. We do, indeed, meet with formulæ where dilute hydrochloric and other acids are mixed with bromide; the resulting mixture can only be a solution of hydrobromic acid and a potash salt. And solution of hydrobromic acid itself is of little if any use, at any rate in moderate doses, in epilepsy.

Bromide of lithium is supposed by some to be a more powerful salt than potassium; it contains a larger percentage of bromine than either the sodic or potassic salt, and may therefore be given in smaller doses. I do not think it bad practice to give the potassic salt for a period, and, when its action ceases to be protective, to add small doses of the lithium salt. Of the other salts of bromide of magnesium, calcium, starch, they are of no use in epilepsy. You are all aware that in some cases of specific disease large doses of iodide of potassium are curative; also that in some few cases very large doses, having succeeded to a certain point, then suddenly fail. At this juncture more iodide of potassium will not succeed, but the addition of a few drops of tincture makes a combination which acts magically on specific disease. Remembering this, I have used inunction of the bromides, with oleic acid, with fats, and with vaseline, but after many months of steady trial found all useless. Some bromide did find its way into the system, for traces of it could be discovered in the urine, but not on any occasion did I succeed in getting absorbed sufficient to protect the patient from attacks. Of the various salts, potassium, sodium, and ammonium, their therapeutic value in epilepsy may be expressed as three, two, and one respectively. I think it is manifest that the best epileptic remedies act on the fauces and throat; witness the bromides, belladonna, atropine, hyoscyamus, stramonium, and clover hay. Perhaps this observation may some day lead us to discover other aids to our present therapeutics.

Now as to the dose of the potassium salt. For an adult I have commonly found from forty-five to sixty grains a day to be sufficient. That sufficiency is precisely the object to be aimed at, and beyond the quantity necessary not a grain more should be used, and for reasons to be presently mentioned. Voisin says that the reflex condition of the epiglottis gives him the key to the difficulty. He says a therapeutic dose of bromide is not attained until reflex nausea is suppressed on introducing a spoon as far as the epiglottis; it is not till then that the bulb is certainly acted on, and its excitability diminished. This statement is generally, but not always true. I think you may sometimes successfully combat the attacks without suppressing the condition of reflex nausea, and certainly much more frequently you may produce this condition and not in the least degree affect the number or violence of the fits. Still, it is a frequent coincidence. In your treatment begin with a fairly sufficient dose—say, for a child of eight to twelve eight grains, for an adult fifteen grains; and observe both the progress of the attacks and the excito-motory condition of the throat. Recollect, bromide has much less power over the petit than the grand mal. The more frequent and violent the fits, the more marked will be your success. The most difficult kind of case is one in which several minor attacks occur during a month, with an occasional abortive attack in the intervals. Some authorities, believing the efficacy of the remedy depends on its presence in the blood, give the dose indicated three or four times in the twenty-four hours; others, depending more on the vigour of a larger dose, give the whole quantity in one or in two doses during the day; others recommend the commencement of the treatment by a small dose, which every week is to be increased by a few grains. The objection to this method lies in the fact that in a few weeks you may be giving far more bromide than is necessary to act successfully on the bulb, and may produce bromism—a condition in which all specific treatment ceases, and a host of miserable symptoms of your own creation appear usually *pari passu* with a return of the fits. Surely the end of that case is worse than the beginning. I do not say the plan does not sometimes succeed. But it must be stopped or modified on the first appearance of bromism, otherwise the occurrence of this complication is only a matter of time. Sometimes a small dose of bromide given with care acts badly—that is to say, with reference to the stomach disorder, which usually leads off on the road to bromism. As we used to say in the old mercurial days, "the mercury acts badly—it is set astray"; in other words, the condition of the stomach chiefly, but of the whole system really, was such that the mercury acted as a poison. In such a case you must wait, and give general tonics, double acids, and a fair amount of stimulants. These cases only occur in the anæmic and cachectic. They are rare, for epileptics are not often in bad general health. As far, then, as bromide is concerned, you are to solve this problem: to give just as much bromide as may be necessary to keep off the attacks. Meanwhile you are to improve nutrition and restore mental and bodily vigour by all and every means at your disposal. Without an impaired cerebro-spinal centre, irritable and in a sense weak bulb and neighbourhood, I take it the functional disorder called epilepsy could not exist; and what is true of the cerebro-spinal centre is more or less true of the sympathetic and the entire nervous system. The complaint is, in its chronic form at least, a vast neurosis, having one or two foci or centres of intense irritability, and occasional explosive over-action.

The advent of bromide has certainly done infinite mischief to the advance of therapeutics on epilepsy. I fear that the usual *rôle* is just this. To hear the history of the case, to examine with a view to the discovery of a syphilitic origin, or a coarse cerebral lesion, and, failing to find either, the case is treated by bromide, and left to bromide, and to the *vis medicatrix naturæ*. And the *vis medicatrix* succeeds, sometimes, *plus* the bromide, but that is only either in comparatively recent cases, or where there are no secondary eccentric causes set up, to keep the primary mischief in the cerebro-spinal centres alive. I do not see why, if this were not so, the natural history of a recent case of epilepsy should not be towards cure.

Returning to L——, our diagnosis was mainly irritable and explosive action of bulb, exploding in different directions, at different times, eccentric causes keeping up this condition, and coming chiefly *viâ* the splanchnic from the intestines.

We gave bromide to act on the bulb and neighbourhood especially, to the whole system in a less degree, but the intestine seemed to require additional help. There was probably a condition of constriction and dilatation, the result of local or bowel convulsions, which occurred in the earlier fits. In such a condition we can hardly imagine the functions of the abdominal viscera could be carried on without continually teasing and vexing the sympathetic. And of all the regions of the body there is none which reflects so strongly on the brain. Remember the depression which often attends torpid colon, the melancholy attending constipation, and a similar condition of colon we are speaking of, common in the experience of alienists.

What I wish particularly to say, then, is this that, although this condition of intestine is originally produced by centric disorder in most cases, it in turn becomes a fresh source of irritation, and keeps up the centric mischief. Whether this be so or not, the treatment founded on this supposition gives admirable results. The boy takes daily a pill with valerianate of zinc, aloes, and conium, in addition to the bromide. The bromide was tried fairly and diminished the number of attacks, but when the pill was added they disappeared. It seems the valerianate of zinc allayed the frequent spasm of the intestines, and gave tone; the conium assisted it, and the aloes emptied the bowel in a natural and effective way. Aided by the bromide the irritable bowel was calmed and soothed, the weary sympathetic rested, and the perpetually irritated splanchnics carried fewer disordering messages to the brain. We have forgotten the inunction of chloral hydrate and camphor. Read by the light which experience gives in other cases, I say that sometimes it proves of great value; it is an anodyne, and as an outward application is in the first rank. In neuralgia and local rheumatism it has been of great service in my hands. It would be too tedious for you to hear if I recounted all the local applications I have made, and the regions where I have made them, in hundreds of cases of epilepsy, but I can say that I have not met with such help from any other external application as from this. But, like all remedies for epilepsy, it is uncertain. It seems to have most power over the minor attacks. I have a case where the minor attacks all ceased, and for the first time in the history the full fit was developed. In another mixed case of major and minor attacks it has abolished the latter without having had the least effect on the former. In some cases it seems to possess no action whatever; still, I say, it is a valuable help. Whether it acts by continuity of tissue—improbable enough—or by causing some molecular alterations in the periphery of the nerves, and occasioning the same alteration in the nerve-trunks or in their nuclei, or by reflex action alone, I cannot determine. But I think for many years past we have had too much metaphysics in epilepsy; we have forgotten our function as medical men, and the time has come for therapeutics to claim attention. This boy L——, then, we may look upon as in a fair way of cure. I say so because we have had no occasion to increase the dose of bromide or vary its mode of administration. Let me give you another case who, like L——, is in the hospital.

Mabel M——, aged eleven, was admitted into the hospital on Nov. 23rd, 1880. Her father is a painter. There is no history of fits, paralysis, insanity, or phthisis in the family. Patient has had scarlet, but not rheumatic fever. Her present illness began when she was five years old. They were said to be simple fainting fits. She has always a warning of a coming attack. She feels a curious sensation in the epigastrium. It does not fly to the head. She says simply she is going to have a fit and falls down, as seen in the hospital during the fit. She is convulsed on both sides, and it seems to begin bilaterally. Face is not much affected. There is no tongue-biting or micturition. In five minutes after an attack she says she is all right, but sometimes she says she has a headache and feels sleepy. In duration the attacks last only a few seconds. In frequency she has about three in the week, but sometimes as many in a day. There is no cardiac affection; pupils are large, equal, and react normally; there are no ophthalmoscopic morbid appearances. Her memory is very good, and she is sharp and intelligent for her age. She has frontal headache and some giddiness on the days when she has no fit, but she never feels sick. She has been under medical care, and I doubt not taken bromides. She is a fairly well-formed child, has a large head for her size, looks cheerful; none of the aspects of an epileptic, neither is there anything suggestive of hysteria.

On the 24th ten grains of bromide of ammonium were ordered three times daily, a pill of valerianate of zinc, aloes, and conium every night, and the ice bag to be worn to the cervical and upper dorsal vertebræ three hours, night and morning. On the 25th she had five fits of the character described above.

On January 15th the ice bag was omitted; the headache and giddiness had disappeared, and there had been no sign of a fit. She was discharged on Feb. 15th, without having experienced a single attack since the 25th of November. Meanwhile she had gained weight, and looked and felt in perfect health.

This patient's history and kind of attacks, her intellectual freedom, her aspect, form a fair example of a class of cases not at all uncommon, and in my experience they are amenable to simple treatment, and make comparatively quick recoveries. They are cases where a central irritation is kept up by an eccentric cause, and the latter being removed, the cerebral irritation is easily combated by the application of ice to the sympathetic nerve which issues from the last cervical and upper dorsal vertebræ, and by small doses of any of the bromides. Let me add a word on the value of ice. It it effective in proportion to the youth of the patient and to the acuteness of the case. It is rarely beneficial in the chronic epilepsy of adults.

In conclusion, I do not wish to say that all epilepsies have these secondary exciting causes—that, in other words, every case is to be treated by valerianate of zinc, aloes, and conium; any more than any case of petit mal is to be successfully managed by a treatment of which chloral and camphor inunction forms a part. Further, I do not object to the last new theory of epilepsy, nor in my present frame of mind to any theory which can explain most of the facts. I only maintain in these lectures, that what are usually considered effects of epilepsy do in time assume the *rôle* of causes of repeated attacks, and that the treatment altered to meet this contingency is effectual beyond any other treatment adopted to meet the centric mischief alone.

THE DIAGNOSIS AND TREATMENT OF WHOOPING-COUGH.

BY ROBERT LEE, M.A., M.D., F.R.C.P.,
SENIOR ASSISTANT PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

(Concluded from p. 694.)

THE fact of all others which has appeared to me most singular, and certainly the most important in diagnosis, is the frequency with which whooping-cough in very young children is mistaken for some other disorder, that this is entirely due to the belief that the symptom of the whoop must be present in order to satisfy the demands of diagnosis. Without the least hesitation, and without the least fear of exaggeration, I venture to express the opinion that infants whoop but rarely. Instead of expecting such a symptom, I am surprised when it occurs in a very young child, and, on reflection, am still more surprised that we should expect it to do so.

Many medical practitioners must have remarked this fact after some experience of family practice, though I could mention instances of personal friends who have been astonished that they had not noticed it till their own children were the subjects of their observation. That it was well known, and carefully noted, years ago is quite evident, since it was stated and taught by Dr. Cullen. "I have had instances," he says, "of a disease which, though evidently arising from the chin-cough contagion, never put on any other form than that of a common catarrh." And, again, "when the disease beginning in the form of a catarrh is attended with fever and difficult breathing, and with little expectoration, it often proves fatal, without taking on the form of the whooping-cough."

Now this is the form which the disease does assume in very young children, and which quite accounts for its being so dangerous in early life. It is not quite correct to say that it begins in the form of a catarrh. The disturbance of the system is more serious, and, if the question is asked of the parent whether the child has been exposed to cold, it is generally answered in the negative. The symptoms are those which more or less characterise the contagious maladies in their early though rather indefinite stage. The most marked certainly are refusal of food, prostration, restlessness, and loss of flesh, with more or less increase of temperature and quickness of respiration. We are inclined at one time to suspect pneumonia or capillary bronchitis, at another that the cause of the symptoms is dentition, or, if they are not severe, that they are due to some error in feeding. Sir Thomas Watson has followed Cullen when he says that "it begins with the symptoms of an ordinary catarrh arising from cold"; and, to show to what extent he considered the cough diagnostic of the malady, he says, "I should be slow to consider any case a genuine case of pertussis unless the characteristic paroxysms of whooping-cough and the stridulous respiration were present."

There is a symptom which is a serious and frequent one in infants, and that is the occurrence of active diarrhœa. It is true that the diarrhœa is often preceded by vomiting, but, as a rule, when the diarrhœa begins the other symptoms abate, and one of two events occurs: either the infant succumbs, in spite of all treatment, or the disease appears to exhaust itself and the symptoms do not return. The active treatment with purgatives, recommended by Sydenham, appears thus to be indicated to some extent by the natural course which the disease takes in such cases.

Sir Henry Holland pointed out the probable relation between whooping-cough and what used to be called infantile remittent fever, and distinctly expressed the opinion that they would be found to depend on the same active cause.

Before passing on to the subject of treatment there are one or two points which are deserving of notice. One, the most important, that in a family of two or three children, when circumstances compel them to be kept in the same room, and the conditions of ventilation are deficient, the duration and severity of the symptoms appear to increase and the nurse or parent is liable to suffer, from which it would seem that the atmosphere of a close apartment may become more or less highly charged or saturated with the fomites of contagion. Another point is the usual increase of fever, difficulty of breathing, and cough during the night, and it is reasonable to inquire whether this may be due to somewhat similar causes to those which mark the stages of an attack of ague or to some difference in the conditions of the nervous system during the usual hours of sleep.

One point seems worthy of mention, and that is the probable explanation of the fact that sometimes all the symptoms of whooping-cough will suddenly subside, and, after an interval of several months, reappear without any very definite reason, such as exposure to a second infection.

The subject of the treatment of this malady appears to me to be pre-eminently deserving of most serious attention. The infant mortality it has lately caused has grown to surprising importance, as the Registrar-General's Returns have made most evident. The remedies which have from time to time been recommended have been so numerous, that it is probable most practitioners would agree with Sydenham that, with some one exception, which in his case was active purging, they "have tried remedies of almost every other kind, and tried them in vain."

Failing any specific remedy we are naturally compelled to treat symptoms, making use of such agents as are generally recognised as proper for the different morbid conditions of the patient. The sensible practitioner would regard any one remedy with considerable doubt, and, while admitting the value of some few in relieving the frequency and violence of the cough, would combine with them either a febrifuge, a purgative, or a tonic, as the state of the case demanded. Thus in the early stages we might prescribe, as is often done, a combination of belladonna, bromide of potassium, and squills or ipecacuanha; later hydrocyanic acid or alum, or external applications, such as camphor, turpentine, or Roche's embrocation; and finally, when the cough seemed to resist all treatment, we should order with confidence a change of air. I recollect, some years ago, one evening a German merchant called upon me to inquire what remedy we used at the Children's Hospital, as some poor neighbours of his had told him of the good effects obtained by themselves and several others from the treatment. I informed him that we had no special remedies; but as he had come from some distance, and seemed much dissappointed, I ventured to inquire what was the nature of the medicine prescribed. He said it was a mixture of cod-liver oil and steel. Now, there is only one mixture of this kind contained in our Pharmacopœia, so I had no difficulty in satisfying his wishes. But it certainly surprised me to hear that this combination, by no means an agreeable one, had obtained a reputation in whooping-cough cases quite unknown to us. Since then I have used it largely, and with as much benefit as some far more esteemed preparations.

There has been for some years a popular notion that a specific remedy does exist, though in a form which is difficult of application. I refer to the influence stated to be exerted by the exhalations from the waste chambers which form part of a gas factory. From abroad we have statements which show that it is usual for children to be taken to these places at convenient times, and that "this is encouraged" by medical advice. I was informed by one of the physicians resident in Amsterdam, that special arrangements were made for children suffering from whooping-cough; and in our own city, at some gasworks in Holloway, for example, on certain days when the waste chambers are cleared, it is usual for many children to attend at the works with apparent benefit. The question which naturally suggests itself is this, What particular product of coal distillation would probably exert an influence on the contagion of whooping-cough? I am not in a position to answer this question at present, nor do I see how to begin such an inquiry without the assistance of a scientific chemist who has made a special study of the subject. This I hope to obtain shortly. Applying, however, the general principles of the antiseptic treatment, and assuming that there are very likely several agents present in the waste products of coal distillation which would be more or less potent in this respect, I have used largely the common one, carbolic acid, combined with turpentine, benzoin, or one of the fragrant oils. This plan of treatment has become very general, and I have heard some go so far as to say that carbolic acid will cure whooping-cough. This statement has come usually from those of limited experience, though sufficiently good results have been obtained to justify us in pursuing the line of reasoning which first suggested a trial of the remedy. Not long since I was assured by a distinguished member of our profession, who suffered severely from whooping-cough, that the only remedy which afforded him relief was carbolic acid inhalation, that the favourite treatment with bromide of potassium and belladonna was tried with the result that for a few hours the cough was relieved after taking the first few doses, but in a short time the effect passed off, and was followed by increased violence of the cough and painful dryness of the throat. In adults the spasmodic cough is the most serious symptom of the disease, but in infants we have to fear the rapid wasting and frequent diarrhœa perhaps more than the cough. So that I am compelled to admit that the use of carbolic acid inhalation must be limited, but within those limits it may be said to have a special effect. I have no doubt that some have tried the administration of the acid internally in diluted solutions, but in my own experience the results have not been such as to warrant any definite opinion. I have also tried sulphur in frequent and small doses, and have had fairly good results. There is no doubt that, as a general rule, the treatment recommended by Sydenham of purging actively is a wise one, for the distress in respiration and cough is certainly diminished when the mucous discharges from the bowels are encouraged. It may also be observed that a spontaneous diarrhœa in whooping-cough is not to be controlled by opiates or astringents.

It appears to me, then, that we have two distinct symptoms to deal with, and that to a certain extent they are under control. With regard to the laryngeal spasm, there is no doubt we can give relief by the inhalation of carbolic acid; with regard to the diarrhœa, I think the best results are obtained, not by attempting to check the discharges by opiates or astringents, but by the administration of quinine and iron in full doses, and by the application of such combinations as Roche's embrocation, a simple compound of the oils of turpentine and amber to the surface of the abdomen. There is no doubt that infants at the breast are in less danger than those brought up by hand.

In conclusion, I would suggest a trial of other volatile agents for the purpose of inhalation, such as turpentine, creasote, oil of amber, benzoin, &c. The common plan of stirring some tar with a hot poker is certainly attended with benefit, and is largely used in my hospital practice. It is only necessary to observe that if we are to expect relief from this kind of treatment, it should be carried out on proper principles. It is of no practical use to order twenty or thirty drops of carbolic acid to be added to a pint of hot water, and the steam to be inhaled, for the quantity of acid which evaporates is only proportionate to the amount of water given off as steam, and under such conditions it is evident the amount would be infinitesimally small.

Savile-row, W.

COMPOUND DISLOCATION OF HIP; RECOVERY WITH USEFUL JOINT.

BY W. F. TAYLOR, M.D., M.R.C.S. ENG.,
HONORARY SURGEON TO THE WARWICK HOSPITAL, QUEENSLAND.

ON Sept. 1st, 1879, I received a telegram to proceed to the town of Allora, fifteen miles from Warwick, Queensland. On my arrival there, I was informed that at about two o'clock in the afternoon a lad, named J. C——, aged seventeen, was engaged sawing down a tree, when it suddenly fell, pinning him to the ground. He succeeded with great difficulty in extricating himself, and was discovered about half an hour afterwards by his brother, who found him suffering great pain, and unable to move his right leg. Assistance having been procured, he was taken to his residence, distant about a mile from the place where the accident occurred. I found him lying on his back, complaining of great pain in the right hip and leg, and on examination discovered a dislocation of the hip into the obturator foramen, with a lacerated wound of the perineum on the right of the urethra, nearly two inches in length. He was placed under chloroform, and his injuries more fully examined. On introducing the finger into the wound in the perineum, the head of the femur could be plainly felt lodged in the obturator foramen; the greater portion of the external surface of the ramus of the pubes, and the ramus of the ischium were denuded of all muscular attachment. The dislocation was reduced with some difficulty, and the leg and pelvis securely fixed to a long, straight splint. Towards morning the bladder was evacuated spontaneously, when the urethra was found to be uninjured.

Sept. 2nd.—Having remained with him all night, I superintended his removal to the Warwick Hospital in the morning, the journey being accomplished principally by rail, without any bad effects. In the evening the temperature had gone up to 100°; pulse 110. He complained of great pain in the hip, which was relieved by the hypodermic injection of morphia and atropia.

3rd.—Passed a good night, slept frequently, and was comparatively free from pain. Ordered an enema and injection into the wound every eight hours of the following:—Salicylic acid, ten grains; biborate of soda, twelve grains; glycerine, one drachm; water to one ounce.

4th.—Suffered a good deal of pain in the forepart of night, which was relieved by hypodermic injections of morphia and atropia. Pulse 112; temperature 101°. Ordered tincture of aconite, which had the effect of temporarily reducing the temperature and slowing the pulse.

The history of the case for the next eight weeks may be summed up as follows:—Severe pain was at times felt in the hip, which was usually at once relieved by the hypodermic injections. Only on one occasion did he complain of pain on pressure in the neighbourhood of the joint. The wound closed gradually, the discharge being at no time fetid; but the temperature was always above the normal, sometimes falling to 99°, and frequently going up to 101°. The aconite was, after a day or two, discontinued, and five-grain doses of the hydrobromate of quinine given every six, and sometimes every four, hours. In order to facilitate the dressing of the wound, &c., a wooden frame, having strong girth-webbing fastened to it, was placed under him on the bed, so that four men could easily raise him as high as was necessary without disturbing the injured limb. About nine weeks after the accident the long splint was removed in consequence of his complaining of pain in the knee, which was somewhat swollen, the hip being free from pain or swelling, and the wound in the perineum nearly healed. The temperature, however, still averaged 99·3°, although the appetite had been good for some weeks, and the bowels had acted regularly. The day following the removal of the splint a good deal of swelling was noticed in the neighbourhood of the hip, with considerable pain on pressure. A large linseed meal poultice was applied, and the following morning, fluctuation being distinctly perceptible, an opening was made under the edge of a piece of lint soaked in linseed oil and carbolic acid (1 to 4), when about ten ounces of fetid pus escaped; there was also an escape of pus through the nearly closed wound in the perineum. A drainage-tube was inserted, and the lotion ordered to be injected through it into the cavity of the abscess every eight hours, the thigh and hip being carefully bandaged with a soft flannel roller. My colleague, Dr. Margetts, saw the case with me the next day, and we were both forced to the conclusion that some bone mischief had been started, the upshot of which could hardly fail to be disastrous. Contrary to all anticipation, however, the discharge gradually ceased, so that in a week after inserting the drainage-tube it was removed and the opening allowed to close. No bad symptom followed; he rapidly gained strength, and in a short time was able to get about on crutches, the hip being kept fixed by a gutta-percha shield. On the 4th of February he left the hospital, with, as I supposed, the joint in a satisfactory way towards anchylosis; this condition being, I had repeatedly told his friends, the most favourable one that could be expected. About eight months after the accident, to my great surprise I met the young fellow in one of the streets riding on horseback, seated in regular bushman style on a large colonial saddle. He told me that he had just ridden from Allora (fifteen miles), and was on his way back; that he could mount and dismount with ease, and suffered no inconvenience from the hip excepting a little occasional stiffness.

Remarks.—This case may be considered interesting—(1) from the nature of the injury, the head of the femur having been no doubt driven from its normal position right through the perineum, and then retracted into the obturator foramen; (2) the persistent increase of temperature up to the time of the abscess being formed, notwithstanding the satisfactory healing of the perineal wound and the absence of any marked tenderness or swelling of the hip; (3) the rapid formation of the abscess, and its speedy cure; and (4) the mobility of the joint being now sufficient to permit riding on horseback without any inconvenience. The results as above described may be principally attributed to the care taken to preserve absolute rest of the injured parts. The maxims relating to the value of *rest* so ably laid down by the late John Hilton, F.R.S., were adhered to as nearly as possible, and in carrying out these maxims, Mr. Saunders, the resident dispenser of the hospital, afforded valuable and unremitting assistance.

Warwick, Queensland.

ON TRICUSPID STENOSIS.

BY BEDFORD FENWICK, M.D.

(Concluded from page 696.)

B. Prognosis.—This, of course, is very grave, and depends much on the extent of the dilatation of the right auricle and the amount of compensatory hypertrophy it has called forth. The average length of life in these cases was about four years from the commencement of serious symptoms. It is interesting to notice that this fact, and those contained in Table III., bear out Dr. Gilbart Smith's suggestion that tricuspid stenosis probably does not by its advent shorten the life of those already afflicted with mitral constriction, but that it may even act beneficially, and, by equalising the pulmonary pressure, materially save the general economy.

C. Treatment.—This, I need scarcely say, consists mainly in maintaining the general health and the cardiac tone at as high a grade as possible. Two very practical points, however, I would venture to insist upon. First, a restriction of liquids in the diet, and this for two reasons especially—not only to keep the quantity of fluid in the circulation, and therefore the vascular tension, and therefore the cardiac stress as low as possible, but because these cases suffer terribly from even a small degree of flatulent distension; and it is just in these very cases that a small quantity of liquid seems—I presume from the chronic state of catarrh of the stomach and intestines consequent on the cardiac obstruction—to rapidly induce this condition. I have found a dilute acid drink containing peppermint and spirits of ether, well iced and sipped occasionally, very useful in relieving the thirst. Second, the abstraction of blood—locally by leeches over the heart or epigastrium if oppression or pain be great; or generally, *from the arm*, if the cyanosis be extreme—gives a relief which is always great, and sometimes seems almost marvellous in its extent. I have italicised "from the arm," because I believe that to open one of the jugulars in venesection, as has been recommended to relieve cyanosis, would in cases of tricuspid stenosis be almost certainly fatal to the patient; for in those cases in which these veins were examined after death they were found to be much dilated, their coats thickened, and their canals patulous; and this condition would certainly facilitate, if it did not ensure, the entrance of air into the heart, if such a vein were opened. Finally, I may add that repeated bleedings to a small extent seem safer, and appear to give more relief both at the time and subsequently than a large depletion at one time.

5. *Size of the tricuspid orifice.*—The next table shows plainly that the length of life seems to increase with the intensity of the tricuspid mischief up to a certain point, but that when the stenosis becomes very extreme, the average length of life, as might be expected, again diminishes, which again proves to a certain extent Dr. Gilbart Smith's practical observation to which I before referred. The table also conclusively proves that when the stenosis is most extreme there is almost invariably an antecedent history of rheumatism.

6. *Size of the mitral orifice.*—In every case the mitral valves were much diseased and the orifice stenosed. Generally the disease was more advanced and the stenosis greater here than in the tricuspid. Table IV. exhibits the facts more plainly than mere words would do, but it is interesting to note that here the intensity of the stenosis does not seem to depend so closely upon rheumatism, as noted in Table III. in the case of the tricuspid.

7. *Concurrent cardiac changes.*—*In no single case is the existence of any congenital defect noted.* In every case but one (No. 8) the right auricle was found dilated, and often to an extreme extent. In 26 cases, or 56·5 per cent., the aortic valves were diseased. In 14 cases, or about 30·5 per cent., the valves were thickened and incompetent, and in the remaining 12, or about 26 per cent., the orifice was stenosed, and often to an extreme degree. All these twelve cases were females. Their facts are clearly shown in Table V. From which it is evident that when aortic stenosis is present in these cases the mitral stenosis is always extreme, and generally very extreme, and that the tricuspid stenosis is always far advanced; but that its constriction is in every case less than that of the mitral, and that these aortic changes are apparently three times more common, and the average age markedly greater in cases without a rheumatic history, than in cases in which that disease has exhibited itself.

TABLE III.

Size of Tricuspid Orifice.	No. of Cases.			Average Ages.		Rheumatism.			No Rheumatism noted.		
	M.	F.	Total.	M.	F.	M.	F.	Total.	M.	F.	Total.
Admitted three fingers	—	1	1	—	24·	—	1	1	—	—	—
Admitted two fingers	2	6	8	29·	32·	2	1	3	—	5	5
Admitted one finger	2	18	20	50·5	36·8	2	7	9	—	11	11
Admitted tip of one finger	1	7	8	23·	27·	1	6	7	—	1	1
Not accurately stated	—	9	9	—	29·1	—	3	3	—	6	6

TABLE IV.

Size of Mitral Orifice.	No. of Cases.			Average Ages.		Rheumatism.			No Rheumatism noted.		
	M.	F.	Total.	M.	F.	M.	F.	Total.	M.	F.	Total.
Admitted three fingers	—	1	1	—	24·	—	1	1	—	—	—
Admitted two fingers	2	1	3	29·	33·	2	—	2	—	1	1
Admitted one finger	2	9	11	50·5	38·1	2	2	4	—	7	7
Admitted tip of one finger	1	22	23	23·	28·	1	11	12	—	11	11
Not accurately stated	—	8	8	—	27·1	—	4	4	—	4	4

TABLE V.

Cases with Aortic Constriction.

Previous History.	No. of Cases.	Average Ages.	Size of Tricuspid.				Size of Mitral.		
			Doubtful.	Two fingers.	One finger.	Tip of finger.	One finger.	Tip of finger.	Doubtful.
Rheumatism	3	33·	—	—	2	1	—	3	—
No rheumatism noted	9	36·3	5	1	3	—	2	3	4

I think we may now, with these facts before us, discuss briefly the validity of the congenital theory. Placing on the one side the immense disproportion between the sexes, and this in favour of women who are less subject than males to congenital cardiac malformation, the good health which most cases retain unimpaired for many years, the advanced ages to which these patients have lived, the well-marked rheumatic history in the usual percentage of cases, the striking symptoms of the disease when it does occur, the extreme degree of the stenosis in so many instances, the invariable concurrent inflammatory changes on the left side of the heart, the complete absence of note of any cardiac defect, which might be of congenital origin, in these cases, and such a clear history of the progress of an inflammatory disease as furnished by the story of the second case recorded in this paper; and placing on the other side the story of Dr. Peacock's congenital case which, suffering and cyanosed, lived for seven months, and was then discovered to possess a tricuspid orifice of twenty-four lines in circumference (absolutely larger, that is, than that found in twenty-eight of these forty-six adults), and a congenital defect (two small holes) in the septum ventriculorum, and the facts that *one* of these forty-six cases was subject to lividity and dyspnœa from an early age, and that three or four more were "delicate" or badly developed—weighing these, I think it will be at once allowed that, in adults at least, the disease does not "date from fœtal life."

I would end this paper by deducing from the facts the following conclusions :

1. That tricuspid stenosis is not so rare as it is generally believed to be.
2. That it attacks women far more frequently than men, in the proportion perhaps of about 8 to 1.
3. That death rarely results from it before twenty or after fifty, and that it most commonly occurs between twenty and thirty, the number of its victims steadily diminishing thereafter with each semi-decade.
4. That in 50 per cent. of the cases there is a well-marked antecedent history of acute or subacute rheumatism.
5. That in every case the mitral orifice is also stenosed, and generally to a greater degree than the tricuspid.
6. That the right auricle is in every case more or less dilated.
7. That in 56·5 per cent. of the cases the aortic valves are also diseased, and that in about 26 per cent. of the cases the orifice is stenosed.
8. That tricuspid stenosis *when found in adults* is due to disease acquired in after-life, and probably never of congenital origin.

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West-street, Finsbury-circus, E.C.

TROPICAL RINGWORM OR SKIN FUNGUS.

By JAMES STARTIN, M.B. Cantab., &c.

The tropical ringworm or skin fungus, though rarely seen in England, is by no means an unimportant affection of the skin. It is most common in the tropics, especially amongst the natives of Ceylon, Burmah, West Indian Islands, and the Pacific Islands, but it does not confine itself to these alone, for it is to be found amongst the well-to-do classes, and more commonly amongst men than women. The usual situation is upon the inner surface of the thighs and perineum, the scrotum and buttocks and upon the pubes; it may also be seen about the axillæ and calves of the legs.

Cause and pathology.—It is now an undisputed fact that this troublesome eruption, known hitherto by the name of eczema marginatum, is due to a fungoid parasite, not to any degenerative process of the epidermis alone, as has been described by some authors. Kaposi, Köbner, and others I believe now are acknowledging it to be a parasitic disease. From those parts of the body where the folds of the skin come together, as the buttocks, scrotum and thighs, and the axillæ, the secretions are poured out, and afford a pabulum to the fungus, which is increased by tropical heat and moisture. This irritates and macerates the epidermis. We have then a vesicular, eczematous eruption caused, which is secondary to the primary cause. Living in damp situations or houses, sleeping in damp sheets, are no doubt common causes. Who has not seen mould on a sheet that has been put by in travelling? and in tropical climates this is a very active fungus. The parasite differs from the ordinary British ringworm, inasmuch as its growth is much more luxuriant, and it does not destroy the hairs; nor do I find the parasite in the root-sheath of the hair.

Symptoms.—This disease begins with an intensely irritable spreading eruption, showing vesiculation and erythema at its margin; its course is very slow and its nature very chronic. Like British ringworm, it spreads in circles, only in a much larger area, and chooses the covered parts of the body for its attacks, and those where the perspiration is poured out the most. It is influenced greatly by the tropical heat, in producing fermentation of the secretive processes of the skin in a peripheral direction, which, no doubt, is the pabulum of the fungus germ. The eruption is slightly above the surface of the skin, beginning at first as a small red and irritable circle, about half an inch in diameter, rapidly increasing in size, with small bright scales on its surface; or, if in contact with other skin surfaces, is of a greyish or intensely red appearance, increasing in irritability and vesiculation with the progress of the eruption.

Diagnosis.—This eruption can be at once recognised, by those who have seen examples of it, by its unmistakable appearance, its situation, and its microscopical appearances. It is liable to be mistaken for gyrate psoriasis, eczema, syphiloderma, intertrigo, and pruritus.

Treatment.—Tropical ringworm or skin fungus is a most obstinate eruption to cure. Even if it is relieved in England, as soon as the patient returns to the tropics it is most likely to break out again, unless completely eradicated; at least this is my experience. Oleate of mercury (20 per cent.) is a valuable remedy, or liquor carbonis detergens painted over the affected parts is effectual. Hebra's sulphur and tar application is also good, and Goa powder is much used in India with stated good effects. I use carbolic oil with a few grains of red oxide of mercury with much success.

The following cases, illustrative of the disease, which have come under my notice, are typical examples :—

Case 1.—A gentleman consulted me for an eczematous eruption and ulcer upon his legs, and upon further examining the skin I found a distinct and well-defined marginate eruption on the inner surface of the thighs and perineum, which he told me he had contracted in the West Indies, and which caused him a good deal of irritation, and that he had never been able to get rid of it. On microscopically examining the scraped skin spores and mycelium were found of large size. I prescribed carbolic oil and a preparation of mercury, which effectually removed the eruption.

Case 2.—A man came under my notice at the hospital suffering from a precisely similar eruption on the inner surface of the thigh and buttocks. He had lately come home from Ceylon. I used to this case oleate of mercury (40 per cent.), but had only the opportunity of seeing the case once.

Case 3.—A gentleman consulted me with a similar eruption, which he informed me he had had quite twelve years, round the inner surface of the thighs, scrotum, and spreading upon the nates; it was intensely irritable. Upon microscopic examination it was proved to be parasitic. In this case I used a preparation of iodine liniment, oil of Cade, and hyposulphite of soda with much success whilst he was in England, and I have since heard from him that he was very much better.

These three typical cases, and several others I could have noted, are all interesting on account of the parasitic origin of the affection, and the influence that tropical climates have upon the fungoid parasites of the skin.

Sackville-street.

Bristol Royal Infirmary.—Last week a public meeting, presided over by the Mayor of the town, was held in the Guildhall with the view of raising a fund to clear off the debt of £10,200 now existing on the Royal Infirmary. Resolutions in harmony with the purpose of the meeting were enthusiastically carried, and it is expected that the object which the friends of the institution have so much at heart will be speedily achieved.

COMPLETE APHONIA OF NEARLY FIVE YEARS' STANDING, CURED BY THE REPEATED APPLICATION OF FARADISATION TO THE VOCAL CORDS.

BY ROBERT TORRANCE, L.R.C.P. EDIN.,
SURGEON TO THE NEWCASTLE-ON-TYNE THROAT AND EAR INFIRMARY.

MISS A. P——, aged twenty-four, consulted me in October, 1880, for loss of voice of nearly five years' standing. She looked delicate, but did not complain of weakness, and informed me that she had had an ulcerated sore-throat, and lost her voice on leaving a heated room in November, 1875. On recovering from the sore-throat, her voice did not return, when the regular medical attendant applied caustic two or three times, but without any beneficial effect. She then consulted several eminent practitioners, and amongst them a leading physician in Dublin, who recommended galvanism to be applied by means of a battery, but the result was the same as before. Preparatory to my making a laryngoscopic examination, it may be stated that the fact was proved that the loss of function was not due to hysteria, as she was placed completely under the influence of chloroform, when she did not speak, but continued to whisper. The instrument then showed that the vocal cords were in a very relaxed state, and crumpled up as it were near their middle, but otherwise apparently quite healthy, and galvanism seemed clearly indicated in the case. It was therefore strongly recommended to apply it for some time by one of Pulvermacher's chains, but this failed, when it was continued by means of a metallic brush for a much longer period, but there was not the least return of the voice. Knowing that the alternation of topical remedies often proved efficacious in the treatment of chronic inflammation of mucous passages, they were prescribed during the whole of this time, but neither of them, combined with the former, produced any good effect. The cords were then faradised by means of Mackenzie's electrode, when after very few applications of the electro-magnetic current the voice was partly restored, but as a very harsh "croak" at first, and very monotonous. She was asked to sing over a scale of music, but every note was pronounced in the same tone, and she could not modulate her voice either piano or fortissimo. After the current had been repeated at gradually lengthening intervals, however, the voice was permanently restored, and now she speaks in a clear and natural tone, which had been lost for nearly five years. She was seen a few weeks ago, and I heard from her own lips that the cure had been permanent.

Remarks.—This patient, anxious to regain her voice, had previously given everything prescribed for her, both local and constitutional, a fair trial. Tonics and zinc pills were persevered in for a very long time, as well as the inhalation of vapours impregnated with different volatile principles. Powders were introduced by insufflation, and this again followed by various escharotics, but without the least benefit resulting until the vocal cords were faradised, which proved there had been no structural disease, but that the case resolved itself into one of functional aphonia or vocal weakness. The case requires no further comment, but the superiority of the internal method of faradisation must certainly be admitted.

Newcastle-on-Tyne.

CASE OF ENTERO-EPIPLOCELE; OPERATION AND RECOVERY.

BY J. NOBLE BREDIN, L.R.C.S.I., &c.

ON Sept. 4th I was sent for to see a man aged fifty-seven, of very robust constitution. On examination I found a swelling in the right groin, hard, without fluctuation, and with comparatively little tenderness. Having learned that a small nodule had been there several years, it at once occurred to me this was an enlarged gland brought on by overwork, patient being a hop dryer, and hopping just then being in full swing. He was now about resuming his occupation. I ordered him to bed, and he obeyed after much remonstrance. No history of anything coming on suddenly. All I could learn was that the swelling became larger four days previously. I then concluded it was a femoral hernia, and tried the taxis, using much caution, but without effect. At 6 P.M. the same evening I put him under the influence of chloroform after a prolonged struggle, at the same time being very careful as to manipulative measures, feeling, I must confess, rather dubious about the case. This was also without success. On the following morning patient did not seem any worse. During the time that had elapsed, now five days, no sickness, no hiccough, not even a bad symptom showed itself to give a clue to the case. I now obtained the assistance of Mr. Harris, surgeon to the West Kent Hospital, Maidstone, who fully concurred in all that was done.

We forthwith placed him under the influence of bichloride of methylene, although I must say I look on this anæsthetic as being far inferior to chloroform. Our patient inhaled a very large quantity before complete insensibility supervened. Manipulative measures were again tried, but in vain. Lister's operation was then performed, and after dividing the constricting tissues no reduction could be effected. The sac was now opened. We then found the omentum had been pushed down before the intestine. This was ligatured about half an inch from the end, cutting off the omentum, reduction taking place immediately. The wound being stitched and a bandage applied, I gave him a quarter of a grain of morphia, with directions to repeat the dose in four hours, also one tablespoonful of brandy in milk every three hours, together with beef-tea in the interim. Patient passed a good night very comfortable and free from pain. I saw him four times next day to watch the effects of the morphia, which I still continued. Patient went on without interruption, not an untoward symptom or even any pain, still going on with the morphia at intervals, until the expiration of seven days. The bowels not being relieved, I ordered two teaspoonfuls of castor oil every two hours *ad effectum*. This produced a very decided change for the better, the motions being perfectly natural, and passed without pain. On the eighth day I ordered him one pint of stout daily, directing his wife to send each day to my house for some dinner, to which he did ample justice, together with one pint of bitter beer. Wound healing and looking healthy. Dressed with carbolic acid (1 to 20). He was up and about with a truss in forty-six days after the operation.

Remarks.—Morphia seemed to me to be the sheet anchor in this case, equalising the system, thereby preventing all pain, and keeping all inflammatory action in submission. Consequently no sickness or nausea occurred, such as I have seen follow from methylene.

Chart Sutton, Staplehurst.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

ST. GEORGE'S HOSPITAL.

[SKIN DEPARTMENT.]

CASE OF BROMIDE ERUPTION.

(Under the care of Dr. CAVAFY.)

THE following notes were taken by Mr. Alexander, clinical clerk.

Edward B——, aged fourteen months, was first seen at the hospital on March 17th, 1881. The child had whooping-cough, from which, according to the mother, he had suffered for five months. Six weeks before he was attacked with convulsions, which were at first very frequent. They gradually diminished and subsided in a fortnight under treatment by bromide of potassium, which the mother stated was at once ordered by the medical man who saw the child, and continued for a week after the fits had ceased. Various medicines had been given for the whooping-cough, and the last prescription (which the mother brought with her) contained bromide of potassium, tincture of belladonna, and juice of conium. The daily dose of bromide contained in this last mixture was four grains, and the medicine had been taken for about fourteen days. Four or five days before the date of application an eruption appeared on the face of the infant, which quickly reached its present condition—viz., on the right cheek there were four raised nodular patches and five similar ones on the left cheek. The nodules were large, circular or oval in outline, prominent, with a rounded surface, and sharply circumscribed. The largest measured an inch in its longest diameter, the others varying from a quarter to half an inch, and they projected fully a quarter of an inch above the surface of the skin at their central parts. They felt very tense and slightly elastic, and appeared to be tender, as the child cried when they were handled. The surface of each little tumour was covered by smooth epidermis, on which no plugged and dilated orifices of sebaceous glands could be discovered on careful inspection; the surface, however, had a somewhat coarsely granulated aspect, owing to the presence of very numerous subjacent little spheres varying in size from a mustard seed to a millet seed. These were of a milky or turbid yellowish aspect, and were imbedded at various depths in the matrix of the nodules; this was of a bright crimson-red colour, which disappeared very incompletely on pressure. The apex of each tumour was covered by a small, thin, black crust of altered blood, which was situated under the epidermis. The greater number of the nodules were studded close to each other on each cheek, and all were sharply marked off at their edges from the perfectly healthy skin on which they were seated. A few isolated red papules, of which the largest was the size of a hemp seed, were scattered over the face, chiefly on the forehead; all the remaining skin of the body was unaffected by any eruption.

No treatment was adopted beyond stopping the bromide, and in a week (March 24th) the black scab above described was found to have extended nearly over the whole surface of the nodules, from which the congestive and hæmorrhagic redness previously noticed had quite disappeared, although their size was not appreciably diminished; no trace remained of the smaller papules. The child was not seen again.

Remarks by Dr. Cavafy.—A variety of eruptions due to bromides have been described, of which an excellent account will be found in the paper on Medicinal Eruptions by Dr. Van Harlingen, of Philadelphia, in the *Archives of Dermatology* for last year. The above case resembles the "little tumours formed by small groups of very indolent, acne-like pustules" described by Voison (1868), and the similar cases published by Dr. Cholmeley (1870), Dr. Lees (1877), and others. A point of some pathological interest in my case is the great congestion and hæmorrhage into the nodules, as shown by the very incomplete disappearance of the redness on pressure, and especially by the formation of the thin sub-epidermic black crust of altered blood; this, no doubt, points to an affection of the minute bloodvessels of the skin, similar to that described by Dr. Thin (Medical and Chirurgical Transactions, 1879), as occurring in iodide eruption; no such affection, however, is noted by Neumann in his account of the microscopical appearances of bromide rash. In my case no iodide was taken to my knowledge, but it may very possibly have formed an ingredient in the medicine administered for the convulsions, of which I did not see the prescription; it is worth remembering that the eruption may appear several days after iodides or bromides have ceased to be taken. Dr. Van Harlingen prefers Dr. Duhring's name for this affection, "circumscribed phlegmonous dermatitis," to that of "confluent acne" proposed by Dr. Cholmeley. It is perhaps more accurate; but I think the simpler term bromide eruption sufficiently meets all the necessities of the case.

GENERAL HOSPITAL, BIRMINGHAM.

SARCOMA OF RIGHT OVARY; PROTRACTED METRORRHAGIA; REMOVAL OF BOTH OVARIES; RECOVERY.

(Under the care of Dr. Malins.)

For the following notes we are indebted to H. J. Borling, M.B.

M. A. B——, aged thirty-four, single, was admitted on February 11th, 1881, and gave the following history. For nearly two years past she had had profuse discharge at the periods, sometimes lasting for three or four months without cessation. She had not much pain, no difficulty in defecation or micturition, though there were occasional diarrhœa and frequent inclination to pass water. She had kept her bed for two months before admission, and had become extremely pale and feeble.

In July, 1880, the patient consulted Dr. Malins, but as she refused to submit to an examination she was not prescribed for. Subsequently she came under the care of Mr. Ker, who, in conjunction with Dr. Malins, dilated the os uteri, and examined the interior of the cavity. No remedies of any kind, either locally or by the mouth, appeared to have had any influence in abating the persistent discharge.

On admission she was very pallid and anæmic in appearance. On pressing the hand in the hypogastric region a distinct and hard tumour could be felt; per vaginam the pelvis was found to be filled with a hard mass, which moved with the uterus, and appeared to be part of it. The sound passed two inches and three-quarters apparently into the tumour, which could just be made to move independently. There was no albumen in the urine, and the other internal organs were healthy.

In consideration of the extremely weak condition of the patient it was considered justifiable, after consultation, to remove the ovaries, in order to stop the continued drain and give the patient what seemed to be her only chance of recovery. Accordingly, on March 2nd she was placed under ether, and an incision was made in the median line, under strict Listerian precautions; the left ovary was removed, and its corresponding ligament, being tied in two divisions by fine silk, was cut away with scissors. The right ovary was found to be a large mass closely wedged in the pelvis, occupying the hollow of the sacrum and jamming the uterus to the left. It could not be moved until two cysts on its surface were tapped with a trocar and emptied—one containing bloody fluid, the other serous fluid, together to the amount of six ounces. With strong cyst forceps in one hand and the two fingers of the opposite hand pushing from the vagina, the ovary was brought out of the pelvis, and the short broad pedicle was firmly tied in three portions with fine silk. The wound was dressed for the first time on the fifth day, and the patient made an uninterrupted recovery, being discharged cured on the twenty-fifth day after the operation.

The tumour was examined by Dr. Mouillot, who reported as follows:—"It is an oval growth, with cysts at the surface, enclosed in thick walls; the centre of the solid part is firm, with bands of connective tissue running through it, the external portions being softer. Weight 18 oz. Microscopically it presents the appearance of a spindle-celled sarcoma.

Remarks.—The principal points of interest in this case are the difficulty of diagnosis from uterine fibroma, and the nature of the growth; it would be rightly classed as a cysto-sarcoma, a rare condition in the ovary; the history dating back for two years probably indicates the existence of the growth for the same length of time, so that though microscopically it is described as a sarcoma, yet clinically it can hardly be considered a malignant growth, and recurrence is improbable.

TOXTETH PARK INFIRMARY.

INTERNAL URETHROTOMY.

(Under the care of Dr. Lyster.)

H. B—— was admitted on Nov. 18th, 1880, suffering from a bad stricture of eight or nine years' standing, for which he had been treated off and on during all that time. A month before his admission he went to a medical man who, failing to pass a catheter, advised him to go to the hospital. As he was not suffering from any urgent symptoms when admitted, he was ordered to bed for a day or two, previous to any attempts being made to pass a catheter. Hot baths and morphia suppositories were administered during that time. His water dribbled away from him continually, so that he was obliged to keep his penis in a urine-glass night and day. The urine was very ammoniacal, and at times contained a great quantity of mucus. The day after admission an attempt was made to pass a catheter, but it was unsuccessful; not even the filiform bougie could be passed. Dr. Lyster determined to perform internal urethrotomy as soon as the guiding-bougie could be passed. Attempts were made several times after this at intervals, but always unsuccessfully until Dec. 1st, when the patient had a severe rigor some time after coming out of the bath, followed by several others at intervals during the day. This was the precursor of a very severe attack of pyelitis, which so told upon a constitution previously debilitated as at one time to place his life in great danger. But with the aid of hot-air baths, dry cupping, diaphoretics, and diluent drinks, supplemented by the infusion of buchu and nitric acid as medicines, he got over this.

On January 5th, three weeks after the disappearance of pus from the urine, and when he had regained his strength a little, Dr. Lyster again attempted to pass the filiform bougie, and to his surprise it went in without much difficulty. It is worth noting that during the time the patient's urine was loaded with pus and the febrile disturbances great, the flow of urine was less impeded than it had been previous to the attack. Having passed the bougie, the grooved director was then screwed on (Maisonneuve's instrument was used), which went in without difficulty; after which the urethrotome was passed and the stricture divided. A No. 10 catheter was then passed with ease, and allowed to remain in some time. Eight grains of quinine were given, and he was put to bed. For some days after the operation he had no control over his bladder, his urine passing away from him involuntarily, but he gradually gained power, so that when he left the hospital he was, to use his own words, "as well as ever." When he left on February 16th he was passing a No. 11 bougie daily, and otherwise in excellent health.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Peculiar Warty Growths on the Face. — Experimental Inquiry on Artificial Respiration in Stillborn Children.

THE ordinary meeting of this Society was held on the 26th ult., Dr. Barclay, President, in the chair.

The first paper read was one by Dr. THIN on "Peculiar Warty Growths upon the Face," of which the following is an abstract. The paper described the case of a young unmarried woman, twenty-one years of age, whose face had during the course of three years become covered with a great number of dark-brown, smooth, flat, papular growths, averaging about the twelfth of an inch in diameter. On some parts of the face these growths were so thickly set that they had coalesced into small patches. The whole face was covered, but the scalp and neck were free. They began on the skin, and gradually showed themselves on the upper part of the face. With the exception of the backs of the hands, on which they had begun to show themselves after they had existed two years on the face, no other parts of the body were affected. They produced no symptoms, and the skin surrounding them was healthy. Their number was so great that the face was nearly as much disfigured as if it were the seat of an extensive small-pox eruption. Microscopical examination of one of the growths showed that the affection had its seat in the epidermis, and might be considered as a rare variety of warts. The papillæ were much elongated, and the interpapillary epidermic projections correspondingly deep and wide. The papillæ contained a considerable number of exudation cells; there was very slight cell exudation in the superficial vessels immediately under the epidermis, and the connective tissue of the cutis was healthy. Some features in the case suggest an increase in the number of the growths by a process of auto-inoculation. None of the growths had disappeared, and they had resisted a variety of local and general treatment.

Then followed a paper by Dr. F. H. CHAMPNEYS, entitled, "Second Communication on Artificial Respiration in Stillborn Children: the Expansibility of various Parts of the Lungs. An Experimental Inquiry." The question dealt with is, "which part of the lungs of a child which has been subjected to various methods of manipulation with the view of artificial respiration is most frequently expanded, and which most frequently unexpanded?" An answer is attempted by careful study of the lungs of children thus manipulated, who have, however, breathed. The material was furnished by twenty-six fœtuses, the results of the experiments having already been laid before the Society. Of these twelve only could be utilised for the present inquiry, all those in which direct inflation had been used being necessarily excluded. A table is given in which the first column refers to the number of the experiment, the second to the methods of manipulation employed, the third to the amount of air charged, the fourth to the conditions of the thorax as shown by dissection. An analysis is given of thirty-six cases selected from Schmidt's 101 cases (Neue Versuche, &c. Wien, 1806); and of sixteen cases selected from Joerg's nineteen cases (De morbo pulm. Lips. 1832, and Die Fötuslunge Grimma, 1835). The results of this analysis are stated as follows:—In children which have died soon after birth: 1. The right lung is usually better expanded than the left. 2. The anterior surfaces more than the posterior. 3. The lower lobes are the parts most often expanded. 4. The right middle lobe is usually well expanded. 5. The part of the left lung corresponding to the right middle lobe is often better expanded than the rest of the left lung. When the right middle lobe, on the other hand, is ill expanded, the corresponding part of the left lung is often unexpanded also. It is remarkable that in children who have breathed naturally, the bases are so often unexpanded; this seems to correspond with the fact that the characteristic of feeble breathing in infants is feeble descent of the abdominal viscera, betokening feeble descent of the diaphragm. The author concludes, from his experiments, that in children which had been manipulated by the various efficient methods of artificial respiration: 1. The right lung is more usually expanded than the left. 2. The anterior surface than the posterior. 3. The apices of the upper lobes are often unexpanded. 4. The anterior inferior borders the same. 5. One of the places of selection for atelectasis is a strip running vertically along the angles of the ribs on each side of the spine. 6. The patches of expansion or atelectasis, when considerable, are not confined to lobes, nor bounded by fissures. 7. The last circumstance is not due to obstruction of the bronchi. 8. The spots of predilection for expansion or atelectasis underlie the region of greatest and least movement of the chest walls.—The PRESIDENT remarked that the simplicity of the conclusions arrived at were great proof of the value of the philosophical argument in the paper. — Dr. DOUGLAS POWELL, without wishing to anticipate the author's further contribution to the subject, thought it would be of interest to learn in which method of artificial respiration there occurred mediastinal emphysema and pneumothorax, which one was hardly prepared to hear could follow upon the use of the ordinary methods. The parts of the lung expanded corresponded tolerably closely to the attachments of the muscles on which traction was used—e.g., the pectorals. Another part expanded was the anterior inferior angle, which is the weakest part of the lung and the first to suffer collapse after absorption of pleural effusions. Again, the posterior parts which remained unexpanded in the child when the diaphragm was not used are those which are least able to expand. He could hardly explain the non-expansion of the apices, but then conversely it was not easy to account for the ordinary expansion of these parts. The scaleni muscles may exercise some traction on them, and perhaps the descent of the diaphragm also; but in Silvester's method, although the arms are drawn fully upwards, yet Dr. Champneys had found the apices commonly collapsed. The paper was of great practical value, although but a record of experiments. — Dr. REGINALD THOMPSON suggested that besides the possibility of rupture of the lung, the mediastinal emphysema and pneumothorax might be produced through the tracheal wound. Wilks and Moxon described two cases of sudden dyspnœa and death from collapse of the lungs following tracheotomy, and Dr. Thompson had seen a case of the same kind, where, however, the pneumothorax was unilateral, the lung on the opposite side being universally adherent. The portions of lung which Dr. Champneys found to be expanded were just those selected under other conditions—e.g., in acute over-distension of the lung (wrongly termed emphysema), sometimes occurring in a few hours in cases of acute œdema or rapid pleural effusion, where sudden and violent dyspnœa arises. The anterior and lower portions of the lung were drawn upon in such cases, and in becoming over-distended with air yield a very resonant percussion note, whereas the portion in the spinal fossa does not expand.—Mr. SAVORY suggested the importance of determining the degree to which the areas of expansion were due to the inherent qualities of the lung as well as extraneous causes. When a lung is inflated outside the body it expands unequally, and there might be anatomical conditions which determined this and the results of Dr. Champneys' experiments. The greater expansion of the right lung might be explained by the larger size of its bronchus, and the unequal expansion to variations in the degree to which different parts of the lung are developed, or the accidental accumulation of mucus in the air-tubes might produce such irregularity.—Dr. ROPER, finding it difficult to understand how pneumothorax could be produced by the gradual admission of air, suggested that there must be undue violence in the method to produce it. He had known rupture of the liver to occur from too violent measures. Perhaps the difference between the fœtal and adult lung had something to do with the production of the pneumothorax.—Dr. O'CONNOR in two cases of attempted inflation of the lungs in the stillborn had found only the anterior portions of the lungs expanded. In each case the artificial respiration was conducted with the child lying on its back, and he thought the position of the body might have some influence on the result, the absence of air in the dependent parts of the lung being possibly due to gravitation of mucus.—Mr. BARROW suggested that the emphysema and pneumothorax were produced in the expiratory movement, having found such emphysema in cases of children who had been overlain, when he attributed it to the pressure on the chest, causing rupture of the air vesicles. —The PRESIDENT asked in what respect insufflation differed from the other methods in its effect on the lung.—Dr. CHAMPNEYS, in reply, said that by insufflation the lungs could be perfectly inflated, in one or two cases to the extent of rupture. Owing to the small amount of material at his disposal he had practised all the methods in each case, but he had no doubt that it was in Schultze's method that the mediastinal emphysema and pneumothorax occurred. As he had shown in his previous paper, that method is a violent one, causing even a temporary over-inflation as shown by the manometer; and in performing it a peculiar sucking noise is produced at the root of the neck by the air finding entrance from the tracheotomy wound beneath the cervical fascia into the mediastinum. He had proved this by laying open the cervical fascia (without opening the trachea); then, placing some injection material in the wound and performing artificial respiration, the material disappeared, being forced into the mediastinum. Dr. Powell's explanation of the expansion of the anterior portions of the lung being related to the attachment of the pectoral muscles was good. He could not account for the non-expansion of the apices, except that the lower ribs move more than the upper; certainly it could not be from accumulation of mucus. Nor could mucus plugs explain the unequal expansion entirely, for the unexpanded parts were not limited to particular lobes. No doubt there were differences in the fœtal and adult lung, but the lung of a child which had never breathed was expanded with the greatest facility. Even a few breaths largely increase the tenacity of the lung, probably because its expansion allows of greater influx of blood and increased nutrition. The rapid improvement in the nutrition was evidenced by the rapid growth of the rib cartilages after birth. In his former communication he had noted that he had not found the portion of the body to influence the degree to which the lung is inflated.

Mr. CLEMENT LUCAS showed an infant the subject of Desquamative Syphilis of the Tongue, to which M. Parrot had recently drawn attention. The child was three months old, and began to suffer from an eruption on the nates at the age of one month. Later there appeared two small red patches on the tongue; these patches increased in size, and the interval between them became coated into thickened epidermis, resembling thrush, some varieties of which were, he supposed, of this nature. There was a clear history of syphilis in this case, the parents being two years married, and the mother showing syphilitic manifestations four months after marriage, and a previous child died a few weeks after birth, having an eruption on the nates.

MEDICAL SOCIETY OF LONDON.

Chancre on the Lip.—Evil Results of Partial Operation in Cancer of the Breast.—Acute Prostatitis.

AT the meeting on April 11th, Dr. Broadbent, President, in the chair,—

Mr. ED. OWEN exhibited a patient, a widow, with a Hard Chancre upon the Lower Lip. There was induration of the submaxillary lymphatic glands, and the chest and arms were covered with a papular syphilide. There had been no sore-throat, nor pains in the forehead or tibiæ. From the evidence before him he concluded that the sore had originated from syphilitic virus inoculated from mucous tubercles in the act of kissing. The patient had been taking drachm doses of the solution of perchloride of mercury twice daily for a fortnight, and the induration was steadily diminishing.—Mr. MASON referred to an instance where a man had been twice operated on by others for cancer of the lip; but in his opinion the induration was of syphilitic origin. He did not consider that the presence of a hard chancre in an extraordinary situation was very uncommon, and referred to cases which had been under his care.—Mr. WORDSWORTH said it was more difficult to distinguish a soft sore upon the eyelid, of which he had seen several cases.—Mr. HENRY MORRIS related the case of a young man who had been under his care for a chancre of the lip contracted from a female patient with a guttural voice and ulcerated tongue. The case recovered under mercury.

Mr. GEORGE LAWSON read a paper "On the Evil Results which follow Partial Operation in Cases of Cancer of the Breast." He stated that in the cancer wards of the Middlesex Hospital patients were admitted from all parts, and allowed to remain for life. Opportunities were thus afforded for studying not only the varieties of cancer, but also the various methods of treatment adopted by surgeons for the removal of the disease. He read the history of two patients who had been admitted into this hospital under his care, suffering from cancer of the breast, and in each of whom two partial operations had been performed. In each case the primary nodule had been excised without removing the breast. A recurrence of the disease soon took place, and the recurrent growth in each patient was excised, but the breast left. Mr. Lawson expressed his opinion that to do a partial operation and remove the tumour only, and leave the breast was not only useless, but worse than useless. One operation stimulates the growth of the cancer, and hastens the progress of the disease instead of retarding it. The delay of efficient treatment which such a partial operation causes is also very prejudicial, as the recurrence of the disease, which is almost certain to take place, is usually very extensive, and frequently such as to forbid any further operative proceedings. "I am convinced," he said, "that in all cases of scirrhus of the breast which admit of operation, even though the growth be no larger than a chestnut, and be placed at the edge of the gland, the whole breast should be removed, and that rather than perform a partial operation it is better to allow the disease to run its course."—The PRESIDENT remarked that the paper opened up the old question as to whether cancer was of local or constitutional origin.—Mr. MASON asked if the author would remove the whole mamma if the disease were situated well to one side of it. Few cases came back to him for secondary operation, and he would ask what became of all the cases operated on. Did they relapse or get well? Sir W. Fergusson had a case where there had been no recurrence ten years after operation.—Dr. GILBART SMITH asked whether in a case of cancer implicating both breasts Mr. Lawson would remove the whole of each organ.—Mr. OWEN asked the author for his opinion upon repeated operations in recurrent scirrhous infiltration. He mentioned the case of a woman who had been operated on no less than four times by himself and by Mr. Lynch once for return of the growth in the cicatrix and the axillary glands. It was now about eight years since he had performed the first operation, and more than a year since the last; to all appearance the patient was now perfectly well.—Mr. LAWSON, in reply, said that in his opinion it was expedient to remove the whole of the breast even when the malignant infiltration invaded it but partially. His experience was that patients operated upon continually returned for further advice. In the majority of cases there was recurrence. He had never had occasion to operate on a patient with each breast affected, but he had removed a scirrhous mass from a woman on whom Mr. De Morgan had, many years before, excised the other gland for cancer, and who even now continues well. He thought that in many cases, such as that reported by Mr. Owen, everything was gained by repeated operation, but there were others in which the local and constitutional conditions precluded further operative interference.

Mr. REGINALD HARRISON, of Liverpool, read a paper on Acute Prostatitis, of which he distinguished two forms—the follicular and the parenchymatous. The former was most frequently seen as a complication of gonorrhœa, and suppuration was exceptional. In reference to suppuration and the insusceptibility of the muscular element of the prostate to inflammation, Bumstead's observations apply accurately to follicular prostatitis. He says:—"There is never at the outset an abscess of considerable size. Such occurs only by the coalescence of a number of small ones seated in the follicles. Meanwhile the muscular tissue which constitutes so large a portion of the prostate gland is unaffected, except that it is in a constant state of contraction, thereby inducing urethral and rectal tenesmus." The other form of prostatitis, the acute general or parenchymatous, was a much more serious condition, as the whole mass of the prostate, becoming inflamed, tended to suppurate rapidly. Here, unless the treatment was prompt and decisive on the first appearance of fluctuation, as detected by rectal examination, the most serious results, both to structure and life, were likely to follow. This form of prostatitis was rare, and few examples were recorded, but sufficient to distinguish it. It was usually accompanied with more or less serous, or even purulent, infiltration of the structures around the gland, a condition which had been described as periprostatitis, which he had only seen as secondary to acute prostatitis. This form of the affection was only observed in individuals of either much deteriorated constitutional powers, or whose urinary organs had been more or less damaged by long-standing obstructive disease. Some instances he had observed were apparently due to a previous state of tuberculosis of the gland. The occurrence of suppuration was to be carefully looked for, as the spontaneous escape of matter in such directions as the rectum, bladder, and peritoneal cavity was likely to be much more detrimental than the opening which the surgeon would afford. Gangrene of the prostate as a consequence of inflammation was referred to as occasionally happening, and two illustrations of this were given, one following lithotomy in an unhealthy subject. Inflammation and suppuration round the membranous portion of the urethra, not uncommon in gonorrhœa and phlebitis of the vessels forming the prostatic tissues, simulated prostatitis. The former presented many points of resemblance to inflammation of the gland, but distinguished by perineal tumefaction and digital examination of the rectum. Particulars of two cases of blocking of the dorsal vein of the penis followed by an extension of the blocking to the prostatic tissues were briefly narrated. In the treatment of prostatitis the local abstraction of blood and hot applications were most efficacious at the outset of the disease. Hot enemata, as advised by Guthrie, and the injection of hot water into the urethra by means of a douche were also recommended. Mr. Harrison was strongly opposed to the use of purgatives, as causing pressure to be exercised on the inflamed prostate by the levator ani muscle, and being opposed to the principle of securing rest in the treatment of an inflamed part. The occurrence of suppuration was to be carefully looked for, and in reference to this point he was disposed to formulate a conclusion to the effect that any formation of matter which was not to be detected by the finger in the rectum might with safety be left to evacuate spontaneously; but that when fluctuation was in this way detected, a perineal incision became imperative Incision was preferred to puncturing the abscess with a trocar by the rectum. Stress was laid upon the great importance of rectal examination in all these cases, or in those simulating it, and for this purpose should the pain or tension be so great as to interfere with the thoroughness of the procedure, the use of an anæsthetic was advised. A brief reference was made to abscess of the prostate unattended with the ordinary symptoms, such as the case recorded by Dr. Pitman of St. George's Hospital, where this happened as a sequence of gonorrhœa, and terminated in the death of the patient. An occasional consequence of follicular prostatitis was a more or less permanent dilatation of the follicles, and this was believed to be a not uncommon source of prostatorrhœa—a complaint well described by Professor Gross, and often very difficult to cure.—Mr. LAWSON mentioned the case of a man who had pain on micturition and defecation, found to be due to an abscess, which was successfully evacuated by puncture through the rectum.—Mr. H. MORRIS referred to a similar case, in which the chief sign was a painful diarrhœa, which turned out to be associated with prostatic abscess. This was treated by incision through the perineum. The abscess did not seem to be in communication with the urethra. He considered it impracticable to distinguish between a follicular and parenchymatous abscess. Many such abscesses started in follicular inflammation and suppuration; and he thought that in some cases the condition was associated with sudden suppression of the seminal discharge.—Mr. TEEVAN agreed that it was hard to discriminate between a follicular and parenchymatous inflammation. He was in the habit of applying solid ice to the rectum in the early stages of inflammation, and he related two cases in which the inflammation was due to sudden attacks of cold.—Mr. OWEN asked the author if he would not prefer to open a prostatic abscess which lay quite close to the rectal mucous membranes through the bowel rather than through the perineum. When, as sometimes happens, the surrounding tissue is healthy or indurated, it might take weeks before such a localised abscess would burst into the urethra. In his experience acute prostatitis with suppuration attacked the strong and healthy rather than the tuberculous subject. From the analogy afforded by the relief given in acute orchitis he suggested that puncture of the acutely inflamed growth might give speedy relief, and obviate the future formation of abscess.—Mr. MASON had practised puncture of the acutely inflamed prostate with manifest advantage.—Mr. GOODSALL said that in his experience prostatic abscess was rare, and when seen was usually the result of gonorrhœa. An enema was valuable at the outset of treatment.—The PRESIDENT, though he had never seen a case of prostatic abscess, had seen several instances in Ricord's clinic in which suppuration had been diagnosed in the glands of Cowper.—Mr. HARRISON, in reply, said that when the abscess seemed close to the rectum the incision might be made through the bowel. He admitted that it was often difficult to diagnose the inflammation beginning in the follicle from that starting in the parenchyma. The former was of much more common occurrence, and general suppuration within the capsule was no doubt rare. The causes of inflammation were various, though the gonorrhœal poison was most frequent. There was an analogy between acute inflammation of the prostate and that of the testis, and in certain cases multiple puncture may be performed, though he had no experience of it. When inflammation was followed by tumefaction in the perineum, such abscess as a rule had no association with the prostate.

The meeting then adjourned

Reviews and Notices of Books.

Grundzüge der Physiologie des Menschen mit Rücksicht auf die Gesundheitspflege. Von JOHANNES RANKE, Prof. au der Universität zu München. Fourth Edition. 274 Woodcuts. Pp. 1086. London: Williams and Norgate.

PROFESSOR RANKE'S work is one of the great German text-books on Physiology, and takes equal place with those of Müller, Ludwig, Otto Valentin, Otto Funke, Hermann, Wundt, Budge, and Landois. Each of these great works has an individuality of its own, and Ranke's treatise holds no mean position amongst them. For breadth of view and general knowledge none surpass John Müller's classical book, and we should be inclined to place this at the top of the series, though now, of course, it is antiquated. Many parts may, however, still be read with advantage by the teacher if not by the pupil. Otto Funke's, perhaps, comes next, though it is heavy reading after Müller. Its enormous paragraphs, sometimes extending over two or even three pages without a break, are very trying, though they are full of matter. The account of the senses, and especially of the eye, is remarkably complete and full, occupying, in fact, nearly one-sixth of the whole work. The death of the author prevented the fifth edition from being carried further than the first two parts, but a new edition has been recently issued, brought up to the present day. This constitutes a very excellent text-book for the lecturer, but is hardly serviceable to the student. Valentin's treatise is pleasantly written, was well translated by Dr. Brinton, is excellently illustrated, and contains many facts that when the work was issued were original, and its short and pithy sentences strongly impress themselves upon the mind; but it is now far behind the time in every branch of physiology. Wundt's Physiology is a sound work, but is only a part of an encyclopædia, many points being relegated by the author to his treatises on Medical Physics and Physiological Psychology. Of Hermann's work we can only say that it is uncommonly tough reading — in fact it is rather a memorandum-book for the lecturer than a text-book for the student. The original has faults of arrangement that even Dr. Gamgee's abilities have failed to remove in translation. The introduction of the authority for each statement in brackets is destructive to all continuous reading. The perpetual occurrence of parentheses, the alternation of large type and small type, and the harsh dogmatic style, are all features that render it unsatisfactory for the student. The chemical introduction has graphic formulæ that make one wonder whether any mortal has achieved the task of fixing more than one on his memory.

Landois' work is a very successful one, and deserves translation. It is full, accurate, not too lengthy, excellently illustrated, and well adapted for the practitioner. A due proportion is maintained between the different parts, and both the practical and theoretical side of physiology are well represented. It has the advantage of giving all recent work clearly and intelligibly, and rarely deals with mathematical symbols.

The distinguishing characteristic of Ranke's work is the pains he has bestowed upon that side of physiology which is of practical utility and can be applied by the physician. Though Funke's work is double the size of that of Ranke, the latter devotes nearly twice as much space to the consideration of the subject of nutrition, including the different kinds of food, the action of the digestive fluids upon them, the structure and movements of the intestinal canal, and the balance of the ingesta and egesta. Ranke bestows much attention upon the blood, upon the subjects of respiration, ventilation, and the urine, and generally upon the application of physiology to hygiene. On the contrary, the nervous system and the special senses are very shortly discussed, and development is practically omitted. There are good sections appended to each chapter on the manipulation of physiology. In these the student will find the best and most recent methods of testing for the various normal and abnormal constituents of the urine, the tests for the bile and for the purity of milk, and modes of applying electricity.

There are a few points to which we should like to call attention in Professor Ranke's work. In speaking of the blood, he makes a statement, which is probably true, to the effect that in the new-born infant it amounts to only 5·2 per cent. of the weight of the body, instead of 7·7 per cent., as in the adult, which may account for the serious effects of small losses of blood in young children. He has found also that fat, well-fed persons have but little blood comparatively, which might not be expected. Strong muscular exertion diminishes the quantity of blood, and it diminishes in the course of many diseases; yet its normal proportion, as his experiments show, is rapidly regained—perhaps owing to the great diminution of the secretions on the one hand, and on the other to the powerful current that sets in to the blood from the tissues.

Ranke has made some interesting researches on the distribution of the blood in the system, and considers that the whole mass may be divided into four parts—one of which is contained in the heart and large vessels, one in the liver, one in the quiescent muscles, and one in all the remaining organs put together. Great variations occur at different times in accordance with the functional activity of the several organs, and no better instance of this can be given than in the case of the muscles of the frog, which when exhausted by long-continued exercise, contain 47 per cent. more blood than when in the quiescent condition. As a consequence blood being withdrawn from the general system the activity of the secreting glands is considerably lowered, and the quantity of urine and bile secreted is diminished.

All the sections on nutrition are interesting in this work. Speaking of the influence of flesh diet on the excretion of urea, he states that whilst the average healthy man eliminates 37 grammes per diem, which proceeds chiefly from the disintegration of albumen, he has been able by taking an excess of animal diet to raise the quantity to 86 grammes per diem, or 1345 grains. Ranke's observations on himself whilst fasting showed, on the other hand, that on the second day of complete abstinence, the quantity of urea eliminated was only 17 grammes, or 260 grains, a very small amount for a man of large frame, weighing about 200 lb. Ranke shows very clearly that for the absorption and application in the economy of non-nitrogenous food, the presence of a certain amount of albumen is absolutely necessary—a point that is now well-known, and always mentioned in text-books, but which he, with Bischoff and Voit, was the first to ascertain by direct experiment.

Professor Ranke mentions the chief centres in the spinal cord and medulla oblongata, and states also over what functions they preside; but we think he should have mentioned the afferent and efferent fibres in each instance. The views of Meynert on the structure, and those of Hitzig and Ferrier on the physiology, of the brain, are given fully enough. Upon the whole, the work seems to us to be sound, and it certainly contains many facts which are the outcome of Ranke's own observations. The illustrations are 274 in number, and though not particularly finished specimens of wood engraving, are useful additions to the text.

Dysmenorrhœa. By Heywood Smith, M.D. London: J. and A. Churchill.

Dysmenorrhœa is treated of in this work as ovarian, tubal, uterine, that arising from diseases of the broad ligaments, and from general diseases. As painful menstruation is or may be present with most diseases of the uterus, broad ligaments, and ovaries, it follows that most of these diseases would have to be noticed under such a classification. And this we find the case in this little work of 122 pages. In the preface the author states that the work was "written originally with an object other than publication." It is a pity he did not adhere to his original intention. There is, however, something new in the work. In a note it is stated, "On January 20th the author performed an operation which he believes is entirely new, in a case of retroflexion, where the utero-sacral ligaments were shortened and very tense. The operation consists in passing a knife per rectum, and slightly cutting through the ligament near its sacral origin." We readily allow the claim made by the author; but while we grant that he is the first, we may be permitted to express a hope that he may be the last to perform an operation of this nature.

A Treatise on the Diseases of the Ox. By John Henry Steel, M.R.C.V.S., &c., late Demonstrator of Anatomy at the Royal Veterinary College of London. London: Longmans, Green, and Co. 1881.

A really good work on the diseases of cattle has not yet been produced. Youatt's treatise on the ox was undoubtedly a great advance on anything that had been previously published, and up to the present day it has been pretty well the standard book on cattle disorders. Other works have been issued since it first appeared, but they have generally been written for amateurs, and aimed at teaching every cow owner how to minister to the ailments of his animal, rather than advancing bovine pathology. Mr. Steel's "Diseases of the Ox" does not belong to what might be designated the popular class of animal-doctoring books, as he has evidently aimed at something better, and has attempted to produce a work which might be useful to the student, or even to the veterinary practitioner, as a handy work of reference. In this he has very well succeeded, considering the materials at his hand, and we have a book which fairly represents the knowledge possessed of the maladies of the bovine tribe in this country. The author does not pretend to offer anything in the way of novelty, but rather to give a summary of the various notions which prevail among those who have specially devoted themselves to this branch of veterinary medicine. To the medical man who may have occasion to deal with the subject at any time, the book will be found better and more reliable than any other we are acquainted with in the English language, and more especially as it gives at the end some bibliographical notes which will assist the inquirer to extend his knowledge further.

THE

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, APRIL 28TH.

DR. ACLAND, PRESIDENT, IN THE CHAIR.

Dr. PYLE, pursuant to notice, asked the President whether certain business referred to in the minutes of the Executive Committee did not more properly belong to the Branch Council, and if it was consistent with the Council's recommendations for the Executive Committee to undertake such duties.

The PRESIDENT said that the categorical answer to the first question was "Yes," and to the second "No," but that the subject might be further elucidated under Dr. Storrar's motion for a reconsideration of the Standing Orders of the Council with reference to the duties of the committee.

Mr. TURNER, in resuming the debate on the adjourned consideration of the report of the Executive Committee in regard to certain students from India, said there were two questions before the Council—whether the pass examination in Latin was to be insisted on as a necessary preliminary to registration of the student; and whether the licensing bodies were to be allowed to admit to the professional examinations candidates who had not been registered. The Executive Committee had acceded to the applications of the gentlemen from India, who had been registered as students, substituting some other language for Latin. The Council ought not to forget that similar applications had been made on former occasions. Several had been received by the Scottish Branch Council, who declined to register until the students had passed an examination in Latin. Complaints had been made that Indian students had been examined by certain of the Boards without passing in Latin, and special reference had been made to the Society of Apothecaries.

Mr. BRADFORD said that no one was admitted to the first examination at Blackfriars who had not passed a preliminary examination in arts, including Latin. No exception was made to that rule, even in the case of the Indian students.

Mr. TURNER said that as conflicting views appeared to be entertained on the subject, it should be decided by the Council. The Court of Examiners of the Society of Apothecaries had had under consideration the cases of Parsee candidates, and were prepared to institute a special examination in Latin for those who had not already passed in that language. As to the second question to which he had alluded, Sir J. Paget had said that the College of Surgeons of England had reserved to itself the right to take into consideration the cases of students from India and the colonies who had not gone through the examinations required by the Council, and had not been registered. The Scottish Branch Council, however, had decided that in all cases medical students should be registered as such before being admitted to the professional examination, even although their whole course of medical education had been taken out of this country. There was thus a want of uniformity in the matter, and the question was what course ought the Council to adopt. Should it act upon a rigid rule, or make some allowance in the cases under consideration? He thought that a rigid rule should not be established, but that some allowance should be made on good cause being shown. A large number of colonists and Indians came to this country to obtain medical qualifications, and ought the Council to tie up the examining bodies by a rigid rule, and say that no one should be admitted to professional examination unless he had been registered as a student after passing such an examination as the Council had prescribed? He thought not. His own feeling was that discretionary power might be given to the licensing bodies, who might be required to report on all cases in which exceptions had been made, and the reasons for such exceptions.

The PRESIDENT said as Chairman of the Executive Committee he was grateful to Mr. Turner for having put the case so clearly before the Council. It might be a question whether the Executive Committee had been strictly right in the course it had adopted, but their choice lay between that course and summoning the Branch Council from all parts of England to decide upon the cases of seven or eight students, thus bringing to bear upon them a costly and cumbrous machinery.

Dr. PITMAN moved, "That the General Medical Council delegate to the Executive Committee as well as to the Branch Councils the power to make exception to the recommendations on education and examination in cases in which such exception shall seem to them to be reasonable."

Dr. QUAIN, in seconding the motion, said there were cases coming before the Executive Committee of students from the East, to whom Latin would not be of the slightest use, and it would be a great hardship if they were not allowed to commence their studies in England without a knowledge of that language.

Mr. TURNER moved, as an amendment, "That in cases where, for some special reason, candidates for admission to professional examinations by the licensing bodies may not have been able to comply with all the recommendations of the Council as regards the examination in general education and registration thereon, exception may be allowed."

Sir W. GULL said that at present no one could go to the College of Physicians or the College of Surgeons for a diploma without having a certificate of registration from a Branch Council.

Sir JAMES PAGET, in seconding the amendment, said that licentiates from various countries in Europe came to England for diplomas, being already qualified practitioners. Were such persons to be registered as students? He was sure that any of the licensing bodies would exercise the right of dealing with such cases. There were other cases of students who merely came to England to complete their education, and to add to titles acquired elsewhere, having passed an examination fully equivalent to that required in their country, though not, perhaps, including this or that special subject. It would be unfair to exclude all such students, and to require registration before examination. Registration was not compulsory by Act of Parliament, and could not be enforced. The Council should retain sufficient power to check abuses, and do nothing more.

Sir W. GULL thought that all exceptions should be made through the Branch Councils.

Mr. MACNAMARA said that the branch registrar had no power to refuse to register a candidate who produced a licence from the Royal College of Surgeons; he could not compel the candidate to produce evidence of having been registered as a medical student. It was competent, however, for the Council to recommend the bodies not to issue their qualifications unless the candidate had fulfilled the requirements of the Council. He agreed with Sir James Paget that it would be wrong to lay down a hard and fast law. Cases would arise as to what the corporations were best qualified to judge for themselves. The college which he represented had determined in future to send all such cases to the Branch Council.

Mr. SIMON said that the Council had passed no law in reference to the matter, but had only issued a recommendation. He thought that a rider might be added to Mr. Turner's amendment defining the classes of cases to which the exceptions should apply.

Dr. STORRAR said that hitherto the matter had been brought before the Branch Councils, and he was not aware that they had found any difficulty in dealing with it. He looked with suspicion on applications for special exemptions, and if they were too readily received there would be no end to them. It appeared that the Society of Apothecaries had already provided that Cæsar's Commentaries should be presented for examination to candidates coming from India, and that was a sufficient remedy for the difficulty. He objected to providing any special machinery for regulating exemptions. The matter should rest with the Branch Councils.

The amendment was then put and carried, with the addition, after the word "exceptions," of the words (suggested by Mr. Simon), "on principles to be fixed by the General Medical Council."

It was then referred to the Executive Committee, with Mr. Turner, to prepare for the consideration of the Council draft rules defining the classes of cases in which exceptions might be properly allowed.

Mr. SIMON again brought under consideration of the Council the question whether passing the second-class examination of the College of Preceptors, provided the candidate passed in the first division, might be taken to satisfy the requirements of the Council for Preliminary General Education. He moved, "That passing the second-class examination of the College of Preceptors may, on the following conditions, be deemed to satisfy the requirements of the Council for Preliminary Education—that is to say, provided, as regards Section 5 of the examination, that both algebra and Euclid be taken; and provided, as regards Section 6 of the examination, that Latin and also one of the modern languages be taken; and provided that the candidates' pass of the examination be in the first or second division of the pass; and with the understanding that the requirements of the Council in respect of Preliminary Scientific Education are not in any degree diminished by reason of a candidate's having passed the above-described Preliminary *General* Examination."

Mr. TURNER seconded the motion, which was agreed to.

DENTAL BUSINESS.

On the motion of Dr. PITMAN, seconded by Dr. SMITH, Dr. Haldane was appointed a member of the Dental Committee, in the place of the late Dr. Andrew Wood.

A communication was read from the Representative Board of the British Dental Association, thanking the Council for its prompt consideration to the elucidation of certain provisions of the Dentists Act.

Applications were received from a number of registered dentists also holding medical or surgical qualifications, requesting that such qualifications might be added to their descriptions in the Dental Register. Upon these applications,

Dr. STORRAR moved, "That every registered dentist holding any of the qualifications recited in Schedule A of the Medical Act shall be entitled to have such qualification or qualifications recorded on the Dentists' Register, as evidence of the possession of a higher degree of knowledge." The object of the Dentists' Register was to inform the public who were duly qualified and who were not. There could be no doubt that a dentist having a diploma, for instance, of the College of Surgeons was better qualified than one having no such diploma.

Mr. TURNER said he would second the motion if it was limited to the *surgical* qualification recited in Schedule A.

Dr. STORRAR assented to the insertion of the word "surgical" in the resolution.

Dr. QUAIN called Mr. Turner's attention to the resolution previously passed by the Council directing the registrar not to make entries in the column headed "Additional Diplomas," &c.

Mr. TURNER maintained that Dr. Storrar's motion had nothing to do with the "column," but if it had anything to do with it he saw no reason why the Council should not reconsider its decision. Dr. Storrar had made no proposal that there should be a separate column, he had only proposed that the qualifications in question should be recorded in the Register. The Dental Act stated that the Register should contain a list of dentists with the qualifications in respect of which they were registered, and "such particulars and in such a form as the General Council may from time to time direct." The opinion of counsel was that the only additional qualifications which should appear on the Register were such as should express or imply a fitness to practise dentistry. Did not the possession of a surgical qualification imply a superior degree of fitness to practise dental surgery? If it did he maintained that the Council had power to record it on the Register.

Dr. QUAIN said if surgical qualifications were entered, he did not see why physicians should not have the same advantage. He did not think that Dr. Storrar's proposal could be carried out without an amendment of the Act of Parliament.

Mr. SIMON said they were not justified in maintaining as a universal law that a man was a better dentist for being a member of the College of Surgeons. If surgical qualifications were to be entered where were they to stop? If they went beyond actual dental knowledge and requirements they would get into serious difficulty.

Dr. BANKS agreed with Mr. Turner that it would be a hardship to the holders of higher qualifications not to have them entered. Some dentists possessed the same education as medical men, while others were simply tradesmen.

Dr. PITMAN said the question was to determine what was "an additional qualification in dentistry." He maintained that that was the function of the Council, which had powers to "make, and, when made, revoke and vary orders for the registration in and removal from the Dentists' Register of any additional diplomas, memberships, degrees, &c., which appear to the Council to be granted after examination by any of the medical authorities in respect of a higher degree of knowledge." Was not membership of the College of Surgeons a higher qualification as regards dentistry? That was a question for the Council alone to decide.

Dr. SCOTT ORR thought it would be a great hardship to deprive the holders of higher surgical qualifications of the privilege of having them registered; and he thought there would be no objection to their being entered in the first column immediately following the name.

Mr. TEALE agreed with Dr. Pitman, that the Act contemplated that the Council should decide what was a higher qualification in dentistry.

Mr. SPENCE had no hesitation in saying that a man possessing the diploma of one of the medical bodies was certainly better qualified as a dentist than a person not possessing such a qualification; and he saw no reason why the public should be prevented from knowing who were the best men.

Dr. PYLE thought that the entry of the additional qualifications acted as a stimulus to members of the dental profession, and tended to raise their status.

Sir JAMES PAGET said that dental matters often involved questions of constitution, but an ordinary dental qualification implied no power to judge, say, of the liver or other organs of the body, an examination of which might be necessary in order to decide on the proper treatment of the case. It would be difficult to find any case in surgery in which a man who had been educated in regard to one locality alone would be so good a judge as one who had been educated in regard to all. Upon those grounds he could not doubt that if the Council had a right to add such qualifications, it ought to enter them upon the Dentists' Register.

Dr. MCCLINTOCK thought it would be a retrograde movement on the part of the Council to throw any discouragement in the way of men who desired to take higher qualifications.

Dr. HUMPHRY maintained that the "higher degree of knowledge" must be within the meaning of the Act, and that the Council could not go beyond it. It was true that a surgeon might be a better dentist for his surgical qualification, but the same thing might be said with regard to any well educated man. The Council had decided to enter the qualifications and had then taken them off, and he should be sorry to have them put on again without good reason.

Dr. HALDANE would vote for the insertion of the additional qualifications if he thought that the Council had the requisite power, but believing that it would be illegal he felt compelled to vote against Dr. Storrar's motion.

Sir WM. GULL asked why the resolution was limited to "surgical" qualifications, and suggested that a person acquainted with the diseases of women and children would be a better dentist for that qualification.

Dr. STORRAR said he had no objection to introduce medical as well as surgical qualifications.

Dr. PITMAN said in that case he would retract all he had said.

Dr. STORRAR said his desire was to allow all dentists with higher qualifications to place them on the Register, but if he could not succeed in regard to medical qualifications, he would take the opinion of the Council first on the question of surgical qualifications.

Mr. OUVRY, at the request of the Council, called attention to various clauses of the Act, and said it was clear that the Council could not put in the existing column any of the additional diplomas or titles in question. If they were inserted at all they would have to be inserted in the first column after the name. It was for the Council to decide whether the examination which the licentiates had passed was or was not equal to, or higher than, the amount of dental knowledge enabling a person to obtain a dental diploma.

Dr. STORRAR'S motion was then put and carried by a majority of 13 against 5.

Dr. QUAIN said those who held College diplomas, and who practised as dentists, but did not register as dentists, might require the Council to revoke its proceeding if illegal.

It was moved by Dr. PITMAN and seconded by Dr. TURNER, "That the additional surgical diploma, membership, degree, licence, or letter, be entered in the fourth column of the Dentists' Register, and after the original entries."

Dr. SCOTT ORR moved, as an amendment, "That any additional diplomas, memberships, degrees, licences, or letters, be entered in the same column."

The amendment having been seconded, was put and negatived. The original motion was afterwards put and carried.

The Council then adjourned.

FRIDAY, APRIL 29TH.

On the usual motion for the confirmation of the minutes,

Mr. SIMON, referring to the proceedings of the Council yesterday in reference to the Dental Register, asked that the members who objected to those proceedings on the ground of illegality might be permitted to record their protest against them.

Dr. QUAIN asked whether the previous resolution of the Council, at its last sitting, should not have been rescinded before the resolution of yesterday had been passed.

The PRESIDENT said he would answer the question at a future time. Those who protested against the proceedings could, if they desired, vote against the confirmation of the minutes.

Mr. SIMON complained that Mr. Ouvry's opinion had not been placed on the minutes, and moved as an amendment that that opinion against the legality of the proposed motion should be recorded.

Dr. STORRAR and Sir JAMES PAGET objected to Mr. Ouvry's opinion being entered on the minutes. They had no objection, they said, to the statement of the fact that Mr. Ouvry had given his opinion.

The question was rather warmly discussed for some time, and ultimately Mr. Simon's proposal was negatived, the PRESIDENT remarking that perhaps Mr. Simon's object would be attained by the insertion of his amendment on the minutes. It was then resolved that a record should be made of the fact that Mr. Ouvry was asked to give, and gave, his opinion on the interpretation of the Act.

The following is an abstract of the report presented by the Finance Committee:—

"The Finance Committee reports that the income of the General and Branch Councils for the year 1880 (ending January 1st, 1881) has been £6871 19*s.*, an amount which exceeds the income of the year 1879 by £702 5*s.* The expenditure during the year 1880 has been £5303 18*s.*, which is less than the expenditure of 1879 by £116 9*s.* 9*d.* The committee has the satisfaction of reporting to the Council that the income during the year 1880 has exceeded the expenditure by the sum of £1568 1*s.* The items of expenditure in which there is an increase in the year 1880 over that of 1879 are:—(1) On the Pharmacopœia, the expenditure for which amounts to £483 5*s.*, due to a reprint of the work being required during the year. This outlay is in course of reimbursement. (2) The other items on which a noticeable increase of expenditure has taken place are miscellaneous printing, amounting to £98 10*s.* 1*d.*, and on the Medical Registers, £60 3*s.* 4*d.* The increase in the expenditure of 1880 over 1879 in regard to certain items is £732 2*s.* 5*d.* The principal items of diminished expenditure of the year 1880, as compared with 1879, are in the fees paid to the Council, amounting to £533 13*s.* 6*d.*; in salaries and retiring allowances (the retiring allowance to one of the late clerks having lapsed by his death), amounting to £94 5*s.* 5*d.*; and some smaller sums, amounting altogether to £779 2*s.* 4*d.* This will show, on the whole, a decrease of £46 19*s.* 11*d.* The average income of the General and Branch Councils during the last seven years exceeds the annual average expenditure by the sum of £62, whilst the excess of income during the years 1879 and 1880 is respectively £961 10*s.* and £1568 1*s.*

"DENTAL FINANCE.—On January 1st, 1881, there remained to the account of the Dental Fund a sum of £9000 of New 3 per Cent. stock, and in the bank £824 8*s.* 11*d.*, making a total of £9824 8*s.* 11*d.*; but it must also be noticed that while the total income of this fund during 1881, from all sources, amounted only to £616 7*s.* 3*d.*, the expenditure amounted to £1808 10*s.* 7*d.*, leaving a deficiency of £1192 3*s.* 4*d.* to be met out of invested capital.

"By request of the committee, the registrar has prepared the following roughly approximate estimate of the probable future annual income and expenditure of the Dental Registration:—

ESTIMATED INCOME.	£	*s.*	*d.*	ESTIMATED EXPENDITURE.	£	*s.*	*d.*
Dividends	274	0	0	Proportion of General Council's Fees	510	0	0
Fees (at present rate)	250	0	0	Fees for Executive and Dental Committees	117	0	0
Total Income	524	0	0	Proportion of General Expenses	500	0	0
Deficiency	883	0	0	Printing	150	0	0
				Law Expenses	50	0	0
				Miscellaneous	80	0	0
	£1407	0	0		£1407	0	0

"This table shows a probable future excess of expenditure over income of about £880, which will have to be met by drafts on the invested capital."

Dr. QUAIN moved and Dr. SMITH seconded the adoption of the report.

Mr. TURNER remarked that if the calculated annual deficiency in the dental account went on for ten years the Dental Fund would be bankrupt.

Dr. QUAIN said they anticipated a considerable increase in the fees in future.

Mr. TURNER said it was a question whether the dentists had not been somewhat over-weighted in the proportion they were called upon to pay towards the expenses of the Council.

Dr. QUAIN said that the registrar was very scrupulous in his division of the expenses so as to make it as accurate as possible.

The PRESIDENT was very anxious that something should be done to diminish the expenses.

A report was received from the General Branch Council recommending an alteration in Section 5 of Chapter 16 of the Standing Orders, with reference to the appointment of trustees of the funds of the Branch Councils.

Dr. QUAIN, in moving the adoption of the recommendation, explained that at present, when a trustee ceased to be a member of the Council, it was necessary to appoint another who was a member; and as that involved considerable expense it was proposed that a trustee once chosen should continue in the office whether a member of the Council or not.

The motion was agreed to.

Mr. MACNAMARA moved, "That it is desirable to hold a stated meeting of the General Medical Council once in each year." He did not wish to interfere with the prerogative of the President to convene at any time a meeting of the Council, but he thought that a stated meeting once a year would be a great advantage to the members. The President would still have the power of convening special meetings whenever he thought it desirable.

Dr. LEET seconded the motion.

Dr. BANKS said he had been requested by Dr. Haughton to express his great regret that it was quite impossible for him to attend. It was also extremely inconvenient for himself (Dr. Banks), but he was quite sure that the President had exercised a wise discretion.

Dr. STORRAR said that there had been no greater difficulty experienced by the Presidents of the Council than that of fixing its meetings. At the same time he thought the duty should still rest with the President, who would do his best to meet the general convenience of the members and the exigencies of the business of the Council.

Dr. SMITH concurred in the views of Dr. Storrar. A special meeting of the Council, he said, could be summoned at any time in cases of emergency.

The PRESIDENT, in putting the motion, said that with reference to one meeting of the Council he had written seventy or one hundred letters before fixing the time, and that on another occasion he had consulted the Government as to the time when the second reading of a Medical Bill would come on. He hoped that the time would come when the Council would be able to hold its meetings at stated periods, but he hardly thought that that happy time had yet arrived. With regard to the present meeting, as soon as he learned that Dr. Haughton could not attend he considered whether it would not be his duty to postpone it, although the time had been settled for some days, by writing personally to every member on the subject; having, however, carefully considered the matter, he decided that it would not be in the public interest to adopt that course. The duty of arranging for the meeting, he need not say, was a very anxious one.

Mr. MACNAMARA said that after the kind words of the President he would withdraw the motion.

Mr. MACNAMARA moved, "That it be recommended to the several licensing bodies to institute examinations at the end of each year of professional study, which the student should pass before being permitted to enter on the subsequent year's course of study." The motion, he said, was in accordance with the expressed opinions and recommendations of the Council, which had almost unanimously decided that the examinations should be broken up into departments. Anyone who had had experience in medical education would know that in the first year of study pupils were ardent and diligent, that they often relaxed in the second, were still more indifferent in the third, and redoubled their efforts in the fourth to make up for lost time. It was, therefore, desirable that at the end of each year the pupils should be tested in the studies they had gone through in the year. He did not propose any formal method, but would leave it to the discretion of the several authorities. In many cases parents and guardians sent their sons to receive a medical education, and paid large sums for that purpose, which in the end were found to have been wasted owing to the failure of the students. If the failure were discovered at the end of the first year but little expense would be incurred, and the student's efforts could be directed elsewhere.

Dr. MCCLINTOCK seconded the motion.

Mr. TEALE objected to the motion as being a mere reaffirmation of an existing recommendation of the Council.

Mr. SIMON said he could not quite adopt Mr. Macnamara's motion, but he was of opinion that there should be a division in the professional education, and that time should not be allowed to count in the more advanced studies until an examination had been passed in the earlier part of the curriculum.

Mr. MACNAMARA having replied, the motion was put and negatived, only two members voting in its favour.

The Council then proceeded to the consideration, in private, of a motion by Mr. TURNER, "That it be remitted to the consideration of the Executive Committee to reconsider and amend the Standing Orders bearing on the mode of procedure to be followed in cases where inquiry is to be made into the case of registered medical practitioners charged with being guilty of infamous conduct in any professional respect."

The motion was adopted.

On the readmission of strangers, the Council took into consideration the answers from the medical licensing bodies to its resolutions in regard to the institution of a preliminary scientific examination, together with the report of the committee appointed to communicate with the licensing bodies on the subject. After setting out the resolutions of the Council and the questions forwarded to the medical authorities by the committee, the report proceeded:—"Answers have been sent in by sixteen of the licensing bodies. The University of Dublin does not approve of the resolutions, 'their principle being contrary to that of the present system of Trinity College, which they consider superior'; the University of London enters into no detail, but merely refers to its own regulations as published in the Calendar of the University. The other fifteen bodies have answered more or less in detail. The following digest expresses generally the opinion entertained by these bodies with regard to the questions submitted to them:—1. *Subjects of examination.* On this point the universities adhere to their own practice, and express no opinion as to what should be required as a minimum qualification. There is more diversity of opinion on the part of the corporations. The College of Physicians of Edinburgh considers the present preliminary examination sufficiently extensive, but would make natural philosophy a compulsory subject; the College of Physicians in Ireland recommends an examination in the elements of mechanics, hydrostatics, physics, and chemistry; the College of Surgeons of England would encourage study in one or more branches of natural science; the College of Surgeons in Edinburgh recommends mathematics, as at present, elementary physics, and chemistry; the College of Surgeons in Ireland recommends physics, elements of chemistry and botany; the Glasgow Faculty, physics, chemistry, and 'perhaps an elementary knowledge of general biology'; the Apothecaries' Hall in Ireland recommends elementary mechanics, chemical physics, and the elements of zoology and botany.—2. *Should proficiency as ascertained by examination be sufficient? or should proof of special instruction be required?* The universities for the most part require proof of systematic instruction. The corporations are generally in favour of the examination test alone. The Apothecaries' Society of London is of opinion that evidence of special instruction should be required. The Glasgow Faculty would recommend, but not require it.—3. *Time of passing examination.* The University of St. Andrews, the College of Physicians of Edinburgh, the Colleges of Physicians and Surgeons of Edinburgh, the Glasgow Faculty, and the Apothecaries' Halls in England and Ireland, recommend that the examination be passed before the commencement of the medical curriculum; the Colleges of Physicians and Surgeons in Ireland, during or at the end of the first year of the medical curriculum; the Universities of Edinburgh and Glasgow, not earlier than the end of the first year of the medical curriculum; the University of Cambridge, as soon as the student pleases, provided not less than three full years intervene between it and obtaining a degree or diploma.—4. *Should passing in a subject at the general preliminary exempt from re-examination in the same subject at the scientific preliminary examination?* On this point the universities would adhere to their present practice, which in most instances admits no exception, but the University of Edinburgh suggests:—'If a candidate has already passed an examination in chemistry, botany, or geology, such as that required for a degree in science, this should *pro tanto* exempt him from further examination.' The College of Physicians in Ireland would require the full scientific preliminary to be passed; the three Colleges of Surgeons would exempt (the College of Surgeons of England partially); the Glasgow Faculty, provided there are to be two examinations, would make the first literary, the second scientific; the Apothecaries' Society of London would require the examination in natural science subject to be compulsory either at the preliminary general examination or at a second or preliminary scientific examination.—5. *Modifications in the medical curriculum consequent on establishment of a preliminary scientific examination.* The Universities of Edinburgh and Glasgow and the Colleges of Physicians and Surgeons in Ireland would make no modification; the College of Surgeons of Edinburgh and the Glasgow Faculty would exclude chemistry, if passed at the preliminary examination, from the medical curriculum; the Universities of Cambridge and St. Andrews and other bodies cannot reply without knowing what is to be the nature of the preliminary scientific examination. From a consideration of the answers, of which an abstract has been given, it will be seen that there is a considerable difference between the views of the universities, on the one hand, and of the corporations on the other, the former adhering to their present standard, the latter keeping in view the danger of raising the standard too high. It may be expected that there will be a decided difference in the requirements for a degree and a mere licence to practise, and that the difference would consist not merely in professional education and examination, but also in the standard of literary and scientific acquirements. Thus, while it is right that candidates for a degree should be required to possess a good general knowledge of biology, it does not seem desirable that knowledge in so wide a range should be required from every medical student. The committee are of opinion that in the case of non-university students, instead of a special preliminary scientific examination, it would be better to carry out a recommendation (31) of the Medical Council, respecting a first examination, to be passed at any time before the end of the first year of medical study, and to include elementary mechanics (if not previously passed), chemistry and chemical physics, and elementary human anatomy or elementary biology. There is reason to believe that the first year, at least, of medical study is too often wasted, in consequence of the first examination, which in many instances does not take place till the end of the second year, being looked upon as something in the remote future; whereas the institution of an examination to be passed at an earlier period would necessarily give a stimulus to early exertion. In conclusion, your committee would beg to recommend:—Firstly, that the natural science subjects remain, as at present, optional subjects at the preliminary examination in general education; forty-five months to elapse between that examination and the final examination, as at present. Secondly, that the attention of those licensing bodies which have not complied with Recommendation 31 of the Medical Council be directed to that recommendation; and that it be further recommended that the subjects of this first professional examination be:—1. Elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics (unless an examination in that subject shall have been passed at the preliminary examination). 2. Chemistry and chemical physics (meaning thereby heat, light, and electricity). 3. One or more subjects of elementary biology, which may be elements of human anatomy, or of human anatomy and physiology, or of botany, or of zoology and comparative anatomy. The committee are of opinion that it is desirable that evidence of attendance on lectures and practical instruction in chemistry should be required; but they do not think that this is necessary in the case of elementary mechanics. They would observe, however, that the Council have not hitherto issued recommendations relating to requirements of attendance on lectures."

Dr. HALDANE, in moving the adoption of the first recommendation in the report, after explaining the reasons for the delay in submitting it to the Council, said that when he entered upon the inquiry he was not very hopeful that it would lead to any satisfactory result, because he regarded the requirements of general preliminary education as being already too extensive. Though not coming strictly within the range of the report, he had a few figures which he desired to lay before the Council with reference to the results of preliminary examinations which had lately taken place in Scotland before the University of Edinburgh, where there were 412 candidates, and the Colleges of Physicians and Surgeons of Edinburgh, where there were 109 candidates. Of the candidates before the university 24 per cent. failed in English, and before the Colleges of Physicians and Surgeons 37 per cent. In Latin the failures were 27 per cent. and 62 per cent.—the latter proportion being exceptionally large. In Greek the failures at the university were 27 per cent., but there were no failures at the colleges—the subject being an optional one, and only four candidates taking it up, all of whom passed. In French 42 per cent. failed at the university and 54 per cent. at the colleges. In German 8 per cent. before the university and 20 per cent. at the colleges. In arithmetic the failures were 17 per cent. and 33 per cent.; in mathematics 24 per cent. and 51 per cent.; in natural philosophy 25 per cent. and 30 per cent. With those figures before them it seemed hopeless to endeavour to raise the standard of preliminary education. It was very rare that a student passed in all the subjects at once in the Colleges of Physicians and Surgeons. Of the 109 candidates only one passed the entire preliminary examination, it being the custom of the candidates to come up twice or three times, and no doubt it was the same thing in the university. That showed the melancholy state of secondary education throughout the country. It was not so much the fault of the young men, who appeared to be fairly intelligent, as it was the fault of the system of education. He thought that the plan proposed in the report would be found useful without adding anything to the present requirements of candidates. The committee were of opinion that there should be a decided difference between the requirements for a degree and a mere licence to practise, but he thought that that difference should be mainly, if not entirely, in the scientific subjects, not in the practical and professional. They had a right to look for more highly educated men amongst university graduates, but those who were licensed by the corporations ought to be thoroughly qualified for the practice of their profession. The committee were satisfied with the requirements of the universities as to preliminary and scientific education, and did not propose to interfere with them. They had carefully considered the recommendations of the Council decided upon last year, that a preliminary scientific examination should be instituted, and also the best method of carrying it out, and the conclusion to which they came was that it should not be called a primary preliminary scientific examination, but a first professional examination to be passed during the first year of medical study. According to the scheme given in the report (and quoted above), therefore, the first preliminary examination would remain as at present. He agreed with Mr. Macnamara, that it was desirable that the examination of medical students on professional subjects should be instituted at an early period. The committee were of opinion that attendance on lectures should not be enforced in the case of physics, but that in the case of anatomy and chemistry the evidence of such attendance should be required.

Mr. TEALE said that if the subjects to which reference had been made were pressed, the result would be an additional examination, because it was tolerably clear that a small proportion of students would be able to take them up in their general preliminary examination. The more examinations were multiplied the more they were likely to impair medical education in certain directions. If the proposed examination were to be an additional one, taking the student to the great centres a third time instead of twice only, great additional expense would be entailed, and if the examination were very strict the students might be thrown back in their studies.

Dr. PETTIGREW said he had some difficulty in receiving the report in its totality. It appeared to him that an undue prominence had been given to the elementary mechanics of solids and fluids, and that an insufficient prominence had been assigned to other subjects equally important, such as physiology, botany, and zoology.

Dr. PITMAN moved, as an amendment, that the report should be referred back to the committee, with the request that, after they had received and considered the answers from all the medical authorities, the report should be revised and sent to each member of the Council preparatory to its consideration at the next session. It was impossible, he said, to do justice to the subject at present, or to arrive at a practical result.

The further consideration of the subject was adjourned, and the Council proceeded to transact the remaining dental business on the programme. Three dentists whose cases had been referred to the Council by the Dental Committee were decided to have been duly registered, and the cases of two others were referred to the Dental Committee for further inquiry.

The Council then adjourned.

SATURDAY, APRIL 30TH.

At the meeting of the Council to-day,

Dr. QUAIN, pursuant to notice, asked the following question. A resolution was adopted by the General Council on March 26th, 1879, having reference to an important feature in the formation of the Dentists' Register. A resolution entirely altering the resolution referred to was adopted by the Council on April 28th, 1881. The question is: Is it or is it not correct, as a matter of order, "that an original resolution should be rescinded before a new resolution is proposed?"

The PRESIDENT said that generally it would, no doubt, be more regular to rescind an original resolution before a new one was passed; and in the case in question it might have been better if the second resolution had been framed, setting forth that the first was rescinded, but inasmuch as the latter resolution did in fact rescind the former, it hardly appeared that that course was necessary. The President further said that the two other questions had been asked him by the registrar with reference to the carrying out of the Council's instructions as to the Dentists' Register. (1) Is a diploma not registered in the Medical Register registrable in the Dentists' Register? (2) What qualifications are registrable as surgical qualifications?—e. g., is the licence of the College of Physicians of London to be so registered? Perhaps the Council would allow him to depart from the usual course of giving a categorical answer to those questions.

Dr. PITMAN said they could scarcely expect the members of the Council to answer questions involving legal interpretations, and it would be undesirable to leave the matter with the President without the assistance of the solicitor. The proper course would be to take the solicitor's advice.

Dr. QUAIN thought the Council might be placed in a very awkward position by the course that had been adopted. It would have been better if the Council had said that the qualifications already registered in the Medical Register might be placed on the Dentists' Register.

Dr. STORRAR thought they had already had too much law, and that the better course was to rely upon common sense. The College of Physicians had a charter of Henry VIII. distinctly declaring that the science of medicine included surgery. Its licence was conferred after an examination in medicine and surgery, and it was therefore a surgical qualification. ("No, no.")

Dr. PITMAN said it was recognised by the Local Government Board as a surgical qualification.

Mr. TURNER said that in that case a great injustice was being done to the Scotch universities, because the degree of Bachelor of Medicine in those universities, though granted after an examination in medicine and surgery, was not accepted by the Local Government Board as a surgical qualification; and the candidates were therefore obliged to have another diploma, that of Master in Surgery.

Sir WM. GULL said that the Council had been doing a most stupid thing in deciding that surgical qualifications alone should be entered. A knowledge of the diseases of women and children might save a great many teeth. He could see no reason why, if a dentist was an M.D. of the University of London or a licentiate of the College of Physicians, he should not be allowed to enter the qualification on the Register.

Dr. STORRAR: Will you move that medical qualifications be also entered?

Sir WM. GULL: Yes; and I think midwifery qualifications should be entered too.

Dr. SCOTT ORR said he should be glad to second Sir W. Gull's proposal.

Dr. STORRAR said the question was a purely medical one, and the opinion of the Council was more satisfactory than that of the lawyers. He objected to the motion which had been already passed being sent back to be strangled.

Mr. TURNER said he did not think that the proposal to take legal advice upon the matter was at all antagonistic to the resolution already passed by the Council. The sole object was to carry out that resolution strictly.

Dr. QUAIN maintained that the matter had been finally settled, and could not be reopened.

Sir WM. GULL said that the resolution already passed was only an instalment, the understanding being that something more was to follow.

Mr. SIMON hoped that, pending the further consideration of the matter, the Council should refrain from taking action in pursuance of the resolution already passed.

The PRESIDENT pointed out that other questions might also arise as to whether similar difficulties might present themselves. Of course, if the Council came to no decision in the matter the President and the registrar would have to exercise their judgment in the best way they could.

Sir JAMES PAGET said that if the question were referred to the President and the registrar they would of course be at liberty to obtain legal assistance before arriving at at decision.

Dr. HUMPHRY said he should be sorry to complicate the matter, but he wished to point out that "Surgical qualifications in Schedule A of the Medical Act" had no existence. No such things were mentioned in the Act.

Dr. Pitman's motion was then put and carried, thirteen members voting in its favour.

The adjourned debate on Dr. Haldane's motion with reference to the recommendation of the Executive Committee as to preliminary examination was resumed.

Dr. HUMPHRY said he regretted that there was a difficulty in the way of proceeding with Dr. Haldane's motion. It was, he considered, almost a dereliction of duty not to enter at once into the consideration of the question, but he felt that the discussion as to the desirability of entering upon it would of itself occupy the entire sitting of the Council, and (judging from the expressions of opinion he had heard) to no purpose. He believed, therefore, that Dr. Haldane was prepared to state that the consideration of the report of the Executive Committee would not be proceeded with.

Dr. HALDANE said he entirely approved of the course which had been recommended, and he accordingly agreed to the amendment, that the report be referred back to the committee and again brought forward at the next session.

Mr. MACNAMARA said he objected to Dr. Haldane's motion being withdrawn. The question had been discussed for many years, and it was a most important one, lying at the foundation of the profession, and he believed that by remitting the matter to the committee when the object they desired was almost within their grasp, they would be damaging the reputation of the Council, and putting the students throughout the country in a state of ferment.

Sir WM. GULL said that some of the answers from the licensing bodies were very vague, and that further inquiries were necessary before a final decision could be arrived at.

Mr. SIMON suggested that a middle course might be adopted. The Council might be unable to enter into minute details, but it might do something to help forward the principle which it was desired to promote. Instead of shelving the matter the Council might adopt the course which Dr. Fergus and himself had proposed on a previous occasion—that of suggesting to the licensing authorities to consider whether they could separately or conjointly take steps to promote the establishment of a preliminary scientific examination, and to require that all candidates for their licences after passing a preliminary examination in general education, should, either before commencing the purely medical curriculum or before the end of the first year thereof, pass such a preliminary examination as was proposed.

Dr. HALDANE said he quite agreed with Mr. Simon's proposal, and was prepared to withdraw his motion in favour of it.

After some further conversation it was agreed, "That it be recommended to the several licensing authorities under the Medical Act, to consider whether they can, separately or conjointly, take steps to promote the establishment of a preliminary scientific examination, and to require of all candidates for their respective licences that, after passing the preliminary examination in general education, and either before commencing the purely medical curriculum, or, at latest, before the end of the first year thereof, they shall pass such a preliminary scientific examination as is proposed."

Sir JAMES PAGET proposed, "That the whole subject be referred to the same committee, with a request that, after they have received and considered the answers from all the medical authorities, they report thereon, and that their report be sent to each member of the General Council, preparatory to its consideration at the next session of the Council."

The motion was seconded by Dr. BANKS, and agreed to.

Dr. STORRAR moved, "That the Standing Orders as regards the duties of the Executive Committee be reconsidered by the Council." In doing so, he said he had already during the present session called attention to what he considered rather an extreme course taken by the Executive Committee in superseding the action of the General Council. What they had to do was to consider and report on definite questions submitted to them, though he did not go the length of saying that there may not be extreme cases of urgency when it might be desirable to take further action. There was a considerable sense of soreness among the dentists in regard to the manner in which the dentist business had been conducted by the committee. The educated leaders of the dentists had been seriously desirous of improving their profession, and had been glad to hand the matter over to the Medical Council, who were therefore in some degree trustees to the dentists. They ought, then, to transact their business in such a way as to give the dentists the opportunity of giving advice on questions which particularly concerned them. What took place last year? Two opinions of counsel were obtained, but the publication of those opinions was objected to on the ground that there was a conflict of opinion on some plea. When the Executive Committee met after the Council had risen they set to work to take their own course as to the manner in which the several applicants for registration connected with pharmacy should be registered. He had looked in vain through the minutes of the Executive Committee to see in what way the question was laid before Sir Farrar Herschel and Mr. Mackenzie. In common with other members of the Council he received a copy of the case, but as it was marked "Strictly confidential, for the use of the Council only," he was bound in honour not to show it to Mr. Tomes and other dentists, who were of opinion that Sir Farrar Herschel and Mr. Muir Mackenzie's opinion was unsound. It was even a question whether they would not seek a judicial decision from the law courts. In matters of this kind the proper course was to have the case fairly argued on both sides. He thought it might be possible to alter the action of the Executive Committee by altering the Standing Orders under which they were governed.

Dr. PYLE seconded the motion. Two months ago he wished to bring something before the Branch Council, but he felt himself perfectly disfranchised, as no meetings were being held.

The motion was subsequently withdrawn.

On the motion of Dr. HUMPHRY, seconded by Dr. PITMAN, the following report was received, ordered to be entered on the minutes, and adopted.

REPORT BY THE COMMITTEE ON SWISS MEDICAL EXAMINATIONS.

"The committee appointed on April 26th, 1881, to consider the latest regulations for the conduct of the Swiss Medical Examinations, which have been transmitted to the Medical Council by the direction of the Lord President of the Privy Council, reports as follows:—The regulations appear to have been framed with much care, and to provide that the candidates shall be well tested in the various subjects of professional study. The examinations are under the control of a committee of direction, consisting of five members, appointed by the Federal Council, selected from the five localities in which examinations are held, and of two assessors (Section 3). The examination for a diploma is in two parts—a first part, or 'examen propédeutique,' in physics, chemistry, botany, zoology, and comparative anatomy, anatomy and histology, and physiology; a second part, or 'examen professional,' in pathological anatomy, pathology and therapeutics, surgery and surgical anatomy, obstetrics, ophthalmology, and legal and sanitary medicine. The examinations are practical (including examination in writing) and oral. When foreigners desire to submit themselves to the Federal examinations each case must be submitted to, and approved by, the committee of direction. Foreigners who, after due examination, have obtained a foreign diploma, giving full privilege to practise in their respective countries, can only obtain the Federal diploma after having gone through the whole professional examination, unless an international treaty of reciprocity recognises the validity of the foreign diplomas. It is, however, in the power of the committee of direction to admit foreigners of high scientific reputation, or who have been in practice ten years, to an 'examen sommaire,' which will be an oral examination in pathological anatomy, special pathology, and therapeutics, surgery, and obstetrics, or to exempt such foreigners from examination altogether. The committee views with satisfaction the opportunities offered by these provisions which are made, seeing that they are made under the circumstances of there not being any international treaty of reciprocity for giving validity to foreign diplomas."

The report of the Business Committee was also adopted.

"The Business Committee begs leave to report that, having considered the motion referred to them—viz., 'That Chapters I. and IV. of the Standing Orders be referred to the Business Committee to report whether any, and if so what, alterations or additions they would recommend in those sections of the Standing Orders,' recommends that in Chapter IV. of the Standing Orders the following clauses be added after Clause 7:—(1) The Business Committee shall continue in office for a period of one year from the date of its appointment, or, if the Council be not sitting at the time when the year expires, until the first day of the next meeting of the Council. (2) Should there occur, during the recess, any vacancy in the Business Committee, the Executive Committee shall be empowered to fill up such vacancy. (3) In Chapter I., Clause 3, after the words 'The General Registrar shall,' add, 'with the Chairman of the Business Committee.' (4) After Clause 3, add the following Clause: Any notice of motion to be submitted to the General Council on the first day of the session must be sent to the registrar at least six clear days before the beginning of the session."

Dr. PITMAN moved, and Sir JAMES PAGET seconded, "That the additions and alterations suggested in the report by the Business Committee be adopted."

This was agreed to, as was also the reception of the following report, moved by Dr. Pitman, seconded by Dr. Banks.

REPORT BY THE REGISTRATION REGULATIONS COMMITTEE.

The committee appointed April 28th, 1881, to prepare for the consideration of the Council draft rules defining the classes of cases in which exceptions may be allowed to the recommendations of the Council as regards the examination in general education and registration, reports as follows:—"That exceptions may be made in the case of a student from an Indian, colonial, or foreign university or college who shall have passed the matriculation or other equivalent examination of his university or college, provided such examination fairly represents a standard of general education equivalent to that required in this country. Before any such student can be registered, sanction must be given in Scotland and Ireland by the respective Branch Councils of those countries, and in England, either by the Branch Council for England, or by the Executive Committee, as may be most convenient. In case a graduate in medicine of an Indian, or colonial, or foreign university, or a student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university, is admitted to examination by any of the licensing bodies, the licensing body is requested to report the particulars of each such case to the General Medical Council."

The following resolutions on the report were agreed to:—"That after Recommendation 8 of the Council's Recommendations on Education and Examination, a proviso be inserted to the effect that, in the opinion of the Council, exception to Recommendations 7 and 8 may properly be made in the case of a student from any Indian, colonial, or foreign university or college, who shall have passed the matriculation or other equivalent examination of his university or college, provided such examination fairly represents a standard of general education equivalent to that required in this country. That, after Recommendation 20 of the Council's Recommendations on Education and Examination, a proviso be inserted to the effect that, in the opinion of the Council, exception to Recommendation 20 may properly be allowed in the case of any graduate in medicine of an Indian, or colonial, or foreign university, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university. That in Recommendation 15 of the Council's Recommendations on Education and Examination, line first, after the words 'Branch Councils,' be inserted the words 'and in England the Executive Committee, if its meeting be more convenient and the case be urgent.' That the several licensing bodies be requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard of exceptional cases under Recommendation 20 of the Council's Recommendations on Education and Examination."

Other resolutions were also passed, vesting the usual "powers and duties" in the Executive Committee till the next meeting of the Council; and tendering the thanks of the Council to the President, to Dr. Pitman (Chairman of the Business Committee), to the Treasurers, Dr. Quain and Dr. Pitman, and to the Registrar.

The Session then terminated.

ANNUAL REPORT
ON THE
CONTAGIOUS DISEASES ACTS FOR 1880.

THIS report will attract the more attention for those interested in the Contagious Diseases Acts, as the Select Committee is now engaged in receiving evidence as to their being continued or repealed. We have, therefore, thought it advisable to make an analysis of its contents, and to lay its chief conclusions before our readers.

The Assistant Commissioner of the Metropolitan Police reports that the members of the police employed under the Acts have discharged their duties to his entire satisfaction, and that not a single case of excess or violation of duty has been brought under his notice, whilst the common women in the several places subject to the Acts have attended for medical examination with great regularity. 1624 have been registered for the first time during the year, of whom many have come from unprotected districts, and 367 who had been removed from the register were re-registered, making 1991, which, with 1795 remaining from last year, make a complete total of 3786 women under the surveillance of the Acts. Of these 1879 remained on the register at the end of the year. This number is an increase of 84 on the year preceding, and is the highest total since 1875, but is still nearly 800 less than in 1870, from which period until 1877 there was a steady decrease; the numbers since then have fluctuated a little from year to year, but at present are 97 more than in 1876, being 55 in excess of any of the past five years. The removals from the register are of great interest, and are thus classified: 927 left the district, 67 married, 262 entered homes, 629 returned to their friends, and 22 died. The mortality is extremely small, for during the past five years it has remained steadily at less than 6 per 1000. The amount of obstruction to the Acts on the part of the women themselves was so small that in only eleven cases was it necessary to apply to the magistrate for an order. Imported disease from unprotected places figures largely in the returns, inasmuch as out of 612 prostitutes who were known to have arrived from places outside the Acts, 404 (66 per cent.) were found on their first medical examination to be diseased, and a large proportion of them seriously. These imported cases form nearly a fourth of the total number of women (1849) admitted to the various Lock hospitals during the year, and they are especially fruitful in spreading venereal diseases, as there is no possibility of reaching them until they are discovered by the police and brought up for medical examination. With regard to the work of reclamation, the beneficent value of which can scarcely be estimated, we find 93 young girls under eighteen, 86 women under thirty, and 7 above that age have been rescued from bad company and immoral places. Of these 13 were under fifteen years of age. Besides these 174 had commenced an immoral life, but abandoned it on being cautioned, and are therefore not registered. Of these 4 were under fifteen, and 45 under eighteen years of age. The difference between the amount of disease in those who were examined for the first time and those who were on the register from the previous year is very startling, and deserves great attention from the advocates of repeal, for in the former case 40·95 per cent. were found to be diseased, whilst in the latter it amounted to only about 8. The number of the women in both classes was so nearly equal as to prevent the statistics being vitiated by any error of average numbers.

In conclusion, we may refer to a few points which have attracted our notice in making this analysis. In Portsmouth there are 30 prostitutes under eighteen years of age, including 2 under fifteen, 4 under sixteen, and 9 under seventeen. In no other district is there one under sixteen. In Chatham there are 2 under seventeen, and in Aldershot and Colchester 1, whilst in other districts they all exceed this age. These facts should surely command the attention of the various reformatory agencies in those towns. Again, in Devonport, out of 287 newly registered women, 133, or nearly one-half, were found to be diseased on being medically examined; and Dover (50 per cent.), Colchester (52), Aldershot (62), and Maidstone (63) even exceeded this proportion. In the case of previously registered women the greatest proportion of venereal cases existed at Deal (30 per cent), Winchester (22), and Aldershot (13); whilst Sheerness, Windsor, and Gravesend were, as far as such women were concerned, entirely free from venereal diseases at the time of the first medical examination.

THE ROYAL COMMISSION ON THE MEDICAL ACTS.

(From *The London Gazette*, May 3rd, 1881.)

WHITEHALL, MAY 2ND, 1881.

THE Queen has been pleased to issue a Commission under Her Royal Sign Manual in words and to the effect following:—

VICTORIA, R.

VICTORIA, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, to our right trusty and right well-beloved cousin Robert Adam Philips Haldane, Earl of Camperdown; the Right Reverend Father in God William Connor, Bishop of Peterborough; our right trusty and well-beloved Councillor William Henry Ford Cogan; our right trusty and well-beloved Councillor Sir George Jessel, Knight, Master or Keeper of the Rolls and Records in Chancery; our right trusty and well-beloved Councillor George Sclater-Booth; our trusty and well-beloved Sir William Jenner, Baronet, Knight Commander of our Most Honourable Order of the Bath; our trusty and well-beloved John Simon, Esquire, Companion of our Most Honourable Order of the Bath; our trusty and well-beloved Thomas Henry Huxley, Esquire, Doctor of Laws; our trusty and well-beloved Robert McDonnell, Esquire, Doctor of Medicine; our trusty and well-beloved William Turner, Esquire, Bachelor of Medicine; and our trusty and well-beloved James Bryce, Esquire, greeting!

Whereas it is of importance to all classes of our subjects that the conditions under which persons are permitted to represent themselves as qualified medical practitioners should be such as to afford the best attainable security for their skill and knowledge in medicine and surgery.

And whereas powers in relation to the education and examination for a grant of medical degrees, diplomas, or licences, to medical practitioners are by various statutes and charters vested in certain universities, medical colleges, and other bodies in the United Kingdom.

And whereas under "The Medical Act, 1858," and the Acts amending the same, the General Council of Medical Education and Registration was constituted, and vested with a superintendence over the exercise of the said powers, and also with entering in a register of medical practitioners, and removing therefrom the holders of certain medical qualifications obtained in the United Kingdom, exclusive of those obtained in our colonies or in foreign States.

And whereas by the last-mentioned Acts certain exclusive privileges were conferred on the persons so registered, and persons not so registered were placed under certain restrictions, disabilities, and penalties.

And whereas divers representations have been made in Parliament, and otherwise, and both from our subjects in the United Kingdom, and from the Governments of our possessions out of the United Kingdom, in relation to the unsatisfactory position of the above matters.

And whereas we have thought it expedient that, with a view to legislation, further inquiries should be made into the above matters, and that a commission should forthwith issue to inquire into the grant of medical degrees, memberships, fellowships, licences, and other diplomas by universities, colleges, and bodies in the United Kingdom, and the courses of education and examination, payments, and other conditions required as a preliminary to such grant, and into the skill and knowledge which such degrees, memberships, fellowships, licences, or diplomas represent; and further to inquire into the conditions and manner under or in which medical practitioners are entered in and are struck off the register of medical practitioners, and the privileges of registered and the disabilities of unregistered practitioners, and the position of medical practitioners so registered in our possessions out of the United Kingdom, and the position in the United Kingdom of medical practitioners educated in our possessions out of the United Kingdom, or in a foreign State.

And further to inquire into the constitution, functions, powers, and procedure of the General Council of Medical Education and Registration, and their relation to the above-mentioned universities, colleges, and bodies, and to the medical profession.

And further to inquire into the result of "The Medical Act, 1858," and the Acts amending the same, and into all matters dealt with by those Acts.

Now know ye, that we, reposing great trust and confidence in your knowledge, discretion, and ability, have authorised and appointed, and do by these presents authorise and appoint you, the said Robert Adam Philips Haldane, Earl of Camperdown, William Connor, Bishop of Peterborough, William Henry Ford Cogan, Sir George Jessel, George Sclater-Booth, Sir William Jenner, John Simon, Thomas Henry Huxley, Robert McDonnell, William Turner, and James Bryce, to be our commissioners for the purposes aforesaid.

And for the better effecting the purposes of this our commission, we do give and grant unto you, or any three or more of you, full power and authority to call before you, or any three or more of you, such persons as you shall judge necessary by whom you may be the better informed of the truth on the subjects herein submitted for your consideration, and every matter connected therewith; and also to call for, have access to, and examine all such books, documents, papers, and records as may afford the fullest information on the subjects of this inquiry; and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And our further will and pleasure is that you, or any three or more of you, do report to us, with all convenient speed, under your hands and seals, the result of your inquiries into the above matters, and what amendments are required in the above-mentioned Acts, and what provisions it is expedient to make in the matters above-mentioned, or any of them.

And we further will and command, and by these presents ordain, that this our commission shall continue in full force and virtue, and that you, our said commissioners, or any three or more of you, may from time to time proceed in the execution thereof, although the same be not continued from time to time by adjournment.

And for the purpose of aiding you in such matters, we hereby appoint our trusty and well-beloved John White, Esquire, Barrister-at-Law, to be Secretary to this our commission.

Given at our Court at Saint James, the thirtieth day of April, one thousand eight hundred and eighty-one, in the forty-fourth year of our reign.—By Her Majesty's Command,

W. V. HARCOURT.

THE LANCET.

LONDON: SATURDAY, MAY 7, 1881.

A Royal Commission has been appointed to investigate the working of the Medical Acts, and, at length, consider the necessity for amendments of them. The following is the list of names as they appeared in *The Gazette* of Tuesday last:—The Earl of Camperdown, the Bishop of Peterborough, Right Hon. W. H. F. Cogan, the Master of the Rolls (Sir George Jessel), Right Hon. G. Sclater-Booth, M.P., Sir William Jenner, Bart., M.D., J. Simon, Esq., C.B., Professor Huxley, Dr. Robert McDonnell (Dublin), Professor Turner (Edinburgh), J. Bryce, Esq., M.P., with John White, Esq., Barrister-at-law, as secretary. Our readers will remember that when it was first announced that such a Commission would be appointed, it was given out that it would include no medical men. This determination altogether surprised and disappointed us. It was quite evident that a Commission without medical men on it would be in a fog from beginning to end of their work, unable to extract facts from the various witnesses, and equally unable to use the information elicited. We lost no time in showing this and in pointing out that a Commission so constituted would be obliged to seek some medical guidance, and would naturally seek guidance of the Medical Council, one of the bodies whose administration is complained of by those who are best able to judge. We have reason to believe that our arguments had weight in convincing many, members of the Government included, that medical men ought to be added to the Commission, for the double reason that they were deeply interested in medical legislation, and that they were most capable, by reason of their knowledge of the technical and complicated nature of the questions, of seeing and assisting others to see the points really at issue, and getting at the truth touching the working of the Medical Council and of the various examining bodies. When it was once determined to appoint medical men, it became a question how they were to be selected? Obviously it was not to be thought of that only such gentlemen as were known to be favourable to, or actual members of, the Medical Council were to be put on the Commission. Some names representing independence, and a knowledge of the educational questions involved, were required to satisfy the public and the profession. The names chosen will have this effect. It is to be regretted—seeing that the questions to be settled have reference chiefly to general medical practice in its broadest sense—that the Government have not seen fit to appoint a Commissioner familiar by experience with the present position of the general practitioner, and his relation to the public. But the profession will be well content to be represented by Sir William Jenner and by Professor Huxley. The too scanty representation of the profession on the Commission will naturally lead medical practitioners to look to Sir William for the thorough investigation of questions which it is important to have settled. They will, we believe, not look in vain, and meantime we will accord our own thanks to him for agreeing—at what must be great personal sacrifice and inconvenience—to accept so important a duty. Sir William was once a general practitioner, and though now moving in the highest spheres of consulting practice, is always showing his sympathy with those who are doing the hard work of common practice, in which work, too, he laid the deep foundations of that practical sagacity and knowledge of disease which now qualify him so well in guiding his brethren. He is well known also to believe that the existence of a Medical Council with no representative of the medical profession in it is one of the greatest anomalies. Professor Huxley will look at the questions which come before the Commission from a somewhat different standpoint from that of the medical practitioner, but he will not be out of sympathy with him; and we shall be greatly disappointed if his influence is not used to simplify examinations, and to make the education that precedes them more thorough and more effective. Professor Turner and Mr. Simon are members of the Medical Council; but the one represents such an enormous medical school, and such an efficient university, and the other is so able a medical statesman, and withal so anxious to make the Council worthy of the respect of the profession, that we cannot but commend the judgment of the Government in appointing them. The other members of the Commission will come to their work with various, though not medical, qualifications. An improvement in the Medical Boards and the Medical Council is an object of the widest interest to the public and to all classes. Politicians and statesmen may be apt to say this is solely a public question, and has nothing to do with the interest of the profession. We shall trust any body of educated men, and certainly this Royal Commission, to avoid such a narrow view as this—as if it were possible to dissociate the interest of the public and that of the profession on which it is most deeply dependent. The questions to be investigated and the problems to be solved by this Commission must form the subject of earnest consideration. We accept the appointment of the Royal Commission as an evidence of good faith on the part of the Government—not, as some would have us regard it, as a device for shelving or indefinitely postponing a great question, but as a means of establishing the profession in the esteem of the State, and securing to its members the possession of those rights which are the only set-off against the severe exactions and duties which are imposed on them by law and by the nature of their relation to the public. We publish in another column the terms of the Reference for this inquiry, as set forth in the Royal Commission, dated April 30th, 1881.

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What are euphemistically called "accidents" in lunatic asylums can scarcely be held to be numerous, when we consider the great total population of the insane; its unequal distribution; the relatively small number of attendants employed to maintain order; and the large amount of personal liberty now commonly accorded to persons who are either incapable of self-control, or—to their own knowledge—absolved from the duty of restraining their impulses by the fact of being "under certificate." Probably the aggregate return of assaults committed in an equal population of sane persons, of the same heterogeneous character as this multitude of so-called "lunatics," living for the most part idly, under lax, and daily relaxing discipline, and being as well fed as they are, would *exceed* the gross total of those scenes and acts of violence which have lately attracted public attention, and gone far to produce a wrong and unfair impression of the general excellence of our asylum management. We believe, not without the power and opportunity of forming a judgment, that the superintendents of institutions for the care of the insane are maligned when it is supposed or assumed that they are in any way responsible for these occurrences. The responsibility—so far as there can be said to be any—lies with the attendants, and with the "insane" themselves. If attendants were only a little more watchful, and lunatics would not let their angry passions rise at the smallest provocation, things might go on quite pleasantly. As it is, the reputation of really deserving establishments is damaged, and an objectionable—we may be excused for saying hateful—subject is again and again thrust under public notice, without the smallest necessity, and of course without any good result. We are aware that the inmates of asylums, both sane and insane, read all that is written about them, being much interested in several burning questions recently and now under discussion in the professional and lay journals and newspapers, and we think t expedient to speak plainly. An asylum for the insane ought, under the benign influence of the system extant, to be at least as peaceful as the model zoological institution in the Regent's-park, whereas we too often find its amenities sinking to the level of those which prevail in a vulgar caravan.

The modern lunatic asylum and the Zoological Gardens of fashionable resort are conducted nearly on the same principle and with the same objects—namely, to keep the wild animals in a state of comparative tranquillity and with safety to the public, while affording opportunities for the study of the classes of life to which the *feræ* belong or which they are supposed to illustrate. The wild men and women are not at present chained to the walls or kept in cages as they used to be. Outside pressure has been brought to bear on the keepers of asylums during the last half of the century, and the inmates of these establishments are now allowed to walk about like the members of a "happy family," being kept from injuring one another by means identical with those adopted to keep up appearances in the improving street show of mingled cats and birds and mice—namely, the coercive force of fear and kindness, tempered by bribery and favouritism. In the enterprise thus carried out the keepers of asylums generally are meeting with a large measure of success. A tour round the public and the private institutions for the insane throughout the country would not perhaps prove an amusing, but it could not possibly be deemed a revolting, excursion for the humane sensation-seeker of either sex. It would probably result in disappointment, except to the initiated student of types of insanity and idiocy, because there is little positively exciting to witness. The mournful jingling of chains has been eliminated from the entertainment, and where there are locks they are well oiled and the keys turn easily. For the rest, quiet reigns, where years ago there was hideous turmoil; decent dresses replace the rags of the raging maniac; and—which is the greatest trophy of recent success in the treatment of the insane—they are now to be seen dancing solemnly to festive music, or sitting patiently, if not enthusiastically, in melancholy rows, while their protectors amuse themselves with theatrical performances. Altogether, as we have said, the scene presented at any average specimen of our well-conducted asylums—and all are well conducted now—is of a nature to allay anxiety as to the care, of the insane. Then why should public opinion be disturbed because every now and again it hears of "accidents," which are not either more numerous or more serious than the "accidents" of ordinary life among the sane? It is impossible for us to feel anything except pity for the poor folk who "do not understand" these things, and so give way to feelings of indignation when they hear of the accidents and misadventures which occur, and we cannot withhold our sympathy from the enterprising managers of asylums, who are misrepresented by the character these occurrences seem to give the institutions under their control.

There is, however, another aspect of the case which cannot be wholly shut out of sight or forgotten when the unpleasing incidents of asylum life are thrust under notice side by side with tokens of peace and comfort, and even of enjoyment. In theory, at least, lunatic asylums are hospitals for the *cure*, not simply retreats for the *care* of the insane. Is the first mentioned, and we take leave to say the only *professional*, object kept steadily in view, or is it not rather allowed to fall almost out of remembrance? In the rage to rob asylums of their disagreeable character they have been swept and garnished and their inmates have been clothed; but with these triumphs of humanity the philanthropist rests content! Little, if anything, is done to restore the sufferer from mental disease to his right mind. It is not too much to say that the inspiring genius and system of modern improvement have for their motive and key-note the hypothesis that insanity is always dependent on organic disease, and therefore rarely, if ever, curable. It does not require any large amount of experience, or a very high degree of acumen, to recognise that under the influence of a belief so enervating as this must be, scarcely anything is done, or expected to be done, for the active and personal treatment of the cases of insanity "huddled" together in asylums. Nor are the inmates of these institutions in a much worse plight in this respect than the victims of mental disease in private families. There is practically no such thing as "treatment" now-a-days. The most that is done anywhere is to place a patient under what are deemed to be favourable circumstances, amid pleasant surroundings, and to leave the rest to nature. It is true drugs are given—to produce quiet, to relieve pain, to stupefy those who are unable or unwilling to sleep, to allay paroxysms of excitement which disturb the wards of an asylum or occasion distress in a household. Beyond this, however, little or nothing is done except to treat the physical maladies of the insane, and to try the effect of such drugs as come, recommended to the notice of the asylum physicians of England, from the Continent and the United States. For ourselves we are lying on our oars, and amusing our leisure with theatrical entertainments while we bask in the sunshine of a high reputation for the advanced humanity and philanthropy we manifest in our management of the insane. The picture presented is more creditable to the "keepers" of asylums than to the professional enterprise of the physicians and practitioners engaged in what is called "psychological medicine."

The real cause of "accidents" in lunatic asylums is the fact that their inmates are not treated as patients, but as pensioners or boarders. There is little or nothing personal in the treatment they receive. How can there be, when to give only half a minute to each case would make a routine round of the wards last some five hours, at least? When this argument is pressed on the attention of Committees of Justices and medical authorities, we are asked to look at the class of cases which form the bulk of an asylum population, and to say what proportion of these could possibly be benefited by any amount of time or attention bestowed upon them. As a matter of fact, we believe, new and practical light would be shed on the actual, as distinguished from the "assigned," causes of insanity if these seemingly uninteresting cases were more closely studied than they now are. It is disheartening to go round asylums and notice how little attention medical men who enjoy the largest opportunities of observing the progress of what are now deemed "uninteresting" and "incurable" forms of disease give to them, and how little use they make of the rich and abundant material at hand. Let that pass, and we will admit that the proportion of obviously "curable" cases in the great majority of asylums is exceedingly small. Five per cent. of the whole would be an excessive estimate in many, if not most, large institutions. It must be granted that this represents a state of matters which is essentially demoralising. Even good and earnest men inevitably lose heart in the midst of misery which they are not so much unable to relieve, as prevented by the circumstances and conditions of their practice from even attempting to benefit! The result is that in most cases matters are allowed to drift; and, except for the interest displayed in a few show cases and an occasional outburst of energy in the trial of some novel expedient suggested for the relief or remedy of a special form of disease, nothing medical is done or contemplated. Quiet wards and uncomplaining patients are the most satisfactory results obtainable, and for these superintendents, lessees, and managers are dependent on their subordinates. They cannot, as a rule, afford to pay attendants very highly, or to employ a sufficient number of them to keep the inmates of asylums under continual protection of the most perfect sort. It follows that accidents must every now and again occur; the only occasion for wonder is that they are not more numerous and grievous than those reported. The sole remedy for the existing state of matters, with its inevitable consequences, is a complete change of the whole system of lunacy practice, a reform which shall convert asylums into hospitals; but for this change neither public nor professional opinion seems to be as yet ripe. Until the medico-economic view taken of insanity, as a class of disease and a burden on the community, has undergone a sweeping change, we must put up with the *status quo*, and—except for the neglect of opportunity, the needless perpetuation of hereditary disease, and blind persistence in carrying a weight which might be greatly reduced,—there is actually little of which to complain.

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OBSERVATIONS which have lately been published seem to demonstrate almost conclusively the association of bacterial organisms with the process of typhoid fever. VON RECKLINGHAUSEN, in 1871, first noted the presence of micrococci in points of suppuration in that disease, and this observation was corroborated in the following year by EBERTH; but the organisms were regarded as connected with a secondary pyæmic process rather than with the primary disease. The description by KLEIN, in 1875, of abundant micrococci in the intestinal follicles received less attention than it, perhaps, deserved, on account of the doubt which was afterwards expressed by himself regarding the accuracy of some of his conclusions. SOKOLOFF found micrococci in the spleen in only three out of twelve cases, and conjectured that they might be due to the necrotic process in the intestine. FISCHEL, in 1878, found the organisms in the spleen in fifteen out of twenty-nine cases, and still more frequently in the lymphatic glands. EBERTH, in a paper published last year, describes a series of observations in which he found bacilli in eleven out of twenty-three cases. Rod-like bodies were abundant, about the same in size as those which are met with in decomposing blood, but differing from them in shape, and very strikingly in the slighter degree with which they are tinted by methyl-violet. They appeared to be identical with those described by SOKOLOFF and FISCHEL. They differed also from the organisms associated with pyæmia. Their occurrence bore no relation to the time which had elapsed after death, and they were more frequently found early than late in the disease. Their localisation was also different from that of the organisms in pyæmia. The latter are found in the blood-vessels of various organs, but the bacilli in typhoid are found only in the spleen, intestinal follicles, and lymphatic glands. In a more recent communication to VIRCHOW'S *Archiv*, EBERTH describes some further observations on the same subject. In seventeen other cases of typhoid, the bacilli were found in six, were absent, or at least were not discovered, in eleven. The changes in the intestine and glands were more recent in the positive than in the negative cases. The organisms were precisely similar to those met with in the other series. EBERTH has also examined a large number of cases in which death occurred from other diseases, but in none did he find this organism. The same bacillus was also found last year in cases of typhoid by KLEBS. Its special character and frequent occurrence leave little doubt that it is in some way connected with the disease. Whether it is actually the vehicle of, or constitutes, the contagium, can only be decided by further experimental investigations. For these we must wait; but meanwhile some important observations have been published in the last number of VIRCHOW'S *Archiv*, by Dr. BRANLECHT, on the presence of "pathogenic" bacteria in the drinking-water during epidemics of typhoid. The organisms consist of rods, filaments, and micrococci, and if the water containing them was allowed to stand at a warm temperature, they formed a scum on the surface. It was readily cultivated in organic solutions, that employed being a solution of gelatine containing a little phosphate of ammonia. The rods and filaments were twice as thick as the bacillus found by KOCH in septicæmia, and half the size of bacterium termo. Its action on the culture-solution was found not to be of the powerful deoxidising character peculiar to some bacteria, and no fetor arose during the growth.

After culture, if the liquid be distilled, the distillate is neutral in reaction, and the first part contains a body capable of producing pyrexia, but which loses this capability on prolonged exposure to heat. These bacteria are very sensitive to acids; if the gelatine possesses the faintest acid reaction, they will not grow, and alkalinity is similarly but in a less degree inimical to them. In water which is kept at the ordinary temperature the growth of the bacteria is extremely slow, even when they are abundantly supplied with their ordinary nourishment. Nevertheless they do multiply, and, what is equally important, they preserve all their properties, including their pathogenic power, for at least nine months. BRANLECHT has found the same bacteria in the urine of a man suffering from typhoid fever. Micrococci were chiefly present at the height of the fever, but they were accompanied by a considerable quantity of rods and filaments.

The same organisms were also found in a quantity of green algæ which was decomposing, in very hot weather, in a district at the time perfectly free from typhoid fever. Culture and experiment on animals demonstrated the identity of this form of bacteria with that already described. An injection of the decomposing material into a rabbit caused an intense necrosis of the intestinal glands, such as was not seen with the cultivated bacilli. BRANLECHT throws out the suggestion that in such decomposing vegetable matter this organism may perhaps take its origin—that is, be produced by a transformation from some allied organism. He notes as curious that during culture another organism often appeared, having a diameter twice that of the first, and not possessing the same pathogenic properties. He is inclined to regard it not as an accidental contamination, but as a special form of growth, which, when it attains a certain proportion, renders the culture innocuous.

The injection beneath the skin of a rabbit of a centimetre of the culture-solution causes a slight rise of temperature, amounting sometimes to a degree and a half Centigrade, which lasts eighteen or thirty-six hours; and then, in spite of abundant food, and usually without diarrhœa or pyrexia, the animals gradually emaciate, until in two, four, or eight weeks they are reduced "to a skeleton." In those a few weeks old abundant diarrhœa is produced, causing death at the end of a few days, with merely the signs of congestion of the stomach and intestine. In the older animals there is found an intense catarrh of the small intestine, swelling of the mucous membrane, and enlargement of Peyer's patches, with considerable increase in size of the spleen and of the mesenteric glands, especially in the neighbourhood of the cæcum. There was never any considerable irritation at the point of injection. The introduction of the masses which resulted from culture, with as little as possible of the culture liquid, gave nearly the same results. Infection by the stomach could not often be produced, but in the successful cases there was considerable diarrhœa as well as symptoms identical with those presented by the animals infected by the subcutaneous method. Prolonged culture caused no diminution in the morbific power.

The coincidence of the occurrence of this bacillus with epidemics of typhoid fever is certainly remarkable; and the experiments show, at any rate, that, just as well-water may contain innocent bacteria, it may also contain such as, injected into animals, cause an acute illness having some of the characteristics of typhoid fever. It is of great importance to ascertain whether this organism is, as seems probable, identical with that found by KLEBS and EBERTH, but for this purpose it will be necessary to compare them under similar conditions of artificial cultivation.

WE have little further space to devote to the proceedings of the Medical Council at its late meeting. There was practically little else to do than erase a name from the Medical Register, to counsel the Educational Bodies with reference to the times of holding their Preliminary Examinations, and to partially undo the work of last year in the matter of recommending the institution of a Preliminary Scientific Examination. The answers of all the bodies are not yet to hand, and the Council has postponed the application of its recommendation, with a mild request to the various bodies to consider how such an examination could be realised. In the last year or two the income of the Council has been in considerable excess of its expenditure. Generally the balance is very slight. But in 1879 and 1880 it was respectively £961 10*s.* and £1568 1*s.* The dental business of the Council does not promise to bring profit to the Council any more than it has brought credit. There was an accumulation fund of £10,000 from the first registrations, but Dr. QUAIN, the chancellor of the exchequer for the Council, estimates that, whereas the estimated annual expenditure on the dental registration will be £1407, the estimated income will be only £524, leaving a deficiency of £883! This is verily a poor business!

Annotations.

"Ne quid nimis."

THE PRELIMINARY SCIENTIFIC EXAMINATION.

IT will be remembered that at the meeting of Convocation of the University of London on January 13th, 1880, a resolution was unanimously passed to the effect, "That the Senate be requested to consider whether it would not be desirable that in future the Preliminary Scientific and First M.B. Examinations should be held twice annually." The doubling of an examination is not so easy a matter as it appears to those who know nothing of the ways and means and arrangements of the University, but nevertheless the Senate (always ready to consider the suggestions and recommendations of Convocation) consented to entertain the idea, to begin with, of doubling the Preliminary Scientific, at which examination the number of candidates shows a disposition to increase rapidly, and a sub-committee of the Senate who investigated the question admitted its desirability. The various medical schools were informed of the proposed change, and the opinion of the medical teachers in London and the provinces was asked upon it, with the result of showing an almost complete unanimity in its favour. Opposition has, however, been offered to the proposed change by some of the science teachers of London, who have memorialised the Senate, and have urged that the holding of two examinations in the year would be unnecessary and injurious to regular study; because (1) the necessary abandonment of separate honours examination would discourage the development of scientific tastes in medical students; (2) it would disorganise the present (or any efficient) course of study; and (3) there would be a difficulty in securing examiners with the necessary qualifications. On the receipt of this memorial, the matter was referred back to the Annual Committee of Convocation, who appointed a sub-committee to reconsider the question. The result has been that both the sub-committee and the Annual Committee have upheld the opinion expressed by Convocation on January 13th, 1880, and at the meeting of Convocation to be held on Tuesday next (May 10th) Convocation will be asked to reaffirm its opinion by passing a resolution to the effect that it is desirable to hold the Preliminary Scientific Examination twice in the year.

This seems to us a matter of no small importance to the medical teachers and students of London. It is clearly a subject which concerns the medical profession, rather than the teachers of science, and we believe the objections raised by the scientific memorialists to be purely imaginary. The University of London is practically the only university at which the London medical student can obtain a degree, and it is but mere justice that every facility should be afforded him for doing so. We believe that the great obstacle to obtaining the London degree is the long time which is necessary, a time which, in case of failure at any of the examinations, becomes oppressive to many by reason of the expense. We have, in fact, pointed out in these columns that the percentage of rejections at the College of Surgeons is greater than it is at the analogous examinations of the University, and we believe that if the Senate of the University can manage to carry out this much-needed reform, we shall no longer be scandalised by the yearly exodus of hundreds of Englishmen across the Scotch border. As there may be some opposition to the resolution which Convocation will be asked to adopt, we trust that medical graduates will make a point of being present. The resolution will be moved by Dr. Poore and seconded by Dr. Curnow, who had charge of it on the previous occasion, and as it is the first business on the agenda-paper after the presentation of the report members should be in their places by five o'clock.

THE SMALL-POX QUESTION.

THERE is happily—as a matter of chance and of good fortune—a slight decline in the apparent ravages of that most easily preventable of all diseases, small-pox. This is a matter of thankfulness, though certainly not of self-gratulation, as we are practically doing nothing to stem the progress of the malady. Meanwhile, several phases of the grave medico-economic question raised by this epidemic must be thoroughly discussed. The great pressure on our columns this week—caused chiefly by the verbose and valueless "proceedings" in the Medical Council—compels us to defer the discussion until our next. Dr. Cameron, the member for Glasgow, has an article in the May number of the *Fortnightly Review* on the question, whether "vaccination," as commonly practised, is degenerating; and the chief medical officer of the General Post Office makes a special report on the subject of "Revaccination." These and other contributions to the general controversy call for special comment, which we are obliged to postpone. The continued ventilation of this subject must weary the medical reader; but the public interests involved are so vast that it cannot yet be set aside, although professional opinion is sufficiently informed and clearly formulated.

MICROGRAPHIC TRACINGS.

M. MAREY described at a meeting of the Académie des Sciences on April 18th an ingenious modification of the method of the graphic record of phenomena, with which his name is so honourably associated. In many physiological tracings it has been thought that some of the curves supposed to be of significance may possibly have been the result of oscillations of the lever. It seemed, therefore, to M. Marey desirable to remove this doubt, and to demonstrate the fidelity of the instruments by showing that identical tracings may be obtained by other instruments which cannot be affected by this cause. This result has been attained by making the scale of record extremely small. If, for instance, the tracings of a sphygmograph are five millimetres high, it is possible that the lever may in its rapid movement go too far before the friction arrests it. If, however, the amplitude of the movement is reduced to one-tenth, the effect of the momentum of the lever will be reduced to one-hundredth (the square root) of that which it possessed in the former case. But in order to preserve the form of the trace, the surface on which the lever writes must move very slowly, not more than one millimetre per second. The details of the curves thus obtained will not be visible to the naked eye, but if placed under a microscope, and magnified twenty diameters, their form can be plainly seen. This method of record has another advantage. Donders has remarked that a recording apparatus is only accurate for movements of a certain rapidity, for which it has been constructed, and if it is made to record movements of much greater rapidity they are not accurately represented. But the microscopic inscription multiplies almost indefinitely the field of work for the graphic method, by obtaining a sufficiently fine steel point to write and a black layer thin enough to receive the tracing. M. Marey has already succeeded in receiving and registering the movement of a tuning-fork vibrating 200 times per second, and in recording the vibrations of a voice singing at one end of a tube. Even the vibrations of blood in a vessel, which causes the "bruit de souffle," seem to be among the movements which can be recorded. At least, in the case of elastic tubes and artificial aneurisms, M. Marey has succeeded in recording the vibrations produced by a current of water, and which are also audible. A possible source of error in this method, which must not be overlooked, is the friction of the style against the glass. Momentum and friction are two sources of possible error in all tracings. The former augments with every increase in the range of movement of the lever, the latter with every decrease, and special care will be necessary to reduce the friction to a minimum to avoid this error.

THE PHYSICAL DETERIORATION OF THE ENGLISH PEOPLE.

IS it a fact that the Anglo-Saxon race is in slow process of physical deterioration? Such is the opinion of Mr. Horsfall in a letter addressed to the *Manchester Guardian*, arising out of a statement by Dr. Beddoe and Mr. Tuckett that "British heads are smaller than British heads used to be." He points out that the conditions under which the youth of the country are brought up in these days are such as to favour the development of a stunted race. No playgrounds, no public gymnasia, and an enforced resort to early drinking and smoking are the main factors at work, according to this authority, in the production of a general enfeeblement, unknown in the freer and robuster times of old. And there is, it must be admitted, considerable truth in the argument. With all our endeavours at improved sanitation, there remains much to be done in the way of physical education, and the gospel of a healthy body which shall be capable of all the demands made upon it needs to be strenuously preached and acted upon in the interests of the nation. The mode of life of a great number of our urban population is *the* great evil of civilisation. Deprived of fresh air and healthy exercise, combined often with an improper and an inadequate supply of food, and a consequent resort to artificial stimulants, such people are growing up under conditions which can only lead to one result, that of defective development. For our own part we heartily endorse the suggestion made by Mr. Horsfall, that places of open-air recreation and gymnasia should be vastly multiplied, and access to them obtained even on that day of the week termed a "day of rest," but which is too often a day of idleness and dissipation. We sadly want in this matter the exercise of that common sense which has usually been regarded as the peculiar feature of the British character, but which in some matters is kept wholly in the background, and never asserts itself.

CONVERSAZIONE AT THE MEDICAL SOCIETY OF LONDON.

THE usual conversazione held at the close of the session of the Medical Society took place on the 2nd inst., and was well attended. It was preceded by the delivery of the annual oration by Mr. Arthur Durham, which was quite worthy of the occasion. The orator chose for his subject the Surgery of the Future, not, as he remarked, meaning thereby the remote future, when the need for surgery might cease to exist entirely, but the immediate future. The subject was happily chosen and cleverly expounded, comprising the topic of cancer, which Mr. Durham showed from the Registrar-General's returns to be steadily on the increase. He pointed out the paramount necessity of early recognition of this direful disease, and of its prompt and effectual removal by the knife, which should not be sparingly used. He cited cases from his own experience where many years' immunity from recurrence had been enjoyed by the recognition of these important facts; but he admitted that underlying the local manifestation of cancer there was a constitutional tendency, which must be dealt with if cancer were ever to be eradicated or its increasing mortality controlled; and he appealed to physicians to seek for some remedies which should have as marked an effect in this disease as iodide of potassium has in syphilis. Turning to the subject of abdominal surgery, he spoke chiefly about operations upon the kidney, and related a case he dealt with in 1870. The patient was a young woman who had all the symptoms of renal calculus in an aggravated degree, whose life was rendered intolerable on account of pain in the loin, who had hæmaturia and attacks of vomiting, and who was known to have passed gravel. Under these circumstances, and after consultation, Mr. Durham explored the kidney, but found no calculus; the operation, however, afforded some months' relief. Then with return of the symptoms he ventured to remove the kidney, which presented a normal appearance. In a few days the patient unfortunately died, and the cause of death was not cleared up on post-mortem examination; indeed he could not help thinking that fright had something to do with the untoward issue of the case. He referred to Mr. Morris's case, where after a similar diagnosis a calculus was found and successfully extracted, and pointed to this as an encouragement for a procedure which, however, might not often be required. Nephrectomy was now being much more frequently performed; and Mr. Barker's statistics were quoted to show that the mortality after this formidable operation was not by any means excessive considering its nature, and the nature of the diseases for which it was undertaken. Other abdominal operations, such as gastrostomy, excision of the pylorus or stomach, and operations for the relief of intestinal obstruction, were noticed; and the importance of the early performance of the last-named strongly insisted on. Want of time prevented him taking up all the points in which the field of surgery was being enlarged, but he concluded by some interesting remarks upon antiseptic surgery, humorously deprecating the title "antiseptic," as if all surgeons who did not carry out its details were "septic," and comparing the phraseology to that of the "homœopaths," who regard those who do not pursue their lines as being devoid of science, or "allopathists." He warmly eulogised Mr. Lister's labours, and held that the practice of "antisepticism" was perfectly distinct from the acceptance of the germ theory, which had been useful as enforcing attention upon the methods employed, and he summed up the advantages and disadvantages of the "spray" in a practical and convincing manner. Altogether Mr. Durham's oration was considered to be a success; the subject was a well-chosen one, and travelling over a wide field upon matters which are at the present time most inviting attention in the surgical world, it was interesting and suggestive, and a cordial vote of thanks, proposed by Dr. Broadbent from the chair, was carried by acclamation.

CHARCOT ON HYPNOTIC CONTRACTURES.

THE strange phenomena of hypnotism are elicited with readiness in the subjects of hysteria, and have been for some time the subject of special study at the Salpétrière by M. Charcot. His latest investigations (described at a recent meeting of the Société de Biologie) have been chiefly directed to the phenomena of muscular contracture, which is readily obtained by the mechanical stimulation of the tendon, of the motor nerve, or of the substance of the muscle, so that it can readily be localised in a single muscle or group of muscles. This contraction is very intense, and fixes the limb in a given attitude with a force which cannot be overcome even by energetic efforts. When the hand is closed thus it cannot be opened by any force which can be applied to it. Nevertheless, it can be at once relaxed by mechanical stimulation of the antagonists, such as is afforded by gentle rubbing of the extensors of the hand; the fingers are at once extended, and the contracture disappears as if by enchantment. If the contraction is not thus relaxed, when the patient is awaked one of three things may happen. (1) The contracture may disappear, the patient recovering, with consciousness, the liberty of all movement. (2) If the patient is rendered cataleptic the contracture may continue after the awaking, being, as it were, fixed by the catalepsy. (3) In some cases the contracture persists, although the patient is not rendered cataleptic. The patients who preserve the contracture after the recovery of consciousness present the closest resemblance to hysterical patients affected with permanent contracture. Friction of the antagonists is powerless to resolve it. A magnet applied near the fixed limb only increases the contracture, but applied to the opposite limb it causes the curious phenomenon of the transfer of the contracture. This changes its place to the opposite side, but does not yield to the magnet. To remove it the patient must be again placed in the hypnotic state, when the stimulation of the antagonists suffices to make it disappear. In most cases the change of contracture occurs in all the muscles of a limb, but it has also been found that when only a few muscles are affected by the contracture, the transfer involves exactly the same muscles of the opposite side; and this is true however the first contracture may have been brought about. Anæmia of a limb, such as is produced by Esmarch's bandage, hinders the development of the neuro-muscular hyper-excitability, as Brissaud and Richet demonstrated. If, for instance, a limb is thus treated, the patient hypnotised, and the muscles of a limb are rubbed, no contracture is induced; but as soon as the current of blood is restored the contracture occurs, without any further stimulation. Hence it seems that in the anæmic limb there is a sort of potential contracture. The impulse is received by the nerve centres, and is preserved there until the re-establishment of the current of blood, restoring to the muscles the ability to contract, permits it to manifest itself. This latent contracture may be transferred by the magnet from one limb to another on the opposite side, just as may be the developed contracture. As an illustration of the method of obtaining these results an instance is described in detail. The patient, having been hypnotised, is in a state of lethargy, with muscular hyper-excitability; but it would not do to apply Esmarch's bandage while she is in that condition, because the mechanical stimulation would probably cause a contracture of the whole limb. The patient's eyelids are therefore raised. She at once becomes cataleptic, the limbs retain any position in which they may be placed, but the muscles have ceased to be sensitive to mechanical excitation. Advantage is taken of this loss of excitability to apply the bandage. The eyelids are then pressed down. The catalepsy at once ceases, the patient resumes the condition of lethargy and the muscles recover their excitability. Then, without touching the limb elsewhere, a small button is pressed several times against the ulnar nerve behind the elbow. No effect follows until the bandage is removed, and then, as the blood returns to the limb, the hand slowly assumes the position due to contracture of the muscles supplied by the ulnar nerve, especially the interossei. In this experiment the excitation of the ulnar nerve has impressed the nerve centre in a peculiar way, but only in the parts corresponding to the ulnar nerve. The nerve action for the contracture in the muscles supplied by the nerve takes place in the nerve centre, but not in the periphery until the return of blood to the muscles restores their contractility. Again, the patient being asleep, the arm is anæmiated. The ulnar nerve is then stimulated, of course without effect. Nevertheless, the spinal cord has been influenced, and if the circulation were to be restored the contracture would come on. But if, instead of this, a magnet be applied to the other arm, the contracture is produced in this in exactly the same way as if it were actually transferred from the first side. The lateral contracture has been transferred. These phenomena, in the opinion of M. Charcot and M. Richer, are evidence of the reflex nature of the neuro-muscular hyper-excitability, whether produced by the mechanical stimulation of a nerve, a muscle, or a tendon.

REPORT OF DR. JAMES DOUGAL ON THE FASTING GIRL AT CHAPELTON.

DR. JAMES DOUGAL, C.M. Glasg., of Strathaven, has favoured us with the following account of this case:—

Christina Marshall was born in the village of Chapelton, Lanarkshire, in the year 1867. While from her father she could only inherit a vigorous and robust constitution, by her mother she could fall heir at least to a system generally weakened, and probably specially tainted, from the fact that the building up of that system was coeval with the development of a pulmonary phthisis which six years later left her without the care of a maternal parent. The family, of which she is the third youngest, consisted originally of nine members. Two have died of consumption, and one of scarlet fever. The remaining six can by no means be classed as hardy, but have as yet shown no decided tendency to the development of the undoubtedly family weakness, and of those six our patient is decidedly the least strong. They have been provided for through the exertions of the father as a road surfaceman; and, on the whole, the upbringing has resulted comparatively favourably, alike bodily and mentally, in the case of Christina. As regards her personal history I am told that, when three years old, she was the subject of a rather peculiar ailment, which was the more noticeable as it evidenced itself in the development of a strong craving for sugar, and an equally strong aversion to what had previously been her staple diet. This condition of matters lasted nearly three months, and life was maintained solely by the administration of beef-tea. This is certainly a most important historical item, seeing that we are now confronted with similar but much more pronounced symptoms. From the age of three onwards till last May no incidents particularly bearing on the present phase of the case have been discovered. Her condition during those years may be best described by saying that she was tender to rear, often a little unwell, seldom seriously. Her parents had never been made aware of any development of the seeds of consumption. She had phlyctenular ophthalmia, which left a considerable dimness of vision, and she had further been frequently harassed with severe attacks of headache, probably gastric in their origin. Owing to these complaints her attendance at school was broken, but the periods of absence were of usually short duration. She was considered an intelligent girl, was possessed of a disposition which was above the average in its liveliness, while it was properly tempered with a quiet and becoming thoughtfulness, to which the term melancholy could at no time properly apply. Exactly a year ago she contracted a cold, and this showing no signs of leaving her, I was asked to see her about the middle of July. I then found her suffering from a moderate attack of bronchitis, and I was pleased to be unable to detect any phthisical element in the case. From this she recovered in the course of ten days, to be immediately tortured with a severe headache, which has continued more or less ever since. During the autumn she was able to be out a good deal, but towards its end a great change came over her disposition. She now seldom spoke, almost never except when questioned, and she maintained a stolid and morose cast of countenance. She became very averse to all kinds of food, extremely constipated, and very sleepless; and I saw all those symptoms gradually but firmly and surely establishing themselves as part of her existence. For some weeks previous to December she went less out of doors; on the 20th her outing only lasted a few minutes, and it was her last; and on the 8th January she lay down on the bed, which she has never since quitted. Eighteen weeks ago last Sabbath she took a small piece of fruitcake; since then her parents distinctly and firmly assert that no food of any description has been taken by her. She takes water freely, and occasionally sweets, but obstinately refuses to be tempted by even the pressing and kindly entreaties of her father. When earnestly appealed to she begins to cry, and says she would like to take something, but can't swallow; and if deluded into taking a mouthful of water with a minute proportion of milk in it, she at once emits it. When reminded as to what must be the result of such a course, she says she has the inward feeling of approaching death, but that no possible efforts of hers are powerful enough to avert the fate which is slowly, but surely, enchaining her.—*Present condition:* Body very emaciated, but free from bedsores; complexion very sallow; lips pale and dry; tongue very red and dry; throat abnormally high in colour, and the seat of a choking sensation. On the cornea of each eye there is a nebula, the result of the ophthalmia. Headache constant and severe; continuous pain over stomach and bowels, increased on pressure; abdomen sunk. Lungs healthy, excepting the faintest suspicion of dulness on percussion over left apex. No cough; cardiac action weak, but sounds normal. She occasionally vomits a glairy fluid streaked with blood, and while the effort entailed leaves behind it great weakness it gives a transient relief to the gastric pain. Urine scanty, rather pale; deposits some urates, but is free from albumen. Bowels have not been moved for eleven weeks, and previous to that the intervals were six and seven weeks. At these times the motions were hard, dark, and small in quantity. She is quite unable to leave her bed, which is situated in the kitchen, and is quite removed from any, to her, possible source of food. This, in fact, her parents have now ceased to offer her. The only persons who see her are her father and stepmother, who alternately sit every night with her; a sister and brother, respectively eleven and eight years old, who stay in the house, and three older sisters, who visit her at rather long intervals. When I have mentioned these, and added the clergyman and myself, I have noted everybody who has any regular communication with her room. I omitted to mention that she has never menstruated. I have now given a minute report of this rather mysterious case. I have simply put on paper the results of my inquiries amongst her attendants, and added thereto my own medical examination of the case. I can vouch for the truth of none of the statements made to me by others, but I may fitly close my remarks by saying that I have known the father and stepmother for six years; that they are in easy circumstances; that I believe the honesty and integrity of their characters to be above the faintest tint of suspicion; and that I have never, in all my connexion with the district in which the girl resides, heard even the gentlest murmur of gossip pointing in the direction of latent channels of food-supply. My attendance on the case has been pretty close, and has now included a large number of visits, but I have not yet been able to formulate an explanation of the case satisfactory even to myself.

ENGLISH HEALTH IN THE WINTER OF 1880-81.

THE Registrar-General's Quarterly Return, relating to the three months ending March last, which has just been issued, completes the official record of the mortality in England and Wales during the winter of 1880-81. The death-rate among the English people in the two quarters ending December and March last was exceptionally low. In the last quarter of 1880 the annual death-rate was but 19·6 per 1000, and was 2·1 below the average rate for the quarter; only once since civil registration was established in 1837 has so low a death-rate prevailed in the fourth quarter of the year. In the first quarter of this year the death-rate was 21·8, and again 2·1 below the average; so low a death-rate has not occurred in the first quarter of any year since 1856. This low rate of mortality is especially noteworthy on account of the severe frost and intense cold that prevailed during a considerable portion of January. Indeed, the aggregate cold of last quarter was greater than that in the corresponding period of any year since the memorable frost of 1855. It would be interesting to inquire why the severe cold of last quarter did not cause the usual excess of mortality arising from such low temperature. The general tendency of the Registrar-General's recent mortality statistics point, however, conclusively to the improving sanitary condition of the country, and in the quarterly return just issued both infant mortality and zymotic fatality are reported to have been considerably below the average. Especially noteworthy is the recent marked and steady decline in the death-rate from "fever," mainly enteric. The fever death-rate was lower last quarter than in any previous corresponding period on record; the annual rate from this cause did not exceed 0·26 per 1000, whereas in the ten preceding corresponding quarters it averaged 0·48. Since 1870 the deaths referred to fever have continuously declined, and the death-rate recorded in the first quarter of this year is scarcely more than one-third of that which prevailed in the corresponding period of that year. It is not necessary to look further for conclusive evidence of the direct effect of the recent public awakening in sanitary matters. The return just issued shows that during the first quarter of this year small-pox prevalence and fatality was again practically confined to the metropolis. The deaths referred to this disease in England and Wales during the three months ending March last were 730, of which no less than 652 occurred in London and its outer ring of suburban districts, 12 in nineteen of the largest provincial towns, and 64 in the rest of England and Wales. Out of London the only fatality of the disease of an epidemic character occurred in Bury, where 24 fatal cases were recorded. The national health bulletin, supplied by the Registrar-General's last Quarterly Return, is exceptionally and unexpectedly favourable.

THE TRANSVAAL WAR: GALLANT CONDUCT OF MEDICAL OFFICERS.

THE Natal papers publish some interesting particulars of the gallant and heroic conduct of the Army Medical Officers who took part in the recent engagements with the Boers, two of whom perished in their noble efforts to succour the wounded on the field. We read in the *Natal Witness* that, at Laing's Nek, "Doctors Ring and Landon moved up behind the advancing column, and on its retirement remained, amidst a shower of bullets, attending to the wounded. At the final disaster, at Majuba Hill, the officers of the Medical Service remained faithful to their duties—even unto death. Dr. Cornish was shot as, with a piper of the 92nd Highlanders, he was carrying a wounded man on a stretcher that had been abandoned by the native bearers. Dr. Landon, always keen for duty in the field, and taking a special pride in his Army Hospital Corps, met his fate at the final rush of the Boers, as with a few of his men he was engaged in seeing to the wounded on the ridges. The ruling passion strong in death, he called Dr. Babington's attention, shortly before he expired, to the meritorious conduct of his men. And well he might; the conduct of some of the Army Hospital Corps orderlies was beyond all praise." General Sir Evelyn Wood has recommended that the highly prized Victoria Cross should be bestowed on Corporal Farmer, of the Army Hospital Corps, for his gallant conduct at the Majuba action. Corporal Farmer was attending to some wounded on the field, and at the approach of the Boers, although he had time to fly, he held up a white flag with his right arm, which was shot away; but exclaiming, "I've another arm left," he raised the flag with his left, and was again shot down; even then he remained with his wounded, giving all the assistance he was able. Sir Evelyn Wood characterises his action and conduct as of bravery deserving the highest reward. The Victoria Cross has seldom been more gallantly earned. In the *Gazette* despatches and enclosures from Commodore Richards, describing the part taken in the engagement by the Naval Brigade at the Majuba Hill, Commodore Richards mentions the conduct of Dr. Edward Mahon, R.N., as deserving of special approbation and reward.

HEPATIC ABSCESS AND DYSENTERY.

THE vexed question of the connexion between dysentery and tropical abscess of the liver was the subject of some discussion at the Pathological Society last Tuesday. The matter arose out of the presentation by Sir Joseph Fayrer of two examples of hepatic suppuration: one showing multiple abscesses apparently dependent upon dysentery; the other a large solitary abscess, in which it was doubtful if the intestinal affection, from which the patient had previously suffered, bore any relation to the liver disease. In his subsequent remarks Sir Joseph reaffirmed the opinion, which is held by him in common with most surgeons of Indian experience, that the solitary abscess is usually the outcome of a primary hepatitis, independent of dysentery, which may or may not be a concomitant of the case. This opinion, which was, it may be remembered, strongly advocated by the late Dr. Murchison, was supported at the meeting by Dr. Longhurst; but many of those who spoke took the contrary view. Thus, Dr. Dickinson exhibited a specimen of solitary abscess of the liver following extensive dysenteric ulceration contracted in this country after exposure to cold and an indigestible meal; and Drs. Wilks, S. West, and Moore adduced facts in the same direction. The subject certainly admits of more ample discussion, and it seems clear that both views are, to a certain extent, right. We believe that there is evidence of primary hepatitis even in cases of hepatic abscess arising in our climate under certain conditions, where there has been no trace of intestinal ulceration, and where everything pointed to primary inflammation, or where, in some cases, thrombosis with necrosis of the liver was the cause of the abscess. In other cases a single abscess may result from a local infective process from diseased intestines. Such cases, however, may be originally produced by the fusion of several "multiple" foci of secondary inflammation; but whether this be so or not they do not strictly come under the category of "tropical abscess," being linked ætiologically with those cases of disseminated suppuration of the liver which are admitted by all to follow upon ulceration of the intestines, as well as upon other sources of pyæmic infection; examples of which were quoted by Drs. Taylor, Moore, and Day, at the meeting. However, as we have indicated, the subject is certainly open to reconsideration, and it is one which the Society would do well to take up for special discussion, availing itself of the wide experience of such authorities as Sir Joseph Fayrer, for example, to initiate a debate which shall sift the matter to the bottom.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE extension of time accorded to intending exhibitors for making applications for space has been much appreciated. At the meeting of the committee, last week, it was found that the number of exhibitors amounted to nearly 400, and the frontage applied for to over 2000 feet. The applications from the Continent and from America have exceeded fifty. The success, therefore, of the undertaking is more than assured, and that it will prove a great source of attraction to visitors to the Congress there can be no doubt. The applications in all classes have been numerous, and from first-rate firms. The Commissioners of 1851, the Science and Art Department, and the Council of the Horticultural Society have vied with each other in their courteous endeavour to meet the wishes of the Exhibition Committee, and full justice will be enabled to be done to all exhibitors. A plan of the exhibition building is being made, and each exhibitor will have a portion of the plan sent to him with his exact position marked thereon, so that all confusion at the last will be avoided. The committee will, we understand, be glad to receive applications up to the time of the final allotment of space, which will be proceeded with on the completion of the plans. The claims of late applicants will, of course, be considered only after those who have already applied have been finally dealt with.

AN ACTION FOR DAMAGES AGAINST A SURGEON.

AN action for damages brought against Dr. Stainthorpe of Wareham on account of alleged careless and unskilful treatment of a fracture of a thigh was lately tried before the County Court judge at Wimborne, who gave judgment for the defendant. The issue was by no means a novel one, and the whole history of the affair and some of the medical evidence were as unsatisfactory as in many similar cases. The plaintiff recovered with a shortened but otherwise sound limb, and attempted to prove that the shortening was occasioned by improper treatment. In his support was brought the evidence of several local practitioners, one of whom declared that shortening was quite an exceptional occurrence after oblique fracture of the thigh. The most charitable view to take of such an opinion is that it is the result of inexperience. Professor Longmore considered the treatment adopted quite satisfactory, and stated, what is only too true, that in spite of all precautions shortening will very often eventually occur, even when none is present at first. Dr. Stainthorpe appears to have been very attentive and careful, and we sympathise with him under the extremely annoying circumstances in which he has been placed.

NON-LIABILITY OF PATIENTS FOR SERVICES RENDERED BY A SUBSTITUTE.

A COUNTY COURT Judge, according to *The Globe*, has lately ruled that when a medical man sends a professional brother to a patient instead of going himself, the patient may legally refuse to pay. Our contemporary thinks this important to doctors and a good ruling. We think it neither the one nor the other. It is not very important, because medical men as a rule, with few exceptions, do their own work, and do not trouble their neighbours to do it. The instances in which patients are handed over to a substitute are generally matters of arrangement, the patient's feelings being consulted as to the substitute whom he would prefer. Besides this, patients, as a rule, are incapable of such bad behaviour as is implied in accepting this ruling. They are such patients, we should say, as a doctor would be better without. A medical man cannot be ubiquitous, and most medical men occasionally require a holiday. To do the public justice, they feel this, and accept the fact with much generosity and good sense. For all these reasons the ruling is not very important to doctors, and we do not think it will be sustained by higher authorities. There are some special cases where doubtless it would be more reasonable, such as obstetric cases. Here a medical man should make a point, *if possible*, of attending personally. To send a substitute is a proceeding which can only be excused under exceptional circumstances. But even here exceptional circumstances will occur, and a patient is lucky in having a medical man who, failing himself, can always command a substitute.

A STEP IN THE RIGHT DIRECTION.

WE learn from a literary contemporary that a movement is on foot to petition the Senate of the University of London to abolish the habit of setting definite books for their pass examinations, substituting for that cram-fostering practice the selection of passages for translation with the aid of a dictionary. Such a change would be welcome on many grounds. The literature of schoolboys consists at the present time largely of so-called "keys" and translations, which are actually often committed to memory by the candidate. The University of London, whilst only an examining body, has done so much in the cause of education by indicating the lines on which it requires competent knowledge to be shown, that we may hope to see it lend a favourable hearing to these representations. The crying evil of the examination system is the encouragement it affords to the successful but baneful practice of "cramming," and any step which can tend to put a stop to this is decidedly "in the right direction."

BOGUS DEGREE REVELATIONS.

ANYTHING that Mr. John Buchanan—the principal personage in the bogus degree trade, and now in prison—may say is of little value; but the papers and documents which he is said to have handed over to the authorities of the United States are of a little more importance; these include letters from five thousand persons who either obtained, or wanted to obtain, degrees. This is bad enough, as showing the number of people in the world who are willing to perpetrate a fraud, and to pass off for what they are not. But more startling still is the revelation of the share taken in this disgraceful traffic by others—altogether, it is estimated that nearly ten thousand persons are more or less compromised by Buchanan's revelations.

WE regret to announce the death of Brigade Surgeon Exham L. Hiffernan, Army Medical Department, at the Royal Victoria Hospital, Netley, shortly after his arrival from Malta. Mr. Hiffernan entered the army as an Assistant-Surgeon on the 16th June, 1854, was promoted Surgeon in July, 1866, Surgeon-Major in June, 1864, and Brigade Surgeon in November, 1879. Mr. Hiffernan was for many years in the 19th Regiment, and served in the Crimean campaign, receiving the medal with clasps for Alma, Inkerman, and Sebastopol, and the Turkish war medal.

GEORGE EDWARD PAGET, M.D., F.R.S., Regius Professor of Physic, late President of the Council of Medical Education of the United Kingdom, has been elected to a Fellowship at Caius College, Cambridge. Dr. Paget was eighth wrangler in 1831, and in the following year was elected to a Fellowship, which he vacated by marriage, according to the then existing statutes of the College.

THE Court of Governors of Owens College have resolved that the Council should take steps to give evidence before the Royal Commission on Medical Legislation with the object of obtaining for the Victoria University power to confer medical degrees.

DR. W. MCEWEN has obtained the Lectureship in Surgery in the Glasgow Infirmary School of Medicine, recently vacated by Dr. Cameron. To the chair of Medical Jurisprudence the managers of the infirmary have appointed Dr. John Glaister.

IT is anticipated that University College, Liverpool, will open for its first session next October. The donations to the funds of the institution have reached nearly £100,000, and the preliminary work of drafting a constitution has just been completed.

MR. JOHN KELLOCK BARTON, Surgeon to the Adelaide Hospital, and Lecturer on Surgery in the Carmichael School of Medicine, Dublin, will be a candidate for the Vice-Presidency of the Royal College of Surgeons in Ireland, at the annual election in June.

THE *Daily Telegraph* draws attention to the statement made in the return of Sir E. H. Currie, to the effect that "during the last twenty-three days 1500 persons suffering from small-pox have been refused admission" to the small-pox hospitals of the metropolitan district.

OUR readers will have learned with regret that amongst the victims of the lamentable explosion on board the *Doterel* is the medical officer of the ship, Staff-Surgeon Septimus Evans, whose appointment dated from Dec. 13th, 1880.

THE Town Council of Oswestry has elected Mr. Lewis W. A. Aylmer, L.R.C.P., L.R.C.S. Edin., as Coroner for the borough, in the vacancy created by the death of Mr. J. Sides Davies, M.R.C.S.

THE office of deputy chairman of the Briton Life Association, long held by Dr. Samuel Richards, of Bedford-square, has been filled by the appointment of Dr. B. W. Richardson, LL.D., F.R.S.

VICTORIA HOSPITAL FOR CHILDREN.—The Princess Louise (Marchioness of Lorne), attended by Lady Sophia Macnamara and Captain Arthur Collins, paid an early and private visit to this hospital on the 28th ult., to inspect the out-patients' department, and subsequently visited the wards, speaking to each child in its cot, and leaving some toys for their amusement.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Walborough.—Estimated population, 1880, 7300; birth-rate 33·0 per 1000 inhabitants; death-rate 16·03 per 1000. Mr. Armstrong gives a curious and instructive instance of the exemption of the workhouse children, averaging 80 to 100 in number from infectious diseases, prevalent in the town: "Although the house is situated in the town, and scarlatina, measles, and whooping-cough have been frequently present among the children living in the adjoining street—the infection has never been carried over the workhouse walls. People sometimes allege, as an excuse for neglect and carelessness in carrying out sanitary precautions, that 'these complaints come in the air,' and that it makes no difference whether children are kept away from infected houses or not. The infective matter of these diseases is undoubtedly diffused in the atmosphere, but it is very doubtful if it ever travels even a very moderate distance, in the open air, without losing its infecting power. This instance, and others well known in regard to fever and small-pox hospitals, tend to show that active infection is not wafted for unlimited miles across the country, but is confined to the immediate precincts of the sick. These poor workhouse children are not particularly isolated, and the elder ones are frequently marched through the street; but they have a school and play-ground to themselves, have not many outside friends to visit them, and are consequently less liable to catch infectious disease than their richer neighbours. In a sanitary point of view workhouses and prisons are becoming the most healthy places of residence, and most free from epidemic disease." (Walborough forms part of the combination of which the other districts are Newton Abbot and Dawlish. The report as respects these districts has already been noticed in THE LANCET, pp. 672, 717.)

Hanley, Urban (*Staffordshire*).—Dr. Swift Walker reports for 1880 a birth-rate of 44·5 and a death-rate of 24·37 per 1000 of the estimated population, the former being 1 per 1000 more and the latter 1 per 1000 less than in the previous year. The most notable event of the year was a severe epidemic of what Dr. Walker designates choleraic diarrhœa, which prevailed during the months of July, August, September, and October, proving fatal to no less than 113 young children. Many of the cases, Dr. Walker observes, did not receive medical assistance until they were in a moribund condition, and of the outbreak generally he remarks:—"Every precaution was taken to warn the mothers, and many papers concerning the 'Proper Feeding of Infants,' published by Dr. Lankester, were distributed; but amongst the labouring classes the subject is very much neglected, as they *generally* attribute relaxation of the bowels to teething, and consider it rather salutary than otherwise—a great mistake, especially during such high temperatures as were experienced during the summer of last year. There is little doubt that a great number of the children succumbed to improper feeding and nursing, as food is in many cases given to a child whenever it is fretful. Few medical men can succeed in impressing upon mothers the vital importance of nursing or feeding children at *stated* intervals. Others succumbed to climateric influences, and some were in such a low state of vitality, either from hereditary predisposition or want of breast milk, that as soon as they were attacked with the disease there was not sufficient constitutional stamina to withstand any serious shock as such an exhausting disease as diarrhœa. In the case of many children of the poorer classes met with in practice, the bowels and stomach are in a state of sub-acute congestion from improper feeding long before any active disease makes its appearance. Then diarrhœa or any other affection makes a secondary complication to deal with, and must inevitably lead to a fatal result." The report is chiefly founded on the data as to the mortality of the locality, and does not give much information as to the sanitary condition and administration of the place.

Buckingham, Rural (*Bucks*).—Mr. De'Ath reports a death-rate of 14 per 1000 of the population in 1880, the lowest death-rate recorded in the district for several years. He writes of the sanitary condition of the district having been much improved in recent years, and states that it was free from any serious epidemic disease in the past year. Evidently the question of cottage accommodation is one of the most serious questions in this district.

Bollington, Urban (*Cheshire*).—Mr. James Allen reports approximately for this district in 1880, and pending the results of the census, a birth-rate of 33·8, and a death-rate of 23·73 per 1000 living. He remarks upon the excessive infantile mortality in the district as contrasted with the previous year, and to the registered causes of death—namely, convulsions, diarrhœa, debility, atrophy, marasmus, or the like, causes which, he observes, "experience teaches us are frequently produced by improper food which children get."

Dundee.—Dr. Wallace reports a manifest and generally satisfactory improvement in the state of the public health of this town during the four weeks ending Feb. 26th. The rate of the mortality for this period fell to 19·9 per 1000 inhabitants as contrasted with 27·9 for the corresponding period of the previous year. Typhus still continues in the town, 13 cases having been reported during the four weeks in question. Dr. Wallace attributes much of this persistence to the real nature of the disease not having been at first suspected, and consequently not early enough reported.

Wortley, Rural (*Yorkshire*).—Dr. Samuel Drew reports for this district in 1880 a death-rate of 18·0 per 1000 inhabitants, as compared with 23·0 per 1000 in 1879, and he states that the sanitary condition of the whole district is improved; but although several of the villages in it are well supplied with water, others, it appears, are not, and need the attention of the sanitary authority in this respect.

Kirkham, Urban (*Lancashire*).—Mr. Davidson Walker reports for the year 1880, among a population estimated at 4043, a birth-rate of 37·5, and a death-rate of 19·5, per 1000 inhabitants. The year was characterised by a great decline in the infant mortality of the district, which Mr. Walker assigns to the efforts made by the sanitary authority to promote the health of the community. It would appear, however, that there are still matters which remain for the sanitary authority to do before the town can have reaped all the results to be obtained from a thorough sanitary administration, and we shall hope to learn from future reports of their medical officer of health that they have been done.

Glasgow.—The remarks made by Dr. Russell to accompany the mortality tables of the City of Glasgow for the quarter ending the 31st Dec. 1880, are of the usual detailed character, and cannot usefully be either epitomised or detached from the tables to which they apply. The death-rate of Glasgow in the fourth quarter of 1880 was 24·0 per 1000 inhabitants, as compared with an average of 27·6 for the corresponding quarter of the ten preceding years.

Cases illustrative of the present difficulty of dealing with small-pox in the metropolis appear to be multiplying in the police-courts. A woman was recently fined in one court for suffering her child, a boy, to play with other children in the streets before he had fully recovered from small-pox; and a laundress was fined in another court for continuing her business while she had a son ill from small-pox in the house where it was conducted, and so conveying the disease to the servant of a customer through linen submitted to wash. In this case the illness proved fatal, and no medical man was called in. In a third case a householder was fined for sending a servant home in a public tramcar with the eruption of small-pox out upon her.

A very useful Parliamentary return has been issued, under the signature of Sir John Lambert, K.C.B., of the Local Government Board, of the present number and names of the Urban Sanitary Authorities in England and Wales, under the Public Health Act, 1875, the names of the several parishes and townships within the district of each such authority, distinguishing those parishes and townships which are wholly from those which are partly within the district, and also the area, the population, according to the census of 1871, and the gross estimated rental and rateable value of each district.

The discussion on Dr. Richardson's Address, at the Sanitary Institute, on the management of small-pox cases in the metropolis and large towns is still further adjourned to May 11th, when it is expected that Dr. Richardson will make his reply to the various observations which have been made.

Two groups of houses, one consisting of twenty and the other of twenty-three, were recently directed by the magistrate sitting at Worship-street to be closed until they could be placed in habitable repair.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further slight decline last week. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5730 births and 3089 deaths were registered last week. The births exceeded by so many as 544, whereas the deaths were 168 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 22·9 and 22·0 per 1000 in the two preceding weeks, further declined last week to 21·2. The lowest rates in the twenty towns last week were 12·8 in Leicester, 15·7 in Norwich, 15·8 in Sunderland, and 16·8 in Leeds. The rates in the other towns ranged upwards to 23·5 in Manchester, 23·8 in Wolverhampton, 25·1 in Liverpool, and 26·9 in Salford. During the first four weeks of the current quarter the death-rate in the twenty towns averaged 22·1 per 1000, against 24·8, the average rate in the corresponding periods of the five years 1876-80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 410 and 382 in the two preceding weeks, further declined to 375 last week; these included 83 from measles, 83 from whooping-cough, 71 from small-pox, 60 from scarlet fever, and 35 from fever, principally enteric. The annual death-rate from the principal zymotic diseases averaged 2·6 per 1000 in the twenty towns, and ranged from 0·9 and 1·2 in Sunderland and Norwich, to 3·2 and 3·4 in London and Liverpool. Measles showed the largest proportional fatality in Bristol, Newcastle-upon-Tyne, and London. The fatality of whooping-cough was very considerably below the average for the season; and the deaths from scarlet fever were also below the average. The highest death-rate from fever was recorded in Liverpool. The 11 deaths from diphtheria in the twenty towns included 6 in London and 2 in Liverpool. Small-pox caused 75 deaths in London and in its outer ring of suburban districts, and 1 in Birmingham; whereas no fatal case was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 820 to 963 in the four preceding weeks, declined to 943 on Saturday last.

The deaths referred to diseases of the respiratory organs in London, which had been 395 and 338 in the two preceding weeks, further declined last week to 328, and were 11 below the corrected average number in the corresponding week of the last ten years; they included 191 from bronchitis and 99 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 4·6 per 1000 in London last week. The rate from the same diseases was equal to 6·0 in Liverpool, and to 8·0 in Salford.

The causes of 67, or 2·2 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·2 per cent. in London, whereas it averaged 3·1 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Plymouth, Birmingham, Bradford, Sunderland, or Newcastle-upon-Tyne; while the proportions of such deaths were largest in Norwich, Salford, and Leeds.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 21·2 per 1000, against 23·5 and 22·1 in the two preceding weeks; this rate corresponded with the average rate in the twenty English towns. The rates in the eight Scotch towns ranged from 19·3 and 20·0 in Aberdeen and Edinburgh, to 23·4 and 25·4 in Leith and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 82 and 69 in the two preceding weeks, further declined to 64 last week; they included 21 from whooping-cough, 15 from diarrhœa, 9 from diphtheria, 7 from fever, 6 from measles, 5 from scarlet fever, and one from small-pox. The annual death-rate from these zymotic diseases averaged 2·5 per 1000 in the eight towns, which was slightly below the average rate (2·6) from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 1·1 and 1·3 in Paisley and Greenock to

2·9 in Edinburgh and Dundee, and 4·3 in Leith. The fatal cases of whooping-cough, which had been 26 and 24 in the two preceding weeks, further declined to 21 last week, of which 9 occurred in Glasgow, 4 in Edinburgh, and 3 in Leith. The 15 deaths from diarrhœa showed an increase upon those returned in the previous week, and included 5 in Dundee, 4 in Edinburgh, and 3 in Glasgow. The 9 deaths from diphtheria, of which 5 occurred in Glasgow and 2 in Dundee, showed an increase upon those in the previous week. The deaths referred to "fever" (typhus, enteric or typhoid, and simple continued), which had been 7 and 11 in the two previous weeks, declined again to 7 last week, of which 5 were returned in Glasgow, and 1 each in Edinburgh and Perth; the annual death-rate from this cause was equal to 0·28 per 1000, and slightly exceeded the average rate from the same cause during last week in the twenty English towns. The fatal cases of measles and scarlet fever showed a considerable decline from recent weekly numbers. The death from small-pox (the first that has occurred in any of these eight towns since January, when one was registered in Dundee) was returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 163, 144, and 135 in the three preceding weeks, further declined to 116 last week, and were equal to an annual rate of 4·6 per 1000, against 4·2 from the same diseases in London. The greatest proportional fatality from lung diseases in the Scotch towns occurred last week in Aberdeen and Paisley.

HEALTH OF DUBLIN.

The rate of mortality was not quite so high in Dublin last week. The annual death-rate in the city, which had been equal to 29·0 and 32·6 per 1000 in the two preceding weeks, declined again to 30·7 last week. During the first four weeks of the current quarter the death-rate in the city averaged 30·8 per 1000, against 22·2 in London and 21·2 in Edinburgh. The 196 deaths in Dublin last week showed a decline of 12 from the number in the previous week; they included 19, or not quite 10 per cent., which were referred to the principal zymotic diseases, against only 12 and 9 in the two previous weeks. These 19 deaths from zymotic diseases included 14 from fever (typhus, enteric or typhoid, and simple continued), 3 from diarrhœa, 1 from scarlet fever, 1 from whooping-cough, and not 1 either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases was equal to 3·0 per 1000 in Dublin last week; the rate from the same diseases was equal to 3·2 in London and 2·9 in Edinburgh. The deaths referred to fever in Dublin, which had been but 8, 7, and 2 in the three previous weeks, rose to 14 last week, and exceeded any weekly number since the end of February; the annual death-rate from this cause in Dublin last week was equal to 2·19 per 1000, and was more than nine times the average rate from the same cause prevailing in the twenty English towns. The deaths referred to diarrhœa showed a slight increase, while the fatal cases of the other principal zymotic diseases were again exceptionally few. The deaths of infants and of elderly persons differed but slightly from those returned in recent weeks.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

Messrs. Edwards and Son, of Great Marlborough-street, announce they have constructed a fire-grate founded upon Dr. Arnold's principle, for which they claim a practical immunity from smoke, a long-continued fire without need for interference, and the doing away of chimney-sweeping except at intervals, perhaps, of ten years. Mr. R. H. Griffin, moreover, of Lonsdale-chambers, Chancery-lane, has introduced a fire-grate combining the merits of the closed hot-air stove and the ordinary register stove, with the additional professed advantage of giving off a minimum of smoke.

The National Health Society have made arrangements for a series of lectures to be delivered to working plumbers, at the Rooms of the Society of Arts, on "The Science and Art of Sanitary Plumbing." The lecturer will be Mr. S. Stevens Hellyer, and the lectures will be delivered on the evenings of May 17th, June 1st, 14th, and 28th, and on July 12th and 28th.

A considerable amount of fever—typhus and enteric—exists at present in the Union of Waterford, and additional accommodation for patients in the Fever Hospital is urgently required.

THE SERVICES.

Surgeon-Majors G. C. Gribbon, H. B. White, and Surgeon C. C. H. Smyth are on passage home from India in H.M. troopship *Malabar*, which left Bombay on April 12th.

Deputy Surgeon-General C. D. Madden has been ordered to Aldershot for duty, vice Deputy Surgeon-General J. Ogilvy, transferred to Bermuda.

ADMIRALTY.—Staff-Surgeon Stephen Sweetman has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of April 1st, 1881. Fleet Surgeon Stephen Sweetman has been appointed to the *Invincible*, vice Endey.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, April 28th, petitions were presented as follows:—From Clogheen Union for inquiry into the subject of butter adulteration; from Hampstead against a loan to the Metropolitan Asylums Board in connexion with the proceedings in the small-pox hospital case; from a large number of provincial towns against the opium trade; and from various places against the Rivers Conservancy Bill. Mr. Mellor gave notice that he will move the rejection of the Poor Removal (Ireland) Bill. Sir Sydney Waterlow gave notice that in Committee on the Alkali Works Bill he will move the following amendment:—"It shall be necessary to prove to the satisfaction of the judge before whom any action for fines under this Act is or may be tried, that injury has been caused to the health of the inhabitants of the district from or in consequence of the management of any such work, and from the emission of gases therefrom, or that damage has accrued to some person or persons, to an extent of not less than ten pounds."

Fulham Small-pox Hospital.

On Friday Colonel Makins asked the President of the Local Government Board whether it was a fact that the authorities of the Fulham Small-pox Hospital, or the parish authorities, were erecting a temporary wooden building for the reception of small-pox patients on the surface and extending to the whole width of the Imperial-road leading to the river Thames from the Fulham-road; and, if so, by what authority such an erection was placed upon a highway dedicated to the use of the public. In putting the question, the hon. member said he believed the erection was really a tent surrounded by a wooden hoarding, and that the authorities were the Local District Board. There were nine patients in the tent, and he believed there was great local excitement, and some talk of an attempt to pull it down. Mr. Dodson said the Local Government Board had no information as to the erection of any such building. The only authorities over whom the Board had jurisdiction who had power to provide hospital accommodation in Fulham were the managers of the metropolitan district and the guardians. From neither of these bodies had the Board received information of their intention to adopt the extraordinary proceeding of setting up a small-pox hospital on a public highway. Subsequently Col. Makins asked the Home Secretary whether he would make inquiry into the matter, and Sir W. Harcourt at once agreed to order an inquiry to be made.

On Monday a petition from various Scotch burghs was presented in favour of the Lunacy Law Amendment Bill. The following notice was given for Thursday:—Mr. John Hollond to ask the Secretary of State for the Home Department whether any action has been taken by the local authorities under "The Artisans' and Labourers' Dwellings Act (1868) Amendment Act, 1879;" and, if so, whether any account of the funds spent in carrying out the Act has been presented by the local authorities in accordance with section 18. And whether any application has been made to the Home Office under section 38 of "The Sanitary Act, 1866."

On Tuesday, the Select Committee on the Coroners (Ireland) Bill was nominated as follows:—The Attorney-General for Ireland, Mr. Daly, Mr. Ewart, Mr. Healy, Mr. R. Fowler, Mr. Litton, Mr. Richardson, and Mr. Tottenham. The Committee were instructed to consider the operation of the law relating to coroners in Ireland, and if they think fit to amend the Bill accordingly. Mr. Healy moved that the Committee have power to send for persons, papers, and records, but the Attorney-General for Ireland opposed this as unnecessary, and on a division it was rejected by 75 to 15. Mr. Summers asked the Vice-President of the Council whether the Royal Commission which is being appointed to inquire into the working of the Medical Acts will be empowered to receive evidence as to the grounds upon which the Victoria University claims to have the right conferred upon it of granting degrees in medicine. Colonel Makins asked the Secretary of State for the Home Department if he will give to the House the result of his inquiries on the subject of the small-pox tents in the Imperial-road, Fulham.

Mr. P. A. Taylor put down his anti-vaccination resolution for Tuesday, May 31st.

On Wednesday Mr. Blennerhassett was added to the Select Committee on the Coroners (Ireland) Bill. Colonel Makins deferred to Friday his question as to the Fulham Small-pox Hospital; and for the same day the following notice was given: Mr. Donaldson-Hudson, to ask the Secretary of State for War, whether Her Majesty's Government will accord to Volunteer Battalion Surgeons, after twelve years' service, the rank and title of Surgeon Major, as in the case of Militia Battalion Surgeons; and whether they will give to them, under the Memorandum showing the principal changes in army organisation, &c., intended to take effect from 1st July, 1881, the same privileges upon retirement, after fifteen years' service, as to other officers of the Auxiliary Forces.

Maintenance of Lunatics.

Mr. Stanley Leighton gave notice that on an early day he would call attention to the state of the law relating to the superintendence and maintenance of lunatics, and move that it is unfair to the ratepayers to oblige them to maintain out of the poor rates asylums which are largely occupied by the middle and professional classes; that the practice of granting licences to individuals which authorise them to make a profit by keeping private asylums is liable to abuse; and that it is the duty of the Government to undertake the charge of all lunatics.

The Contagious Diseases Act.

On Thursday Mr. Hopwood asked the Secretary of State for War whether his attention had been called to the case of a friendless girl named Elizabeth Burley, who recently, through fear of the police officer appointed to carry out the Contagious Diseases Act at Dover, threw herself into the water of the harbour. Sir W. Harcourt said he understood that the girl in question had been under the observation of the police for the past three weeks in consequence of leading an immoral life. That fact she admitted at the Sailors' Home. It was therefore the duty of the police to ascertain her name and address, with a view to cautioning her under the statute. In doing that the police seemed to have shown a want of discretion and judgment, for which they would be severely reprimanded. The girl threw herself into the water, but was promptly rescued. He believed there was now reason to hope that the girl would be reclaimed from the unhappy life she led.

Oleomargarine.

Mr. Severne asked the President of the Board of Trade whether oleomargarine is permitted to be sold under the name of butter; and, if not, whether since the admixture of oleomargarine with butter may be easily detected by analysis, the district inspectors are directed to endeavour to discover such fraudulent admixture. Mr. Dodson said the sale of oleomargarine as butter was not permitted under the Sale of Food and Drugs Act, and numerous prosecutions were taking place where it had been sold as such.

Small-pox in the Metropolis.

Baron Henry de Worms asked the Secretary to the Local Government Board whether, seeing that the small-pox epidemic is very much on the increase in Greenwich and other parts of the metropolis, and that the hospitals of the Asylums Board are overcrowded and incapable of dealing with the emergency, any and what steps will be taken by the Local Government Board to secure extra accommodation for small-pox patients whose confinement in crowded dwellings must tend greatly to increase the spread of the epidemic. Mr. Dodson said the Local Government Board had been pressing upon the guardians and vestries and district boards the necessity of supplementing the accommodation for small-pox patients which was at the disposal of the Asylums Board, and he was happy to say that in several cases effect had been given to the Board's representation. At the same time he was quite sensible of the urgent necessity for further accommodation and isolation for such cases, and the Board were earnestly endeavouring to get it provided. Mr. Dawson.—In connexion with this subject may I ask the right honourable gentlemen if the Local Government Board have taken any steps to provide hospitals or homes for patients during the period of convalescence, which we know is most dangerous with regard to the spread of the disease? Mr. Dodson.—No, sir; there are no convalescent homes. Mr. Dawson.—On another occasion I shall ask what are the intentions of the right honourable gentlemen with regard to the promotion of the convalescent hospitals.

DR. BENJ. W. RICHARDSON ON MEDICAL CORONERS.

THE CORONERSHIP OF CENTRAL MIDDLESEX.

IN the course of his remarks as chairman of a meeting of freeholders, convened to promote the election of Dr. Danford Thomas, Dr. B. W. Richardson spoke as follows:—

We doctors, when we give evidence at an inquest, feel altogether different, as far as our feeling is concerned, according to the coroner we go before. When I was a young man I lectured on Medical Jurisprudence, and, my lectures being popular, I was often asked to conduct post-mortem examinations, and to prepare or give evidence before the coroner. For seven or eight years I had much practice of this kind in London. There was at that time one of the most remarkable men in London as Coroner for this district—Mr. Wakley—a man of intense earnestness, force of character, indomitable courage, and sound freedom of expression in the views which he took. He was a medical coroner. And I remember well how very different a matter it was to give evidence before Mr. Wakley compared with giving it before a coroner who knew nothing about medicine. It was simply impossible to make a mistake before Mr. Wakley, for there he was ever ready to test the truth down to the bottom. If it came to a question of chemistry, anatomy, or pathology, Mr. Wakley was ready; woe be to him who made a mistake even in use of terms: and the result was that never have the public interests been so well served as from the time when Mr. Wakley, as a coroner, took them in hand. It is natural that a witness, giving evidence on technical points, should feel more anxiety, and be more exact, if he goes before a man who is himself a competent judge of the matter, than if he goes before a man who has no knowledge of the subject beyond the rest of the community. The freeholders of this district of the county of Middlesex will, I am sure, easily follow these plain arguments, and upon common-sense grounds come to the conclusion that in the case of a sudden, it may be a mysterious, death, the person who has the best knowledge of the causes of death is the medical man. On the opposition side what is there to be said? You will remember that in 299 out of every 300 inquests the cause of death is the subject for consideration—purely, solely. Then comes one case when some technical legal knowledge may be required. If now the worst comes to the worst, you would want 299 times of the doctor to one of the lawyer. But the worst does not come to the worst on each occasion, for the doctor need not stand out exceptionally bad, even in law. If you turn to medical men you must not consider they are ignorant of the law of evidence. Why, the whole training of a physician or surgeon is calculated to make him most competent to understand the laws of evidence. We doctors examine persons who have come before us both subjectively and objectively. We take, that is to say, what they tell us, and we look for ourselves. Does the solicitor have a better chance of learning the law of evidence than the doctor? I have never known a solicitor who, when it came to be a question of evidence, did not say, "We must consult counsel," did you? It is not so with a medical man. He knows what it is to examine into all facts that come before him, and hence, on these grounds of capability and training, the verdict may well be in favour of the medical practitioner. The coroner, it is said, is a magistrate. Well, I undertake to say there are more doctors magistrates in this country than there are lawyers, and that on the magisterial bench they know what evidence to accept and what to reject more acutely than most other men, because of their education. In respect to the legal duties of the coroner's office, they are simple, they are limited, they are fixed. They are all practically contained in one book, which a doctor as well as a lawyer can master in three months easily, and which the lawyer equally with the doctor would have to master. But a study of years would not give the lawyer the knowledge of the doctor for discovering the one great fact in 299 cases out of 300—the cause of death. I hope now I have put the question as my friend the "freeholder" wished, fairly and plainly forward. We need not dispute about particular men until we get to true principles. Bear that fully in mind, and all is safe. In this case the principle is that a skilled medical man is necessary for recording causes of death, and that point settled, we come to the man himself. It remains for me to ask the freeholders whether they have made up their minds as to whether the medical coroner is the best man, and the man that suits them. I will say nothing against legal opponents, they are men I should have great pleasure in consulting on legal matters. I should not consult them as to the cause of death. I would consult them with every respect on the making of a will, or the drawing of a lease. Have you a medical man to support and sustain the line of coroners,—the line of Wakley, Lankester, and Hardwicke,—before you? I say you have. You have before you all that you want in Dr. Danford Thomas, who has actually supplemented his claims by the claim of being a member of the Inner Temple, where he has for some time studied law. Dr. Thomas has been for some years the deputy of the late Dr. Hardwicke; he has held 1800 inquests; he is a thoroughly well-informed man; he has received a sound, scientific, medical education. We know that he is a man who has learnt the duties specially appertaining to this office of coroner; we know that he is assiduous in his work, he has shown skill in the execution of it, and that he is doubly trained for it.

Correspondence.

"TWO SETS OF CONVICTIONS."

To the Editor of THE LANCET.

SIR,—If the orthodox practitioners of medicine had settled convictions on some theory of the treatment of disease, such as some of the "pure and simple" followers of Hahnemann profess to have—if one school of practitioners were uniformly to treat disease on the principle, say of *contraria contrariis curantur*, and another on the principle of *similia similibus*—there would then be no obstacle in the way of appreciating the value of your editorial remarks in this day's LANCET on professional ethics. Seeing, however, that the orthodox practitioner of medicine has no such settled conviction, and that in his treatment of disease he often uses remedies in a way that certainly cannot be explained by the rule of contraries—e.g., the use of small doses of ipecacuanha in the treatment of vomiting (Ringer), of small doses of Dover's powder or of picrotoxin in morbid sweating (Murrell), of small doses of arsenic in gastro-enteric inflammation (Ringer), &c.; and seeing, moreover, that there are now very few homœopaths who adhere scrupulously to the so-called law of *similia similibus* to the neglect of arts learnt by experience—seeing all this, the edge of your remarks is blunted.

Your strictures would have been sharp-edged enough forty or fifty years ago, when the dividing line between orthodox medicine and homœopathy was clear and plain; but now when not even Sir W. Gull himself has, I suppose, any settled conviction on the theory of the treatment of disease, would it not be better, because more in harmony with the present condition of parties in medicine, to try to open one's eyes to view the large common ground that there is for the homœopathist and the ordinary practitioner of medicine?

I am, Sir, yours truly,

Scarborough, April 30th, 1881. F. FLINT, M.D.

*** Our correspondent has wholly misread the article to which he refers if he does not understand that we equally denounce *similia similibus curantur* and *contraria contrariis curantur*. They are both mere superficial statements of mere surface appearances. The causes of the effects produced underlie these alleged *methods* of action; and scientific inquiry at once reveals the fallacy of the deductions drawn from insufficient and misunderstood data. Neither ipecacuanha, Dover's powder, nor picrotoxin acts homœopathically or allopathically; the action is in each case strictly in accordance with the known laws of therapy. Dr. Flint as a "homœopathist" naturally takes a one-sided view. We are against *all* one-sided views. If there were such a system as "allopathy"—which there is not, and never was,—we should condemn it as we do "homœopathy." Scientific medicine is rational medicine, and knows nothing of systems.—ED. L.

To the Editor of THE LANCET.

SIR,—Is it not a very significant circumstance that when the leading so-called "homœopath" of London seeks a consultant whose opinion is considered worth anything he cannot find one in the homœopathic ranks? And this for the simple and sufficient reason that not one physician or surgeon in the front rank of the profession is to be found among the homœopaths.

Sir W. Jenner deserves the thanks of the whole profession for the manly way in which he has acted in this matter; and I make bold to say he has the whole provincial profession, at any rate, with him.

I am, Sir, your obedient servant,

Hanley, Staffordshire, April 16th, 1881. W. D. SPANTON.

To the Editor of THE LANCET.

SIR,—Will you grant me space for a few words on the now once more prominent question of consulting with homœopaths, a question which all who look upon our profession as a trust rather than a trade must deem of important moment. It seems imperative that no uncertain voice should be heard on this matter, and that the profession should be able to give a good reason to itself and to the public for the line of conduct which it intends to pursue.

Some explanation to the public, I think, is still needed on this question, lest the good custom approved by our College of Physicians of refusing to consult with homœopaths be misunderstood, or regarded as the outcome of mere class punctiliousness, or of narrow professional etiquette. Why do most of us refuse to meet the homœopaths? That a doctor of the so-called "orthodox" school cannot meet a homœopath in consultation is surely not only because they differ in the matter of *treatment*. On any one given case it is possible that two "orthodox" practitioners might differ in treatment almost as widely as both of them would from a homœopath. But scientific and honest students of medicine as represented, we would hope, by the Fellows of our College, believe that the plausible and flimsy system called homœopathy, like all other "systems" of treatment, is delusive, and that a "consultation" with a believer therein is a contradiction in terms, a moral and scientific solecism. Such a consultation is not a question of advisability; it is impossible; there is no common standpoint. Hence I would submit, with all deference to the distinguished men who have approved of Dr. Quain's action in the instance of Lord Beaconsfield's illness, that Dr. Quain's plea that the practitioner in attendance was not treating his patient homœopathically does not touch the real point at issue. There may be no reason why any physician should not have seen Lord Beaconsfield, *or any other person*, and treated him independently, whether the homœopathic doctor was nominally dismissed or not; but on the permissibility of any such "consultations" as have lately been reported in the daily papers I feel, in common, I think, with the vast majority of the Fellows of that College of Physicians whose chief and most admirable function perhaps is to keep up that high standard of professional truth and honour, which, as so ably contended yesterday by our late president, is its proper boast, that Sir William Jenner acted in the only right manner when he refused to consult with Dr. Kidd as a professional colleague. Doubtless, Sir William Jenner must have felt deeply the gravity of his decision in this case, but did he not speak almost the last word in this controversy, when in his trenchant and pregnant remarks on the subject he said that if Dr. Quain's conduct met with the approval of the College, his own action deserved its censure? As a member of a profession which ought to be more respected than it is, and as a Fellow, though a very junior one, of a College which is laudably jealous of its high position, I would add my small tribute of gratitude to the President of that College for his fearless action and outspoken expressions on this undeniably important question.

I am, Sir, yours faithfully,

Upper Berkeley-street, W., April 12th, 1881. H. DONKIN.

THE OLD UNIVERSITIES AND THEIR MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—By the courtesy of the author I have been favoured with a copy of the able and eloquent address delivered by Dr. Morgan last February at Owens College. The interest in the subject and its importance are shown by your leader of April 9th, and I therefore, with your permission, shall be glad to make a few observations upon it.

In the first place, let me say how heartily I sympathise with Dr. Morgan in his grievance that the Victoria University should be debarred the power of conferring medical degrees. With a governing body and a professoriate, including among its members some of the most eminent men in the country, the new university was not likely to enter into a degrading competition with other licensing bodies for the sale of its diplomas; the strong opposition of those who feared such a result could have no real ground for existence, and when the authorities maintained that the degree would be given only when there had been both a sound training in arts and a very high standard of professional attainment, some other motive for the opposition must have been at work, which, if, as has been hinted, it was simple jealousy, was unworthy of the members of a liberal profession. I cordially hope this defect in the charter will soon be remedied, and whilst the General Medical Council is spending its golden moments in interminable discussions on medical education, and whilst conjoint schemes are being alternately resuscitated and submerged, the Lancashire University may show some practical result and legitimately compete with other institutions in the training and production of those who are not only skilful doctors, but also educated gentlemen.

When, however, Dr. Morgan says "that by the older universities medical education has been utterly and wantonly neglected" (page 8), and speaks of the "grievous wrong that has been inflicted by the neglect" (page 9), he ignores altogether what has been done in Cambridge in late years, and the language is stronger than the occasion justifies. It will gratify many, I know, and surprise more, to learn that at the present time upwards of one hundred students are prosecuting their medical studies at Cambridge, and that last year in June and in December 131 students passed the various examinations for the M.B. degree. The following are the numbers, which can easily be verified by reference to the Cambridge University Reporter.

		Passed in June.	Passed in December.	Total.
1st Examination for M.B.		33	29	62
2nd " "		15	17	32
3rd " "	Part I.	13	14	27
" " "	Part II.	15	11	26
		76	71	147
Deduct names appearing in two lists				16
				131

These numbers are yearly increasing, since the facilities and opportunities for medical study here, in the lecture-rooms, the laboratories, and in the wards of the hospital, have become more generally known and appreciated; new professorships are about to be founded, and I hope at no very distant period others will follow. With these facts and statements, therefore, it is clear that the charge of "neglect of medicine" dependent upon the "whole genius and arrangements" of this University must fall to the ground.

But the facilities for professional study are not the only inducements which Oxford and Cambridge offer to intending medical students. By the arrangements of the place these students are subjected to the same discipline, meet in the same dining-hall, are reared in fellowship and communion with men of various tastes and pursuits, and destined for very different vocations and occupations, and so interests are created and friendships formed which, for good or evil, have a far-reaching effect upon their lives; the view so well expressed fifty years ago by my distinguished namesake still holds good:—"In England there always have been among physicians those who have been upon an equality of education with the noblest and most learned in the land. They have been mixed with them at our public schools and universities; they have contended with them in honourable rivalry, and their minds have taken a congenial character from the similar studies of their youth. At length they have all separated to their several destinies for life: some to the Senate, some to the Bar, some to the Church, some to Physic. These men so educated, have ever afterwards looked with esteem upon each other and each other's pursuits. And thus have the most illustrious men of every age, who could know nothing of physic as a profession, viewing it through those whom they have known engaged in it, been compelled to regard it with reverence and honour. In this way a credit has been derived to our common profession, in which every individual in every rank of it has partaken, when those whose good opinion is most coveted have taken their estimate of physic and physicians from contemplating the characters of such men as" (and here let me insert living examples), Dr. George Paget, Dr. George Budd, Sir James Alderson, Sir George Burrows, and Sir Thomas Watson. And as I write down these honoured names, all of which appeared high in the list of Cambridge wranglers, I cannot help regretting that, with two or three brilliant exceptions, so small a number of the medical students at Cambridge of the present day submit themselves to the same logical training which in the examples cited has been attended with such marked success. Inconsiderately, I think, to use no stronger term, and to the disadvantage of many, they are urged at once to turn their attention to professional or scientific subjects, forgetful that the mind must undergo a long training before it is fit to grapple with science, and that time spent in the development of the logical faculty is time saved. In the last Hunterian Oration Mr. Holden, after an experience as a teacher of forty years, speaking on this subject, says, "In students who have had a public school training, I have found a fuller development of the logical faculty, a more cultivated memory, a greater grasp and power of combination. I have found the task of teaching them so much easier, that I have no hesitation in saying that I can teach such pupils more in two months than others who have not had a like education in six." These are words which scientific or "modern" educators would do well to weigh.

Still, the training here is successful, and judged by the number of hospital appointments in London held by her graduates, Cambridge has no reason to complain of any lack of appreciation. May I, in conclusion, venture to hope that when the Victoria University has obtained its rightful and proper powers, the rivalry that may be developed in medical matters between the universities shall be hearty and vigorous, and shall, whilst upholding the dignity of the profession, promote the advancement of medicine and the general welfare of mankind. I am, Sir, yours truly,

Cambridge, April 27th, 1881. P. W. LATHAM.

MEDICAL ETHICS.—SHOULD THE PROFESSION CO-OPERATE WITH HOMŒOPATHS WHO ARE MEDICAL OFFICERS OF HEALTH?

To the Editor of THE LANCET.

SIR,—I have pleasure in sending you a report of Dr. Ballard's opinions on the recent epidemic of scarlatina in Halifax, and desire particularly to draw your attention to one paragraph in the published account of his observations to the Halifax Town Council. Dr. Ballard is reported to have said: "The medical officer complained that some of the medical men would not send reports of new cases to him. He (Dr. Ballard) thought that, whatever professional opposition there might be, the medical men ought on these occasions, and for the good of the town, to put their feelings in their pockets." When Dr. Ballard speaks on sanitary matters few would feel disposed to challenge his views. When he pronounces judgment on a matter of medical ethics his dicta have not the same weight, so that I have no hesitation in asserting that his views are erroneous, and not in harmony with those of the majority of the profession. In a grave national emergency of recent date THE LANCET was the mouthpiece of medical principles, and laid down the ethical rules which should guide the profession in their dealings with those who professed or practised homœopathy. Sir William Jenner has been, as you so well put it, in strictest accord with the great body of the profession. The College of Physicians of London, by the election of Sir William Jenner as President, have confirmed your verdict. There cannot be two moralities—one for London and one for the provinces. You are familiar with the state of professional feeling here, caused by the selection by the Town Council of a practitioner of homœopathy. In a memorial, signed by thirty-four qualified medical men, presented to the Town Council at the time of the appointment, the following paragraph occurs:—"Concerned as we are with the prevention and cure of disease, we hoped for the appointment of some fully qualified practitioner, who would command the respect, support, and co-operation of his *confrères*, which we believe to be essential for the effective performance of his duties, and for the production of any real improvement in the sanitary state of the district. But the candidate of your choice, by his advertised connexion and association in practice with a homœopathic chemist, and by the adoption of views and principles repudiated by the great body of the profession, has cut himself off from the possibility of such co-operation."

The Town Council paid no heed to our opinions; forewarned, they must accept the consequences. Yet Dr. Ballard thinks that we should co-operate with a man of the stamp who is now medical officer of health for this important town. This ethical question has a wider range, so that it is desirable to have the opinion of professional leaders as to the justice of our action. It affects the practitioners of Hastings and St. Leonards. Time has not toned down the differences in Halifax. It has not increased our estimation of our medical officer of health, and he has cut himself off deliberately from all professional intercourse.

I took a leading part in instituting the inquiry by Dr. Ballard, and I am willing to take the fullest share of any censure that may be passed for my want of co-operation. Dr. Ballard's opinion will not alter my course of action. As for the other members of the profession, I leave them to speak for themselves. I think there cannot be two opinions as to the true course of action under conditions where a homœopath is forced upon the profession.

Yours faithfully,

Halifax, April 20th, 1881. T. M. DOLAN, L.R.C.S. ED.

GLASGOW.

(*From our own Correspondent.*)

A TOLERABLY well attended public meeting of those favourable to the establishment of a hospital on the south side of the city was held a few days ago; the Hon. the Lord Provost was in the chair. Many of the large employers of labour in the southern districts were present, while the landed and other interests were well represented. It was unanimously resolved that, having regard to the insufficiency of accommodation in the existing infirmaries and to the great distance of these institutions from the southern districts, a public hospital of the kind desired should be erected in a suitable situation, and an influential committee was appointed to further the scheme. All the speakers at this meeting were careful to state that they were carrying on the movement in no spirit of hostility to the infirmaries at present in existence. It is intended that a hospital of 120 beds shall be provided, and the sum which the committee aim at raising is about £30,000. Subscriptions are already coming in; one subscription of £1000 is promised, and another of £500, and it is confidently expected that the Town Council of Glasgow will give a site, either free or at a nominal price. The prospects of the scheme are thus brighter than might have been expected. In the course of an introductory speech at the above meeting the Lord Provost gave some interesting antiquarian information regarding the provision made by the Glasgow authorities for attendance on paupers in olden times. On 27th October, 1684, it is noted that, "considering the sad condition the town is in through the great debt it is resting owing, it is therefore concluded that the town shall make use of no person as the town's physician or chirurgeon in time coming; and if any person is unwell and deserves to be cured, upon their applying to any of the magistrates, they are empowered to recommend them to any physician they shall think fit." Further, the magistrates seem to have retained the services of a person skilled in lithotomy, for it is recorded that "a certificate having been produced in favour of Duncan Campbell, and subscribed by the haill doctors and most part of the chirurgeons in town, of his dexterity and success, they appoint Duncan to operate on the poor in place of Evir M'Neil, who is become unfit to do the same through his infirmity."

A case which has just been tried at the Glasgow Circuit Court, in which two warders were charged with murdering a lunatic pauper patient in Merryflatts Asylum, presents some points of interest. In the first place, a recently recovered lunatic, who was a patient in the asylum, was examined as a witness. The presiding judge said that this was a novelty in his experience, and that though this man's evidence was given clearly and without hesitation, he would not believe it unless it were corroborated. He was, nevertheless, not disposed to deal with the witness's statements as delusive, but thought rather that the substance of his evidence was true. In connexion with this point, it may be stated that at the Sheriff Criminal Court in Inverary, a few weeks ago, the Sheriff convicted and punished solely on the evidence of a lunatic. The evidence of Dr. Jas. Dunlop in the Merryflatts case contained a statement that it is not his practice, in dissecting a body, to open all the great cavities after finding a sufficient cause of death in one; to do more would mutilate a body, and the instructions of the Crown are to conduct post-mortems with judgment and discretion. Another medical witness expressed surprise that in the post-mortem examination of a man suffering from acute mania no examination of the brain had been made.

PARIS.

(*From our own Correspondent.*)

THE tenth annual meeting of the French Association for the Advancement of Science was held last month at Algiers, the opening address being delivered by M. Chauveau of Lyons. Prefacing his discourse by a suitable compliment to the courage of the soldiers who had conquered the country, and to the valour of the colonists who had patriotically increased and multiplied in spite of climatic difficulties, M. Chauveau began the work of the Congress by an interesting communication on "Ferments and Virus." In the medical section, the first mention is due to a paper by Professor Verneuil, on "The Surgical Aspects of Malaria." M. Verneuil thinks that the baneful influence of this poison is not sufficiently recognised by operatives. It may give rise to a number of apparently spontaneous external affections; it may unfavourably modify the progress of intercurrent or pre-existent surgical diseases; it may arrest or delay the healing of wounds, giving rise to complications of different kinds, which render the prognosis more than usually unfavourable. Traumatism in its turn reacts upon malaria, bringing it out or reawakening it in individuals in whom it would otherwise have been dormant. M. Milliot related the salutary effects produced by the drainage of Lake Fetzara, terminated last year, shown both by statistics and the decrease in the consumption of quinine. M. Landowski gave an instance of the hæmostatic properties of warm water. A patient suffering from uncontrollable hæmorrhage, due to internal and external hæmorrhoids, was placed in a hip-bath, containing water at a temperature of 35° Centigrade. This was allowed to flow freely into the rectum by means of a small speculum, and the temperature was gradually increased to 40°. After a quarter of an hour the bleeding had stopped, and did not recur. M. Henrot of Rheims read a paper advocating the treatment of Vasculo-cystic Goitre by Capillary Electrolysis, and quoted a case in support of this method. Amongst the more strictly medical communications, one of great interest was made by MM. Joffroy and Hanot on Rapidly Developed Bulbar Symptoms in Locomotor Ataxia. In one case, which the author had seen with Professor Charcot, the usual symptoms of ataxia had been wanting, a few characteristic pains only having been noticed. The patient was suddenly seized with snuffling, and at the next meal liquids returned by the nose, solid food being swallowed only after several efforts. General anæsthesia of the face, with patches of analgesia, were then discovered. The sense of taste was also affected, no distinction being made between wine, water, and milk, nor between different kinds of meat. Three months after there was incomplete facial paralysis on the right side, and two months later complete absence of tendon-reflex, paralysis of the bladder, loss of genital power, and large patches of anæsthesia on different parts of the body and limbs. There was, however, no motor coördination, and equilibrium was not disturbed by closing the eyes. Under the influence of ergot, hydrotherapy, and galvanism, a great improvement was effected in a few months, the bulbar symptoms disappearing almost entirely. In a second case, a man aged fifty, a few symptoms of ataxia had existed for a short time, when extreme weakness with motor incoördination was observed, and at the same time double facial paralysis. On the following days there were loss of muscular sense, paralysis of bladder and rectum, and darting pains in the limbs. Considerable improvement was effected in a few weeks. A memoir by M. Ziegler of Geneva on Magnetic Radiation was presented to the Congress by M. Carl Vogt. M. Ziegler believes that he has discovered that two magnetised bars of metal, joined together in a certain manner, produce certain definite effects upon animals submitted to experimentation, which differ according to the angle of intersection. One of these bars can be replaced by terrestrial magnetism. It is concluded that terrestrial magnetism radiates in the same way as light or heat, and that its rays are refracted in passing through certain bodies, such as crystals and iron. The physiological effect of magnetism can be shown by concentrating its rays through a lens of soft iron on the heart of a rabbit, when circulatory disturbances will occur. Violent peristaltic movements are provoked by focusing in the same way the magnetic rays on the intestines. M. Vogt states that he has himself observed the effects produced on the bowel, and, without giving any theoretical explanation of their mechanism, he believes that the discovery will lead to important results in physics, physiology, and medicine. Of the remaining communication made to the Congress a special mention must be given to two papers by Professor Trélat on Vesico-vaginal Fistula and Chronic Abscess; to a memoir by M. Letourneau on the Influence of Electrisation on the Temperature of Organs; and to one by M. Fleury on Hæmorrhage in Women operated on for Hernia during the Menstrual Period. A case of pulsatile tumour of the orbit by M. Gayet, and some notes on the climate of Mustapha Supérieur (near Algiers), by M. Le Blanc, are also worthy of record.

At a recent meeting of the Academy of Medicine Dr. Roussel exhibited his Herniotracteur, an instrument for facilitating the reduction of herniæ, already known to some London surgeons. It is composed of a vulcanite rod, thirty centimetres in length, terminating in a blunt hook, which is mounted on a hinge and moved by a screw. The apparatus is introduced into the rectum, and when the internal sphincter has been passed it is said to move freely in the bowel. By pushing the handle towards the coccyx the blunt hook comes in contact with the abdominal wall, and can be directed in such a way that it passes beyond the pedicle. By a turn of the screw the hook is then depressed, and made to seize the extruding loop, which has hitherto behaved most satisfactorily, returning at once into the abdominal cavity. It must be said, however, that as yet the instrument has only been tested upon the dead subject.

M. Cazin, of the Marine Hospital of Berck-sur-Mer, has published his researches on the Exploration of the Hip-joint per Rectum. He states that in young subjects the finger can always recognise a quadrilateral space corresponding to the cotyloid cavity, and which it is proposed to call the "post-cotyloid surface." This mode of examination, hitherto reserved for special cases should in future form part of the investigation in every case of coxalgia. In ninety-six cases of hip-joint disease observed by M. Cazin, rectal exploration has furnished information in forty-seven instances. The signs which can thus be noted are: pain on pressure of the post-cotyloid surface, hypertrophy of the intra-pelvic ganglia, general increase in size of the osseous surface, depression, erosion, flexibility, mobility, destruction and perforation of the post-cotyloid surface; doughiness of the soft parts, abscesses of different kinds, &c. M. Cazin believes that this method of examination will render the diagnosis of coxalgia in early cases a matter of much greater certainty.

The *clôture* of the discussion on vaccination at the Academy of Medicine having been voted at the preceding sitting, the meeting yesterday was devoted to reading the amendments, and the final vote. After a passage of arms between M. Jules Guérin and M. Blot, one of those tumultuous scenes which are so common at the Academy occurred, each member shouting, apparently for his own gratification, at the top of his voice. When the tumult had subsided, the first conclusion of the report, "That the Academy thinks it is of great public moment to render vaccination compulsory by law," was put to the vote and carried by 46 voices against 19 noes and 2 abstentions. The second conclusion, that revaccination should also be made compulsory, was also voted, with an amendment leaving discretionary executive power with municipal authorities and the councils of hygiene.

Paris, May 4th, 1881.

UNIVERSITY OF LONDON.—The following Examiners in medical and cognate subjects were elected at the meeting of the Senate held on the 27th ult.:—Practice of Medicine: W. H. Dickinson, M.D., and C. Hilton Fagge, M.D. Surgery: William MacCormac, M.Ch., M.A., and Prof. John Wood, F.R.S. Anatomy: H. Greenway Howse, M.S., M.B., and Prof. Redfern, M.D. Physiology: Prof. Arthur Gamgee, M.D., F.R.S., and Philip Henry Pye-Smith, M.D., B.A. Obstetric Medicine: J. M. Duncan, M.D., F.R.S.E., and Henry Gervis, M.D. Materia Medica and Pharmaceutical Chemistry: Prof. E. B. Baxter, M.D., and Prof. F. T. Roberts, M.D., B.Sc. Forensic Medicine: Prof. George Vivian Poore, M.D., B.S., and Thomas Stevenson, M.D. Chemistry: Prof. Debus, Ph.D., F.R.S., and Prof. Dewar, M.A., F.R.S. Botany and Vegetable Physiology: W. T. Thiselton Dyer, M.A., B.Sc., F.R.S., and Sydney H. Vines, D.Sc., M.A. Comparative Anatomy and Zoology: Prof. E. Ray Lankester, M.A., F.R.S., and Prof. A. Milnes Marshall, D.Sc., M.A.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates of the College on April 28th:—

Barns, John Gay, Falmouth-road.
Davies, David Samuel, Queen-square, Bristol.
Duncan, William Archdeckne, M.D., Croydon.
Evans, Arthur Owen, St. George's Hospital.
Fenton, Herbert Alfred Hill, Cumberland-street.
Havell, Charles Graham, St. Mary's Hospital.
Heaven, John Cookesley, Kennington-road.
Hoskin, Theophilus, Stratford-on-Avon.
Houlgrave, Augustine, Reedworth-street.
Little, Ernest Muirhead, Park-street.
Marsh, Thomas Alfred Perry, Bristol.
Marsh, William Aspinall, Hindley, Wigan.
Mattice, Richard Iram, M.D., Horton-road.
Mudge, Thomas Henry Tracey, St. Bartholomew's Hospital.
Newmarch, Bernard James, Doughty-street.
Ozanne, Frederic Newell, St. George's Hospital.
Penny, William John, King's College Hospital.
Phipps, Edgar Vivian Ayre, St. Luke's Hospital.
Smith, Ernest Sutton, Fitzroy-road.
Taylor, Henry Herbert, Morden-terrace.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners during the past and present week:—

Harry C. C. Shaw, Louis Robinson, Alexander Harper, Montagu Smith, Henry G. Wharry, Edgar W. Willitt, Richard B. D. Batt, Herbert L. Dowsing, Charles O'B. Harding, Francis F. Walton, Arthur Hillaby, William R. de Morinni, Stephen Paget, Conistan Spackman, and Thomas Finch, St. Bartholomew's Hospital; Arthur E. Larking, William Fowler, Arthur H. Dodd, Charles S. Jago, Allan G. Minns, Herbert J. Dring, Edward W. Simmons, Henry T. Tresidder, William H. Brenton, C. W. Crealock, Magnus M. Adler, and John H. H. Manley, Guy's Hospital; Thomas E. Gordon, Leonard J. Willan, William J. Best, Wilfred J. Hadley, Robert H. Nicholson, Edward H. Morgan, Daniel B. Spence, and Matthew C. Corner, London Hospital; Charles F. Clarke, William C. McDonnell, and Joseph J. W. Farr, Charing-cross Hospital; Thomas F. Forster, Nathaniel H. Turner, John H. Gostling, Charles L. Sanson, William Habgood, James T. Chevers, Herbert C. Dent, and Ernest Cusse, King's College; James A. J. Murray, Archibald McKenzie, Samuel G. Campbell, and Joseph J. Stapleton, Edinburgh; Thomas P. Gostling, John C. Jackson, Charles L. Lempriere, and James E. Blomfield, University College; Reginald M. Williams and Lewis D. Brown, St. Thomas's Hospital; Robert R. Williams, Glasgow and King's College; Gerald Callender and Arthur H. L. Stewart, St. Mary's Hospital; Jonathan Royston, Joao G. D'Aguiar, William Livermore, Philip B. Bentlif, William D. Stevenson, and R. Mills, Middlesex Hospital; William Urwick, Westminster Hospital; Henry A. de Lom, Toronto and St. Thomas's Hospital; Laurie A. Lawrence, Henry F. Horne, and Frederick C. Wallis, St. Bartholomew's Hospital; William H. L. Marriner, Henry M. Sutton, and John L. W. Kitching, St. Thomas's Hospital; Owen W. Roberts, St. Mary's Hospital; Ernest J. G. Berkeley, Charing-cross Hospital; Charles D. Muspratt, Guy's Hospital; Thomas D. Richards, Edinburgh, and King's College; Matthew R. Gooding, University College.

Of the 185 candidates examined during the past fortnight, 53 failed to satisfy the Board of Examiners, and were referred for three, and 3 candidates for six, months' further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentleman passed the examination in the Science and Practice of Medicine, and received a certificate to practise, on April 21st:—

Wyborn, Samuel, Sussex House, Windsor.

The following gentlemen passed on the 28th:—

Dixey, Arthur Crosbee, Cheltenham.
Russell, John Hutchinson, Plaistow, Essex.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Richard Holton, Queen's College, Manchester; David Thomas Key, Guy's Hospital.

DR. PHILLIPS has been placed on the Commission of the Peace for the borough of Carmarthen.

UNIVERSITY OF DUBLIN.—On the 29th ult. the degrees of B.S. and M.B. were conferred on Hamilton Maginnis Sproulle.

THE Duke of Connaught has signified his intention to support his brother, Prince Leopold, at the festival dinner of University College Hospital, to be held at Willis's Rooms on the 20th inst.

THE GERMAN HOSPITAL.—At the thirty-sixth annual festival of this charity, held on the 3rd inst., it was stated that the in-patients during the past year numbered 1476, the out-patients 19,453. The income had been £9195, and the expenditure £8738.

AN amateur concert was given last week in Cork, in aid of the Hospital for Women and Children. The performance was highly commended, and it is believed that a substantial sum was obtained for a highly deserving charity.

MEATH HOSPITAL.—Lord and Lady Brabazon have offered portion of a house, consisting of five bed-rooms and a sitting-room, at Bray, free of rent for the use of convalescent patients belonging to the hospital. It is understood that no patient suffering from an infectious malady will be admitted.

THE management of the lunatic asylum at Wellington, New Zealand, is undergoing scrutiny at the hands of a commission of inquiry. Charges of a serious nature have been made against some of the officials of the asylum. The fact that one of the commissioners appointed is a visiting justice has excited unfavourable comment.

ST. BARTHOLOMEW'S HOSPITAL.—The accounts of St. Bartholomew's Hospital for the past year show that the amount of cash "available for hospital purposes" was £77,100 16*s.* 8*d.*, and that at the end of the year there remained a balance of £5686 0*s.* 3*d.* in favour of the institution.—*City Press.*

AT a meeting of the governors of the Essex and Colchester Hospital, held recently, Admiral Luard moved that a special committee be appointed to inquire into the administration of the hospital, in order, if possible, to reduce the expenditure, the financial condition of the institution being unsatisfactory.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination in their respective districts: Dr. Scoresby-Jackson, Walthamstow (first time). Mr. James Allen, Bollington (fourth time). Mr. L. Nicholls, Hartest, Bury St. Edmunds (second time). Mr. C. J. Stocker, Upton.

THE Corporation of Wigan opened the Sewerage Works at Newburgh on April 26th with civic honours, about sixty persons being present. The works are on the irrigation principle, and will cost £72,000. A banquet was afterwards held at Southport, the Corporation being entertained by the Mayor of Wigan.

THE Honorary Medical and Resident Officers of the *Dreadnought* Seamen's Hospital have just presented to Mr. Henry C. Burdett a carved oak library table, as a mark of esteem and as a recognition of their appreciation of his successful labours during the period he has had the management of the Greenwich Hospital.

UNIVERSITY OF EDINBURGH. — The Vans Dunlop Scholarship in Surgery and Physiology was recently awarded to George Fisher; the Senior Mackenzie Bursary divided between Messrs. William Hunter and C. W. Jones, and the Junior Mackenzie Bursary awarded to Paul Bowes; the Junior John Aitken Carlyle Bursary was awarded to Harold J. Stiles.

SOUTH LONDON SCHOOL OF PHARMACY. — The prizes were awarded at the examinations ending 2 B. Course, and presented on the 30th April, 1881, to the following successful competitors: Senior Chemistry Medal, Mr. Thomas; Junior Chemistry Medal, Mr. Shaw; Botany Medal, Mr. Bull; Pharmacy Medal, Mr. Walker; Materia Medica Medal, Mr. Kay.

ROTUNDO LYING-IN HOSPITAL, DUBLIN.—At a meeting of the Public Health Committee of the Corporation of Dublin held last week, a report from the secretary was read, stating that the most effective means were being adopted by the governors of the hospital for improving the sewerage, to the defective condition of which we recently referred.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the College held on Monday, the 2nd inst., the following were elected examiners for the ensuing year:—Examiners for Letters-Testimonial and Fellowship: Henry Gray Croly, William Frazer, Benjamin G. McDowel, Edward Stamer O'Grady, Benjamin Wills Richardson, Edward A. Stoker, Robert S. Swan, and Wm. Thomson. Examiners in Midwifery: John J. Cranny, Henry Croly, and William J. Smyly. Examiners in General Education: Michael Joseph Malone, Robert Morton, and Henry Tweedy.

A FESTIVAL dinner in aid of the funds of the Middlesex Hospital will be held at Willis's Rooms, King-street, St. James's, on Friday, May 13th, 1881, at which the Right Hon. the Earl of Derby has consented to preside.

THE Hospital Saturday collections took place at Sheffield on Saturday last, and the amount paid into the bank up to the 2nd inst. was £924 4*s.* 4*d.*, of which £846 3*s.* was subscribed by workmen, and £78 0*s.* 6*d.* collected in boxes in the streets. Last year, £1193 8*s.* 5*d.* was collected.

OXFORD UNIVERSITY.—It has been announced that examinations for the degree of Bachelor of Medicine will be holden in Trinity Term, as follows:—The First (or Scientific) Examination will commence on Monday, June 27th, at 10 A.M. The Second (or Final) Examination on Monday, June 13th, at 10 A.M. The names of candidates for either of these examinations, and of candidates for the certificate in subjects bearing on Preventive Medicine and Public Health, should be sent on or before May 30th, to the Regius Professor of Medicine, Medical Department, Museum.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ASHDOWN, G. W. W., M.B., C.M., M.R.C.S.E., has been appointed Resident Surgeon to the Royal Maternity Hospital, Edinburgh, vice Wells, resigned.

AVERILL, A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Caverswall District of the Cheadle Union.

BOWIE, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Surgeon to the Royal Maternity Hospital, Edinburgh, vice Hodson, resigned.

FOULIS, D., M.D., has been appointed Senior Dispensary Surgeon to the Glasgow Royal Infirmary.

GROVES, W. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Woodford Urban Sanitary District.

HAMILTON, A., F.R.C.S.Ed., L.R.C.P.Ed., has been appointed Honorary Surgeon to the Chester General Infirmary, vice Reade, resigned.

HARVEY, A., M.B., has been appointed one of the Surgeons to the Hockley Provident Dispensary, Birmingham.

KEILLER, A., M.D., F.R.C.P.Ed., F.R.C.S.E., has been appointed, for three months, Acting Physician to the Royal Maternity Hospital, Edinburgh, vice Angus Macdonald, resigned.

LIVETT, H. W., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Wells Urban Sanitary District, vice Purnell, resigned.

MIDWINTER, E. J. H., L.S.A.L., F.I.C., has been appointed Public Analyst for the Borough of Windsor, vice Tidy, resigned.

NEWSHOLME, A., M.B., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Protestant Deaconesses Institution, Tottenham, vice W. H. Burton, L.R.C.P.L., resigned.

PORTEOUS, R. B., M.D., C.M., L.R.C.S.E., has been appointed Honorary Physician to the Blackburn and East Lancashire Infirmary, vice H. A. Cheesbrough, M.D., who has been appointed Consulting Physician.

RICHARDS, G., M.R.C.P.Ed., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the Second District and the Workhouse of the Ross Union, vice T. Jones, resigned.

ROBERTSON, E. W., M.B., C.M., has been appointed Resident Assistant-Physician to the Aberdeen Royal Infirmary.

SHIRRES, G., M.B., C.M., has been appointed Resident Assistant-Surgeon to the Aberdeen Royal Infirmary.

SMITH, E., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health for the Battle Urban Sanitary District.

THURSTAN, E. P., M.D., M.A., M.R.C.S.E., has been appointed Obstetric Physician to the Marylebone General Dispensary.

WATKINS, C. J., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Glamorganshire and Monmouthshire Infirmary, vice T. W. Graves, L.S.A.L., M.R.C.S.E., resigned.

WHITEHEAD, H. R., F.R.C.S.E., has been appointed Assistant-Surgeon to the Charing-cross Hospital, vice J. A. Bloxam, F.R.C.S., appointed Surgeon.

WILSON, J. M., M.B., S.Sc. Cert. Cambs., has been appointed Medical Officer of Health to the Borough of Doncaster, vice J. B. Willington, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

DEANE.—On the 21st ult., at Albion-road, Stoke Newington, N., the wife of John Deane, M.R.C.S.E., L.R.C.P.Ed., of a son.

HERAPATH.—On the 29th ult., at Brunswick-square, the wife of C. Kynaston Herapath, M.R.C.S.E., of a daughter.

MCDONALD.—On the 12th March, at Hamilton, Tasmania, the wife of Wallis McDonald, M.R.C.S.E., L.R.C.P.Ed., of a son.

PHILLIPS.—On the 28th ult., at Albion-place, London-road, Reading, the wife of H. Heygate Phillips, M.D., of a son.

SMITH.—On the 3rd inst., at Richmond-crescent, Barnsbury, the wife of Gilbert T. Smith, M.R.C.S.E., of a daughter.

SUTCLIFFE.—On the 28th ult., at Denmark-hill, S.E., the wife of John Sutcliffe, L.R.C.P.L., M.R.C.S.E., of a daughter.

THORNHILL.—On the 26th ult., at Elveston House, Boxley-road, Maidstone, the wife of T. A. Thornhill, Brigade-Surgeon, Army Medical Department, of a son.

MARRIAGES.

BALFOUR—USHER.—On the 22nd ult., at Eton-terrace, Edinburgh, by the Rev. V. Grantham Faithfull, M.A., Holy Trinity Church, George W. Balfour, M.D., F.R.C.P.E., to Henrietta, eldest daughter of the late James Usher, Esq.

KELLY—BOVILLE.—On the 28th ult., at St. Peter's, Osmotherley, by the Rev. E. Weight, Clarke Kelly, M.R.C.S.E. &c., youngest son of Edwin Morris, M.D., F.R.C.S., of Spalding, Lincolnshire, to Eleanor, only child of the late M. Boville, Esq., of Osmotherley, Yorkshire.

MAPLES — HOUGHTON. — On the 28th ult., at St. Mary Abbotts, Kensington, by the Rev. R. Woodhouse, Reginald Maples, L.R.C.P. &c., of Kingsclere, Hants, sixth son of Ashley Maples, of Spalding, to Alice Matilda, third daughter of the late Charles George G. Houghton, of Funchal, Madeira.

MAURICE—CLARK.—On the 28th ult., at Christ Church, Folkestone, Benjamin Maurice, Surgeon, of Brighton (son of the late William Maurice, Surgeon, of Clifton, and grandson of the late Dr. Maurice, of Bristol), to Margaret, eldest daughter of Samuel Clark, M.D., of Millfield House, Folkestone.

SCHOLEFIELD—DYER.—On the 4th inst., at St. John's Wesleyan Chapel, Halifax, by the Rev. John Wood, B.A. (uncle of the bride), assisted by the Rev. J. H. Corson, George E. Scholefield, M.B., C.M., of Sowerby Bridge, to Sarah Roseline (Rosie), daughter of William Dyer, of Halifax.

SMYTH — WIKELEY. — At St. James's Church, Delhi, by the Rev. E. Bickersteth, R. E. Seymour Smyth, Captain 15th Sikhs, to Georgina Masson, daughter of Surgeon-Major C. E. Wikeley, Army Medical Department.

WELLS — ROBERTSON. — On the 23rd ult., at St. Mary-at-the-Walls, Colchester, by the Rev. C. L. Acland, Head Master Royal Grammar School, assisted by the Rev. J. W. Irvine, Rector, Alfred George Wells, M.R.C.S.E., L.S.A.L., to Elizabeth, second daughter of the late James Robertson, Esq., of Hill Fold, Banffshire.

WHITMORE—PEDLER.—On the 30th ult., at Christ Church, Forest-hill, by the Rev. W. Calvert, assisted by the Rev. T. D. C. Morse, William Beach Whitmore, M.B., eldest son of John Whitmore, Esq., of Sloane-street, S.W., to Mary Caroline, only daughter of George S. Pedler, Esq., of Wood Bank, Dulwich.

DEATHS.

COOPER.—On the 29th ult., at Moor-street, Soho-square, Henry Cooper, M.R.C.S.E., in his 67th year.

DAVIES.—On the 21st ult., at The Poplars, Oswestry, John Sides Davies, M.R.C.S.E. and L.S.A.L., aged 44.

HALL.—On the 2nd inst., at Ladbroke-road, Bayswater, Nathaniel Francis Hall, M.R.C.S., eldest son of Mrs. Hall, of Kensington-park-road, Bayswater, and of the late Nathaniel Hall, of Southwick, aged 47.

NOYES.—On the 2nd inst., at Brandram-road, Lee, Kent, Henry George Noyes, Esq., M.D., in his 64th year.

SCOTT.—On the 28th ult., at Dean-terrace, Edinburgh, William Scott, M.D., F.R.C.S.E., late of the H.E.I.C.S., aged 87.

SIMPSON.—On the 24th ult., William Simpson, M.R.C.S.E., of Bradmore House, Hammersmith, aged 78.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

APPLETON, D. & CO., New York.

On the Antagonism between Medicines and between Remedies and Diseases. By Roberts Bartholow, M.A., M.D. pp. 120.

BAILLIÈRE ET FILS, Paris.

Leçons Cliniques sur les Maladies des Voies Urinaires. Par Prof. J. C. Félix Guyon. pp. 998. With Illustrations.

BAILLIÈRE, TINDALL, & COX, London.

A Guide to the Examination of the College of Surgeons of England. By F. J. Gant, F.R.C.S.E. Fourth Edition, Revised and Enlarged throughout. pp. 199.

The History of Salt. By E. M. Boddy, F.R.C.S., F.G.S. pp. 95.

BELL, G., & SONS, London.

Suggestions as to Lines of Future Research. Substance of Oration at the Hunterian Society, 1881. By A. H. Smee, M.R.C.S., F.C.S., F.S.S. pp. 55. With Charts and Diagrams.

BLAKISTON, P., Philadelphia.

Drugs that Enslave. By H. H. Kane, M.D. pp. 224. Illustrated.

John Hunter and his Pupils. By J. D. Gross, M.D., LL.D. pp. 106.

CHAPMAN & HALL, London.

Sociology based upon Ethnography. By Dr. Charles Letourneau; translated by H. M. Trollope. pp. 608.

CHURCHILL, J. & A., London.

On Anchylosis and the Treatment for the Removal of Deformity and the Restoration of Mobility in various Joints. By Bernard E. Brodhurst, F.R.C.S. Fourth Edition. pp. 100. With Illustrations.

The Student's Guide to Medical Case-taking. By F. Warner, M.D. Lond. pp. 211.

The Student's Guide to Medical Diagnosis. By Samuel Fenwick, M.D. Fifth Edition, Revised and Enlarged. pp. 326. Illustrated.

On the Diseases of Children, for Practitioners and Students. By W. H. Day, M.D. pp. 752.

A Treatise on the Diseases of the Nervous System. By James Ross, M.D. Two vols. pp. 594—998. Illustrated with Lithographs, Photographs, and 280 Woodcuts.

JAPP & CO., London.

The Human Voice and Connected Parts. By Dr. J. Farrar, L.R.C.P.Ed. &c. pp. 256. Illustrated.

JOHNSTON, W. & A. K., Edinburgh and London.

Zoological Atlas (including Comparative Anatomy), with Practical Directions and Explanatory Text. For the use of Students. Vertebrata. By D. M'Alpine, F.C.S. 231 Coloured Figures and Diagrams.

LINDSAY & BLAKISTON, Philadelphia.

A Treatise on Bright's Disease and Diabetes. By Jas. Tyson, A.M., M.D. Including a Section on Retinitis in Bright's Disease, by W. F. Norris, A.M., M.D. pp. 310. With Illustrations.

LIPPINCOTT, J. B., & CO., Philadelphia.

The Principles and Practice of Surgery. By D. Hayes Agnew, M.D., LL.D. Vol. II. pp. 1066. Profusely Illustrated.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M.D. Second Edition. pp. 644.

LONGMANS & CO., London.

Report on the Scientific Results of the Voyage of H.M.S. *Challenger* during 1873—76. Prepared under the Superintendence of Sir C. Wyville Thomson. Zoology, Vol. II. pp. 228—166. With 16 Tinted and 30 Coloured Plates.

MACLACHLAN & STEWART, Edinburgh.

The Physical Signs of Cardiac Disease. By Graham Steell, M.D. Edin. pp. 63. With Illustrations.

MITTLER, E. S., UND SOHN.

Studien über küntsliche Glieder. Im Auftrage des Königlich Preussischen Kreigs-Ministeriums bearbeitet von Dr. O. Karpinski. Hierzu 1 Atlas.

PAUL, C. KEGAN, & CO., London.

Sight: an Exposition of the Principles of Monocular and Binocular Vision. By Jos. Le Conte, LL.D. pp. 275. With Illustrations.

SMITH, ELDER, & CO., London.

A Text-book of Practical Histology. By Wm. Stirling, M.D., Sc.D., F.R.S.E. pp. 130. With 30 Outline Plates and 27 Wood Engravings.

The Young Doctor's Future, or What shall be my Practice? By E. Diver, M.D. pp. 100.

VON VEIT & CO., Leipzig.

Lehrbuch der Hygienischen Untersuchungenmethoden. Von Dr. C. Flügge. Mit 88 Abbildungen im Text, 17 Tabellen, und 4 Tafeln.

Ueber den Kreislauf des Blutes im Menschlichen Gehirn. Untersuchungen von Prof. A. Morso. Mit 87 Abbildungen im Text und 9 Tafeln.

The Ethics of Mongrelism: a Correspondence between Dr. Thos. Skinner and Dr. R. E. Dudgeon.—Birmingham Medical Review, April.—Disinfectants, and how to Use them; by E. T. Wilson, M.B., F.R.C.P.L..—Zeitschrift für Biologie; von L. Buhl, v. Pettenkofer, and C. Voit; Band XVI., Heft IV.—The Personal Factor in the Etiology of Preventable Disease; by Dr. A. L. Carroll.—The Sanitary Work of an Architect; by Ernest Turner. (Wyman & Sons.)—A Statistical Report of 252 Cases of Inebriety treated at the Inebriates' Home, Fort Hamilton, L.I.; by Dr. L. D. Mason.—The Sanitary Journal, April.—Annual Report of the Public Gardens and Plantations of Jamaica for 1880; by D. Morris, F.G.S., Director.—Discussion on the Pathology of Phthisis Pulmonalis at the Glasgow Pathological and Clinical Society. (Macdougall.)—The Carisbrooke Magazine, April.—Army Reorganisation; by F. J. Mouat, M.D., F.R.C.S. (Stanford.)—Burial and Cremation—a Lecture; by H. E. Spencer, L.R.C.P.E. (Hamilton, Adams, & Co.)—L'Encéphale, Mars.—On Metria; by J. Thorburn, M.D.—Die Kinderernährung im Säuglingsalter; von Dr. Ph. Biedert.—Journal of Anatomy and Physiology; Vol. XV., Part III.—Index Medicus, Vol. III., No. II.—Strangulated Veins of the Uterus; by T. H. Buckler, M.D.—Missed Labour; by J. Hickinbotham, M.D.—Oöphorectomy; by Dr. T. Savage.—New York Medical Journal, April.—British Policy towards the Boers; by Dr. G. B. Clark. (Ridgway.)—Regulations of the Ceylon Medical College Colonisation Circular: Natal. (Stanford.)—Annual Report of the Louisiana State Board of Health.—Popular Science Review, April.—Nocturnal Incontinence of Urine; by Tom Robinson, M.D. (Kimpton.)—The Carisbrooke Magazine, May.—A Memoir of the Earl of Beaconsfield. Reprinted from *The Times*. (Longmans.)—Our Times, May. (Newman & Co.)—La Dosimétrie justifiée par la Pathogénie de la Fièvre et de l'Inflammation dans les Maladies Aigués; par le Dr. A. Laury.—Archives of Laryngology; Archives of Ophthalmology. (Putnam's Sons, New York.)—Hardwicke's Science Gossip. (Bogue.)—Water and Air, their Relations to Health and Disease; by W. H. Watson, F.C.S.—Fraser's Magazine, May.—Sunday Magazine, May.—Good Words, May.—A Statistical Inquiry into the Action of the Bromides in Epilepsy; by A. Hughes Bennett, M.D.—Index Medicus, Vol. III., No. III. (Leypoldt, New York.)—The Contemporary Review, May.—Report on Trichinæ and Trichinosis; prepared by Dr. W. C. W. Glazier, of the U.S. Marine Hospital Service.—Help Homewards, in Verse, for every Day in the Year; by the Rev. T. Davis, M.A.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 5th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 29	30·16	W.	52	51	83	60	46	..	Overcast
„ 30	29·82	S.W.	56	51	98	64	47	·06	Cloudy
May 1	29·72	S.W.	54	49	99	62	42	..	Cloudy
„ 2	29 57	E.	51	49	87	59	46	·12	Overcast
„ 3	29·98	N.E.	46	42	85	52	41	·13	Cloudy
„ 4	30·12	S.W.	49	45	84	56	36	..	Cloudy
„ 5	30·22	S.W.	49	47	98	65	41	..	Fine

Medical Diary for the ensuing Week.

Monday, May 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, May 10.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

Wednesday, May 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Meeting of Society.

Thursday, May 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8½ P.M. Mr. Spencer Watson, "On a Case of Retinal Hæmorrhage, with High Arterial Tension."—Dr. Allen Sturge, "On Paralysis of both Third Nerves after an Apoplectic Attack."—Mr. Jas. E. Adams, "On Embolism of Both Eyes in a Case of Endocarditis."—Mr. Lang, "On Optic Neuritis in a Case of Corneal Ulcer (microscopical sections)."—Living Specimens at 8 P.M. Mr. Brudenell Carter, "On a Case showing the result of previous Neuritis from Injury to the Head."—Mr. McHardy, "On Persistent Hyaloid Artery."—Mr. Nettleship, (1) "On Dislocation of Lens between Choroid and Sclerotic;" (2) "Ophthalmoplegia Externa;" (3) Card Specimen of Tumour at Cavernous Sinus, causing Uncomplicated Ophthalmoplegia.

Friday, May 13.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Mr. F. Galton, "On Mental Images and Vision."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Report of the Committee on Excision of the Hip-joint.—Dr. Whipham, "On a Case of Aneurism of the Aorta, demonstrated during life by the Laryngoscope."—Dr. T. Stretch Dowse, "On a Case of Anorexia Nervosa."—Mr. A. P. Gould, "On a Case of Rapid Death after Antiseptic Osteotomy of the Tibia."—Dr. Wiltshire, "On a Case of Traumatic Rupture of an Ovarian Cyst."

Saturday, May 14.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Scotland's Part in English Literature."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"CLINICAL ANATOMY."

IN a lecture delivered before the Anatomical and Surgical Society of Brooklyn, U.S.A., Dr. W. W. Keen of Philadelphia, Professor of Artistic Anatomy in the Pennsylvania Academy of Arts, gave some hints in respect of the best method of teaching clinical anatomy, which are worthy of reproduction. After demonstrating a portion of his subject by means of casts and prepared bones, Dr. Keen continued (we quote from the *Boston Medical and Surgical Journal* of April 14th):—

"But turn from the cast of the dissection to our living model. Let an observer call the muscles of the knee into vigorous action, and then note here the high external vastus, there the lower and stouter internal, here the patella, and there the 'supra-patellar flat,' as artists call it—i. e., the tendon chiefly of the rectus, and here the ligamentum patellæ, and then, if never before, you will appreciate not only the facts to which I have asked your attention, but also the value of this method of studying anatomy. A living interest is added which the cadaver cannot give; muscles can be relaxed or contracted and their reliefs studied in relation to vessels, nerves, or other neighbouring organs of importance; the lungs can be perceived in expansion and contraction; the position of the stomach, the liver, the intestines, the bladder, &c., can be shown; the course of the arteries exhibited; movable bones shown in various positions; the relation of parts in different postures shown clearly, and in their relations to medicine, surgery, obstetrics, &c., and all demonstrated at the time of most importance—i. e., the very moment when they are being studied. . . . I venture to affirm that the living model should form as indispensable a part of the means of illustration in the anatomical lecture-room as the cadaver. In not a few respects, indeed, is it even more important. If its inconvenience and expense be urged, I may remind you that one model we always have—ourselves,—and it is surprising how much anatomy we may learn from studying our own bodies."

ESSAYS ON DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—In last week's LANCET I notice you state that the jurors appointed to examine the essays on diphtheria, which have been sent in response to the invitation of the Empress of Germany, who offered a prize of £100 for the best essay, have not awarded the prize on account of want of merit. Now, it was expressly stipulated that the essays were to embody the personal experience of the writers, also that the object of the donor was to bring out facts relating to the successful treatment of the disease. As I was one of the many competitors, it is not to be wondered that I take a deep interest in the verdict of the jurors. Moreover, I adduced evidence from two independent sources, which was sent to me unsolicited, to prove that the treatment I advocated has resulted in the cure of close upon 300 consecutive cases. These statistics were sent to me by two medical men whom I had never seen or heard of before. I also showed that the treatment in my own hands had been most successful, and I certainly feel that all that was required by the advertisement inviting the profession to give their views and experience on the subject was fully carried out by me.

I sent in my essay in the beginning of December last, and although I wrote several times asking if it had arrived, I could not by any means get an answer from Berlin, and up to this date I have heard nothing about it. Such want of courtesy I never received at the hands of anyone in all my previous experience, and certainly I will never lay myself open to such treatment again at the hands of those in authority in Berlin. It seems strange that of all the essays, sent in, as they were, from all parts of the world, not one satisfied the jurors.

I am, Sir, yours sincerely,
COMPETITOR.

April 27th, 1881.

STATISTICS OF SUICIDE.

A RECENT number of the *St. James's Gazette* contains the following :—

> "Signor Morselli, director of the lunatic asylum in Macerata, has just published some interesting statistics about suicide, based on 300,000 officially reported cases. It appears from these returns that suicides are most frequent in the spring and early summer, and between the hours of six and twelve in the day. The greatest number of suicides occur among the Southern and Central Germans; the Northern peoples come next, and the Southern Slavs, the Roumanians, and the Latin races last. Protestants commit suicide more frequently than Catholics, and Catholics than Jews; among Mahommedans suicides are very rare. As a rule, an increase in the number of suicides is accompanied by an increase in the number of criminals; but thieves more frequently commit suicide than murderers, and four times as many men commit suicide as women. The causes of suicide in southern countries are chiefly love and poverty; in northern countries, drunkenness; and in central Europe, *ennui*, shame, and the fear of punishment."

Dr. Justus Andeer (Würzburg).—The pamphlet has not come to hand.

Brigade-Surgeon Cattell is thanked.

Surgeon-Major, A.M.D.—Our correspondent could not have read THE LANCET of March 10th before writing his letter, or he would certainly have omitted the first two pages of it. With regard to his suggestion in the latter part of his letter, surely he must be aware that there is no such thing as brevet rank in the A.M.D.

H. A. T. should consult a surgeon.

Dubitans.—There is no rule for circumstances so unusual. Our correspondent should intimate that while willing to attend in exceptional circumstances for an absent brother, he cannot do so frequently without an understanding that he is to have half the fee.

An Inquirer.—Certainly not.

"DISLOCATION OF SHOULDER-JOINT AND DEATH FROM CHLOROFORM."

To the Editor of THE LANCET.

SIR,—The remarks of Mr. Lawton on the great number of fatalities attending the use of chloroform during the reduction of dislocations of the humerus, and the plan laid down by him in your impression of the 26th ult., enabling the surgeon to dispense with so dangerous an anæsthetic, will doubtless meet with general approval, but I am not one of those who pin their faith to the "heel in axilla" plan, or to any other system which is based on the application of physical force, which I believe may in a vast number of cases be dispensed with altogether. This may appear to some a somewhat startling assertion, but it is none the less a fact, and, by your kind indulgence, I will now give to your numerous readers the benefit of my experience in these particular cases, which, though limited as to number, has extended over a period of upwards of thirty years, and refers to dislocations of the humerus into the axilla only.

The plan I adopt is the following, which requires no assistant, no extension, counter-extension, or even fixing of the scapula, is almost entirely painless, and the reduction is accomplished in half a minute, or a minute at most.

I take firm hold of the elbow (bent to a right angle) of the affected arm, raise it as nearly to the perpendicular as possible, and keep it there closely pressed against the acromion; I next pass two or three fingers of my left hand, with their palmar aspects outwards, underneath and behind the head of the bone, which is now pointing directly downwards below and outside the glenoid cavity of the scapula, until they reach the lower edge of the latter, and having insinuated my fingers in some measure between them, by which means a fulcrum is formed, I now firmly and rapidly draw down the wrist with a sweep, and the head of the bone glides over the fingers, and slips into its place.

It may appear at first sight a difficult matter to insinuate the fingers of the left hand as directed, and it would be so but for the natural flaccidity of the integuments in the axillary space. I can assure your readers I have never yet experienced any difficulty in the reduction of a luxation of the kind mentioned; but all those who adopt the plan I recommend must expect a slight pinch of the fingers at the moment of the reduction.—I am, Sir, your very obedient servant,

CHAS. H. GREENE, L.S.A. Lond., &c.

Beverley-road, Barnes, S.W., April 26th, 1881.

W. M.—A case in point, at the Marylebone County Court, will be found in THE LANCET of March 6th, 1875. The principle has been frequently recognised, but we are bound to add that county court judges often find excuses for departing from it.

Quercus.—It is customary to do so.

Tea-planter.—We are not aware. The inquiry should be addressed to some agent, or, as regards *public* appointments, to the office of the Secretary of State for India.

A. G.—There is no justification for such loose proceedings. The coroner cannot have been a medical man.

MICROSCOPES.

A Colonial Surgeon should send his microscope to the makers and request them to put it in order for him. If he is then unable to see his specimens he should ask a friend to put him in the way of using the instrument. If he has no friend to help him, he will obtain the information he requires in Carpenter's work on the "Microscope."

PRESERVATION OF VACCINE LYMPH.

A Correspondent asks for information as to the best method of pr serving fresh vaccine lymph on points. He has tried sealing them gutta-percha tissue without success.

G. W. R.—The paragraph is doubtless in very bad taste, but the respon sibility for its publication may not lie with the gentleman belauded.

Inquirens.—Two.

Sanitas suggests that Dr. Alfred Hall's patent ventilator should be used in railway carriages.

"A NOTE ON INTENTION IN THE DETERMINATION OF SEX AND OF THE MENTAL AND PHYSICAL INHERITANCE OF CHILDREN."

To the Editor of THE LANCET.

SIR,—The following translation of an article in No. 102 of the *Cologne Gazette* (1881) will be interesting as a hint to the solution of the important question raised by Dr. Mortimer-Granville, and ventilated by others, in THE LANCET :—"A Contribution to solve the Question if the Sex of the Offspring of the Cow may be determined before Birth?" "Although man has from the earliest times onwards tried to obtain information on the origin of sexes—viz., Hippocrates and Galen—he has not yet been able to lift the veil, and the best known breeders of the present time are compelled to acknowledge their ignorance of the subject; thus we might be led to think that it was necessary for the preservation of species that the secret should never be discovered.

"The advantages, however, which would accrue to breeders if the sex could be determined beforehand are so great that we cannot be astonished at the pains which have been taken to bring some light to bear on the question, and as we cannot deny that it might possibly have some influence on the determination of sex, we must carefully examine all the attempts made in this direction. Dr. H. Fanke gives, under the title 'The Predetermination of Sex in the Cow,' an account of such an attempt which an American gentleman, Mr. D. D. Fignet, has made in Horeston (Texas). This practical breeder was soon struck by the fact that when a strong and eager bull was coupled with a cow which did not show marked signs of eagerness, female births were always more numerous, and *vice versâ*. In order to make use of this observation in the practical breeding of animals, it would be necessary to arrange their food and training in such a way as to increase the sexual desire of one and not of the other. Mr. Fignet, therefore, followed the rule never to allow a cow to be brought into contact with the bull during her first period of excitement, but, on the contrary, he always noted the day of its commencement, in order to know the exact date on which it might be again expected, so as to make fitting preparations before this took place.

"Now, it so happened that he wished to obtain a bull calf from a very valuable cow, and following the precept that the animal which during the sexual process is sexually strongest determines the birth of an animal of the opposite sex [the physiological fact to which Dr. Mortimer-Granville directed attention], he began at once, after the cow's first period, to feed the animal very abundantly until the next. He, on that account, fed the animal for two weeks on his richest pasture land, and, besides, gave it that food which from experience is known to stimulate sexual desire. During the latter part of the last week he stalled in and fed it with care. The bull, on the other hand, he was going to use was fed on light food during the same three weeks. When the period arrived he found that the cow showed a very strong sexual desire, whilst the bull did not appear to be very eager. The result was what had been expected, the cow giving birth to a very fine bull calf. But as it was the breeder's interest afterwards to breed cows for his dairy, he simply tried the opposite process, and each single cow gave birth to a fine cow calf. The breeder, Mr. Fignet, says that he has caused thirty attempts to be made, and that he has always, without exception, had an animal of the sex he wished to get, and, resting on this basis, he thinks that he has arrived at perfection and has found the way to determine the sex of the calf nearly one month in advance. The number of the attempts thus made is as yet too small to test by them only the truth of Mr. Fignet's rule, and we must wish therefore that other attempts be made to throw some light on a question which is of such grave importance to the breeders of cattle. The object of writing these lines is to induce breeders to make such attempts, but intending observers should first study the book of Dr. Fanke, as the short notes which we have given above are not sufficient to throw light enough on the question." When I receive the book of Dr. Fanke, as ordered, I shall send you more particulars on the important matter.

I am, Sir, yours, &c.,

Bad Kreuznach, April 28th, 1881. Dr. PRIEGER.

THE TREATMENT OF PSORIASIS BY TURPENTINE.

To the Editor of THE LANCET.

SIR,—In the local treatment of psoriasis, as in all other obstinate and chronic diseases, a very large number of drugs and methods of procedure, mostly with a view to stimulate the parts, have been employed with more or less success, and often recommended with more than corresponding zeal. No one plan is applicable to all cases. Thus some are actively hyperæmic, and any stimulant at the onset will be injurious; others require only mild stimulation; while a very numerous class require a very strong irritant if anything beyond very slow progress is to be obtained, but that stimulation must be of a special kind. Tar is a well-known remedy of deserved reputation, but it is often very slow in its action, and its disagreeableness is obvious. Chrysophanic acid has acquired a great reputation of late years, on account of the rapidity with which it removes the eruption in suitable cases. Few, however, would care to have it used upon the head on account of the purple colour it imparts to the hair and its producing swelling, erythema, and perhaps conjunctivitis when used near the face. While according to the acid a far higher position than I once did, its drawbacks and limitation have long led me to try other remedies. Three years ago I advocated thymol, and I still use it, especially for the head and face, as it is one of the most agreeable remedies we possess both for psoriasis and ringworm. It is often necessary, however, to use it in the proportion of one drachm to four drachms dissolved in an ounce of lard—i. e., much stronger than I first used it. Still, it is less rapid in its action than chrysophanic acid; and lately turpentine, on account of its being a powerful and penetrating stimulant, occurred to me as an application likely to be of service, the efficacy of the acid seeming to be due to its being a penetrating and diffusive stimulant. Cautious trials were at first made with one or two drachms of turpentine to one ounce of olive oil, but while this was sufficient for some cases, I soon found that pure turpentine well rubbed into the eruption was often advantageous, smearing the parts over with vaseline afterwards to obviate the desiccating action of the turpentine. This I found removed the eruption so rapidly that when a severe case of general psoriasis presented itself I resolved to compare the turpentine with chrysophanic acid by applying them upon opposite sides of the body. The result—namely, that the eruption was simultaneously removed from both sides, and from which I inferred that the two drugs were of equal value, at least in this case—I demonstrated at the Medical Society, and it has evoked much correspondence in your columns. A "Glasgow Student" suggests that the acid alone was the efficacious agent, because Dr. Charteris wrapped up one limb in cotton-wool and anointed the other with chrysophanic acid, and both got well together. The experiment is suggestive, but not conclusive, for wrapping the limb up in wool and confining thus the perspiration is in itself a treatment, while the theory is effectually disposed of by the facts that turpentine when used alone suffices for the rapid removal of the eruption, and I have used it in many cases since the one shown at the Society; further, that when tar or other remedies of acknowledged inferiority are tested comparatively with chrysophanic acid, both sides do not get well simultaneously. While turpentine is clean and cheap, its main drawback is the odour. This may to some extent be covered with oil of lavender; still it is a disadvantage, and must be balanced against the dyeing and erythema-producing qualities of chrysophanic acid. I am not, however, anxious to vaunt turpentine as a new specific for psoriasis, but rather to point out that by intelligent research we may hope to attain to the ultimate aim of treatment represented by the motto "Cito, tuto, et jucunde." I have not gone into the management of psoriasis by internal means. To remove the eruption is one thing, but to prevent or postpone its return is only to be effected by careful hygienic and medicinal treatment adapted to each case, the success of which depends upon the judgment of the physician, seconded by the patient's care and ability to carry out his directions.

I am, Sir, yours obediently,

Welbeck-street, April, 1881. H. RADCLIFFE CROCKER, M.D.

Contributor and others enclosing pamphlets and circulars relating to homœopathy are thanked. The advocates of the "system" are not unnaturally stirred to new forms of enterprise by recent events.

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A Lecture

ON THE

PHYSIOLOGY AND PATHOLOGY OF THE OLFACTORY NERVE.

Delivered at the Hospital for Epilepsy and Paralysis, Regent's-park.

BY JULIUS ALTHAUS, M.D., M.R.C.P.,
SENIOR PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—The olfactory nerve, although the first in anatomy, is generally credited with being the least useful to man in a state of civilisation. Indeed, if we compare it with its more immediate associates—namely, the optic and auditory nerves, without which life, as we understand it now, could not be carried on,—it seems to recede into an immeasurable distance. If Prince Bismarck and M. Gambetta were to become suddenly blind and deaf, the destinies of Europe would no doubt be changed; while if these two men were to lose their smell and taste, things would probably go on much in the same manner as they do now. The sense of smell is, however, acknowledged to be of vital importance to animals. Sir John Lubbock has discovered that ants are, not only in their search for food, but also in their actions generally, guided by this sense, which resides in their antennæ. It is by the smell that they recognise friends and foes, and are impelled to do their work; for with the exception of the winged queens and their husbands, most ants are blind, and the world is known to them only as a succession of different and well-defined smells. Some fish, like the perch, trout, and salmon, are guided in their actions more by the sense of sight, which is largely developed in them; while the shark, on the other hand, is chiefly a smelling fish, its nose being so enormously developed that the mucous membrane of it, if unfolded, would cover an area of twelve feet square. In birds smell is rudimentary, and sight wonderfully keen; while moles have large organs of olfaction, and eyes scarcely indicated. Many herbivorous animals are enabled, by their keenly-developed sense of smell, to avoid poisonous plants, and select nutritious ones to feed upon. Smell to them is, as it were, the sentry of taste, guarding the approach to the palate. It informs animals of the manner in which a certain thing will affect them, so that they know what to seek and to avoid. It gives to rabbits, hares, deer, and other animals which have to rely for their safety rather on rapidity of flight than on their strength, early notice of the approach of an enemy, and thus affords time for escape from danger. The carnivorous class may, on the other hand, by the scent, detect their prey sooner, and surprise it more readily.

The sense is also of importance for the reproduction of the species, since animals of opposite sexes are thereby attracted to each other. This is more especially the case with the musk deer, the civet cat, and the beaver, whose preputial follicles secrete musk, civet, and castoreum, but it is more or less so with all animals whose sexual organs develop a peculiar pungent odour during the period of rut. For the dog the olfactory nerve is the great ruler of life. A dog which is deprived of smell may almost be said to have ceased to be a dog, for that animal, as Schiff has shown by section of the nerves in puppies, loses with its smell its faculty of attachment and faithfulness to its master, whom it recognises and loves simply on account of his individual perfume. Schiff's deolfactorised puppies were throughout life indifferent to their master, although he treated them with the greatest kindness.

No doubt the olfactory nerve is also of considerable use to man in a state of nature, in the same way as to animals; and the peculiar pigment which surrounds the terminations of the nerve, and appears to serve for a readier absorption of odours, is even now more developed in the coloured and savage races than in the white man, where the nerve is more rudimentary. The nostrils of negroes are particularly large, and contain sinuses for increasing the olfactory surface, which are not found in the Caucasian race.

To ourselves this nerve does not offer much protection, for some poisons, like hydrocyanic acid, have an agreeable odour, while we cannot distinguish edible from poisonous mushrooms by the smell. Yet it gives us a quick indication of a gas-escape in our dwelling-houses, and no doubt gas explosions have thereby been prevented. Nor should we forget that our arrangements for the disposal of sewage owe their perfected state in a great measure to the reminders which the nose has given us to attend to them; and indirectly, therefore, a vast number of lives have been saved by its instrumentality.

The olfactory nerve, however, comes chiefly into play during our meals—indeed, we appreciate the flavours of meat and drink solely by the olfactory, and not, as is commonly believed, by the gustatory nerve, which latter conveys to us only the four fundamental tastes of sweet, bitter, acid, and saline, but no aromas or flavours. The art of dining would therefore be lost if we were to be deprived of the sense of smell. Tea, coffee, wine, and other articles of diet which are chiefly appreciated for their flavour, would greatly decline in popularity. Our social life, in which dinners play so conspicuous a part, would assume an entirely different aspect; such a book as Brillat-Savarin's "Physiologie du Goût," which treats of the flavours of dishes, would become unintelligible, and we cannot, without shuddering, imagine the probable condition of the aldermanic mind if turtle soup were to become a vain conceit.

Dyspepsia and congestion of the liver would most likely increase rather than diminish if we had no smell, for although excesses at table are no doubt promoted by the pleasing flavour of the dishes put before us, and might, therefore, no longer occur in the same ratio as now, yet, on the other hand, we should certainly often partake of unsuitable and indigestible food, more especially of putrid meat and fish, if ourselves and our cooks were unable to discriminate by smelling that which is nasty from what is nice. Moreover, if eating gave us no pleasure, but were only done from necessity, we should probably fall into the habit of hurrying through our meals and bolting our food, which we know to be a prolific cause of indigestion.

The flavour of a fine cigar is only appreciated by the olfactory nerve, and smoking would therefore probably decline if we had no smell. As it is generally admitted that the temper of man is softened and soothed by tobacco, the coarser side of our nature might assert itself more if we were deprived of the "weed." Yet it is a singular fact that men have continued smoking after having lost their smell; while others have given it up after having become blind, and when smell persisted. This would appear to prove that the sight of the rising curls of tobacco-smoke enters as much into the enjoyment of a cigar as its flavour.

If we had no olfactory nerves the science and art of perfumery would vanish, Bond-street would be shorn of one of its greatest attractions, and ladies could no longer heighten their charms by the use of delicate scents. Even now the relation between the sense of smell and the tender passion is not quite extinguished; and Hippolyte Cloquet, in his "Osphrésiologie," or science of odours, says: "La saison des fleurs est celle des amours; l'odeur qui s'exhale de leur sein épanoui, en parfumant le zéphyr, fait entrer au fond du cœur un charme irrésistible. Les idées voluptueuses se lient à celles des jardins et des ombrages odorans; et les poètes attribuent avec raison aux parfums la propriété de porter dans l'âme une douce ivresse." This is no doubt the reason why hysteria, which was formerly believed to be a disease of the womb, was of old chiefly treated with strongly smelling substances, such as musk and castoreum; and where these could not be procured, by the emanations from burnt feathers or wool. Such treatment was indeed recommended by the Father of Medicine, who also spoke highly of the effects of sweetly smelling oils introduced into the vagina during hysterical fits.

Another art which would decay if smell were lost is that of horticulture; for roses, jasmine, hyacinths, and many other fragrant flowers, are cultivated much more for the pleasure they afford to the nose than to the eye.

That the first cranial nerve is intended for olfaction, or, more strictly speaking, for conveying odorous impressions to the brain, was first laid down by the learned monk Protospatharius, who wrote, about the year 800, a Greek essay on the parts of the human body. Aristotle has, indeed, credited the nose with being the seat of the sense of smell; but Galen, in his treatise "De Instrumento Odoratûs" stated that the olfactory nerves were simply canals by which vapours arrived in, and humours escaped from, the brain, and that the sense of smell resided in the anterior cerebral ventricles. He was no doubt led to this conclusion by his dissections of quadrupeds, in which the olfactory lobes contain cavities filled with serum, and communicating with the lateral ventricles. Such cavities exist even in the human fœtus at an early period of its development. Moreover, Galen had observed that smell was bound to inspiration, which seemed to him to show that odours passed bodily into the cerebral substance. Vesalius was the first to dissect the olfactory nerve in the human subject; he described its external and internal white roots as well as the olfactory ganglion, and agreed with Protospatharius as regards its function. Lobstein first noticed the third central grey root, which only comes in view if the nerve is pulled aside.

From that time forward the olfactory nerve was generally admitted to be concerned with smell, but Magendie, to whom experimental physiology owes so much, concluded from his experiments on dogs that smells were perceived by the nasal branches of the fifth pair, and that the first nerve was a structure like the pineal and pituitary glands, the functions of which were as yet problematical. The substances with which Magendie experimented were chiefly ammonia and strong cheese, and as these affect common sensation as much as the special sense of smell, it was justly objected to these experiments that no sufficient distinction had been drawn between ordinary and special sensibility. This view was generally endorsed by physiologists until Claude Bernard in his lectures on the "Physiology and Pathology of the Nervous System" (Paris, 1858) reopened the question, and without actually upholding the theory of his illustrious predecessor, adduced arguments to prove that we were not yet in a position to speak decisively on the relative functions of the first and the fifth nerve. He argued that the analogy with vision, for which there is a special nerve, did not prove anything, as there was a contrary fact concerning taste, the gustatory nerve having been shown to preside over common as well as special sensibility in the two anterior thirds of the tongue.

Bernard supported his argument chiefly with a case of congenital absence of the olfactory nerves, which happened accidentally to come under his notice on the post-mortem table. It was the case of a woman who had died of phthisis in the Hôtel Dieu. On opening the skull it was found that the cribriform plate of the ethmoid bone did not exist, or rather that it had no foramina; the sulcus in which the olfactory nerve usually lies was only slightly indicated, and there was no trace of these nerves anywhere, not even towards their habitual origin. In all other respects the brain and cranial nerves were perfectly normal. On inquiry amongst her friends it turned out that no deficiency of smell had been recognised or suspected in the patient during life. The woman had been known to have a great dislike to tobacco, and when she entered a room the first thing in the morning, where people had been smoking the previous evening, she would hasten to open the windows in order to get rid of the stale smoke. She had also frequently complained of the stench from a privy which was close to her room; she was a good cook, and cunning in the preparation of fine sauces and dainty dishes. Moreover, she had been fond of flowers, which she was in the habit of putting to her nose; she had suffered from profuse night sweats, and complained of their disagreeable odour, and she had refused to take medicines which had a nauseous flavour. With all this she had never had any olfactory nerves! This case is certainly singular, yet we should consider that all the information concerning it was obtained secondhand, and not from the patient herself; and it may be that she had, after all, only perceived such substances as ammonia and sulphuretted hydrogen, which act not only on special but also on common sensibility, and that her habit of putting flowers to the nose was merely a pantomime devoid of special meaning. Indeed, one often notices women, especially those of a lively temperament, carrying flowers to the nose which are devoid of smell, like camellias.

More recently a considerable amount of evidence has been brought forward which indisputably proves that the first cranial nerve really has the special function of smelling, and that the branches of the fifth nerve and the spheno-palatine ganglion, which supply the Schneiderian membrane, are only intended for common sensation and reflex action. In 1868 a case came under my care at the hospital in which there was complete anæsthesia of the fifth pair of cranial nerves, the patient being deprived of common sensation as well as of the senses of temperature, touch, and locality, all over the scalp, face, and in the mucous membranes of the eyes, nose, and mouth, without any other disease whatever. In that case, which I brought at the time before the Royal Medical and Chirurgical Society, and which is published in its Transactions for 1869, the mucous membrane of the nose was perfectly insensible to the touch of blunt or sharp instruments, and no sneezing was brought on by snuff; yet the sense of smell was perfectly normal, the patient having no difficulty whatever in appreciating the different varieties of scents with which I tested him. It was thus rendered evident that no intervention of the trifacial is necessary for the appreciation of odours, which is, on the contrary, the special function of the first pair.

Physiological experiments in animals, which have since been made, have confirmed the view which I then expressed. Thus Schiff noticed that after section of the olfactory nerves or lobes in puppies, these were unable to find the teats of the bitch; they would sip milk from a saucer, but when it was covered with paper they failed to find the milk. Again, if the edge of the containing vessel was besmeared with some foul-smelling substance, which would deter any ordinary dog from touching it, the deolfactorised puppies would drink the milk all the same. Vulpian destroyed the olfactory lobes in bloodhounds, and kept the animals some time without food. They were then found unable to discover meat concealed somewhere in the laboratory. Prévost excised both spheno-palatine ganglia, which Bernard had suspected to be concerned in smelling, yet that sense remained perfect. It was, however, lost when the olfactory nerves were afterwards destroyed in the same animals.

It is a significant fact that chemical, mechanical, and thermic irritation of the olfactory nerves in animals causes neither pain nor movement, nor reflex action of any sort, and this points clearly to the sensorial function of the nerves. Comparative anatomy shows their large development in animals whose smell is notoriously keen.

Does this nerve respond specifically to the application of electricity? This is an interesting question which has engaged the attention of physiologists since the discovery of galvanism towards the end of the last century. It is well known that the optic nerve responds to the continuous voltaic current by the perception of flashes of light, the auditory by peculiar sounds, and the gustatory by a special taste. Any special sensorial response of the olfactory nerve, however, had not been observed until I demonstrated it in the patient to whose case I have just alluded as one of disease of the trigeminal nerve. That such an effect should have escaped the notice of so many previous observers I attribute to the fact that a current of great power is required for making an impression on the first pair; and a strong current affects at the same time the fifth, the optic, the auditory nerves, and the brain itself, so much that a commotion is caused in the latter, which renders it unable to properly differentiate so many powerful simultaneous impressions. The application of a current of thirty-five pairs of plates to the mucous membrane of the nose, which I found necessary to elicit a response of the olfactory nerve in that case, produces in persons who are in their ordinary health extreme pain, dazzling flashes of light, a hissing noise like that of a steam-engine, together with faintness and giddiness. In the patient referred to, however, such a current could be easily borne on account of the anæsthesia which was present; and in him the perception of a *phosphorous smell* occurred so constantly when this proceeding was used, that it was rendered evident to me that the first nerve responds to a sufficiently powerful continuous current by the perception of such a peculiar smell. I shall presently have to refer to a pathological confirmation of this physiological fact.

The peculiar structure of the cavity of the nose is in entire accordance with the theory that there is one nerve for common sensation and another for the special sense of smell. We find there two channels, an upper, anterior, and smaller one, which serves for olfaction, and a lower, posterior, and larger one, solely intended for respiration; and the ordinary communication between these two channels may be cut off by that projection of the mucous membrane which Meyer has called the "agger nasi," and which under the action of different muscles may assume different positions.

The mucous membrane investing these two channels differs in essential particulars. That which covers the lower respiratory channel, and which should strictly be called the Schneiderian membrane, possesses ordinary epithelial cells, and shows no peculiar pigmentation. It does not receive any fibres from the first pair, but only from the fifth, which impart to it common sensation. The mucous membrane of the olfactory channel, on the other hand, has a peculiar yellow-brownish colour owing to the presence of pigmented cells, which are called sensorial or olfactory cells, and constitute a higher development of epithelial cells. Dr. Wm. Ogle in an able paper on Anosmia, which appeared in the Medical and Chirurgical Transactions for 1870, has justly laid stress on the importance of this pigment, the quantity of which appears to be in direct proportion to the keenness of smell, while its absence seems to coincide with loss of that function. More recent researches by Exner have shown that division of the olfactory nerve in frogs and rabbits causes the development of these pigmented cells to be arrested, so that about two months after the operation only common epithelial cells are to be met with. At the same time the cilia disappear, and the peripheral end of the nerve undergoes fatty degeneration.

In animals whose smell is particularly keen, the pigmented cells are much more abundant than in man, in whom the sense is rudimentary, and children whose smell is obtuse have less pigment than adults. This is the reason why children have no difficulty in taking nauseous medicines, such as castor oil.

No sensorial cells are to be found in the mucous membrane of the accessory cavities of the nose—viz., the antrum and the frontal and sphenoidal sinuses; and this affords *primâ facie* evidence that these cavities do not participate in smelling. Indeed, it is more rational to assume that they serve for lightening the weight of the skull, for heating the inspired air before it reaches the larynx, for giving a peculiar timbre to the voice, which in disease of these parts acquires a nasal resonance, and finally for keeping up a steady supply of mucus which serves to keep the nasal cavity properly moistened.

(*To be concluded.*)

NOTES ON THE PATHOGENY OF DIABETES.

BY RICHARD SCHMITZ, M.D., Neuenahr.

(*Communicated for the Author by* DAVID PAGE, M.D.)

IN the following communication I wish to give a brief account of four cases of this disorder, the history of which appears to me of particular interest, partly by reason of their rarity—these being the only cases I have met with amongst 520 diabetics coming under treatment within the last twelve years—and partly because of their presumable bearing upon the pathogeny of diabetes.

CASE 1.—Mrs. A——, who has suffered for the last three years from diabetes, came under my observation on July 7th, 1873. At this date the sugar present in the urine amounted to 2½ per cent., but after three weeks' treatment it had nearly disappeared.

Early on the morning of the day fixed for her departure from Neuenahr I was hurriedly sent for, when I found her in a drowsy condition, with sunken look, and a pulse of 120. She had been seized during the night with violent colic, quickly followed by the vomiting of green-coloured matters. On being questioned she declared that she was not aware of having eaten or drunk anything which could have brought about this attack. No evacuation of the bowels for two days. Temperature in rectum 37·4° C. (99·3° F.); tongue dry and furred; intense thirst and great weakness. An examination of the abdomen, which was not sensitive on pressure, elicited nothing abnormal. Respiration frequent, between 30 and 40, and deep. The pain, which the patient described as extremely violent and griping, had its seat in the upper part of the abdomen, and was of an intermittent character. She lay, as I have said, in a drowsy state, from which she was aroused by the sudden attacks of vomiting and pain. Although her whole appearance gave me the impression of intoxication, I was unable to find anything in the vomited matters to justify such an assumption. I accordingly confined my treatment to the internal and external application of ice in order to check the sickness. This proved unsuccessful, as also the administration of sedatives, which mitigated only the violence of the pain.

Next morning no change. No abdominal tenderness on pressure; no alteration in form; no dulness; temperature normal; pulse faster, 130; respiration 45, with very deep inspirations. The patient sank rapidly, and died towards noon, the vomiting having ceased about two hours previously. The urine passed an hour before death was found to be free from sugar. An autopsy was not permitted. As I learned afterwards, she had a few days before this eaten very large quantities of sugar and rich pastry.

CASE 2.—On the morning of the 15th July, 1875, I was called to M. L——, a girl of thirteen years of age. The child had been suffering from diabetes for some time, and had been, the parents informed me, about three weeks at Neuenahr. There had been some improvement, and the amount of sugar in the urine had become reduced. According to their statement she was a somewhat spoilt child, and had, especially of late, been guilty of frequent errors of diet in eating fruit and sweetmeats. This had not, however, had any bad effect upon her general health, and, until the previous day, she had been well and lively. She all at once complained of acute colicky pains, became sick and vomited frequently. There had been no vomiting for the last two hours, but the pain continued. There had been no motion of the bowels for three days. Vomited matters described to have been of a green colour. Urine passed in fair quantity, clear and free from sugar. This child, who was also lying in a drowsy condition, threw herself about from time to time with loud screams and groaning. Pulse 120 to 125; breathing hurried but not superficial, about fifty respirations a minute. Tongue dry, but not furred; intense thirst; strong fetor from the mouth; great weakness. The abdomen was a little contracted, and rather tender upon pressure. The periodic attacks of pain were, as in the previous case, localised in the upper part of the abdomen. As the idea occurred to me that the child may have partaken of something noxious, I requested the parents to preserve any matters which might be vomited, and prescribed cold enemata and castor oil. I saw the child again in the afternoon; her condition was precisely the same, but no vomiting. No motion of the bowels, in spite of repeated enemata and two doses of castor oil. At seven o'clock I was again summoned, when I found the patient screaming and in the most violent clonic and tonic spasms; eyes wide open and fixed, and the pupils strongly contracted and with very slight reaction. The answers of the child were indistinct an unconnected. Half an hour afterwards tracheal râles suddenly occurred and she died. This altogether peculiar and quickly fatal attack naturally aroused suspicions of poisoning, especially as the child had just before been in the hands of a quack doctor. It transpired, however, that such harmless remedies as peppermint only had been administered, and, moreover, the results of the judicial post-mortem made at Frankfort, whither the body had been meanwhile conveyed, gave no support to the suspicion of poisoning.

CASE 3.—M. P——, a healthy child of seven years of age, came under my treatment on the 15th August, 1879. Her mother told me that quite a year ago the child, who was exceedingly addicted to sweet things, had had repeated attacks of gastric catarrh. She had become much reduced, and latterly suffered much from thirst; these circumstances led to the detection of diabetes. The attacks of acute gastric catarrh still continued to recur from time to time, and the child then felt herself better only after a thorough evacuation of the bowels, on which account her mother was accustomed to give her a dose of castor oil whenever she began to be out of sorts. The urine contained only 1 per cent. of sugar and the subjective state of health was most satisfactory.

After she had been about a week at Neuenahr, during which time she had been placed upon not too strict a dietary, I was sent for one morning as another of her attacks of gastric catarrh had come on. I found in her case almost precisely the same symptoms as I have already described: great drowsiness, prostration, vomiting of green matters, very violent paroxysms of pain in the upper part of the abdomen, exactly in the region complained of by the other patients; abdomen not tender on pressure, but somewhat tumid. Pulse 120; respiration between 30 and 40; inspiration deep; temperature rather elevated, 38·5° C. (101·3° F.). Tongue dry and coated; strong fetor from the mouth. Urine free from sugar; no sugar or poisonous matters in the vomit. Constipation for last two days. A tablespoonful of castor oil was at once administered, and as this had not acted another in a couple of hours afterwards. An hour later, with remission of all symptoms, several very copious, extremely offensive, and almost black evacuations took place, which were repeated several times during the night and following day. In two days the child was again perfectly well. Curiously enough, eight days elapsed before traces of sugar again showed their presence in the urine.

Case 4.—Herr M——, twenty-eight years old, suffered from diabetes accompanied by considerable albuminuria (0·3 per cent.), and since the sugar had quickly disappeared under anti-diabetic treatment, I felt it advisable on account of the high percentage of albumen present to enjoin on him a less rigid dietary, and especially to allow him milk. The effect of this change was to reduce the albumen within three weeks to less than 0·1 per cent.; sugar, on the other hand, reappearing to the amount of 0·5 to 1·0 per cent. On the 26th July, 1880, Herr M—— was suddenly attacked with all those symptoms which have been already described. Several doses of castor oil brought about the same evacuations as in the preceding case, followed likewise in his case by complete recovery. No sugar and very little albumen were present in the urine.

Putting together, now, the symptoms common to these four cases, we have in the first place violent paroxysmal pain localised in the upper part of the abdomen; frequent vomiting of green-coloured matters; exceedingly obstinate constipation; head affection; somnolence (only in the second case were the symptoms of depression succeeded by others indicative of cerebral irritation); great prostration; small frequent pulse; very rapid breathing with remarkably deep inspiration, dry tongue, intense thirst, and not essentially elevated temperature. In all sugar was notably absent from the urine, notwithstanding the fact that sugar-containing food had been taken beforehand. There was also neither increased tenderness of the abdomen to pressure, nor significant distension or dulness. The hepatic dulness had not disappeared.

With regard to these general symptoms, acute peritonitis may be put out of the question; and so also any renal affection, for in three of the patients the urine afforded no evidence of anything of the kind, whilst in the fourth case the albumen had actually diminished in quantity. These symptoms, too, would also tend to exclude the possibility of a gastric or intestinal catarrh, such as one is accustomed to see following upon the immoderate ingestion of indigestible food, but give support to the view that only an extremely poisonous substance or material, affecting chiefly the intestinal tract, could have been competent for their production. Inasmuch as no poisonous substance had been actually taken by any one of the patients, such could have only been formed in the intestine itself; moreover, in both of the last two cases recovery and improvement at once followed upon abundant evacuations of extremely offensive and almost black quantities of excremental matters, whilst in the case of the other two which ended fatally, an ordinary movement of the bowels proved impossible.

In similar cases, therefore, I would strongly advice a full dose of castor oil not to be delayed, even should no previous constipation have existed, and that every effort be made to empty the bowels as thoroughly and as quickly as possible. Now, I believe that the poison whose source must be referred to the intestine stands in some kind of relation to the diabetes—i.e., the sugar; for whilst all four patients were diabetics, yet during the attack the sugar entirely disappeared from the urine, and this in spite of well authenticated errors of diet having in each instance been committed. It is not too far-fetched to assume that the ingested sugar had undergone transformation in the intestine, and produced the poison. If such be the case, then, my views with regard to the pathogenesis of diabetes have anew received essential confirmation. Seven years ago I published the history of a case of diabetes in a child of four years of age, whose mother was also a diabetic.[1] At the desire of the latter I had for some time made continued examinations of the urine, always finding it free from sugar. The child was suddenly taken ill, with symptoms of gastric fever. The urine, which a few days before had been free from sugar, was now found to contain nearly 6 per cent., this amount, however, completely disappearing under the anti-diabetic diet in the course of a fortnight. The child quickly recovered, and is now living.

This case, as also the statements of various diabetic patients who had suffered from attacks of gastric fever, and in whom only subsequently the symptoms of diabetes developed themselves, suggested to my mind the possibility of a connexion existing between the two disorders and of the seat of diabetes in many cases being found in the upper part of the alimentary tract. I asked myself the question what, under normal circumstances, becomes of the sugar often ingested in large quantity, seeing that very little of it is found again in the chyle or the blood of the portal vein? It must be transformed somewhere, and may not this transformation be effected in the duodenum by the agency of the alkaline pancreatic juice? If, then, the digestion of sugar does take place in this way, and it should happen that the pancreatic secretion was insufficient from disease of the pancreas itself, from the disturbing and inhibitory influence upon the nerves controlling the secreting function of pathological events, or from the constant ingestion of sugar in too large amount, a greater or less quantity of sugar which has escaped transformation must accumulate in the intestine.

As it has been conclusively shown that the intestinal mucous surfaces absorb sugar, mellituria quickly following upon the injection of sugar by the rectum, the absorption of sugar by the small intestine and rest of the tract in much larger proportion and far more easily must ensue. But besides being absorbed, the sugar thus accumulated in the bowel may, and this is more to the purpose, easily undergo fermentation and decomposition. To this fermentation and decomposition of the sugar are due the gastric fever of the child, those gastric symptoms previously in question, the extremely profuse diarrhœas so frequent in diabetics, and lastly, the four attacks of illness above described. The only difference in regard to these last is that the change had proceeded so far as to develop some intensely poisonous product.

I have already mentioned the peculiar incident of the disappearance of the sugar entirely from the urine of these four patients, and I may now state, in addition, that after the above described attacks of diarrhœa in diabetics I have always found upon examination of the urine a marked diminution, or even total disappearance, of the sugar. So far as I am aware, a chemical examination of the diarrhœtic discharges has not hitherto been made whereby one might be enabled to decide whether that fact is to be ascribed to the expulsion of the sugar with the other contents of the intestine, or whether these discharges contain only the products of its decomposition. Be this as it may, the fact itself remains certain, and speaks in favour of the views I have adduced, in further support of which is the circumstance that there is no better treatment for diabetes than a diet practically free from sugar and amylaceous ingredients; for here the amount and quality of the pancreatic juice are sufficient to meet the trifling quantity of sugar present. The practitioner who, like myself, is in the position of having a large number of diabetics under treatment at the same time (in the summer of last year my *clientèle* included 110 such patients), may easily observe how exceedingly diversified is the immunity towards sugar in the case of individual patients—in other words, how far the quantity and quality of the pancreatic juice suffices for the satisfactory transformation of the sugar in different cases. Thus one patient will tolerate 20 grms. of brown bread (two-thirds of an ounce), but not even 10 grms. of white bread (a third of an ounce); another can eat both with impunity, and the same quantities of lentils and peas besides; a third even rice and potatoes in even larger amount, while another cannot take any of these whatsoever—indeed, not even some starchy gluten bread or leafy vegetables which have not been deprived of the stalks with every possible care. I may remark that I always seek to prescribe for each patient a special diet suited to the individual.

The existence of cases of diabetes where under a so-called purely animal diet the sugar is averred to be formed from the albuminoids, I should be inclined to call in question; for how is it possible to prepare a dietary which shall be absolutely free from sugar? Do not flesh and the yelk of egg, wine, even the most acid, all contain sugar? and with regard to vegetables, do not the stalks and ribs of the salad and leafy herbs also contain some sugar? In short, with the exception of cheese and sour milk, there is scarcely anything to be found which does not in some proportion or another number sugar of some kind amongst its constituents. If, in spite of a diet of flesh, fish, eggs, herbaceous vegetables, and red wine the sugar has not disappeared, then depend upon it that either the pancreatic juice is incompetent to accomplish the transformation of these small quantities of sugar, or that the patient has not strictly adhered to his diet; and the latter will prove to be most frequently the case.

How often I have had occasion in my practice to observe that patients, in spite of the most solemn promises, have clandestinely eaten forbidden articles of diet, even of saccharine articles and sugar itself, to large excess! How many cases can I recall in which the sugar in the urine, after having quickly diminished in amount to a small percentage, all at once began to increase rather than to decline! And how many patients, apparently sensible and intelligent, solemnly assured me that they had eaten nothing save what had been allowed, and then, by chance, it came to my knowledge that this one had eaten a couple of pounds of cherries, that one half a pudding, and so on, persistently committing altogether the most grave errors of diet! Once a diabetic patient assured me on his word of honour that he had most conscientiously adhered to the diet which I had prescribed, and his wife complained to me with tears that he had threatened her with violence if she did not supply him with plenty of bread and sugar! It is, indeed, quite a peculiarity what an often unconquerable desire diabetic patients have for sugar and saccharine articles of food.

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[1] Berliner klinische Wochenschrift, 1873, No. 19.

I need hardly say that my views apply only to true diabetes—that disease in which the ingested sugar, instead of undergoing the normal transformation, passes into the blood and fluids of the body. To those merely casual attacks of mellituria which owe their origin to the most diverse conditions no reference is necessary.

San Remo.

CASE OF

ACUTE PHTHISIS TREATED BY THE CONTINUOUS TOPICAL MEDICATION OF THE LUNGS.

By G. HUNTER MACKENZIE, M.D.,

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In a former communication (The Lancet, Nov. 27th, 1880) I directed attention to the system of continuous topical medication of the lungs in phthisis, and showed how it might be successfully carried out by means of a respirator[1] specially constructed for the purpose. I now wish to record in detail a case of acute phthisis which has been treated by this method with satisfactory results.

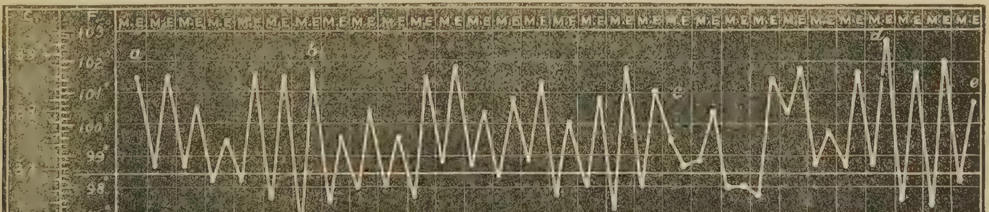
A. B——, male, aged eighteen, a lithographer in Edinburgh, consulted me in July, 1879, complaining of general weakness, cough, and emaciation. Two brothers had died of phthisis, and there was a history of the same disease in his maternal relations. The patient had not suffered from any previous complaint. He had not lately had a cold, and he could assign no particular cause for his ill health. On examination, the pulse was quick and small (110); temperature 100·5°; respiration slightly hurried. The mouth and tongue were rather dry, the latter slightly furred. Beyond a slight roughening of the respiratory sounds, and prolonged expiration, there was nothing to be detected in the lungs. He was ordered cod-liver oil, with hypophosphites, abundance of milk, and residence in the country, for which he soon left. In October I was called to see him, and during that and the succeeding month he became rapidly worse. The fever increased, an evening temperature of 103° being recorded, with a correspondingly quick pulse, shallow and hurried respiration, lips coated with sordes, thirst, and lividity of the extremities. The lungs now gave undoubted signs of disease. There was marked dulness over the upper third of the left lung anteriorly, with copious fine crepitation, racking cough, occasional bloody sputum, severe night sweats, and loss of hair. The general weakness increased to such an extent that the patient latterly could scarcely leave his bed without assistance. The treatment pursued in the first instance embraced the continued administration of cod-liver oil and hypophosphites, quinine and digitalis, maltine, &c., with the usual regulations as to diet and hygiene. At this time I had not the same facilities for making continuous observations as latterly, but there was no disputing the fact that the disease, in spite of the above and similar treatment, continued to make rapid and alarming headway. Under these circumstances, on November, 26th 1879, I commenced the system of topical medication. Marked improvement of the various symptoms soon followed. The subjoined charts indicate the thermometric range (the most precise gauge of the progress of phthisis) from January 27th to July 12th, 1880, with one or two intervals, when the observations, from some cause or other, were not made or recorded. During the period not embraced in the charts—Nov. 26th, 1879, to Jan. 27th, 1880—the patient also steadily, though slowly, improved. (See Chart I.)

The general results of the treatment so far were: (1) slight fall of temperature; (2) great diminution of the cough, with complete cessation of the muco-purulent sputum; (3) marked improvement in the appetite and general strength; (4) gradual abolition of the night sweats; (5) improvement in the physical condition of the lungs. To assist in determining the relationship between the particular method of treatment employed and the improvement in the patient's condition, I now discontinued the creasote and carbolic inhalations, with the following results. (See Chart II.)

Charts showing the Morning and Evening Temperature in a Case of Acute Tubercular Phthisis.

Chart I.—*Using Respirator.*

(The use of the respirator was commenced on November 26th, 1879, but the under-noted observations only date from January 27th, 1880.)



a. Jan. 27th, 1880.—Using respirator charged with pure creasote.
b. Feb. 2nd.—Using respirator charged with three parts of carbolic acid to one of creasote.
c Feb. 15th.—Phenol in urine (Falconer King).
d. Feb. 22nd.—Commenced creasote pill, containing one drop, after dinner.
e. Feb. 25th.—Discontinued use of respirator and creasote pill. No albumen in urine.

Without the use of the respirator the patient decidedly relapsed. As indicated on Chart II., the temperature, as a rule, was higher, the cough and sputum returned, there was a renewed tendency to nocturnal sweating, and the patient expressed himself as not feeling nearly so well as when wearing the respirator. At his own desire he resumed the inhalations, and again most marked improvement followed, as indicated on Chart III.

The further history of this case is of interest. During the late severe winter the patient went about rather freely, and, contrary to my advice, abandoned altogether the creasote inhalations. The result was that about the beginning of the year he had a relapse, with a return of the cough, night sweats, and other symptoms, but not to the same extent as formerly. He now, of his own accord, resumed the use of the respirator, and precisely the same results as on the two former occasions followed. When I had an opportunity of examining him, on March 8th last, the evening temperature was 98·9°; there was no cough, expectoration, or night sweating; the appetite was good, and the patient felt

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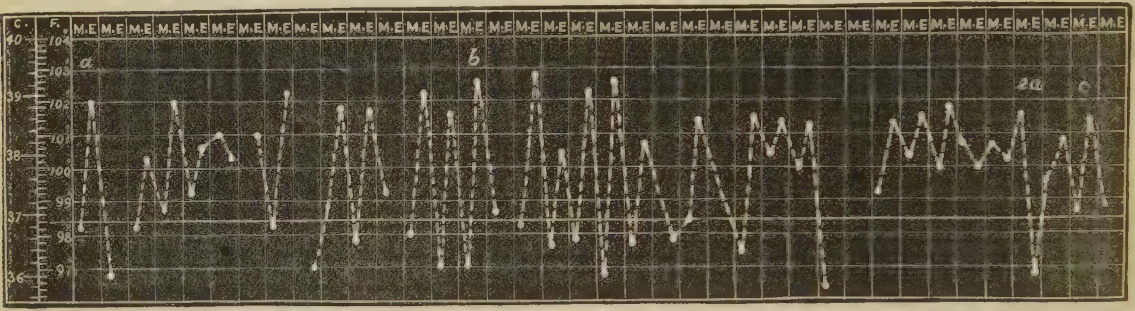
[1] The respirator as used by me is made by Mr. Gardner, South Bridge, Edinburgh.

"very well." There was a scarcely appreciable dulness at the left apex anteriorly, with prolonged expiration at both apices, but no moist sounds were audible. He had slightly increased in weight. The patient was not by any means "the picture of perfect health," but he had a very different appearance from what he presented before commencing the use of the respirator.

Remarks.—There can be no doubt whatever that the success in this case was owing to the particular method of treatment employed—viz., causing the patient to respire as continuously as possible an "antiseptic" atmosphere. The result obtained would appear to bear out the experiments of Schüller of Greifswald, who found that animals rendered artificially tuberculous were cured by being made to inhale creasote water *for lengthened periods.* (The italics are mine.) Intermittent spraying or inhaling does not produce the same result. In order to ensure success the application to the lungs must be made *continuously.* For this purpose I have used various volatile antiseptics, such as creasote, carbolic acid, and thymol. The latter I have now discarded as being too irritating and inefficient. Carbolic acid seems to be absorbed, for it has been detected freely in the urine, in this and other cases where it was inhaled, by my friend and colleague Mr. Falconer King, lecturer on chemistry. Mr. King has been unable to find any trace of creasote in the urinary excretion after the use of creasote for several consecutive days. As absorption of the particular drug employed is not necessary, and therefore not to be desired, I now use creasote only, either pure or dissolved in one to three parts of rectified spirit. Whether the success so far attained is due to the antidotal action of creasote and carbolic acid on a specific tubercular neoplasm, or to their action as preventives of septic poisoning from the local centres in the lungs, it is certain that their continuous, steady use in the manner just described has a decidedly curative action in acute phthisis, and is therefore worthy of an extended trial.

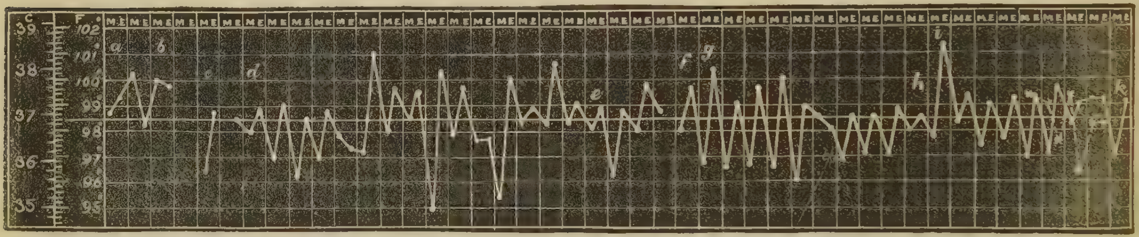
Edinburgh.

CHART II.—*Respirator not used.*



a. Feb. 26th, 1880.—Discontinued use of respirator.
b. March 11th.—Cough increased. Appetite impaired. Night sweats not returned. Occasionally feels very hot.
c. April 2nd.—General condition deteriorating. Feels himself not so well as formerly. Night sweats occasionally present.

CHART III.—*Using Respirator.*



a. April 24th, 1880.—Commenced use of respirator charged with pure creasote, fifteen days previously.
b. April 26th.—Commenced to take half an ounce of cod-liver oil night and morning.
c. June 1st.—Cough and night sweats absent. Hair not coming out. Appetite very good. Looking much better.
d. June 3rd.—No creasote or albumen in urine (Falconer King). All subjective febrile symptoms disappeared. Slight diarrhœa.
e. June 19th.—Took walk of four miles without difficulty.
f. June 23rd.—Commenced maltine, two drachms thrice daily.
g. June 24th.—No albumen or phenol in urine (Falconer King).
h. July 3rd.—Dropped maltine.
i. July 4th.—No apparent cause for increase in temperature.
k. July 12th.—Discontinued use of respirator. Patient feels quite well.
* Indicates own temperature taken at same time, and under similar conditions as patient.
Aug. 13th.—Patient went to the Highlands, apparently well.
Sept. 1st.—Temperature 99° (evening).
March 8th, 1881.—Temperature 98·9° (evening).

RECOVERY FROM APPARENT DEATH UNDER CHLOROFORM.

BY WILLIAM KORTRIGHT BROCK, M.R.C.S.,
LATE MEDICAL OFFICER TO THE FULHAM UNION INFIRMARY.

THE subject of death from chloroform having lately been made prominent in the pages of THE LANCET, the following record will, I think, be read with more than usual interest at present.

J. M——, aged twenty-four, an inmate of the above infirmary, about three years ago received an injury to the spine by falling from a scaffold thirty-five feet high, his back coming across a pole, whence he slipped on to a heap of bricks. The exact nature of the lesion received did not appear. He was taken, according to his own statement, to St. George's Hospital, whence, after remaining there seven months, he was discharged as incurable, and received into the Fulham Union, having lost all sensation and voluntary motion below the waist.

The details of this case will be reproduced more fully on a future occasion as one of a series illustrative of the effects of actual cautery in treating certain forms of paralysis. Suffice it therefore now to say that the patient came under my notice in February, 1879, when I took office at the infirmary, and that at first I accepted the verdict passed on him at St. George's. But reading a paper by the late Surgeon Major Porter on the use of actual cautery in a somewhat similar case, I was induced to carefully examine him, with the view of determining whether it were worth while to attempt the like treatment. He proved to be an exceedingly intelligent, happy-minded fellow, and urged that even the remotest chance of improving him should not be left untried.

The following was his description at that period :—A small, spare, fair, boyish-looking man lying on his back, with a sheet tied tightly across his knees to prevent them flying up to his chin, and pads between the knees and ankles, which were ulcerated from pressure ; his fixed condition being one of violent permanent spasm of the flexor and adductor muscles of the lower limbs, with paralysis of the bladder, and total loss of feeling below the level of a bony growth, as large as an egg, engaging the fifth and sixth dorsal vertebræ. There was no angular curvature or chest deformity. His general health was excellent, appetite good, lungs and heart sound.

Yielding to his importunity, though with but faint hope of benefiting him, chloroform was administered, and two eschars made, an inch wide and six inches long, on each side of the spinal swelling, the instrument used being an ordinary iron for spreading plaster, heated ; these were connected by arrow-headed markings. The issues were kept open about three weeks with poultice and savine ointment, after which they healed up, apparently without having produced appreciable effect, though J. M——, who used to test his own sensibility with a needle, declared he could "feel lower down than before," and insisted on the operation being repeated. This was done with such palpable improvement that it was re-performed four times at various intervals. At length he could feel the prick of a needle keenly at the hips, and more slightly at the legs. Erections and voluntary micturition were re-established, and he could extend, flex, or otherwise move his legs at will, though still with great effort. In each operation I had hitherto had the aid of two medical friends, Mr. Hildyard Rogers of Shepherd's Bush, and Dr. McSwinney of Brook Green. In June last, in compliance with his urgent entreaty, I made arrangements for repeating the operation for the fifth time, but at the last moment both my friends were detained elsewhere. It was, therefore, postponed till the following day, when again I found myself alone. As the man had twice been kept without his dinner, and was greatly disappointed, at his particular request I consented to proceed single-handed ; for we had neither assistant, dispenser, operation room, nor any of the appliances of a well-ordered establishment afforded by the guardians (even midwifery instruments being refused me), though having from 350 to 400 patients on the average. Yet, under these disadvantages, operations were not of rare occurrence ; within a short period the closing a vesico-vaginal fistula, amputation of the leg, excision of the breast, removal of half of the inferior maxilla and other matters having taken place successfully.

In this case I had no misgivings; the man had taken chloroform already four times, requiring an unusually large quantity to produce anæsthesia, and recovering from its influence very rapidly. Besides, my experiences of the exhibition of the drug could be counted by the thousands, extending back to the days of the Crimea, and hitherto without a shadow of mishap. This time he took the anæsthetic better than ever, less than two and a half drachms proving sufficient. The same procedure as before was gone through. Rolled over on to his stomach, with a pillow beneath it to throw up the back, the head nurse, a most careful, trustworthy person, took charge of the face to keep the mouth disengaged from the bolster, while I applied the iron, assisted by two or three other patients. A piece of oiled lint was then laid on the spot, and J. M—— placed on his back, his pulse and breathing being then both good. I turned from the bed and walked to the stove, a distance of about fifteen feet, to put down the iron, when a cry from the nurse brought me quickly back. Respiration and heart action had ceased suddenly and completely. Having first ascertained that the mouth and rima glottidis were free from mucus, the head was allowed to hang down over the edge of the bed for a few seconds ; then lifting the body on to the floor, a needle and thread snatched from a bystander were passed through the tongue, which the nurse held forward, while artificial respiration was vigorously carried on by compressing the chest walls; at the same time cold water was plentifully thrown on the body and ammonia applied to the nostrils. At the end of six minutes, when all seemed unavailing, I stopped for a moment to look at the patient. There was a something in his blue appearance that impressed me with the idea that actual death had not yet occurred, and putting my ear to the heart, I fancied a sound like a distant thrill or murmur could be detected. Artificial respiration was resumed, and in a few seconds more the heart's action was very distinct, but there was no attempt at breathing. Hard slaps, cold water dashed on face and chest, blowing violently down the fauces, were all tried in vain. It was singular to note the apparently dead body show its perception of injury by slightly moving the hand in the direction of the part struck. After the lapse of eight minutes a long and deep inspiration took place, then at an interval of eight or ten seconds another, and then others more frequently.

The galvanic battery having refused to act the day before, it was presumed to be out of order, and had not been brought into the ward ; but a thoughtful patient, ignorant of this, had fetched it, and having by this time fixed the wires, put one pole into my hand, which I placed on the epigastrium, directing him to apply the other to the nape of the neck. This he did so rapidly, before I had time to alter the regulator, that the whole current from fifty cells was transmitted, the machine happening to resume its proper action. J. M—— sprang up into a semi-sitting posture, and exclaimed, "Oh, dear! what are you doing of?" He was got back into bed just as the Local Government Board inspector, who was making his official visit, entered the ward. The time that elapsed from the moment of apparent death to his speaking was just ten minutes. Soon after the above narrated occurrence, I resigned the post of medical officer to the infirmary, and consequently lost sight of J. M——, but have heard that he has since gone out in a wheel-chair, sitting upright without difficulty. I believe a pea issue, steadily kept up for a period of two months, would have perfected his recovery, or at least enabled him to walk.

Clifton.

NOTE ON ABSENCE OF BEER IN AN ASYLUM DIETARY.

By J. A. CAMPBELL, M.D., F.R.S.E.,
MEDICAL SUPERINTENDENT, GARLANDS ASYLUM, CARLISLE.

THE subject of the use of beer in the dietaries of public institutions, for patients, attendants, nurses, and servants, has for the last few years much exercised the minds both of the lay rulers of such institutions and of the medical heads, and a diversity of opinion still exists. The use of stimulants in sickness is also much discussed, and affords considerable scope for variety of opinion and practice.

The asylum which I at present superintend was at one time, I believe, the only English asylum in which beer did not form an article of ordinary diet for patients, attendants, or resident medical officers, and as the asylum has now been in existence since January, 1862, its general results may be fairly taken for purposes of comparison. The Committee of Visitors, when the asylum was opened, were of opinion that in many respects it was highly advisable that the diet-scale, and also the hours for meals, should accord to a certain extent with what was in force in the district from which the patients were drawn, and hitherto they, or their successors in office, have seen no reason to alter the opinion which was wisely come to at a period when, in the belief of many, it was wrong. Beer does not form a usual part of the diet of the working-class in these two counties, and their hours for meals would by many be thought barbarously early.

I have for several years had so many inquiries into the matter of diet, and the absence of beer in it, and as to the effects of this want of beer in reducing the health, in evilly influencing recovery, &c.—some of these inquiries have been so full and particular as to percentages of recoveries and deaths, the cost of stimulants as medicinal treatment, and the cost of medicines,—that I have drawn up the following tables, which show the main points that can be of any value to other institutions ; while I avoid all comparison which might be invidious, and which, if required, may easily be made by those who wish to enter on the subject.

As during the first year of the existence of this asylum the reception of chronic patients much influenced the results, and also as there was no report printed, I simply give the results contained in the ten yearly reports drawn up and issued by my predecessor, Dr. Clouston, and those from my own reports for the last eight years. I give in a tabular form the percentage of recoveries on admission, the percentage of deaths on the average numbers resident, the cost of stimulants (used medicinally) per head, and also the cost for medicine during these two periods.

	Years.	Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Nos. Resident.			Wine, Spirits, and Porter.	Surgery and Dispensary.
	From Jan. 1st to Dec. 3rd.	Males.	Females.	Total.	Males.	Females.	Total.	s. d. 16th	s. d. 16th
1st Period of 10 Years.	1863	30·6	18·4	25·0	4·3	6·4	5·2	0 1 12	0 0 7
	1864	30·7	38·0	34·0	12·0	12·0	12·0	0 1 14	0 0 13
	1865	30·0	44·0	38·6	3·8	9·4	6·2	0 1 14	0 0 13
	1866	15·0	38 0	25·7	5·2	2·8	4·0	0 1 13	0 0 10
	1867	27·1	34·2	29·9	12·8	6·9	10·3	0 2 10	0 1 1
	1868	36·7	38·3	37·5	7·4	7·7	7·6	0 2 12	0 1 8
	1869	41·2	37·5	39·1	8·9	6·3	7·7	0 1 14	0 1 2
	1870	47·9	44·0	46·2	5·0	6·5	5·7	0 2 7	0 1 0
	1871	43·8	56·0	48·5	11 0	8·6	9·9	0 2 9	0 1 9
	1872	51·1	48·0	49·5	8·0	5·8	7·0	0 2 10	0 1 3

The percentage of recoveries for this period averaged 39; the percentage of deaths on the average numbers resident was 7·6. During this period one pint of milk was given to the men and three-quarters of a pint to the women for six days of the week at dinner. I had the amount of milk reduced to half a pint for each sex, and only gave it three days in the week at dinner, as I thought it did not suit the dinners with fat meat or warm gravy, but the dietary has remained unchanged as regards the amount of butcher-meat.

	Years.	Percentage of Recoveries on Admissions.			Percentage of Deaths on Average Nos. Resident.			Wine, Spirits, and Porter.	Surgery and Dispensary.
	From Jan. 1st to Dec. 31st.	Males.	Females.	Total.	Males.	Females.	Total.	s. d. 16th	s. d. 16th
2nd Period of 8 Years.	1873	37·3	48·3	43·2	5·3	6·2	5·7	0 2 5	0 1 4
	1874	40·3	54·1	46·6	11·5	7·7	9·8	0 3 7	0 1 9
	1875	38·1	43·1	40·3	6·9	6·2	6·6	0 2 12	0 1 0
	1876	43·3	45·0	44·2	15·5	5·9	10·9	0 1 15	0 1 4
	1877	49·0	51·0	50·0	7·7	4·2	6·0	0 1 14	0 1 2
	1878	59·5	59·7	59·5	7·2	8·6	7·8	0 1 6	0 0 14
	1879	35·4	64·0	51·7	8·2	5·5	7·1	0 1 4	0 1 0
	1880	30·4	50·0	39·5	9·8	9·3	9·5	0 1 3	0 1 3

The yearly recovery rate during the eight years averages 47 per cent.; the average percentage of deaths on the numbers resident is 7·9. As the general health has been good, and as in the vast majority of cases the patients admitted have been found to gain in weight after admission (careful weight records being kept), I think the ·3 per cent. of rise in mortality may easily have been caused by the action of the Government grant of 4*s.* per week, for lately we certainly have had more old cases sent in than used to be sent some years ago.

I believe I am correct in saying that in most if not all of the Scottish public asylums no other beverage than cold water is given at dinner. I am at present considering the question of doing away with the small quantity of milk which is given here on three days in the week. The attendants and officials have seemed to keep in good and robust health with water as their beverage.

Carlisle.

BELFAST HOSPITAL FOR SICK CHILDREN.—The gold medal offered annually for competition to the students attending the hospital clinique has lately been awarded to Mr. Thomas Sinclair for distinguished answering in an examination on the diseases of infancy and childhood.

NOTES OF A

CASE OF EPILEPTOID HYSTERIA WITH CATALEPTIC SYMPTOMS.[1]

BY J. Y. TOTHERICK, M.D. ST. AND., M.R.C.P. EDIN.,
PHYSICIAN TO THE WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

ON July 2nd, 1880, Mary M—— came to the out-patient department of our hospital complaining of "fits," great difficulty in walking, choking sensations, and an enormously distended abdomen. I prescribed bromide of potassium and valerian, with some aperient. She reappeared on the 9th with every symptom much aggravated, being unable to stand, her limbs rigidly extended, the "globus" greatly alarming her, and the abdomen even more distended. In addition I found that her lower limbs and abdomen were quite anæsthetic. She was admitted as an in-patient, and the following notes were taken by our house-physician, Dr. Mortimer.

The patient is a stout, well-built, well-nourished girl, aged nineteen, with placid composed expression, smooth, fair complexion, fair hair, pale-blue eyes, long lashes, and well-cut features. Her family history is remarkably good. She states that since the appearance of the catamenia (which have never been regular), three years ago, she has never been healthy, and during the last three years she has had "fits," slight at first, but during the last twelve months of a violent character and frequent (as many often as five or six a day). During this period she has been under several doctors "for a bloated swelling in the bowels," one of them telling her she had a "tumour." She has been very hard-worked as a general servant, acting as nurse to her mistress, who died; then her master falling ill she nursed him also, apparently with much devotion. She felt frequently giddy, and had violent fits, occasionally lasting two or three hours, and for a short time after each lost the use of her arms, but never of her legs or body, until a month ago, when stiffness came on in the legs, with total loss of sensation.

On admission the patient's condition was as follows:—

Nervous system: Mental faculties acute; answers questions rapidly, intelligently, and with goodwill; much tendency to sleep; complains of giddiness.—Cranial nerves normal, except very marked loss of sensation in all the branches of the fifth pair; conjunctivæ can be pricked without causing a wink.—Spinal cord and nerves: No spontaneous pain in back, but tenderness over third cervical spine on pressure, and also in mid-dorsal and sacral regions. Complete loss of sensation to pain over whole surface—limbs, trunk, head, and neck. Pins can be inserted deeply into the muscles on either side without producing the slightest pain or reflex action, but tactile sensation seems normal in fingers.—Motor powers: Normal in arms; complete loss of voluntary power in both legs, which are kept in a state of rigid extension, even to the toe ends; no tremors; no spasm. Reflexes—plantar, patellar, abdominal, and epigastric—absent. Bladder centres apparently normal.—Electrical reactions: Sensation to faradaic current entirely lost in arms and legs; muscular irritability to same current much diminished. Galvanic current not used, because during the use of the faradaic current the patient appeared to pass into a semi-cataleptic state; heavy, drowsy, sighing; with limbs firmly fixed, and maintained in whatever position they were placed. There was for a short time complete loss of consciousness. There was no acceleration of pulse during observation. Chloroform being administered to complete anæsthesia, the immense abdominal distension entirely disappeared, as also did the rigidity of the legs. On recovering from the anæsthetic, but whilst still deeply under its influence, the plantar reflex reappeared, and the conjunctivæ also seemed more sensitive. The patient, however, very speedily relapsed, even while still under the influence of the anæsthetic. Metallo-therapeutic tests—viz., gold and silver coins—were applied alternately to both legs without apparently the slightest result.—Organs of circulation: Pulse 80, full, firm, and regular; nothing else noteworthy. Organs of respiration normal. Organs of abdominal and digestive functions also normal. Slight polyuria and albuminuria; no dysuria; deep pressure over both ovarian regions produced no result. These investigations occupied a period of three days.

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[1] Read at the Wolverhampton District Medical Society on Tuesday, Dec. 7th, 1880.

July 13th.—The patient *in statu quo*. She had a slight fit of an hysterical character on the first night. Her bowels had been well relieved by pills of aloes and iron. As she lay on a protected bed, her legs were exposed from the knee, and a drop of cold water was allowed to fall on to each at the rate of about eight per minute from an apparatus arranged at a height of about six feet from the bed, for twelve hours.

14th. — The dropping water has caused "a glowing feeling" in the back and arms, and tingling in the spine. She slept well after it was discontinued, and the cutaneous sensation is much improved this morning to level of knees, but still there is some slight general anæsthesia. The patient can rise in bed with more facility, and some slight voluntary motion was observed in the left leg. Water-dropping resumed at 12.30.

15th.—There is very marked increase both in faradaic sensibility and irritability this morning; in the arms it is almost normal, most deficient below knees.

16th.—Marked improvement of voluntary motion in left leg; ankle can be flexed and extended to a moderate extent. Sensation completely returned; slight increase in right leg over upper third. Spasmodic twitchings of muscles of right thigh. Gold test again tried with no effect. Water-dropping resumed on right leg. Blisters, which had been applied to tender points in spine yesterday, had risen well.

17th.—The patient could walk a few steps this morning after some "encouragement"; water applied again to both feet.

19th.—The patient walks well to-day; the phantom tumour, which had almost disappeared, has slightly returned.

20th.—The phantom tumour much more marked, with some abdominal pain, apparently muscular. Water to be dropped on to both recti abdominis for twelve hours.

24th.—No improvement; and on examination sensation—tactile and to pain—quite absent over parts supplied by dorsal nerves from about the sixth to the eleventh.

August 1st.—The patient has been walking in the grounds since last note, and appears quite well, except for the persistence of the phantom tumour and the anæsthesia. An ice-bag was applied to abdomen, but with no effect. Yesterday two flat corks, two inches and a half in diameter, were pierced with numerous pins, the points of which were allowed to project to the extent of a quarter of an inch. The prickly surface was applied to the skin of the abdomen on each side, and strapped on tightly. Notwithstanding these instruments of torture, the patient slept well all night, and her condition this morning is unaltered. Situation of pins very red, but corks again applied.

10th. — Anæsthesia has extended rather higher in the trunk; sensation both to touch and pain diminished from Poupart's ligament to an inch below the clavicle; liquor epispasticus applied to dorsal and lumbar regions with no beneficial result.

17th.—Faradaic current applied to both recti daily for three minutes, without result.

20th.—A large-sized galvanic belt, steeped in dilute acetic acid, was applied below the umbilicus to the bare skin for several days. This produced no effect save severe ulceration of the skin, which was not, however, felt. To avoid the ulceration a piece of lint, kept wet with the vinegar, was interposed between the belt and the skin, and it was now applied above the umbilicus. Two days after this application the abdomen was felt to be softer; on the fourth day the swelling had much diminished, on the fifth day it had entirely gone, and a fortnight afterwards the girl went home in the most perfect health.

I shall have very few remarks to make respecting this most singular and interesting case. One might heartily wish that the word hysteria were banished from our medical language—and indeed, so far as its etymological signification is concerned, from our medical thoughts. The uterus, as an important organ of the body during its physiological activity, certainly suffers with the rest; and often, no doubt, its disordered functions react on the nervous system, giving special characters to nervous disease; but I think to call such a case as the one I have related hystero-epilepsy is an abuse of terms. Here was a perfectly healthy, well-made girl, with her strength worked down by hard service and want of fresh air, becoming anæmic and "irregular" in consequence. The pressure upon the nervous system being continued and the hygienic conditions worse, the nervous balance becomes lost, and irregular discharges of nervous force, the so-called fits, ensue. No efficient means being taken to restore the equilibrium, the occasional clonic spasms become in the abdominal muscles and in those of the legs tonic, whilst clonic spasm still invades the muscles of the larynx. At the same time sensation is lost, general anæsthesia occurs, the ordinary lines of communication between the centres of conscious sensation and the distribution of the sensory nerves are blocked. There is nothing, surely, directly attributable to uterine causation in all this. Is it not one of a class of cases in which hysteria is used rather as a confession of ignorance than as a rational pathology? I have, however, no better pathological theory to offer further than what I have said as to the probability of its being a disease of exhaustion in a somewhat weakly balanced nervous organisation.

The treatment I adopted will almost explain itself. I had a patient with considerable intelligence evidently extremely anxious to get well. There was nothing radically wrong with the brain functionally or organically. There were no symptoms of uterine disease or of ovarian irritation. My object was to re-establish as quickly as possible the channel of communication between the nervous centres and the periphery, and I had all the senses except sensation to help me, and also the imagination. The readiest means which suggested itself was a modification of the old Inquisition torture, and it more than satisfied my expectations. The abdominal distension, which had been the longest symptom in duration, was the last to yield, but I believe it yielded eventually rather to the physical effects of the battery than to the curative power of the electricity, as we well know is the fact with certain analogous cases of aphonia. However, whatever the cause of the cure, it was effectual and complete, and the girl was restored to an active and useful life, which I believe she still continues to lead.

Wolverhampton.

FOREIGN BODIES IN THE AIR-PASSAGES.

BY E. S. STEVENSON, L.R.C.P., M.R.C.S., &c.

THE following two cases are interesting inasmuch as they illustrate the origin of some obscure lung diseases. The notes are taken from my case-book and abbreviated.

CASE 1.—In June, 1878, I was consulted by F. A——, a coloured man, complaining of a bad cough. F. A——, aged forty-five, has been a hard drinker, and has led a life of constant exposure. He has had the cough for three months, gets no rest from it; it is constant, and worries him much. It is harsh and dry, and he does not spit with it. On examination the chest presents no abnormal physical signs. Two months afterwards he called again, the cough as bad as ever; the drugs which he has taken to allay it have had little or no effect. He expectorates now a muco-purulent sputum, and indicates a spot to the left of the manubrium sterni where he feels a constant dull pain, increased by the act of coughing, but existing during rest. The cough is very spasmodic. The patient has lost flesh, and feels weaker. On auscultating moist râles are heard over and around the place where the pain is localised; there is no dulness. Ten days after he was worse. He coughs much, and brings up a green, cheesy, purulent material in large quantity, often by simply leaning down. The pain still "localised." He has a hectic look, perspires much, and has no appetite. Moist râles heard over the upper part of the left lung, front and back, and there is slight dulness. It appeared to me that the man was suffering from bronchectasis, the diagnosis pointing to a dilated bronchus; he was treated accordingly by medicated inhalations and cod-liver oil. The case then became rapidly worse, and I began to fear that there must be tubercular mischief, when one morning during my visit he showed me a hard substance which he had expectorated shortly before my call. On cleaning it, it turned out to be a broken piece of bone, the size of half a French bean, and serrated at its edges as if it had been acted upon by a bone-destroying agent. His wife, who was present at the time of the expulsion, corroborated the fact. She stated that after a very severe fit of coughing the bone had been brought up imbedded in muco-pus, and had been kept for my inspection. From that day the patient improved; the cough gradually abated, and the pain left him. Three months afterwards he was about and working, and had considerably regained flesh.

CASE 2.—P. J——, aged forty-five, a farmer, and a farmer's son, has always been in good health; brothers and sisters all alive and healthy; mother suffers occasionally from attacks of petit mal. He consulted me eighteen months ago for a cough, which worried him much. He had no pain, no physical signs tending to show any organic lesion. Three months later he had symptoms of incipient phthisis, and a month ago his symptoms were these: has lost flesh, and feels weak; has a hectic look; perspires easily, and much at night; pulse 90, small, hard, and rapid; physically the left infra-clavicular area is flattened; there is puerile breathing over the apex of left lung in front, extending to axilla and backwards; no appreciable dulness; vocal resonance increased; voice husky; hacking cough; appetite good; tongue red; spits a white sputum. The days being very hot, he prefers going about to remaining at home; no temperature taken. He takes Grimault's syrup of hypophosphite of lime, as cod-liver oil does not agree even when given in ether; and at bedtime he takes a pill of quinine, opium, and belladonna, which gives him rest and checks the perspiration. Later on I had to stop this latter ingredient, as his tongue got very dry and throat very sore. He now complains of a dull pain localised to the upper surface of the cartilage of first left rib; over that spot moist râles are heard, and dulness detected; continues to bring up white mucus, but no blood. Shortly afterwards he caught cold, and his symptoms became aggravated by gastric derangement. He then took to his bed, feeling much exhausted, caused by diarrhœa. No vomiting, tongue very red and raw, small aphthous ulcers on edge, fungiform papillæ very prominent. Temperature varies from 99° to 101°. Feet œdematous and cold. In addition to the syrup, he takes a mixture of trisnitrate of bismuth and gum, and a mouth-wash of chlorate of potash. Two days later a severe attack of hæmoptysis occurred, and before my arrival the patient had lost a large quantity of blood. He was speechless, skin covered by a clammy sweat, extremities cold; pulse thready, irregular, and very rapid. Ergot in large doses was given; but later on ether spray was pumped over the surface corresponding to a cavity, and with the result of stopping the hæmorrhage. On auscultation crepitation was heard over the left lung, and on listening over the spot where the pain had been felt so long, all the symptoms of a large cavity were detected. Moreover, it was in that cavity that hæmorrhage had supervened; for every time the patient coughs up much blood, which comes out in large quantity, bright in colour, cavernous and amphoric breathing is detected, and on percussion a bruit de pôt-cassé is plainly heard. Then gradually these sounds disappear, to give rise, as the cavity fills again, to crepitation, getting coarser into bubbling sounds, until the blood is again expelled, almost welled out, and amphoric breathing is again heard. The man thought himself dying. I certainly thought that he was in articulo mortis. Six hours afterwards he had rallied a little and could write down his wishes. The pulse were still very weak, almost imperceptible, and must have been about 180 or 190, as it beat so fast and was so faint that I could not count it to a certainty. His sputa were composed of a yellow, cheesy, purulent substance streaked with blood. His treatment was a liberal supply of brandy, beef-tea, and a draught of aromatic sulphuric acid and morphia every three hours, the cough being very spasmodic. During this visit his sister gave me a piece of bone which had been expectorated by him a short time previous, his wife and sister being present. This bone was slightly larger than the one described in Case 1, and had the appearance of those fragments of bone one sees in a carelessly prepared hash; the edges were smooth, and it was evident that it belonged to the bone of a leg of mutton. It is now six weeks since the last event took place. P. J—— has rallied wonderfully; he coughs very much, and suffers from all the symptoms of a large pneumonic cavity.

Remarks.—There cannot exist any doubt as to the cause of all the mischief in both cases. In the first case the *origo mali* is evident from the fact of the patient having recovered almost immediately after the expulsion of the irritating cause. The second case is also clear, although the patient cannot recover. Neither patient ever remembered having swallowed anything the *wrong way*.

It is not unlikely that a good many of the so-called consumptions are due to a more direct cause than tubercles, especially in this country, where the climate is mild, where there is no pauperism, and where sunlight and air are not limited.

In the case of P. J—— an explanation not altogether hypothetical or visionary can be given. The bone having lodged in a bronchus, it created constant irritation, and finally ulcerated through the bronchus into the lung, then through a bloodvessel, causing the violent hæmoptysis. Had the hæmorrhage happened before, the recovery of P. J—— would have been likely. The impacted bone was washed by the blood constantly pouring around it, and forcing the bone from the material in which it was imbedded, and allowing of its expulsion during a fit of coughing.

I have mentioned the use of the ether spray in the treatment of this case. I am not aware that it has ever been mentioned before; it occurred to me when attending a patient with a dormant cavity, which was superficial enough to allow me to mark its progress, and in which hæmorrhage had taken place. I think that if the locality where the hæmorrhage takes place can be detected, and if the same be not too deep, the use of ether spray may be very useful, as it was in both these cases.

May, 1880.—P. J—— is dead, having lived four months after his first attack of hæmorrhage. No post-mortem was allowed.

Malmesbury, South Africa.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

LONDON HOSPITAL.

ACUTE YELLOW ATROPHY OF THE LIVER; NECROPSY; REMARKS.

(Under the care of Dr. RALFE.)

G. A——, aged eighteen, printer's assistant, was admitted from the receiving rooms of the hospital into Holland ward, July 31st, 1880, suffering from jaundice, but with no urgent symptoms. His mother stated that he was employed by a printer and stationer in the neighbourhood, and had enjoyed fairly good health. He had, however, undergone an operation at Moorfields some time back, and had been under treatment in the skin department of the London Hospital from time to time. The father was said to be rather "scorbutic," and several of the family had suffered from skin disease. There had been no other case of illness in the house from which the patient came. He had not been worried or anxious, nor had he received any other mental shock. There was no distinct history of syphilis, inherited or acquired, though the fact of the father suffering from skin disease raised a suspicion. The mother, however, was healthy. The patient had not been in contact with phosphorus in his trade pursuits, nor had he been exposed to malaria. The present illness commenced three weeks before admission, and came on the day after he had attended a "bean-feast" given by his employers. This was on a Saturday. On the Sunday he felt sick, but on Monday he went to work as usual. On Tuesday, however, he was compelled to lay up, and noticed he was yellow. From that time he had always felt nausea, and the jaundice had steadily increased. He had never felt the least pain anywhere.

On the day after admission, the patient, a well-nourished lad, was found to be deeply jaundiced, the skin hot and dry, emitting a peculiar clayey odour; no eruption was visible. Temperature 98° F.; pulse slow and full. The patient, though conscious, was drowsy and not very intelligent. The abdomen was moderately distended; the liver dulness was slightly diminished in right mammary line, and its lower margin was retracted within the ribs. He had no pain over the hepatic region, nor was any elicited by pressure; the other organs were normal.

On the 2nd the morning temperature was 99·5° F.; evening

97° F. He had been sick several times; he answered questions less readily, and was more drowsy.

On the 3rd the morning temperature was 97° F. He was sick all day, and the bowels were obstinately constipated. Only a very small amount of urine was passed, and this in bed. A sufficient quantity, however, was obtained by Dr. Wolfenden, the house-physician, for examination. He found the percentage of urea to be 1·9 gramme, the reaction extremely acid, specific gravity 1021, and a trace of albumen. Diffused through the urine were small whitish masses, and on standing a sediment fell, in which Dr. Wolfenden determined the presence of leucin and tyrosin. With glucose and sulphuric acid (applied after Francis's method) a faint, but still sufficiently distinct, purple ring was obtained. The area of hepatic dulness showed a diminution since the last note. At about 10 P.M. the patient suddenly commenced shouting and throwing himself about, and was quite unconscious of what was going on around him. This noisy delirium passed off in about half an hour, and the patient became quiet and somnolent. The liver appeared more tender, slight pressure causing the patient to cry out.

On the 4th the morning temperature was 97° F. Patient was very drowsy; could not be roused. The skin was hot and perspiring. Pulse full, bounding, and rapid. He had paroxysms of dyspnœa. At eight o'clock in the evening the temperature was 100·5° F. The patient was in a profound coma; the breathing was rapid and difficult, and the abdomen drawn in at each effort. The patient died shortly afterwards.

Necropsy, August 5th, fifteen hours after death.—Body well nourished, deeply jaundiced. An old scar like that caused by lupus on the face beside nose; no scars on genitals or groins; abdomen distended with gas. On section, the lower margin of the liver did not come into view, being covered by the ribs. The liver removed from the body weighed 2 lb. 2 oz. The gall-bladder was empty, and the common duct, though containing some thin yellowish mucus, did not appear obstructed. The left lobe was much shrunk, flabby, and wrinkled, and the surface was of an olive-green colour. The substance was friable and rotten, and without any appearance of lobules, the sections presenting a uniform greenish-yellow colour. The right lobe was considerably reduced in volume, but not to such an apparent degree as the left. The surface was of a dull red colour, intermixed with patches of greenish-yellow. On section masses of yellow were seen mixed irregularly with deeply reddened tissue, the latter being the most abundant of the two, and was also much firmer and denser than the yellow patches. Under the microscope prepared sections, taken from both tissues, showed that the liver-cells had entirely disappeared, and that the connective tissue was considerably increased. The blood was thin and dark-coloured, and ecchymoses were observed in the subserous structures. The spleen was enlarged, and there was some congestion of the bases of both lungs. The epithelium of the kidneys was undergoing fatty degeneration.

Remarks by Dr. RALFE.—The early supervention of jaundice of considerable intensity in this case, and the time that elapsed before the onset of grave symptoms, and also the fact that the illness was apparently excited by an indiscretion in diet, might at first seem to support the views of those who hold that the disease has a catarrhal origin, and that the icterus is hepatogenic rather than hæmatogenic, and that the fatty degeneration does not occur till the reabsorbed biliary acids have accumulated, owing to some special but not as yet explained condition, to a considerable extent in the blood. But the fact that the gall-bladder was found empty and shrunken, and that no apparent obstruction existed in the gall-ducts, is an objection to the acceptance of this view in the present case; though it might be suggested as possible that the secretion of bile during the last stage of the illness may have been completely arrested, and the bile previously accumulated reabsorbed. If, however, we accept the generally received opinion that the red atrophy is a more advanced condition than the yellow, and is only found in cases which run a slow course, then the great excess of the red over the yellow tissue in the present case leads to the conclusion that the atrophic changes had been in progress some time. Moreover, although the quantity of urea excreted in the twenty-four hours could not be determined, there can be little doubt that it was considerably reduced, since the amount of urine passed by the patient was extremely scanty, and the percentage of urea it contained not above the average. This reduction of the quantity of urea excreted also favours the view that the atrophic changes had been gradual and had commenced before the onset of the grave symptoms. As is well known, considerable discrepancy of opinion exists with regard to the excretion of urea in this disease; some observations recording an increase, others but slight diminution, whilst others note a decided decrease. Dr. Ralfe thinks these observations need not be considered contradictory, but that they express different stages in the progress of the disease. Thus in an early stage or where the disease runs a rapidly fatal course, urea will generally be found increased, an increase probably derived from the rapid metamorphosis of the nitrogenous constituents of the liver tissue itself; as the disease is prolonged the quantity of urea will gradually diminish. Thus in a patient of Dr. Murchison's (Case 103, "Lectures on Diseases of the Liver"), on the fourteenth day after grave symptoms had supervened, "a fair amount of urea" was noted in the urine, whilst on the twenty-third day it is recorded that the urine then contained "very little urea." In a boy aged seventeen years, under Dr. Ralfe's observation at the Seamen's Hospital, the urea was but slightly diminished; in this case the lad had been ill only a short time before he was admitted, and died three days afterwards. Finally, attention may be drawn to the change in the character of the pulse on the supervention of the nervous symptoms, and the sudden onset and brief duration of delirium which preceded the final coma as clinically characteristic.

WESTERN GENERAL DISPENSARY.

CASE OF ACUTE RHEUMATISM; ULCERATIVE ENDOCARDITIS; DEATH.

(Under the care of Dr. PRICKETT.)

FOR the following notes we are indebted to Mr. H. A. Powell, M.R.C.S.E., resident medical officer, who attended the case.

Elizabeth R——, tailoress, single, aged nineteen, was confined last Christmas with her first child, and recovered without any unfavourable symptoms. She was said to have had heart disease for some years, but, otherwise, she apparently enjoyed good health. Her sister and brother had both had rheumatic fever, and were suffering from mitral disease. Patient was not known to have had rheumatic fever; but she had scarlatina in childhood. She was quite well till March 3rd, 1881, when she caught a violent chill, and complained of severe headache and persistent vomiting, which compelled her to leave off work. She was first visited on the evening of March 7th; she had a dry skin, was rambling and could only be roused with difficulty; temperature 104° F.; pulse 130, regular and soft. With the exception of the headache, she complained of no particular pain; respiration 30; occasional cough; a few bronchitic râles could be heard. There was a loud systolic murmur, audible at the apex, which beat in the normal position. The tongue was dry; vomiting had ceased. A suspicious rose-coloured spot was seen on the abdomen; there was some gurgling in the right iliac fossa. The urine was almost normal in quantity, and contained one-sixth albumen. The following day patient appeared much the same, and at times complained of pain in the back. The bowels had acted naturally during the night; there was no abdominal pain or tenderness. On the 9th her mental condition was much worse; she rambled incoherently and was unable to answer any question. The right elbow and wrist were swollen, red, and painful. The urine contained one-fourth albumen. Nourishment still taken well. Ten grains of salicylate of soda were given every four hours. Next day the joints were better and the temperature went down to 99·6°. A little sleep was obtained during the night; in other respects she remained the same. On the following morning she was found much worse. There were sordes on the lips, the tongue was dry, brown, and leathery, and the muttering delirium was more marked. The joints were free from pain and redness. Râles more numerous and more distinct were heard over the chest; resonance normal both back and front. No tenderness or enlargement of liver or spleen. Dr. Prickett saw the patient in the afternoon, and came to the conclusion that she was suffering from septic poisoning, and suggested ulcerative endocarditis as the cause. She was then treated with ammonia and serpentary, and brandy was given in teaspoonful doses every hour. A change was observed in the patient early the following morning, in consequence of which she was visited at 5 A.M. After lying in her sleep on the left side during the night she rolled, on waking, over on to her back, and immediately her left arm and leg were observed to be useless, while her right upper and lower limbs were jerked convulsively. Patient became perfectly unconscious and never spoke afterwards. The left eye was open and the pupil was dilated; the right was closed and the eyeball rolled upwards; the right side of the face was flushed; the left pale and dry; the head was turned to the right. Three petechiæ were noticed—one on the left upper eyelid, another on the left hip, and another near the left knee. Patient was soon moribund. The temperature gradually rose, till at midnight it had reached 105·4°. Shortly after which she died.

Necropsy.—Brain not examined. On the endocardium of the left auricle, and extending to the auricular surface of the mitral valves, was a patch of ulceration, rather larger than a shilling. The right side of the heart was healthy. The lungs were congested at the apices. Nothing abnormal was to be seen in the liver. The spleen was slightly enlarged and studded with infarcts, the largest of which was at the middle of the upper border and surrounded by intense hyperæmia; centrally most of the organ was diffluent. The kidneys were slightly enlarged; the capsules peeled off readily; both organs contained numerous infarcts, decolourised, and not appearing softer than the surrounding tissue.

AYR COUNTY HOSPITAL.

SURGICAL CASES.

(Under the care of Dr. W. J. NAISMITH.)

THE following interesting cases have lately been treated at this hospital.

Nerve-stretching.—J. L——, a miner, aged fifty-four, was admitted August 3rd, 1879, with intense sciatica on the left side. He had formerly been a labourer, when he was exposed to all weathers, and he was much addicted to alcohol drinking. His appearance was strikingly indicative of a broken down constitution. He had been in various hospitals within the last seven years, during which period he had been a martyr to his complaint. He had had all kinds of treatment, including blisters, liniments, subcutaneous injections, courses of iron, arsenic, quinine, &c., together with acupuncture, and the application of the button cautery, but all to no purpose. It was therefore resolved to try stretching the sciatic nerve; and the operation was performed under chloroform on August 10th in the usual manner, and without strict antiseptics, though dressings of carbolic oil, one to twenty, were used. For the first week there was a slight rise of temperature, and pain was complained of in the wound, but these symptoms subsided, and the man made a good recovery, expressing himself grateful for his entire immunity from his old sciatic pain since the day of the operation. This patient was under observation for three months, and during that time there had been no return of his complaint.

Amputation of Forearm in a Child.—T. M——, a child sixteen months old, was admitted in August, 1879, with complete laceration, from an accident with a churning machine, of right hand and forearm, necessitating immediate amputation. This was performed under chloroform, high up—that is, in the upper third of the forearm—by transfixion, and with double semilunar flaps, the vessels being easily secured. Strict antisepticism was not employed, though the stump was dressed with lint, soaked in carbolic oil, one to twenty. The patient was discharged in fifteen days with the cicatrix all but complete.

Amputation of Thigh.—J. G——, aged five years, was admitted, suffering from scrofulous disease of the right knee-joint, which had evidently attained the stage of cartilaginous ulceration. The patient was a poor, sickly little boy in a hectic state, emaciated and racked with pain. The muscles of the limb were characteristically atrophied, and there was globular elastic distension of the knee-joint, with prominence of the superficial veins. The disease was of eighteen months' standing, and the child's general health was evidently fast giving way under the pain, and wakeful nights induced by startings of the limb which he experienced. Amputation was performed, under chloroform, at the lower third of the thigh, by the method of Spence's modification of Teale's operation, and the antiseptic system of Lister was carefully employed. The pulse and temperature, which rose after the operation, subsided to normal on the third day. The stump was dressed on the fifth day under carbolic spray, and the wound continued to heal rapidly without suppuration. The discharge under the dressing remained serous throughout till complete union had taken place in about three weeks. The boy left the hospital gaining flesh rapidly.

Strangulated Inguinal Hernia.—R. G——, aged sixty, a lamplighter, in descending a ladder while in the pursuit of his calling felt something "suddenly give way" in the region of his left groin. He afterwards noticed a swelling there, but paid no further attention to it, in spite of the onset of graver symptoms, such as pain, rigors, and vomiting. He did not apply for admission till the tenth day after descent of the hernia. On admission, there was a left inguinal hernia of the size of a walnut, tense and painful, pain extending to the abdomen, which was swollen and tympanitic. Pulse 120, compressible; temperature 101°. The countenance was pale and anxious. He stated that he had had rigors, vomiting, and complete stoppage of the bowels for three or four days before admission. Attempts at reduction under chloroform having failed, the operation for inguinal hernia was at once performed. The stricture was found at the external abdominal ring, division of the internal pillar of this opening at once relieving the constriction. As the previous long-continued pain and vomiting rendered the condition of the bowel doubtful, the sac was opened, and the knuckle of gut thus exposed was found to be darkly purple in colour, and emitting a somewhat gangrenous odour. Under these circumstances it was not returned, but left near the margin of the wound, the lips of which were approximated by a few points of suture and dressed with a pad of lint. An opiate was given in the evening, when all vomiting had ceased. On the third day the pulse and temperature were normal, the abdominal tympanitis had disappeared, and the patient was free from all pain. He made a good recovery, having been a month in hospital.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Molluscum Contagiosum. — Hepatic Abscess. — External Hydrocephalus. — Sarcoma of Kidney. — Aneurisms of Cerebral Arteries.—Colloid Cancer involving the Spleen.—Spontaneous Disintegration of Calculi. — Intussusception.—Abdominal Tumour.

THE ordinary meeting of this Society was held on Tuesday, May 3rd, the President, S. Wilks, Esq., M.D., in the chair. The meeting was prolonged beyond the usual hour, as there was a large number of specimens brought for exhibition.

Dr. BASIL G. MORRISON read a joint paper by Dr. ALEXANDER MORRISON and himself, entitled Observations on the Nature and Affinities of Molluscum Contagiosum. After stating various views on the subject of molluscum contagiosum, he drew a comparison between the appearances in (1) normal skin from the perineum, (2) hair-follicles and sebaceous glands in the external meatus of the ear, (3) molluscum contagiosum, and (4) an ordinary wart from the scalp. The hair-follicles in the normal skin, and those of the external meatus, he said, are formed of a diverticulum from the rete mucosum, and in the case of molluscum the outer layer is formed of the same. In the normal skin he observed, besides the usual hair-follicles, interpapillary crypts, some of which might be the usual depressions deeper than is the rule, and some of which were atrophic hair-sheaths. In the hair-follicles and glands of the meatus, he said, there was an overgrowth of the peripheral cells and periplast, ending in degeneration at the interior of the follicle to form sebaceous matter. In molluscum contagiosum the change corresponded precisely with that seen in the specimens from the ear meatus. The vacuolation so called was not peculiar to molluscum, but was characteristic of all rapidly growing epithelial cells, and did not indicate an actual emptying out of cell contents, but a transformation of them into a transparent material which could be stained by picric acid. The molluscous bodies were cells which had undergone this change, which is essentially the same as the formation of sebum. The wart was noteworthy only as showing a general process of vacuolation like that in molluscum. The part primarily affected in molluscum was the hair-follicle with the sebaceous gland, or one of the crypts described in normal skin. The formation of sebum-like matter was due to degeneration of cells proliferated into a nearly closed cavity instead of on the cuticular surface. There was uniform hypertrophy of the skin at the free surface in Dr. Morrison's specimens of molluscum, but no trace of the changes described by Lukomsky. The cause of the disease Dr. Morrison said was to be found in the action of any irritant at the part first affected. He could find no proof of a specific agent. Irritation was enough to cause hypertrophy of epithelium, the essential change in molluscum.—Dr. RADCLIFFE CROCKER thought that Dr. Morrison's specimens were taken from fully developed tumours, while it is only when the very earliest growths are examined that their nature can be demonstrated. Such specimens prove the change to start in the rete mucosum, independently of any involutions, in which molluscous bodies appear. A few molluscous bodies can also be seen in otherwise healthy hair-follicles. There are analogies between the tumours and sebaceous glands, but by no means identity, and the peculiar substance has been demonstrated to be neither sebum nor amyloid.—Dr. MORRISON did not consider the formation of molluscum bodies peculiar to this disease, but characteristic of hypertrophying epithelium.

Sir JOSEPH FAYRER showed two specimens of Abscess of the Liver, representing two distinct forms, both contracted in India. One illustrated the multiple pyæmic abscess often following dysentery, the other followed diarrhœa, but was a large single abscess, such as occurs independently of intestinal mischief. The first was taken from a Hindoo, aged twenty-four, who had diarrhœa for a month with fever. He was weak, and had great pain in the belly over the ascending colon, where there was dulness on percussion. He passed several sloughs in his stools. The temperature rose in the evening to 102°, but fell just before death. Post-mortem examination showed small intestines distended with flatus, liver adherent to diaphragm, about normal size, both surfaces covered with nodules, which were abscesses varying in size from a hen's egg to a hazel nut, each circumscribed by a zone of injected tissue. Colon œdematous, thickened in places, atrophied in others. He believed these abscesses started as small local necroses around which suppuration occurred. The second case was that of an officer aged forty-five, of temperate habits; he had dysentery twice, on both occasions accompanied by severe pain over the liver. He also had frequent attacks of malaria. On arrival home he was emaciated, temperature 103°. Bulging and fluctuation over the back of the liver. A large abscess was evidently pointing, and near the surface. It was opened freely, and a pint of pus evacuated. One edge of the ninth rib was necrosed. When liver abscesses point behind there is a great liability to necrosis of ribs. The temperature fell to 99°, and he improved for a few days, but six days later he was seized with severe bleeding, and he died. Post mortem the right lung was condensed. A firm clot was found adherent to the pulmonary artery. Mr. Doran examined the parts. The history pointed to a dysenteric liver abscess, probably multiple, but it proved to be single, and contracted well after its evacuation. He had never seen better examples of the two kinds of liver abscesses, and the latter shows how successful free opening and drainage of large abscesses may be; aspiration is not nearly so useful, as after it the matter reaccumulates.

Dr. DICKINSON showed a specimen of Abscess of the Liver. An artisan aged thirty-four had enjoyed perfect health till one day he went to a boat-race, where he felt cold. Afterwards he ate fifteen mussels with his dinner. Half an hour later he felt ill and had pain in the belly. During the night he was purged, and the diarrhœa lasted for six weeks, till his death. He passed blood and mucus. He was admitted under Dr. Dickinson into St. George's Hospital. His motions were not dysenteric, but uniformly fluid, dotted with blood. His temperature varied from 98° to 103°. There was some fulness on the right side, but no evident enlargement of the liver. At the autopsy the large intestine was in the state of most characteristic dysenteric ulceration in its whole length. There was also a large single abscess at the back of the right lobe of the liver, holding about four ounces of pus. There was also serous pleurisy on the right side. There could be no doubt that his disease arose from the bowel disturbance, and there was no other conceivable cause for the abscess. The case gave strong support to Dr. Budd's view that hepatic abscess is due to some poisonous matter conveyed by the portal vein. The poison of dysentery may be different from that of pyæmia, and this conveyed to the liver may be well capable of exciting abscess. The statistics of Dr. Waring of Madras show that 72 per cent. of fatal cases of abscess of the liver are connected with dysentery; and further, while dysentery may disappear the abscesses cannot, and therefore these figures may not express the whole truth. In 1862 Dr. Dickinson published a case of abscess of the liver in the Path. Soc. Transactions, in which there was an enormous abscess and signs of old dysentery.—Dr. WILKS thought Dr. Dickinson quite right as far as home experience went, but asked if all tropical surgeons did not say that hepatic abscess may occur without dysentery.—Sir JOSEPH FAYRER replied that the large number of cases of liver abscesses have nothing to do with diarrhœa or dysentery. When they have they are most often multiple, and are due to embolisms, but may in a few cases be single. —Dr. LONGHURST agreed with Sir J. Fayrer in thinking single abscesses generally independent of dysentery, but the two affections might be associated. Among natives dysentery is much less commonly associated with abscess than in Europeans, which may be explained by different diet. In the dysentery in the Crimea, hepatic abscess was quite an exception, and it is rare also to find it in English dysentery. But multiple abscess is no doubt due to dysentery.—Dr. N. MOORE thought that primary abscess of the liver being unknown in this country, when found with dysentery we must say that it is dependent upon it. He related a case in which an hepatic abscess was due apparently to an old sinus in the leg. The multiple abscesses have all the appearance of local necroses. —Mr. ALBAN DORAN stated that one of his sections of one of the multiple abscesses was more like an old splenic infarct than anything else—it was dead, not inflamed, tissue.—Dr. F. TAYLOR related a case of Simple Ulceration of the Intestine from a dermoid cyst of the ovary, associated with an abscess of the liver. There were also an old empyema, and a large psoas abscess and diseased bone.—Sir J. FAYRER had seen many cases of abscess of the liver associated with surgical injuries, diseases, and operations.—Dr. DAY had seen cases of pyæmia with small scattered abscesses in the liver and lung.—Dr. WILKS stated that Indian practitioners held that a hepatitis ending in abscess might be primary.—Sir J. FAYRER said that the most recent statistics did not support Dr. Waring's.—Dr. DICKINSON replied that, of course, dysentery might occur without abscess, but doubted if abscess occurred without dysentery.—Dr. S. WEST quoted a case of a man who after a bean-feast had abdominal pain and a very large hepatic abscess; he never had any symptoms of diarrhœa or dysentery.—Dr. O'CONNOR referred to the case of a man of very intemperate habits. After a severe rigor swelling of the liver was found, and on puncturing it sixteen ounces of pus were withdrawn. There was no diarrhœa or dysentery throughout.

Dr. EDMUNDS showed a specimen of External Hydrocephalus. A child, aged two, an idiot, had never spoken or walked, and was blind. Mr. Nettleship found pallor of the optic discs only. Suddenly a fit came on, and next day he died. On opening the skull eight ounces of fluid flowed out; the brain did not fill the cavity. The optic thalami were both shrunken. There was a family history of mental affection.—Dr. HALE WHITE referred to a family of five in which four were hydrocephalic, and to seven other cases of hydrocephalus of whom two had hydrocephalic relations, and two others had relations with large heads. Of these eight cases the bones of the head were fully ossified in two, and the sutures almost closed in two others.—The PRESIDENT remarked that while formerly hydrocephalus with large head was stated to be sometimes external and sometimes internal, it had now been shown that in all such cases the fluid was contained in the ventricles of the brain; and Dr. Edmunds's case was no exception to the rule, for the head was not a large one, but of the usual size, and it was an interesting question to decide whether the secretion of the fluid was primary or secondary to the small brain.

Dr. ABERCROMBIE showed drawings and sections of a Growth in the Hilus of the Kidney, with secondary growths in each kidney. The tumour was a small round-celled growth, and was similar to three cases shown by him last session.

Dr. W. M. ORD showed three specimens, the first of Spontaneous Disintegration of Vesical Calculi. This was the sixth specimen of the kind which Dr. Ord had exhibited before the Society. He was allowed to do so by the kindness of Mr. Thomas Smith, of St. Bartholomew's Hospital, who had sent him the calculi for examination. The fragments, weighing over three ounces, represented a large number of pisiform calculi, and had been removed from a man aged sixty-nine by Mr. Thomas Smith. Their removal was effected at two sittings, by means of Bigelow's apparatus, some of the pieces having been crushed on the second occasion. The fracture, however, of most of them had evidently occurred before, the broken surfaces and edges being smoothed by friction and covered by new deposit. The calculi were mainly composed of uric acid. They appear to have fallen to pieces from without inward, not to have been disrupted from within. Their disintegration appeared to be due partly to their feeble cohesion and their friability, partly to the presence of a minute fungus closely allied to, if not identical with, penicillum glaucum. The second case was of Aneurisms of Cerebral Arteries. The specimen showed three aneurisms, one of the anterior communicating artery of the circle of Willis, one on a branch of the right middle cerebral, one on a branch of the right anterior cerebral. The first two were of the size of large peas, the third very small indeed. The basilar and other large arteries were marked with transverse rings of calcareous degeneration; there were no minute aneurisms in the fine arteries. The subject was a woman aged fifty, who was suddenly seized with apoplexy, and died in a few hours after two attacks of convulsions. The cause of death was rupture of the aneurism of the anterior communicating artery, with extravasation over the surface of the hemispheres beneath the arachnoid. There was no affection of the valves of the heart, but moderately advanced granular contracted kidney. The third was a specimen of Colloid Cancer of the Spleen. The specimen was obtained from the body of a man aged thirty-five, who had enormous colloid cancer of the parietal peritoneum and omentum. The growth invested the liver and stomach, but did not invade their tissue. The coats of the intestines were not affected, but the spleen was invested and invaded by the colloid, so that little of its proper tissue was left. The colloid had also projected in a hernial fashion at the umbilicus, and through other parts of the abdominal wall, displacing the muscles without involving them. Colloid invading the spleen is so rare that Dr. Ord thought it right to exhibit the specimen. Two cases had been described in the Transactions of the Society, one by Sir William Jenner and Dr. Quain, the other by Dr. O'Connor. A third had been reported by Dr. Schweninger in 1876.

Dr. TURNER showed a specimen of Intussusception. A month after admission to the North Eastern Hospital a child, while still confined to bed, was seized with symptoms of intussusception. A typical tumour was felt in the position of the transverse colon. Injection of water into the colon made it recede to the right groin. After six days scybalous motions were passed; but peritonitis came on, and death ensued on the tenth day. The intussusception consisted of a part of the ileum passed through the ileo-cæcal valve. There was no extravasation of fæces. On manipulation the intestine at once ruptured. There was extensive ulceration of the cæcum below the valve, probably due to the irritant effects of the intussuscepted bowel; but the ulcers may have been anterior to the intussusception, and such a view afforded a possible explanation of the occurrence of the intussusception under otherwise unlikely circumstances.

Dr. DAY showed a Tumour removed after death from a girl aged four. Mr. K. Thornton made an exploratory incision and found the tumour to be solid. The tumour extended from the second right rib and filled nearly the whole of the belly; the liver was displaced to the left, the lungs hidden, and the apex beat of the heart was under the left second rib. The tumour grew in two months.—Mr. A. DORAN stated that the tumour was a spindle and round-celled sarcoma.

Mr. SHATTOCK showed a card specimen of atresia of aortic orifice with adhesion of the valves.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting of this Society on the 6th ult., Sir Joseph Fayrer, K.C.S.I., President, in the chair,

Dr. JOSEPH EWART read a paper on Scrofula, Tuberculosis, and Phthisis in India. Prior to the year 1840 we do not find much mention made of these deviations from health. Green, in 1845, proved the existence of phthisis among natives of Hourah and Midnapore, and Edward Goodeve, in the same year, made similar observations among patients attending the civil hospital and dispensary at Cawnpore. Since then the prevalence of scrofula and tuberculosis in various phases had been recognised by Allan Webb, T. W. Wilson, Morehead, and the author. Admitting these facts, there is, nevertheless, evidence from experience and the statistics of Dr. Bryden to show that phthisis is not nearly so frequent among natives as among European soldiers and their families. This observation is upheld in drawing a comparison between the gaol population and the British soldiers, somewhat modified, it is true, in Lower Bengal and Assam by excessive overcrowding. The comparative infrequency of pulmonary tuberculosis forms no exception to the predominating rule, even when full allowance has been made for latent and undiscovered tubercle. It is quite rare to hear of whole families, or of several members of a native family, being carried off by phthisis. White swellings of joints and strumous enlargements of the glands, or cicatrices resulting from suppurating scrofulous glands, are comparatively infrequent. According to Bryden, the admissions per 1000 of strength with phthisis during the six years ending 1876, amounted to 9·0 among the soldiers of the European army of India, to 8·8 among those of Bengal, to 10·8 among those of Madras, and to 8·0 among those of Bombay; to 9·6 among women of the European army of India, to 10·4 among those of Bengal, to 8·0 among those of Madras, and to 8·7 among those of Bombay; to 8·3 among the children of the European army of India, to 8·2 among those of Bengal, to 8·7 among those of Madras, and 8·2 among those of Bombay. In the British army generally, during 1861–62, the ratio of admissions with phthisis per mille was from 9 to 10 of mean strength; and in the American army, during 1861 to 1863, from 8 to 9 per 1000. In the native army of the Bengal Presidency the corresponding ratio during 1871 to 1876 amounted to 2·5; Bengal proper and Assam to 3·9; the Gangetic Provinces to 2·9; Rohilcund and Meerut to 3·0; Agra and Central India to 2·6; the Punjab frontier force to 2·1; and of the Central India irregular force to 0·8. For the same period, the ratio of admissions with phthisis per mille of native prisoners in Bengal amounted to 4·2; in Lower Bengal and Assam (where overcrowding and humidity are excessive) to 8·9; in the Gangetic Provinces and Oude to 3·2; in the Central Provinces, excluding Saugor and Jubbulpore, to 1·5; in Agra and Central India to 2·1; in Rohilcund and Meerut to 2·8, and in the Punjab to 2·1. The comparative infrequency of tubercular disease among natives is attributed (1) to the open-air life led by the people and the respiration of air uncontaminated, to an unusually great extent, with the products of that which has already been breathed; (2) to the wholesomeness of the food consumed, which is composed of a large proportion of the vegetable, with a minimum of the animal, aliment, and is well seasoned, well cooked, and presented in an easily digestible form; (3) to the general temperance of the people, and the habit of the protracted suckling of the young often beyond the completion of the first dentition, or even longer; (4) to the influence of high temperature in mitigating the severity of bronchial, pulmonary, and pleuritic disease; (5) to the greatly diminished prevalence of measles, whooping-cough, scarlatina, mumps, &c.; (6) to the comparative exemption of native children and youths from inherited scrofula. The vexed question as to whether longevity is promoted by transferring persons predisposed to scrofula, or actually suffering from tuberculosis or confirmed phthisis, from this and other temperate latitudes to India, was next dealt with. There is an impression that persons born of tubercular parents, but in whom there is no evidence of tubercular growth, do better in India than at home. They certainly escape to a marked extent the frequent attacks of bronchial catarrh, pneumonia, and pleurisy, which are rightly associated with the origin of tubercular growth in the bronchial glands and the pulmonary parenchyma. In so far as this is so, such persons are benefited. The greater exemption of children and youths from measles, scarlatina, whooping-cough, and mumps is also a clear advantage. Again, the warmth of the climate is soothing to the pulmonary mucous membrane, whilst the freer action of the skin, so long as it is not profuse, and the greater expansion of the chest due to rarefaction of the air, may be regarded as favourable. But these advantages are to a great extent counteracted by repeated attacks of malarious and season fevers, which not only light up tuberculosis in the predisposed, but in the course of time produce anæmia and cachexia, also conducive to its development in such individuals. The dampness of the climate in many parts, together with the great and exhausting heat, contribute to this dyscrasia. Add to these an unusual proclivity to serious bowel complaints, and then not much will remain to be said in favour of advising those descended from consumptive parents to exchange a career at home for one in India. The causes already mentioned, rightly understood, go far to explain why, in such cases, the tendency is rather to the progressive augmentation of tubercle in the lungs than to its arrest or diminution, with or without—as the disease advances—tubercular ulceration of the solitary glands of the large and small intestine, and of the agminated glands of the ileum.—In the discussion which followed, Dr. Murray, Dr. Gordon, Dr. Russell, Dr. Lilburn, Dr. Douglas Powell, Dr. Buchanan, and the President took part.

Dr. BUCHANAN read for Dr. Squire an account by Dr. Léon Colin of the Destruction by Small-pox of a Troupe of Esquimaux who recently visited Germany and France.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting of this Society, held on the 6th ult., Dr. Matthews Duncan, President in the chair,

Mr. DORAN showed Microscopic Sections from a Dermoid Cyst, removed by Mr. Thornton from a woman, aged thirty-one. The wall consisted mainly of patches of true skin, with sebaceous glands and hair-follicles. There were tooth-like bodies, which consisted of cartilage. Small secondary cysts projected from the inner wall. In certain long, narrow cavities in the subcutaneous tissue was seen well-formed mucous membrane, having a perfect cylindrical epithelium, with numerous involutions.

Mr. KNOWSLEY THORNTON showed a Dermoid Cyst of the left ovary, which had been entirely twisted off from its pedicle, and had become attached to the right side of the omentum. The patient first came under his care seven years ago with a doubtful abdominal tumour. She had since had four children, and during the last pregnancy the tumour gave her great pain. On April 2nd, Mr. Thornton removed the tumour together with a cystic tube, the remains of the twisted pedicle on the left side, and a cystic right ovary.

Mr. DORAN showed also a Female Fœtus which displayed extreme arrest of development of the genito-urinary tract. It was born at the seventh month, and breathed for a quarter of an hour. There was ectopia of abdominal viscera, club-foot, and spina bifida. The bladder consisted of two lobes, and between them, superiorly, the intestine opened from above. The ureters were impervious. On the right side was a Fallopian tube, and tubular, thick-walled half-uterus; ovary atrophied. On the left an ovary and Fallopian tube, the uterus being an impervious cord.

The PRESIDENT exhibited several small Oxalic Acid Calculi, which had been removed from the wall of the female urethra, in which they had become imbedded.

Dr. GODSON showed the Uterus, &c., of a woman aged twenty-five who had died in the Dorking Infirmary. Mr. Hopcroft, who sent up the specimen, could give no history except that the woman was believed to be unmarried, and was in a dying state when admitted. Two pints of blood were found within the peritoneum, old adhesions attached omentum, &c., to the uterus, both Fallopian tubes were dilated and tortuous. The outer end of the right tube enclosed a fœtus of about six weeks' development in a fleshy mass containing villi. He thought the adhesions might have been due to gonorrhœa.

The debate on Dr. Barnes's paper "On Missed Labour" was then resumed.

Dr. JACKSON related the case of a lady who, when three months and a half advanced in pregnancy, underwent great fatigue in travelling in India. After this there was no increase of size, but menstruation did not recur. About the time that labour should have taken place she took a long ride on a restive horse, expulsive pains were induced, and an oval mass containing a very small fœtus came away. —Dr. EDIS said that several instances had been recorded by different authors, as Simpson, Meigs, and Atlee, in which gestation had been prolonged for one, two, or three months beyond the normal time. But in many such cases there was strong presumptive evidence that they were really instances of extra-uterine gestation, the supposed cervix being really a fistulous opening. Dr. Müller, after investigating forty-five cases of alleged missed labour, concluded that "there does not exist an authentic observation of retention of the fœtus within the womb beyond the term of ordinary pregnancy." In this conclusion he fully agreed, unless Dr. Barnes's case were an exception; but even this might have been partly interstitial, and not an ordinary intra-uterine pregnancy.—Dr. GALABIN had met with one case of supposed missed labour, which tended to confirm the view that many cases so described were really instances of extra-uterine fœtation. There was an effort at labour at full term, and he saw the patient two months later. There was then a sanguineous, somewhat offensive, discharge from the vagina, and the patient's condition had become grave. A catheter was passed through the cervix into a cavity resembling the uterus, and gave exit to a fluid like that which had escaped from the vagina. After dilatation of the cervix by a tent the breech of the fœtus could be felt, presenting through a round opening, which seemed to be the internal os. This turned out to be an aperture in the uterine wall at the point at which it was sharply retroflexed, and the gestation proved to be abdominal, the sac lying in front of the fundus. If no autopsy had been made all who saw the case would have continued to suppose the fœtus intra-uterine.—The PRESIDENT said that for his own part he believed in the occurrence of protracted gestation and missed labour. The probability of their occurrence was much supported by the facts that they occurred in the lower animals, and that missed abortion or missed miscarriage occurred certainly in women. He did not think the occurrence of labour premonitions a necessary part of missed labour. He thought the term lithopædion, at present often used as synonymous with mummified fœtus, should be better defined. The fœtus never became calcified like a uterine fibroid, but calcification affected only the membranes, and sometimes the adjacent parts of the fœtus.—Dr. GODSON called attention to a case which came under his observation at St. Bartholomew's, which formed the basis of a paper by Dr. Greenhalgh on "Missed Labour" in the eighth volume of the Hospital Reports. The case was one of "missed abortion," and not of "missed labour," and the head of the fœtus should have been described as of four months and a half, not of six months' development.—Dr. BARNES, in reply, said in reference to Mr. Spencer Wells's suggestion that the pregnancy might have been intra-mural, that there was no evidence in favour of it, and intra-mural gestation generally ended by a fatal cataclysm at the second or third month. The rhythmical action of the uterus could not be expected to be detected when the uterine contractility was impaired after the death of the fœtus. He would make a point of studying Dr. Duncan's cases. Meantime he thought that protracted gestation for an indefinite time required better proof than we possessed. He thought the term "missed abortion" a singularly unhappy one, and that the term "concealed" or "incomplete abortion" was much to be preferred. He could not agree with Dr. Duncan that the terms lithopædion and mummified fœtus were commonly used as synonymous. A "stone child" should at least be stony, and the distinction was the more important since Cruveilhier had insisted, rightly as he believed, that a lithopædion was never found in the uterus.

Dr. HEYWOOD SMITH related a Case of Delivery through an Imperforate Vagina. The patient was thirty-one years old, married ten years; pregnant for the first time. The vagina was only one and a half inches long, and was completely closed by a roof of the normal thickness of vaginal tissue. It was congenital, and there was no cicatricial tissue. Her mother, a trained nurse, was aware of the malformation. The author was called to see the patient at the British Lying-in Hospital, when she had been in labour thirty hours. On admission the urethra was so patent as to admit nearly two fingers, and, from the husband's account, coitus probably took place per urethram. The vaginal roof was lax, as the head was arrested at the brim. The os was completely dilated, and the bones of the head had begun to overlap. A careful examination failed to discover the slightest depression, or any indication as to any aperture, however small. The patient was therefore placed under chloroform, the vaginal roof was picked up with forceps, and a cut made at once with scissors directly through it, when, the finger being passed through the aperture thus made, the head was felt; the opening was then enlarged by tearing with the fingers until a passage was formed large enough for delivery, which was speedily effected by means of the long forceps, and a living female child extracted. The patient made a good recovery, and examination last December showed a normal vagina with but a slight constriction, not at all hard, formed by the remains of the previous vaginal roof.

Dr. Percy Boulton narrated a case of Imperforate Vagina. The patient was aged eighteen, married. Catamenia were always very painful, and were followed by "green waters" for several days. The vagina was found to be a cul-de-sac about one and a half inches deep, and no opening whatever could be felt. An examination was made under chloroform, and a dilating speculum introduced. On either side of the vaginal terminus a small opening was then found, through which a probe could be passed. The openings were dilated with tangle, and there were then found—(1) a normal uterus, (2) a tripartite vagina, the upper portion being duplex, separated by a septum, which formed a triangle, with its base downward. A small communication between the two was found close up to the vaginal neck. The central block was divided by passing whipcord round by a sound having an eye at the end, and attaching it to an écraseur. A vulcanite vaginal plug was worn for three weeks, and the patient then went home well.

MEDICAL OFFICERS OF HEALTH SOCIETY.

At a meeting of this Society held at 1, Adam-street, Adelphi, on the 22nd ult., Dr. John Syer Bristowe in the chair, Dr. C. Kelly read a paper on "The Distribution of Diphtheria in West Sussex." The object of the paper was to give an account of the conditions under which diphtheria appeared during the past six years in West Sussex, and to show the influence of soil and weather on its distribution. After describing the geology of the district, Dr. Kelly pointed out by a series of statistical tables that diphtheria is far more frequent upon a stiff clay soil than it is upon more porous formations, the disease rate showing the difference much more forcibly than the death-rate. Omitting the gault, where the facts are too few to be of value, the weald clay stands first as being the formation on which the disorder is chiefly prevalent, while the porous Folkestone and Sandgate beds of the lower greensand are nearly free from the disease. On the pervious chalk very few cases are met with, while on the upper greensand, which lies to the north of the chalk hills, cases frequently occur. It is not difficult to show that there is a general relation between the rainfall and the prevalence of diphtheria. The years in which the greatest rainfall took place were accompanied by a greater number of cases. A comparison between the rainfall and the number of cases of diphtheria of different years can only be roughly approximative, because when once the disease has become epidemic its continuance may extend beyond a period of wet weather. The year 1879 was the wettest year known since 1860, and there was a marked increase in the number of cases of this disease. Most of the outbreaks of diphtheria in West Sussex have occurred round commons or village greens, a cold damp air appearing to favour the spread of the disease. Tables were shown in which it appeared that half the cases of diphtheria were between three and nine years of age; very few infants are attacked even when other members of the family are suffering from the disorder. The death return is not a good criterion of the prevalence of the disease in different years. In one year a large number of cases was attended by a very low mortality, while in another epidemic, although but a few persons were attacked, they nearly all died. The number of new cases in each month varied very much. In 1875 the greatest number occurred in May; in 1876, in September, October, and November; in 1877, in July, August, September, and November; in 1878, in March, April, and November; in 1879 the number was high in every month except August and September; and in 1880 the greatest number occurred in July and September, while there were none in the last three months of the year. The occupation of the people is chiefly agricultural. There is no material difference in the mode of living in the different parts of the district. Some of the cottages are good, but the disorder has not fallen with greater severity on the very poor than on those who are more comfortably housed; for in many old cottages which are hardly fit to live in, the disease has attacked the inmates less severely than those who live in comfortable and substantial cottages. One point may be noticed in the condition of the people who live in the district where diphtheria is most prevalent, and that is the close relationship of many of the families; intermarriage is very common, and an infusion of fresh blood is not often noticed. In such districts the children are fairly fed, but they do not seem able to resist any acute attacks of disease; they are not intelligent, and seldom make much progress with their education. Diphtheria is distinctly a disease of rural districts, and differs from other catching disorders in being most prevalent in those cases where the people are thinly spread, and where isolation exists naturally. It is worthy of notice that children who are attacked are generally those who have to go long distances to school, and the condition of the road is such that they are invariably exposed to wet and cold. Finally, Dr. Kelly has found no relation to exist between animals and vegetables on the one hand, and diphtheria on the other. In the discussion which followed, the President, Dr. Bond, Dr. Corner, Dr. Tripe, and Mr. Shirley Murphy took part.

WEST HERTS MEDICAL ASSOCIATION.

The sixty-sixth half-yearly meeting of this Society was held at Watford on the 20th ult., Dr. P. Hood, the President, in the chair. Dr. A. Clarke read an interesting paper on the Treatment of Diphtheria, being the continuation of a paper that he had read to the Society on a former occasion. In the discussion which followed most of the members took part. Dr. Steel exhibited a Calculus that he had extracted from a youth aged eighteen. It had also been exhibited to the Pathological Society; and it was considered peculiar, as it consisted of cystine, but having a well-marked ring of oxalate of lime in the middle of the stone. Dr. Paxon exhibited part of the Index-finger, which had been torn off by machinery, and had drawn out with it twelve inches of tendon. The man made a good recovery. Dr. F. H. Berry exhibited the Supra-renal Capsules from a patient who had lately died of Addison's disease. The boy was eighteen years of age, deeply bronzed. He had been in the infirmary several times, with no definite symptoms except weakness, and during the last illness obstinate vomiting. He died suddenly. The supra-renal capsules were both affected, filled with tubercular masses, and gritty to the feel. Dr. Brett brought a boy on whom he had performed tracheotomy for diphtheria. He was six years old. Drs. Hobson and Paxon promised to read cases at the next meeting in October.

Dr. Iles was elected treasurer, and Dr. A. T. Brett continued honorary secretary.

Bequests and Donations to Medical Charities.

Mr. Samuel Courtauld, late of Gosfield Hall, bequeathed £2000 each to the London Hospital and the Essex and Colchester Hospital, £1000 each to the Charing-cross, the Royal Free, the City-road Consumption, and the East London Children's Hospitals. Miss Elizabeth Elmslie of Edinburgh bequeathed £10 each to the Royal Infirmary and the General Dispensary, Aberdeen. The Halifax Infirmary becomes entitled to £500, by the will of Mr. Farrar and to £50 by the will of Miss Sarah Farrar, sister of the above. Mr. J. St. G. Burke, Q.C., late of the Auberies, bequeathed £100 to the St. Leonards Hospital, Sudbury. The Consumption Hospital, Liverpool, has received £550 under the will of the late Mr. Philip John Ashton.

Reviews and Notices of Books.

The Quarterly Journal of Microscopical Science. Edited by Messrs. LANKESTER, BALFOUR, DYER, and KLEIN. No. LXXXII. April, 1881.

THIS number contains the following interesting memoirs: 1. The Minute Anatomy of the Branchiate Echinoderms, by P. H. Carpenter, M.A. 2. On Young Stages of Limnocodium and Geryonia, by Professor Lankester. 3. The Origin and Significance of the Metamorphosis of Actinotrocha, by Ed. B. Wilson. 4. The Minute Anatomy of the Organ of Jacobson in the Guinea-pig, by E. Klein. 5. Histological Notes, by E. Klein. 6. On the Development of certain Microscopic Organisms occurring in the Intestinal Canal, by D. Cunningham. 7. The Development of Starch Grains, by A. Schimper. 8. On the Cause of the Striation of Voluntary Muscular Tissue, by J. B. Haycraft. 9. On the Relation of Micro-organisms to Disease, by Joseph Lister. 10. Observations on the Appendages and on the Nervous System of Apus cancriformis, by Professor Ray Lankester.

Dr. Cunningham's paper is one of the most interesting of the above-named articles, and the conclusions at which he has arrived are: that peculiar parasitic forms may be specially associated with particular forms of disease without holding any causal relation to them; that the monadic, amœbal, and sporoid bodies so abundant in many choleraic excreta are all developmental forms of one species of parasite, which he proposes to call Protomyxomyces coprinarius. This parasite appears to be closely related to the organisms included within the Protist groups of Protomonadinæ and Myxomycetes, and in certain respects seems to represent a connecting link between them. It is not confined to choleraic or even to human excreta as a basis, and only attains its full development external to the bodies of the animals within which it occurs. Its immature forms occur parasitically as normal inmates of the digestive canal in certain of the lower animals. In the human subject, both in health and disease, they are very frequently present in varying numbers. During health their number and activity are limited, due to repressive influences exerted by the normal intestinal contents as a medium. Their excessive abundance in certain forms of disease is due to abnormal conditions of the intestinal contents permitting of the occurrence of processes of rapid multiplication. Normal human excreta do not form a medium in which any further development of the parasitic elements outside the host body can occur. On the contrary, the normal series of fermentative changes through which the excreta pass after exit from the body ensures the complete destruction of the parasitic elements. No such destructive effect, however, is exerted by the changes occurring during the decomposition of the excreta in certain lower animals, especially cows and horses, and here the parasitic elements in them escape from the body, undergo further processes of development resulting in the production of reproductive bodies, securing the continuance and diffusion of the species. Such excretal matters therefore serve as a constant source wherein parasitic elements may be transferred to the bodies of other animals. Human excreta, which have passed through the initial processes of decomposition, and which have thus become alkaline, allow of the continued existence and multiplication of elements of the parasite, which may then obtain access to them, and may thus serve as a second centre of propagation. The introduction of the reproductive elements of the parasite into the human body is mainly effected through the medium of the air. The introduction of the reproductive elements *per se* seems to be quite innocuous. The special association of the parasite with intestinal disorders appears to be dependent on the abnormal condition of the intestinal contents allowing of the rapid multiplication of reproductive elements which may obtain access to them. Mr. Haycraft's paper on the Cause of Striation of Voluntary Muscle is also an interesting one, and deserves study.

The Journal of Anatomy and Physiology. By Professors HUMPHRY, TURNER, MCKENDRICK, and CREIGHTON. Vol. XV. Part 3. London: Macmillan. 1881.

THE contents of this number are—1. The Bones, Articulations and Muscles of the Rudimentary Hind-limb of the Greenland Right Whale, by Dr. John Struthers. 2. The Stridulatory Apparatus of Callomystax gagata, by Mr. Alfred C. Haddon. 3. The Sternum as an index of sex and age, by Mr. Thomas Dwight. In this paper the author makes some important statements from a medico-legal point of view in correction of ordinary accepted dates. 4. Dr. J. M. Hobson on the Mechanism of Costal Respiration. 5. The Membrana propria of the Mammary Gland, by Dr. Mansel Moullin. 6. On Double and Treble Staining of Microscopic Specimens, by W. M. Stirling, M.D. 7. On the Comparative Anatomy of the Lymphatics of the Mammalian Urinary Bladder, by George Hoggan and Mrs. Hoggan. 8. A Dissection of a Case of Epispadias, by Dr. R. J. Anderson. 9. On the Morphology of the Muscles of the Tongue and Pharynx, by Dr. R. J. Anderson. 10. A Contribution to the Pathological Anatomy of Pneumonokoniosis, by Mr. Thomas Harris. 11. On the Histology of some of the rarer forms of Malignant Bone Tumours, by Mr. Robert Maguire. 12. On the Morbid Histology of the Liver in Acute Yellow Atrophy, by Julius Dreschfeld, M.D. 13. The Relationship between the Muscle and its Contraction, by Dr. Cash; and, lastly, some Anatomical Notelets, by Dr. J. Macdonald Brown.

Revue de Médecine. No. 4. April, 1881. *Revue de Chirurgie.* No. 4. April, 1881. Paris: Germer Baillière.

THESE journals are rich in matters of interest, and fully justify the separation of the *Revue Mensuelle* into its two components. The present number of the Medical Review opens with a paper upon Hepatic Sclerosis by M. Talamon. He deals with that form which is secondary to cardiac disease, and maintains that the induration of the liver is in great measure due to concomitant inflammatory changes in the arteries of the organ. He concurs with Wickham Legg and others in the observation that there is no production of connective tissue around the central vein of each lobule, the cirrhosis being in the portal areas, as in the alcoholic form, and points out that in some cases there supervenes a severe form of jaundice, owing to the destruction of the hepatic cells. The next paper is on Ephemeral Subcutaneous Nodules and Rheumatism, by MM. Troisier and Brocq. As we propose to deal with this elsewhere, it will suffice to say now that the authors draw attention to a comparatively novel matter, which we understand will form the subject of a communication to the forthcoming Congress by two English physicians. M. Barié contributes the second part of an extensive study on Rupture of the Cardiac Valves, and summarises many cases which are scattered through medical literature. A case of essential anæmia (fatal) with hæmorrhagic diathesis is related by M. Foucheraud from M. Lépine's clinique. The "Revue Critique" of this number is devoted to an analysis of the subject of Tendon-Reflex, by M. Ollive. The number concludes with brief abstracts of the proceedings of many medical societies, French and foreign.

In the Surgical Review one of the editors, M. Nicaise, describes a form of intestinal stricture following hernial strangulation, which was relieved by operation five years before the development of further symptoms. Enterotomy was performed, but the patient succumbed, and the cause of the obstruction was found to be the existence of bands of adhesion between the contiguous portions of a loop of intestine, the result of a local peritonitis at the earlier date. M. Féré writes upon strangulated hernia in the infant, and the apoplexy of the testicle to which it may give rise. He enumerates at the close of his paper fifty-six cases of strangulated herniæ in children under two years of age. M. Delens contributes the concluding portion of a paper upon Sub-hyoidean Ranula. There is also an exhaustive review of Nephrectomy, by M. Lannois, based upon thirty-nine cases, most of which we believe have been summarised by Mr. Barker in his papers on the subject read at the Medico-Chirurgical Society. A tolerably full report of the proceedings of the Société de Chirurgie is also a feature of this number.

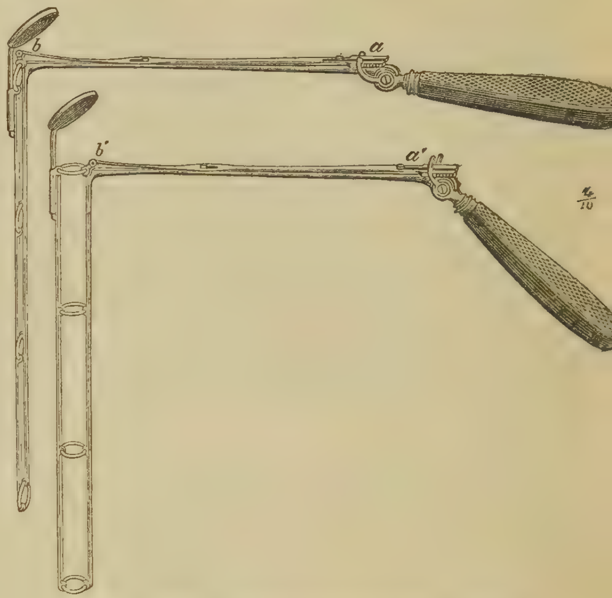
Brain. April, 1881.

THE current number is one of more than average interest. The opening article is by Dr. Bucknill, and is a lengthy but valuable discussion of the judicial opinions of the late Lord Chief Justice Cockburn on Lunacy. The differential diagnosis of the various forms of paralysis is sketched in a somewhat tabular article by Dr. Byrom Bramwell. Austin Flint, junior, considers in the next paper the Cause of the Movements of Ordinary Respiration, assigning to reflex action a smaller share in the process than some authorities are inclined to admit. Dr. Julius Althaus discusses some points in the Diagnosis and Treatment of Brain Disease, the chief therapeutical points being the wonderful effect of the constant current in some cases of organic disease. The explanation of some curious Illusions of Motion is the subject of a very interesting article by Dr. C. S. W. Cobbold, and Dr. Bevan Lewis continues his very important description of the methods of preparing, demonstrating, and examining cerebral tissue. Of the reviews, the most important is a very thorough analysis of Rosso on the Circulation of the Blood in the Human Brain by Dr. Rabagliati. A series of Clinical Cases by Drs. Warner, Atkins, Ashby, and Buzzard conclude the number.

New Inventions.

A NEW ŒSOPHAGOSCOPE.

THIS instrument consists of two parts—a stem and a skeleton tube. The stem is made up of a handle and a shank, between which there is a hinge. The skeleton tube is only formed when the instrument has been introduced into the gullet; before that it consists of two flattened wires placed anteriorly and posteriorly, connected above and below and at certain intervals between these points by rings. When the rings lie in the vertical position the wires are separated from each other only by the thickness of the rings; but when the latter are thrown into the horizontal position the two wires become separated, and with the rings constitute a kind of skeleton speculum. At the top of the back wire there is a slot, into which the stem of a laryngeal mirror is fitted. By the upper figure it will be seen that the handle and shank are almost in a line—a position which greatly facilitates the introduction of the instrument. When the "body" has been passed down the œsophagus, the operator, holding the handle in his hand, but leaving the index-finger free, presses with the latter on the upper part of the shank near the handle. The result of this is to turn the rings from the vertical to the horizontal position, and thus to open the speculum and expand the gullet. With a view of causing as little irritation as possible before withdrawing the instrument, the operator should close the speculum by pressing the under part of the shank (near the handle) with his thumb. Tubes from three to five inches in length can be bolted so securely to the end of the shank that they are as safe as if the whole instrument were made in one piece.

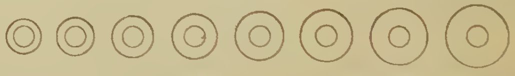


The upper drawing shows the instrument ready for introduction into the throat; the lower one, the same instrument *after* introduction.

This instrument has been manufactured by Messrs. Mayer and Meltzer, of Great Portland-street, under the direction of Dr. Morell Mackenzie, who has been using it for nearly a year.

UTERINE DILATOR.

AN instrument for dilating the cervix of the uterus has been sent to us by Messrs. Maw, Son, and Thompson, who state that they have constructed it according to suggestions and designs given by Dr. James, of Thurloe-square. The invention consists of a sound made of plated copper, and having the ordinary shape of a uterine sound; but the handle, which is fastened by a screw, can be readily unshipped and replaced. The main feature of the instrument, however, is the employment of the stem as an axis, upon which slides a vulcanite tube equal in diameter to a No. 5 catheter. The tube is seven inches long, and can be forced onwards until it becomes arrested by the bulb that ends the curve of the sound. The tube may be withdrawn without moving the axis, and the next size tube may then be driven as far as the point of arrest. The tubes, of which there are eight, constitute a graduated series, from No. 5 to No. 12.



ABDOMINAL BELTS.

A SET of three abdominal belts is made by Messrs. Worth et Cie. for use under the following circumstances:—One is for support during pregnancy; one, which contains a metallic compression plate, is for use immediately after confinement; and the third for wear after the puerperal period. These belts are well made, and seem well adapted to fulfil the object for which they are intended.

MR. G. L. SENEY has given 200,000 dollars and a site for the erection of a cottage hospital in Brooklyn, U.S.A.

THE LANCET.

LONDON: SATURDAY, MAY 14, 1881.

IF it were not that we have in vaccination and revaccination practically an absolute protection against serious and fatal small-pox, the present aspect of affairs as to that disease in the metropolis might awaken the gravest anxiety. Even as it is, this aspect is not to be regarded without much misgiving. It discloses an amount of unprotectedness against the disease within the metropolitan area which we were largely unprepared for, and which proves that the negligence of revaccination in the metropolis is fully as great as, in fact greater than, that of primary vaccination, as shown by the official returns. And this, indeed, is the chief lesson to be learned from the persistent activity of small-pox in London, a lesson which goes to the root of the matter as regards the prevention of the disease, but which is in danger of being swallowed up in the present active discussion regarding the merely provisional procedure for checking the prevalence of the disease by the isolation of the sick in hospitals. Such isolation should be regarded as a necessary part of the preventive treatment of small-pox, so long as any appreciable portion of a population remains unprotected by efficient vaccination and revaccination; and under the circumstances of the metropolis, from the immense movement of population in it causing peculiar difficulties in tracing unvaccinated children, and the vast immigration of people of whose history in regard to vaccination it is practically impossible to keep account, there must be for long to come, it is to be feared, an unusually large proportion of the unprotected within its area. But in regarding hospital accommodation as an important aid in preventing the extension of the disease among those persons, we must not lose sight of the fact that our hope of stifling the disease, and preventing recurring epidemics, must rest in reality upon the success of our efforts in promoting vaccination and revaccination. And revaccination at the present moment particularly concerns us from this point of view. The true teaching of the present epidemic is to the effect that we want in London, and, in fact, in England generally, the practice of revaccination so extended as that it shall be as fully spread and as efficiently carried out as primary vaccination. As it is, we learn from the official vaccination returns that infants and young children are, thanks to the present generally effective arrangements for primary vaccination, being eliminated from the victims of small-pox; and we require such a development of revaccination among children above the age of puberty and persons of older age as is being carried out and is now being successfully effected as to vaccination among infants and young children. If the persistence of the epidemic of small-pox in the metropolis will turn the attention of the community more intently to this view of the subject, nothing but permanent good will come out of this temporary deadlock about hospital accommodation. The lesson as to revaccination has been dinned into the ears of the people at large and the local vaccination authorities persistently for the last ten years, but the ears have proved mainly deaf ones. Perhaps more heed will be given now when the community must provide for treating small-pox more largely in their households than hitherto, exposing the inmates and neighbours to tenfold danger of the loathsome contagion. How many persons have reflected that of the deaths from small-pox registered within the Bills of Mortality last week, half, with the exception of two, were registered in private houses? That is to say, that half the cases occurred and ran their course under circumstances of infinite danger to the other members of the family, and when no efficient control could be exercised over the diffusion of the contagion to other families. And this condition of things, owing to the failure of hospital accommodation, is being repeated over the length and breadth of London, in its wealthiest as its poorest quarters. Yet we possess an efficient remedy against small-pox in general revaccination, a remedy not only easily obtained, but involving little trouble, and actually provided for all who care to have recourse to it at the public expense! Is it not possible to bring this remedy more fully into play? In this respect, although we must condemn the shortsightedness of the Local Government Board in its arrangements as to the provision of animal lymph so far as these would promote more general revaccination, we must admit that the Board has spared no effort to arouse the local vaccination authorities of the metropolis and the inhabitants at large to a just sense of the importance of revaccination—and this, we are glad to believe, not without some considerable success. Revaccination has probably never been so largely carried out in the metropolis as it is now, under the combined terror of the epidemic and the monitions of the Local Government Board. But are we not in a position to go further? The key to the success of our primary vaccination is compulsion. Is it so far out of reach of existing statecraft that compulsion in some form could not be brought to bear on revaccination? In view of the incalculable benefits which have been obtained in regard to small-pox among bodies of men who are indirectly compelled to submit to revaccination, and of which the letter-carriers of the London postal district form, as Dr. WALLER LEWIS has recently told us, so remarkable an example, surely it ought to be possible to devise some legislative means by which the population at large, above puberty, might obtain the same immunity, and the metropolis and kingdom generally freed from these recurrent alarms of small-pox. At any rate, over and above the question of small-pox hospital accommodation for the metropolis now awaiting solution, let it be remembered that we have immediately at hand a more certain and much simpler protection against small-pox in efficiency of vaccination and revaccination; and it is to this remedy, and not to hospital accommodation and isolation of cases therein, we have to look for the ultimate control of this formidable disease.

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IT is now ten years since the researches of FRITSCH and HITZIG, followed a few years later by those of FERRIER, laid the foundations of the modern doctrine of Cerebral Localisation. We term it modern because, though it had been previously mooted on various grounds, and to a certain extent empirically established by BROCA, it is only with the above-mentioned researches that the stage of what professes to be exact scientific method and verification commenced. The question thus raised has excited the active interest of physiologists, psychologists, and pathologists, and a vast amount of literature in the form of special treatises or contributions scattered among the scientific journals of every country has grown up, dealing with the subject in its various aspects. The present seems a convenient time for taking a brief survey of the results achieved, more particularly in reference to clinical medicine and pathology, without in any way attempting to pre-determine the conclusions to which the controversy still proceeding may be carried.

The starting-point of the doctrine and all its subsequent developments was the discovery of the fact that application of the stimulus of the galvanic or induced current to certain regions of the cortex cerebri excited movements on the opposite side of the body—movements which varied according to the position of the electrodes, and which were held to be definite, uniform, and capable of accurate prediction. In this way areas or "centres" were defined and marked off, and their homologues established in the brains of different animals. In the dog these areas were grouped in the neighbourhood of the crucial sulcus; and in the monkey, in the convolutions bounding the fissure of Rolando.

The facts described by HITZIG and FERRIER were confirmed by subsequent individual investigators and by joint committees, and have since been widely accepted. If nothing else has been established beyond these data, altogether apart from their actual significance, an important light has been thrown on the causation and diagnosis of certain affections well known to clinical observers. The occurrence of spasms or convulsive movements, limited to one side of the face or to one limb, or beginning in a limb, and spreading in a definite manner to the whole of one side, had been carefully studied by HUGHLINGS JACKSON, and connected with "discharging lesions," or irritation of motor convolutions functionally related to the corpus striatum. The researches of HITZIG and FERRIER, and the subsequent investigations of CARVILLE and DURET, LUCIANI and TAMBURINI, and others, both as to the effects of localised irritation of the cortex and the experimental induction of epileptiform convulsions in the lower animals, have afforded evidence in favour of the accuracy of HUGHLINGS JACKSON'S hypothesis. The numerous instances lesions of successful diagnosis of the seat of discharging founded on the observations of HUGHLINGS JACKSON, and the facts of experiment on the brain of the monkey in particular, have led to the recognition of "Jacksonian epilepsy," and its regional diagnosis, as a matter of ordinary instruction in clinical medicine. These results have also exercised a considerable influence on the current views as to the pathology of epilepsy in general, and in many cases at least the phenomena are considered more in accordance with primary irritation of the cortex cerebri than secondary to changes in the medulla oblongata. A new departure has also been attempted in the direction of the prehistoric practice of trephining; and elaborate investigations of cranio-cerebral topography have been made by BROCA, TURNER, FÉRÉ, LUCAS-CHAMPIONNIÈRE, POZZI, AMIDON, &c. As to the ultimate practical issue of these inquiries, it would be at present premature to express an opinion. Even the near future is obscured by doubt. The interpretation of the movements resulting from electrical irritation applied to the cortex cerebri has naturally given rise to considerable diversity of opinion. While the discoverers of the phenomena referred them to irritation of the grey matter of the hemispheres, others looked upon them merely as the results of physical conduction to underlying motor tracts; and the fact that similar movements could be produced by electrical irritation after the grey matter was removed, was considered by BURDON-SANDERSON, G. H. LEWES, &c., to place this beyond all question. On this point the researches of ALBERTONI and MICHIELI, and those of FRANCK and PITRES have an important bearing. These investigators found that though electrical irritation of the medullary fibres subjacent to the cortical grey matter at first excited movements similar to those resulting from the application of the electrodes to the grey matter itself, yet all reaction ceased after from four to five days, a period coincident with the degeneration and loss of excitability which occur in motor nerves after separation from their centres; whence it is argued that the medullary fibres between the cortical centres and the lower motor nuclei bear the same relation to the nerve-cells of the cortex as the spinal motor nerves to the multipolar cells of the anterior cornua. The investigations of VULPIAN and others on the lower animals, and those of CHARCOT and his pupils in cases of lesion of the so-called motor area, have shown that descending degeneration occurs in the pyramidal strands of the spinal cord as the direct result of such lesions; and working both from the standpoint of secondary degeneration and from that of the fœtal development of the spinal tracts and their cerebral relations, FLECHSIG, in his elaborate work on the subject, traces a direct connexion between the grey matter of the convolutions bounding the fissure of Rolando (the motor area) and the anterior cornua of the spinal cord.

The histological researches of BETZ and MIERZEJEWSKY, and those of BEVAN LEWIS, also show that in this area there is a characteristic lamination and grouping of the ganglionic cells not found in other regions of the cortex. It has also been experimentally proved that destruction of the cortical centres in the lower animals causes, for the time at least, disorders of mobility in the opposite limbs—effects which the localisers state may be limited to a limb, or certain movements of a limb only, according to the position of the lesion. But as to the exact nature of these disorders, and their duration, the most diverse views have been expressed, and the controversy still continues. HITZIG, NOTHNAGEL, from an experimental point of view, and BASTIAN from a theoretical standpoint, regard the affection as one of muscular sense, or kinæsthesis (BASTIAN); SCHIFF, MUNK, and TRIPIER hold that there is a loss of tactile sensibility, while FERRIER holds that motility only is affected. FERRIER accounts for the amount and duration of the motor paralysis in different animals by the relative degree of organisation of the motor activities in the centres situated below the cortex proper. In four-footed animals the independent organisation in the lower centres is much greater than in the monkey and man, and hence in time the paralysis or paresis at first apparent on destruction of the cortical centres disappears; whereas in the monkey and man, whose movements are more intimately dependent on the cortex, the paralysis is permanent. Others account for the recovery by a hypothesis of functional substitution by other portions of the cortex. GOLTZ opposes localisation in general, and considers the hypothesis of functional substitution invoked by some localisers as inconsistent with their doctrine. He is of opinion that every portion of the cortex is in relation more or less with every function exercised by the cerebral hemispheres, and attributes the temporary disturbances which ensue on cortical lesions in the dog to inhibition, for the time being, of the uninjured parts. He thus in a measure supports the doctrine of FLOURENS, and the pathological views of BROWN-SÉQUARD, as to the *modus operandi* of cerebral lesions. GOLTZ does not obtain limited paralysis either of motion or sensation from cortical lesions, but a combination of motor and sensory paralysis, general and special, the degree depending not so much on the position as on the extent of the lesion established. But as GOLTZ has not restricted his lesions in the manner indicated by the localisers, his experiments have been objected to by them as irrelevant to the question. Nevertheless, GOLTZ has succeeded in showing that dogs retain extraordinary capabilities even after most extensive bilateral destruction of their cerebral hemispheres, if time be given for the subsidence of the primary disturbance caused by the operations. Though profoundly demented they yet exhibit obscure signs of sensation, general and special, and the power of directing their movements in accordance with them; facts which lead him and others to suppose that every portion of the cortex participates in feeling, will, &c., and is independently related to all the voluntary muscles and sensory organs of the body.

Leaving these physiological controversies and turning to the facts of clinical medicine and pathology, we find that within the last ten years numerous observations have been published in reference to the effects of cerebral lesions; cases observed and described with a due regard to the accurate topographical situation of the lesions which the localisers have shown to be of such essential importance, and the want of which has vitiated the great majority of former clinical records. In the works of CHARCOT and PITRES, FERRIER, GRASSET, DE BOYER, LANDOUZY, NOTHNAGEL, LUCIANI and TAMBURINI, MARAGLIANO, and in various journals at home and abroad, there are to be found records of several hundred cases recently observed, destructive lesions of the so-called motor area with motor paralysis of the opposite side, which may be general, or limited to the leg, the arm and leg, the arm, the face, or arm and face, according to the extent and position of the lesion, the results of clinical observation apparently harmonising to a considerable extent with FERRIER'S localisation of the motor centres in the monkey. The intensity of the paralysis varies with the completeness of the destructive lesion, but the cases are numerous of incurable paralysis, followed by descending degeneration of the pyramidal tracts and the development of late rigidity in the paralysed limbs, in connexion with lesions purely cortical.

It is claimed by the localisers that destructive lesions of the motor area invariably cause motor paralysis, but a few cases have been put on record by JACCOUD, MANCINI, CUNNINGHAM, and MAGNAN in favour of the occurrence of partial lesions in the motor area without any evident symptoms during life. There does not, it is said, appear to be any unequivocal case on record of general destructive lesion of the so-called motor area without motor paralysis.

On the other hand, lesions outside the motor area, in the prefrontal, occipital, and temporo-sphenoidal lobes are alleged to occur without motor paralysis or secondary degeneration of the pyramidal tracts. It is with respect to the effects of lesions of this so-called latent area that attention has of late been more particularly engaged. FERRIER drew a distinction between the significance of the movements resulting from electrical irritation of the anterior and posterior regions of the hemispheres, holding that the latter were indices of sensation. Following up these indications by the method of circumscribed lesions, he mapped out special areas for sight, hearing, tactile sensibility, smell, and taste. Owing to the commonly negative results of disease in these regions, and the paucity or indirectness of positive confirmatory facts, this part of FERRIER'S work has been overshadowed by the localisation of motor centres. But the question has of late been assuming greater prominence. Though the accuracy of FERRIER'S sensory localisation has been severely criticised by MUNK, yet the fact of a localisation of areas of special sense has been admitted by him and by LUCIANI and TAMBURINI; and certain modifications as regards the extent and relations of the visual centres recently introduced by him and his colleague Professor GERALD YEO bring the results of physiological experiment into greater harmony with each other. These experiments point to the region of the occipital lobe and angular gyrus as specially related to vision. Cases have been recorded of ocular spectra in connexion with irritative lesions in this region, and not a few cases are also on record which seem to point to the connexion of hemiopia with lesions in the medullary substance of this portion of the hemisphere. As regards hearing, FERRIER'S localisation of an auditory centre has been confirmed by MUNK, and by LUCIANI and TAMBURINI. Differences, however, exist as to the exact position of the centre in question. It is asserted that there are no cases on record of loss of hearing from cortical lesion, but facts have been published in favour of the association of "word deafness" with lesions of the superior temporo-sphenoidal convolution of the left hemisphere. The localisation of special centres of tactile sensibility, smell, and taste, is maintained almost exclusively on physiological data, the clinical facts at present on record failing to establish any direct relationship between cortical lesions and abolition or impairment of these faculties. It seems at first sight not a little remarkable that so much difference of opinion still exists among physiologists not merely on matters of detail, but on the main question of localisation in general. The differences, however, appear to be not so much on matters of fact as on the mode of interpretation; and when it is considered that the cerebral organisation may differ in different animals, and that in them all that concerns subjective relations is a matter of pure inference, the facts may reasonably appear differently to different investigators. On the other hand, in the experiments of disease in man, the testimony of the patient renders the determination of questions as to subjectivity more simple. Hence, viewed mere y in their physiological relations, the facts of disease in man must form an indispensable factor in all considerations relative to cerebral functions and their localisation. Many problems still remain unsolved, and much is yet to be made out of even the most common forms of cerebral disease.

Careful clinical observation will prove of incalculable service towards the satisfactory elucidation of one of the most important questions in medical science.

THE return of Dr. DANFORD THOMAS by a majority of votes, numbering more than five to one of those polled for his opponent Mr. BOLTON, is satisfactory. Making the largest allowance for the circumstance that the successful candidate was doubly qualified, being a medical man and a member of one of the Inns of Court, it is nevertheless evident that the constituency has again declared its allegiance to the principle that medical knowledge is pre-eminently necessary for an efficient discharge of the duties devolving on an official whose express business it is to investigate the causes of death. This principle is so clearly self-evident that there should never be the smallest doubt as to the result of a contest in any district. The claim urged on behalf of lawyers, as such, is manifestly of the weakest. The conditions under which inquiries of the nature entrusted to a Coroner must always be conducted are such as to prevent the functions of his office being adequately performed by any gentleman without medical knowledge, however able and honest he may be. If the legal profession should retort that ignorance of law is a disqualification, we may reply that it is always easy for a medical man to acquire a sufficient acquaintance with the law. His education specially qualifies him for such a course of study; and we have no objection to concede that it is expedient that any man contemplating an attempt to obtain the post of Coroner should thus qualify himself. On the other hand, no mere lawyer, however well educated and perfectly trained in his profession, can possibly obtain a useful—or we will go farther, and say more than a dangerous—knowledge of medicine without passing through the full curriculum necessary for a diploma. It would be idle to ask lawyers to qualify as doctors, but it is neither vain nor unreasonable to demand that doctors becoming candidates for this office shall possess an adequate knowledge of the law and legal methods.

We have said that the Coroner's Court is hampered by the conditions under which its functions are exercised. This must be obvious. There can never be any close approach to a strictly judicial procedure while Coroner and jury are required to carry out a personal investigation. That they are required to do this is evidenced by the rule which enjoins an actual inspection of the body of the deceased, and by the laxity of procedure which enables a juryman to lay aside his character as a judge, and to become a witness at any stage of the investigation. These may seem small matters, but they show the nature of the so-called Court. It is, in fact, nothing more than a somewhat ungainly and inconvenient agency for exploring the mystery of an uncertified death. All attempts to magnify the office beyond its legitimate proportions must tend to discredit it. The Coroner is neither an officer of the public peace, properly so called, nor is he a supplementary registrar under the superintendence of the Registrar-General. It is not legitimately his business to allocate the crime of murder or manslaughter, nor is he required to make the verdict of his jury a scientific contribution to the statistical roll kept at Somerset House. If he *can*, without causing needless expense to the ratepayers, or straining his powers, point to the perpetrator of a capital or grave offence against the person, and so help to hand the offender over to justice, he is justified in so doing. Again, if he can so precisely specify the cause of death as to make his return available for—what are believed to be, useful—statistical purposes, he may perform the collateral service; but these offices, which are too often spoken and thought of as parts of the Coroner's "duty," are essentially outside it and contingent. The sole business of this official is to ascertain whether death has occurred "by the visitation of God" (to revive an old but *legally* sufficient formula), or whether it has been caused by some non-natural act or agency. For the necessary search in an obscure case medical knowledge is undoubtedly indispensable. The Court is not constituted, and can never be made competent, to deal with the evidence of experts as a superior Court is *supposed* to deal with such testimony. The inability of non-medical judges, of any and every rank, to weigh medical evidence is apparent, and it constitutes a grotesque blot on our judicial system; but the impotency of a non-medical Coroner is a serio-comic absurdity, in which even the loafers of the district pot-houses find occasion for merriment. Whatever reforms await the office and Court of the Coroner—and both are much in need of the axe or the pruning-knife,—it must be evident that to find the "cause of death" it is indispensable to employ an official who has a professional acquaintance with the scientific subjects lying within the scope of his inquiry, and who will know how to direct the search in proper quarters. The essential and all-important difference between the Coroner's Court and any other Court known to our system, is that while all other tribunals are charged to deal only with the evidence brought before them, and not to inquire beyond the limits of the purview, the Coroner and his Court are charged to investigate the unexplored mysteries of a case, and not only by his officer, but in person and with the aid of his jury, to ferret out the truth with regard to the death of the person whose remains he, so to say, takes into his custody. There is nothing like this elsewhere in our judicial system. The Coroner, or Crowner, is the direct representative of the Crown for purposes which have in recent times been restricted to those relating to the death of the QUEEN'S subjects: as such he must be a person qualified by special knowledge to search among the mysteries of death; or, in other words, he must be a medical man.

It may seem ungrateful, after the persistent adherence of the voters of Middlesex to the principle of selection inaugurated when the late Mr. WAKLEY was returned as the first Medical Coroner for the County, to express the hope that this may be the last occasion on which the appointment will be left to the freeholders; but the constituency, as at present existing, must admit that it is an anomaly to give a vote to the smallest *freeholder*—for example, even the owner of a grave—while the vote is denied to the largest *leaseholder*. In the old days, when the "Crowner" was chiefly, or at least equally with his other functions, the local claimant of treasure trove and property lost or disentailed, for the

Crown, it was natural that the electors should be freeholders of the district. They were empowered to select the person in order that they might guard their own rights by presenting an impartial man to the office, and he was himself required to be a freeholder, to the extent of a knight's fee, in order to afford a sufficient guarantee for his integrity and to make him representative of that class whose rights the Crown might possibly invade. Now, however, that the Coroner is no longer actively employed in this assertion of the rights of the Crown, but has almost exclusively to search out the causes of death, there is no sufficient reason why he should not be appointed to this office by the Chief Coroner, the Lord Chief Justice of England, or the Secretary of State for Home Affairs. In any case there is no reason why the electors should not be leaseholders and occupiers, as well as freeholders. As it is, the election of Coroner is one of the most antiquated of formalities, and entails costs and an amount of trouble on a candidate which are out of all proportion to the emoluments of the office he seeks. In the case of a purely vexatious contest the burden is intolerable. Before another vacancy occurs we trust the whole matter may receive the consideration of Parliament, and that a long-delayed, but really necessary, measure of reform may be introduced and—which is much more—carried into effect.

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THE terms of the Royal Commission on the Medical Acts, published in THE LANCET of last week, are so well chosen and show such a good grip of the points to be investigated, that we feel it to be unnecessary to go into such detail in exposition of these matters as otherwise we should have felt. The Commission, by way of preamble, says, "It is of importance to all classes of our subjects that the conditions under which persons are permitted to represent themselves as qualified medical practitioners should be such as to afford the best attainable security for their skill and knowledge in medicine and surgery." It proceeds to refer to divers representations in Parliament, and otherwise, of the unsatisfactory state of such matters; says that Her Majesty is of opinion that further inquiries should be made into the grant of medical degrees, memberships, fellowships, licences, and other diplomas, by universities, colleges, and bodies in the United Kingdom; into the courses of education and examination, payments, and other conditions required as a preliminary to such grant, and into the skill and knowledge which such degrees, fellowships, and licences or diplomas represent; into the conditions of registration, of removal from the Register, the position of registered persons abroad, and of practitioners here who have been educated and examined abroad; into the constitution, functions, powers, and procedure of the Medical Council; its relation to the various bodies and to the medical profession; and generally into the results of the Medical Act of 1858, and the various Acts amending it. This is a large and comprehensive Commission, and if it be executed with care can scarcely fail to issue in a report that will supply a basis for legislation which will place our medical institutions on a more satisfactory footing than at present.

The Royal Commissioners will not proceed far without finding out some curious facts. If they are of an antiquarian turn of mind, they will find much in the history of the medical bodies to engage their interest, especially the remote origin of many of the bodies, and the singular functions and crafts with which some of them were identified. Instead of wondering that a number of "trusty and well-beloved" subjects of Her Majesty have been selected in an advanced stage of the nineteenth century to adjust these institutions to the present time, they will wonder that such an adjustment had not been made before, and that the work of the medical reformers in 1858 was so incomplete. Most of the nineteen bodies can boast of centuries of existence, and their charters take us back to the time when surgery was represented by barbers. Before the incorporation of the Royal College of Surgeons of Ireland in 1784 there existed a guild of Barber Surgeons in Dublin whose charter dated as early as 1446. The Royal College of Surgeons of Edinburgh, on July 1st, 1505, had a "Seill of cause granted by the Town Counsell of Edinburgh to the crafte of Surgerie and Barbours." For many years this was the only body in Scotland licensed to distil spirits. The present charter of the Royal College of Surgeons of England sets out with reciting the letters patent granted by King EDWARD IV. at the supplication of the freemen of the Mystery of Barbers of the City of London using the mystery or faculty of surgery.

The histories show not only the age of many of the bodies which have to be dealt with, but the curious limitations of their functions. Such bodies as the above dealt only with the surgical side of disease, and this in a very primitive way. Though the notions of the time gave much importance to surgical methods of relief—bleeding, cupping, tooth-drawing, &c.,—there were other functions to be discharged which called for bodies which would license persons capable of rendering other services: making and compounding medicines, or the still higher work of prescribing medicines to be dispensed by the barber surgeons or the apothecaries. So arose the Companies of Apothecaries, essentially trading companies in character, and the medical degree granting function of the universities, which in England the Commissioners will find still in a very imperfect state, though very great advance has been made of late years at Cambridge, and even at Oxford.

Successive charters and successive Acts of Parliament, notably the Act of 1858, have greatly elevated the functions and enlarged the jurisdiction of the nineteen bodies, which, the Commissioners will find, license men to practise, granting qualifications of the most variable value as tests of knowledge, either general or professional. There is, however, this remarkable survival of the dark ages in all, or in all but one, of the qualifications granted—viz., they are all one-sided: a qualification in medicine only, or in surgery only, or in midwifery only; not—except one perhaps, the licence of the Royal College of Physicians of London—in all the three branches of the one great art of medicine. This is an absurdity which cannot survive the present inquiry. It is simply monstrous that a complete qualification cannot be obtained from one examining body, be it in England, Ireland, or Scotland. Nothing but the trade instinct, which is found even in professional corporations, could have preserved such a one-sided arrangement, with its two sets of fees.

The Act of 1858 removed one curious limitation which it is important at this crisis to recall—the limitation of the jurisdiction of the respective bodies. Prior to that Act diploma of the English Colleges licensed its holders to practise only in England. The licensing virtue of the Scotch qualifications was more restricted still. Before 1858 the Royal College of Physicians of Edinburgh had legally no jurisdiction beyond the walls of the old town of Edinburgh. The jurisdiction of the Royal College of Surgeons of Edinburgh extended to eight specified counties—the three Lothians, Berwickshire, Peeblesshire, Selkirk, Roxburgh, and Fife. That of the Faculty of Physicians and Surgeons extended over four counties—Lanarkshire, Renfrewshire, Ayr, and Dumbarton. Even graduates of the ancient Universities of Scotland had no legal right to practise, save only by the courtesy of the Scotch Corporations. Such was the almost parochial restriction of the chief Scotch Corporations before the Act of 1858, which gave to their qualifications henceforth an Imperial value. Unfortunately the legislation of 1858, while properly abolishing all territorial limitations and distinctions of qualification, provided no means for adequately securing an approximation to equality in the examinations to be passed, only vesting the duty of superintendence in a Medical Council, without powers, and made up predominantly of the nineteen bodies to which the Act gave Imperial jurisdiction, without taking any account of their parochial proclivities. Hence the necessity for fresh and sound legislation. In another article we shall try to show the working of the General Medical Council since its creation in 1858.

Annotations.

"Ne quid nimis."

MEDICAL ASPECTS OF TEMPERANCE.

A MEDICAL conference has been held at Bristol under the auspices of the Bristol United Temperance Mission. A very careful paper, conceived in a scientific spirit, was read by E. M. Skerritt, M.D. Lond. Dr. Skerritt concluded with the following propositions:—1. That the exact physiological value of alcohol as a food, and its destiny in the human economy, are matters of doubt. 2. That experience teaches that total abstinence favours the enjoyment of the highest vigour of mind and body. 3. That it cannot be demonstrated that alcohol in moderation is necessarily injurious. 4. That the sum total of any virtue that alcohol may possess as an article of diet is utterly insufficient when compared with the sum total of evil that it produces in the community. Most medical men will subscribe largely to these propositions. Dr. Thompson, of the Bristol Lunatic Asylum, regretted the presence of the public, which he thought hindered free discussion of the question in its medical and scientific bearings. We think that some sides of this question are not yet fit for discussion in a mixed assembly. He objected, too, to the common and certainly rather vague statements about alcohol as a cause of insanity—an objection illustrated by the remarks of the speakers at the conference. Dr. Thompson thought not more than 3 per cent. of cases due to drink; the superintendent of the Colney Hatch Asylum said drink was the cause, "directly or indirectly," of 40 per cent. of cases, and that the Commissioners in Lunacy placed the cases at 14 per cent. There is nothing scientific in such data, and, therefore, nothing true. Dr. Richardson, in an evening address, controverted the opinion that the disuse of alcohol leads to the use of other narcotics. He had taken notes of thirty-three opium-eaters, all of whom used alcohol. He also refuted the notion that teetotal children were pale and unhealthy, and that teetotalers consumed more food than others. There is certainly a most extensive agreement in the medical world against the use of alcohol in any but the most moderate quantities, and to the effect that it should be taken only in connexion with food and in diluted forms. Those who take raw spirits or strong wines, at odd times and apart from food, must be ignorant indeed of the nature of the human body and of the laws of health. The power of resisting its bad effects varies, for unknown reasons, in different constitutions. The case of a man, aged eighty-four, is mentioned by Anstie, who lived for twenty years on a bottle of gin and one small finger-length of toasted bread per day. We have known such instances; but the assumption by any particular person that he had such a constitution as this implies would be a presumption that would probably in the great majority of cases be soon punished by fatal disease.

THE MICRO-ORGANISMS OF TUBERCULOSIS.

ACCORDING to some recent experiments by Deutschmann, the conclusions of Klebs and Schüller, that the active agent in the infection of tuberculosis is a micrococcal organism, cannot be accepted without further investigation. In the experiments the production of tubercles of the iris was taken as the test of the activity of the virus. Tuberculous pus from the human subject, if allowed to stand for two or three days in a perfectly clean vessel closed with cotton-wool, separates into two layers; the upper clear and yellowish in colour, and the lower composed of thick pus. The former is found on microscopical examination to be completely free from pus cells, but it contains a large quantity of very small bodies in vigorous movement, which correspond exactly with the micrococci described by Klebs and Schüller as characteristic of tuberculosis, and which Deutschmann has also found constantly in tuberculous material. He injected this serum, containing the micrococci, into the anterior chamber of the eyes of guinea-pigs. The pus from which the serum was obtained came from three different individuals. The result was that in every case the injection of the serum was without effect, while that of the lower layer invariably caused tuberculosis of the iris, after the lapse of the usual period of incubation. This result, although unexpected, was remarkably constant. Even when considerable quantities of the serum were injected, it never caused tuberculosis. The fluid from the anterior chamber of the eyes, in which tubercle had been thus produced, was injected into the eyes of other rabbits, but without result, although the liquid contained pus corpuscles and the micrococci which are supposed to constitute the *materies morbi*. If, however, the liquid was taken at a late stage, when, in addition to the pus and micrococci, it contained the products of degeneration of the tubercular formations on the iris, tubercles always resulted from the inoculation. Some liquid from the anterior chamber of a child suffering from tubercles of the iris was also injected into the eye of a rabbit, but without result, although it was found to contain numerous mobile micrococci. These results, Deutschmann concludes, can only be explained on three hypotheses: (1) that micrococci have nothing to do with the tubercular infection, or with the tuberculous virus; (2) the micrococci serve only as the vehicles of the tubercular infection when they can germinate in a suitable soil, such as is furnished by the lower layer of the tubercular pus; and (3) the specific organisms were placed in such unfavourable conditions that they had no pathogenetic action. It is conceivable, for instance, that the micro-organisms were so rapidly absorbed from the anterior chamber, and so rapidly rendered harmless in the blood, that they had no effect, whereas the slower absorption of the lower pus layer gave them time to multiply in it.

"THOUGHT-READING."

THE demonstration given by Mr. Irving Bishop, before a large and distinguished assembly of literary and scientific men, including some of the leading members of our profession, was in some respects disappointing. Perhaps the rather striking title of "thought-reading," and the *imprimatur* given to Mr. Bishop's powers by Dr. Carpenter and Professor Huxley, raised expectation higher than was warrantable. At the same time there can be no question that so far as Mr. Bishop is concerned, the demonstration was perfectly genuine, and free from any suspicion of trickery. Amongst those present were the Right Hon. Lyon Playfair, M.P., Mr. Francis Galton, Professor Croom Robertson, Dr. Brydges, Mr. Moncure Conway, Rev. Llewelyn Davies, Professor Burdon Sanderson, Mr. Romanes, Dr. Wilks, Dr. Andrew Clark, Dr. Hack Tuke, Dr. Bastian, Dr. Pye-Smith, Dr. Buzzard, Dr. Whipham, Dr. Coupland, Mr. E. Hart, Professor Lankester, Dr. Donkin, Dr. Curnow, and Mr. Spencer Wells. It is hardly necessary to describe in detail the various tests that were applied to Mr. Bishop; suffice it to say that they were limited to three kinds. In the first, he undertook to find an object placed in a part of the room during his absence, by requesting the gentleman placing it to keep a distinct image of the place in his mind, whilst Mr. Bishop, who was brought into the room blindfolded, kept the back of the left hand of the gentleman who had concealed the article pressed against his own forehead. He travelled round the room in this fashion until he came to the place, when he stopped, and soon lighted on it exactly. This experiment was repeated two or three times, Mr. Moncure Conway, Dr. Lyon Playfair, and Professor Croom Robertson being the subjects of the experiments. The condition for success was that the "thinker" should be all the time forming in his mind an exact and vivid picture of the place where the object was. Mr. Bishop, who is a slightly-built, pale young man, of neurotic temperament, always became apparently much exhausted by the process, no such visible effect being produced upon the one whose "thoughts" were being filched. The first two experiments were perfectly successful. In the one Mr. Moncure Conway, in the other Dr. Lyon Playfair, were those upon whom they were tried. A third and fourth experiment of the same nature, in which Professor Croom Robertson was the subject, failed; and the cause of the failure was interesting. Professor Robertson had placed the article in the hand of a gentleman who had subsequently left the spot where he was seated when he received the article. Mr. Bishop, after the necessary application of Professor Robertson's hand to his forehead, travelled all over the room without coming to a standstill, and apparently at a loss to indicate the place. At last Professor Robertson explained what had happened. In another experiment with Professor Robertson, Mr. Bishop soon correctly lighted on the place where the object had been first concealed, but could not find its final resting-place, although he hovered over the spot. Of the second variety of experiments, one was successful, the other unsuccessful. Professor Ray Lankester had to form a vivid mental picture of a pain, from which he said he was at that moment suffering, and Mr. Bishop, taking his left hand, and pressing it against his forehead, soon hit upon the precise spot at which the Professor had an aching tooth. At a later period of the evening the same experiment was repeated with Dr. Pye-Smith, who had a pain in the hand, but without success. In the third variety of experiments, in which Mr. Bishop pointed out letters in the word thought of by the individual whose hand he held as above, only one was successful. Dr. Lyon Playfair was the subject again; but the experiment failed twice with Dr. Bastian, Professor Robertson, and Mr. Brooke. In all this Mr. Bishop was perfectly frank and open; he reiterated more than once that he could offer no explanation of the failures any more than of the successes; and, for our own part, we are neither surprised at the failures, nor consider that they tell against the genuine character of the performance. What is instructive, however, is this, that those gentlemen with whom Mr. Bishop succeeded were possibly more nervously constituted than those with whom he failed; so that unconsciously they told by the involuntary contraction of their muscles what was passing in their minds. Mr. Bishop claims to have discovered a new fact in science. He has no part with the Spiritualists, whose manifestations he asserts he can repeat when he has seen them. So far as the exhibition on Monday evening went, he failed to satisfy us that there is in him any special faculty for discerning mental operations; for all the experiments, it must be remembered, were done through the contact of the hand of the subject with the forehead of Mr. Bishop, so that any slight tremor or involuntary muscular movement would be at once perceived by him. It is conceivable that in some individuals the imaging in their minds of the precise spot of a pain &c. would cause an involuntary and unconscious contraction of their muscles when this spot was reached; but it is only just to Mr. Bishop to admit that even this interpretation is not wholly satisfactory. Mr. Bishop is not a clever trickster, who wishes to practise on the credulity, or defeat the scepticism, of scientific men; but he is likely to be rather over-credulous himself upon the subject with which he is dealing. We imagine there must have been some feeling of disappointment at the result of the séance among those present: they had come to see something mysterious and inexplicable; they departed after witnessing a few performances, which can be explained—whether correctly or not—upon a simpler hypothesis than that put forward in the phrase "thought-reading." Now that the real meaning of mesmerism, stripped of all the delusions and trickery which so embarrassed it, has been revealed by the strictly physiological study of hypnotism, we are bound to look for simple physiological explanations for such "powers" as those originally claimed for Mr. Bishop; and it does not detract from the interest, although it may rob them of the mystery, attaching to such manifestations, to regard them solely in that light.

COVENT GARDEN MARKET.

THE inconveniences resulting from the overcrowded and dirty condition of Covent Garden Market and its approaches are well known to the general public who have occasion to visit it, but only those who live in the immediate neighbourhood can form an adequate conception of the filth and smells and the general unsavouriness of the place and its surroundings. A correspondent writing to us on the subject complains that a few days since a cart loaded with manure from the purlieus of the market upset in the street and discharged the whole of its contents into the area of his next door neighbour. Unpleasant as this catastrophe undoubtedly was, it would have called for no comment on our part had not our correspondent informed us that the cart in question was not a muck cart proper, but a market garden waggon used for bringing up cabbage and green vegetables from the country, and was taking back a return load of manure. The practice of thus conveying fresh vegetables and manure alternately in the same cart is as disgusting as it is dangerous. There can be no doubt that a considerable amount of the filth encrusted on the interior of these carts gets rubbed off and injures the vegetables by depriving them of their freshness and natural flavour, if it does not actually impart to them a *soupçon* of stable and street droppings. The attention of the sanitary authorities ought to be called to this state of things, and a reform effected in this as well as other details concerning the management of the market generally. It is well known that emanations from decomposing animal and vegetable matter are the inciting, if not the efficient, causes of septicæmia and blood-poisoning, the bane and peril of surgical practice. Nevertheless, we hear with amazement that it is seriously proposed to establish a special hospital for "stone" cases in close proximity to this hot-bed of disease. Lithotomy, lithotrity, and the whole series of operations for the treatment of stone are, *par excellence*, the surgical procedures which are exposed to the gravest risks, and require to be carried out with the most elaborate precautions to secure a pure atmosphere and innocuous surroundings. Special hospitals are bad anywhere and everywhere, but if it were desired to name the worst possible site for an institution of that class, it would be difficult to select one more insalubrious than the vicinity of Covent-garden; not to mention the fact that this neighbourhood is one of the noisiest in London, sleep at night being practically impossible. Who can be the responsible promoters of this new venture?

THE ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

PROFESSOR DE CHAUMONT has presented a report to the Special Committee of the Royal Portsmouth, Portsea, and Gosport Hospital, on the sanitary condition of the building, which shows it in a light even worse than that exhibited by Colonel Percy Smith, R.E., in the report by that gentleman we referred to a short time ago. According to Professor de Chaumont, the state of the hospital is so bad that any attempt to improve the present building would, in fact, be a waste of money. Site, general arrangement, particular details, drainage, &c., all seem to be irredeemably bad. "The question of rebuilding the hospital should," says Dr. de Chaumont, "be at once taken into serious consideration, for although some useful remedial measures may and ought to be carried out in the meantime in the present building, it is hopeless to expect that it can be made a good hospital in the proper acceptation of the term." The details given amply confirm this conclusion, and throw considerable doubt upon the advisability of any tinkering being attempted even for the temporary improvement of the building. The remedial measures suggested pending more radical changes simply serve to show that the radical changes should have the first, if not the sole, consideration.

TRICHINÆ AND TRICHINOSIS.

THE official report prepared for the United States' Government by Dr. W. C. W. Glazier, of the Marine Hospital Service, is on the whole somewhat disappointing. If it have for one object to set before the American public a complete and trustworthy account of trichinæ and trichinosis, it has also for another to make known the actual condition of the prevalence of parasitic disease of this nature in the United States, and to disabuse certain European countries of the exaggerated notion that has recently possessed them of the degree of prevalence of trichinosis among American swine. The first object has been very fairly attained by Dr. Glazier in the detailed account he gives of trichinæ and trichinosis, chiefly taken from German sources; the second is very imperfectly dealt with. He gives a table of the various accounts of trichinæ occurring in man which have been published in the United States, and presents a summary of the reports from pathologists in different parts of the States, which justify the inference that trichinosis in the human species is by no means commonly known in America; but he supplies no definite information upon the prevalence of the disease among the United States' swine, which is the question that most interests us on this side of the Atlantic, and which has given rise to so much uneasiness both in this country and on the continent of Europe. The report generally points to the importance of a thorough investigation of the subject in relation to swine in the United States.

EARL GRANVILLE ON THE BROWN INSTITUTION.

IN his opening remarks after the presentation of degrees at the University of London, on Wednesday last, Earl Granville made a graceful allusion to the loss sustained by the University in the election of the Superintendent of the Brown Institution, Dr. Greenfield, to the important chair of Pathology at Edinburgh University, and congratulated the University upon the appointment, remarking that London, perhaps, might some day have the pleasure of conferring similar honour upon an Edinburgh graduate. He referred in warm terms to the great and important labours effected at the Brown Institution since its foundation, ten years ago, by Professor Burdon Sanderson, Dr. Klein, and Dr. Greenfield, and held that these results more than justified the step taken by the University in accepting the Brown bequest, and undertaking to carry out its provisions. Passing from the scientific work of the institution, which had been so fruitful, Earl Granville remarked upon the benefits it had conferred as a hospital for animals, upwards of three thousand having been treated there during the past year.

ROYAL UNIVERSITY OF IRELAND.

THE pecuniary endowments proposed by the Senate of the new university are extremely liberal, more especially as regards the Fellowships. Independent of the various exhibitions offered, it is suggested by the framers of the scheme that twelve scholarships of the value of £50 each shall be allocated each year for competition—viz., four in classics, four in mathematics, and four in modern literature. They will be tenable for three years, and will be open to all students who at the Matriculation Examination next preceding the Scholarship Examination shall have gained honours in those subjects respectively. As regards the Fellows, the scheme proposes that they shall number forty-eight, the salary of each, if he be not also a Fellow or Professor of some other university or college attached to a university or college endowed with public money, being fixed at £400; while should he be in receipt of a salary from another university or college as Fellow or Professor, then he shall receive such sum annually as, with his other salary, shall amount to £400 a year. Each Fellow shall hold office for seven years. There shall be also fourteen Junior Fellowships, tenable for seven years.

BLEEDING AFTER TOOTH EXTRACTION.

IN another column Dr. Prickett draws attention to a subject of considerable interest—namely, the evil occurrence of, and the consequences resulting from, prolonged bleeding after tooth extraction. The Dentists Act, having thrown open the practice of dentistry in all its branches, together with all that can be comprised under that term, has done much to enlarge the source of danger to which our correspondent refers. Cases have been brought under our notice in which very grave results have supervened on the hæmorrhage from the socket of a tooth which has been "dragged out" of its place by a non-surgical dentist. The public will do well to be warned of the peril which may ensue if bleeding after tooth-drawing is neglected. Sufferers who have made the mistake of not in the first instance applying to a fully qualified surgeon for the relief of toothache should at least be prompt in securing the services of a competent practitioner when hæmorrhage begins.

THE FARMYARD IN THE STREETS.

SINCE the week before last a large quantity of straw, daily increased by horse droppings, has been lying where Grosvenor-street is crossed by Davies-street. The decomposing vegetation, wetted by the rain, and warmed into chemical activity by the sun, is blown about by the east wind into the neighbouring houses, the inhabitants of which thus enjoy the advantage of inhaling the odours of the farmyard without the trouble of leaving the West-end at the height of the season. They owe this accommodation to the authorities of the parish of St. George's, Hanover-square, who, however, if the arrangement be harmless, are somewhat inconsistent in one of the sanitary hints which they freely circulate—"Empty dustbins weekly, and keep them covered, but do not throw vegetable matter into them—better burn it." Is the medical officer of health out of town?

THE EDINBURGH GRADUATES' CLUB.

A LARGE company assembled at the dinner of this club on Wednesday, May 11th. The chair was occupied by Professor Masson, who humorously discussed the mission of Scotchmen in England. Amongst the visitors were Lord Rosebery, Mr. Woolner, R.A., Professor Macfarren, J. A. Campbell, Esq., M.P., J. Erichsen, Esq., Col. Arthur, Alderman Ellis, and Alderman Glover, J.P. Dr. Lyon Playfair proposed the health of Lord Rosebery, who, in the course of his reply, referred to the Commission on the Medical Acts, and said that he had declined taking part in the work from the somewhat delicate nature of his position as Rector of two Scotch universities. He spoke favourably of Lord Camperdown as chairman.

THE LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

ARRANGEMENTS have been completed with University College, Liverpool, by which the School of Medicine in connexion with the Royal Infirmary from henceforth becomes its Medical Faculty. The school will be represented on the Senate of the College by the Lecturers on Medicine, Surgery, Anatomy, and Physiology, who for the future will be designated Professors. The College has acquired the site and grounds of the Lunatic Asylum connected with the Royal Infirmary, which is about to be closed, and as soon as the necessary adaptations are completed the College will be opened.

THE ROYAL (MEDICAL ACTS) COMMISSION.

NO formal summons for a meeting of the Commission has, we are informed, yet taken place, but it is probable that a meeting will be held in about ten days. The address of the Medical Acts Commission is 2, Victoria-street, S.W. The secretary is John White, Esq., Barrister-at-law.

WE regret to announce the death of Surgeon-Major Charles Haines, Army Medical Department. Mr. Haines left Bombay as a passenger in H.M. troopship *Crocodile*, in very bad health, suffering from phthisis pulmonalis, and expired on board ship the day after the vessel reached Portsmouth. Mr. Haines obtained his commission as an assistant-surgeon in September, 1863, and was promoted to the rank of Surgeon-Major in April, 1876.

A CASE of alleged metallic poisoning has been made the subject of judicial inquiry at Stone, Staffordshire. The facts brought to light at the examination of the accused are of some medico-legal interest, and may call for comment on a future occasion.

FOR the first time in its annals our leading Medical Society met and adjourned without having any scientific material for discussion. On Tuesday last this unique event happened to the Royal Medical and Chirurgical Society, and it betokens either that the Fellows are becoming tired of writing papers, or that their whole energies in this direction are absorbed by the forthcoming Congress. The latter view is, we trust, the correct one; and the former will, no doubt, speedily be dispelled by an increased amount of vigour on the part of the Fellows, who will have the advantage of securing an early day for the reading of their papers.

THE annual dinner of the officers of the Army Medical Department will, we understand, be held at the Inns of Court Hotel, Lincoln's-inn-fields, on Saturday, June 4th, under the presidency of Sir W. M. Muir, the Director-General. Officers intending to be present on the occasion should send their names to Surgeon-Major Clarke, Whitehall-yard.

THE *London Gazette* of the 6th inst. contains an Order in Council renewing for the term of five years, dating from May 23rd, the appointment of Mr. John Simon, C.B., F.R.S., and Mr. Thomas Pridgin Teale, F.R.C.S., as members of the General Council of Medical Education and Registration of the United Kingdom.

THE appointment of Dr. Fetherston, a member of the Senate, to a seat on the Council of the University of Melbourne, forms a subject of gratulation by the *Australian Medical Journal*. It appears that several attempts had previously been made to secure the return of a medical candidate, but without success.

THE *Echo* of Thursday says the fasting girl at Strathaven, in Scotland, having been threatened with incarceration in a lunatic asylum, began to partake freely of food yesterday morning. The medical men have their suspicions that she has been taking food all along.

THE Council of the College of Surgeons, at a meeting held on Thursday, elected Mr. Charles Sissmore Tomes, F.R.S., a Member of the Board of Examiners in Dental Surgery, in the room of Mr. Salter, resigned.

THE Governor of Gibraltar has appointed John H. Bryant, F.R.C.P. Edin., to take medical charge of the sick poor of the South District, in the place of Surgeon-Major A. Allan, M.D., resigned.

PROFESSOR GEGENBAUER, of Heidelberg, is reported to be suffering severely from blood-poisoning, the result of a wound incurred whilst dissecting.

DR. PAUL F. MUNDÉ, of New York, has been elected Professor of Gynæcology in Dartmouth Medical College, in place of the late Dr. Peaslee.

ROYAL INSTITUTION OF GREAT BRITAIN.—The following Vice-Presidents for the ensuing year were announced at the general monthly meeting, on May 9th, 1881:—Mr. William Bowman, Mr. Frederick Joseph Bramwell, Sir W. Frederick Pollock, Bart., Mr. William Spottiswoode, Mr. George Busk, Mr. Warren De La Rue, M.A., D.C.L., F.R.S., Secretary. Messrs. Frederick Arthur Crisp, Ernest Gye, and Samuel Armstrong Lane were elected members. Dr. John Tyndall was re-elected Professor of Natural Philosophy.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stroud, Rural (*Gloucestershire*).—Dr. Partridge estimates the population in this district in 1880 at 29,320, and gives the birth-rate for that year as 28·1, and the death-rate as 17·2, per 1000 inhabitants. He has the following comments upon the deaths entered as "uncertified" in the register, in this instance forming 5·5 per cent. of the total number registered:—"We may fairly assume, when a death is entered on the register as uncertified, that the person has not been seen by a registered medical man, or has been in the hands of an unqualified person, or perhaps of some 'wise woman.' The stated causes of death in such cases are almost worthless, being the opinion of ignorant or incompetent persons, and where medical aid is not sought it is most likely the result of neglect on the part of the parents. So many premature births and convulsions in infants lead to the question, Are they the result of malpractice on the part of midwives? Or may not some be attributed to *abortifacients?* One unqualified practitioner who resided in this district has left, but no certificate was accepted from him as to the cause of death. That there are still some persons who practise without being qualified there is no doubt, and probably some of the uncertified cases have been treated by them. There is no lack of medical aid to be had, and persons dying without any, except in cases of sudden illness, is at least very suspicious, as I know that the parish surgeons are always ready to assist in time of need. These cases should be carefully inquired into by persons more competent to judge them than the ordinary policeman, whose knowledge of these things does not enable him to distinguish between a case of 'overlaying' a 'premature birth,' or a 'probable hydrocephalus.' An inquiry into the causes of death in uncertified cases, especially those of illegitimate children, by a competent person, would have a deterrent effect on those whose unnatural feelings lead them to neglect their own offspring, and who are too often glad to be rid of the trouble and expense attending the care of them." Dr. Partridge considers separately the sanitary condition and requirements of the several places entering into the rural district.

Tamworth, Rural (*Staffordshire*).—Dr. Herbert J. Faussett's report for this district in 1880 contains much of interest on its sanitary condition and administration. The population is estimated at about 14,000, and is distributed over an area of 40,000 statute acres. The birth-rate is given at 36·0, and the death-rate at 16·9 per 1000 inhabitants. He notes of diarrhœa among young children, prevalent in August and part of September, that "the disease appeared in a more virulent form within the area of the river district. There is little doubt," he adds, "that the exhalations arising from open drains, from ditches filled with stagnant sewage, and from ground sodden with repeated inundations of liquid sewage from a polluted river, contaminate the air with putrefactive ferments, which, when breathed in, originate disease in all those who from lowered health are unable to resist such potent influences." He attributes, moreover, some part in the production of diarrhœa to polluted water from shallow wells, and even from deep wells within the area of the river-bed. The following observations on floods in their sanitary aspect will be read with interest in view of the present proposition for legislation for the regulation of rivers. "The question of the prevention of floods is one which greatly concerns the health of those living in the neighbourhood of low-lying districts, liable to be flooded, over and over again, with water polluted with sewage and every description of filth. Rivers have hitherto been considered the natural recipients for all the sewage that can be turned into them. The Tame when it enters this district is already contaminated with sewage received in its course higher up, and it is also further polluted at various points within the district, more especially when it is at its ordinary level. When, however, the river is in a flooded condition, and receives, in addition to the sewage and solid refuse of towns and villages, the mud and detritus brought by each drain and streamlet, all this filth is washed over the lands for some hundreds of yards in width along its course. The owners and occupiers of any houses in these localities are exposed to all the dangers and losses derived from having the crops swept off the meadows, and the produce of their fields and gardens destroyed. Houses and premises are, in many places, flooded with this filthy polluted water, which makes them very unhealthy to live in, from the saturated state of the floors and soil, and from the foul exhalations arising therefrom. This terrible condition of affairs, which applies in a lesser degree to the lands flooded by the river Anker, is continually taking place, and must tell very unfavourably on the health and constitutions of the inhabitants in many ways, where so many hundreds of acres are so frequently under water; so many as sixteen times during the year. For, in addition to the great dangers to which human life is exposed, the injurious deposits left by the floods have done an immense amount of damage to the lands, which have become less fertile and nourishing, and at times positively injurious for cattle."

Shildon, Urban (*Durham*).—Mr. Fielden gives the birth-rate and death-rate for this district in 1880 as 31·6 and 19·3 respectively per 1000 inhabitants, the population being estimated at 10,000. Scarlet fever and measles were epidemic in the district during the course of the year, and Mr. Fielden observes that he generally found the cases occurred under circumstances where there was more or less neglect of sanitary precautions—to wit, wet or uncovered privies, uncemented, undrained ashpits, heaps of decaying matter lying near doorways in small yards, imperfectly trapped or constructed drains, &c. It is evident that there is no lack of work for the sanitary authority to do in this district, and it is somewhat disheartening to read that the recommendations of a special report prepared by the medical officer of health on the sanitary condition of the district should not have been attended to.

Worcester (*City*).—Dr. Strange's report for 1880 shows much that is gratifying in the sanitary condition of this city. It would appear that nuisances have markedly diminished in number, that the city water-supply is good, and the use of water from wells is being abandoned in all the closely built parts of the city, very few pumps being now in use. Further, the sewerage of the city is being extended where most needed, and amended where defects have been shown. The substitution of waterclosets for open privies is, moreover, being steadily carried out wherever the condition of the same permits of this being done. Worcester has a hospital for infectious diseases, which Dr. Strange states "continues to justify its establishment." The population is estimated at 35,200, and the birth-rate for 1880 was 33·22, the death-rate 20·0 per 1000 of the inhabitants. On a retrospect of the past seven years, Dr. Strange observes "the data presented, I think, will justify your authority in feeling satisfied that the great work of sanitary amelioration is being fairly and steadily carried out."

Saltley, Urban (*Warwickshire*).—Mr. W. G. Cresswell, in his report on this district for 1880, returns a general death-rate of 23·96 per 1000 of the population; this rate, as well as the mortality from zymotic diseases, being higher than in either of the three previous years. This increase of mortality is assigned to the large number of deaths from diarrhœa, and upon this subject Mr. Cresswell observes: "The fault lies with the mothers and nurses; not, let it be understood, in their wilful neglect, but rather in their not knowing the principles which ought to govern the feeding of, and otherwise caring for, their young charges." Mr. Cresswell proposes to combat this ignorance of mothers and nurses by issuing a small pamphlet on infant nurture. The prevalence of diarrhœa was in the autumn, and earlier in the year the district suffered from scarlet fever. It would appear that a system of sewerage is being carried out in the district.

Reading, Urban (*Berkshire*).—Dr. Shea's report for 1880 shows that the sanitary authority of this urban district are not unmindful of their duties, and that they are fortunate in possessing a medical officer of health peculiarly able to advise them rightly on the medical aspects of these duties. Dr. Shea's report is an excellent example of what a report should be in districts of this class. Reading in 1880 had a population estimated at 41,500, and its death-rate for that year is given as 19·6 per 1000 inhabitants—a somewhat higher death-rate than obtained in the previous year. The birth-rate for the same period was 37·8 per 1000. The augmented death-rate for 1880, and particularly the higher rate from zymotic diseases, are attributed to the unusual mortality that occurred last autumn from diarrhœa, and to the fatality of scarlet fever and whooping-cough during the earlier part of the year. Dr. Shea has interesting observations on the several forms of zymotic disease which appeared in the urban district during the year, but we must limit our attention to his observations on diarrhœa, and of these we would reproduce the following. He tells us that in the year 1875 diarrhœa was extremely fatal in Reading, though not so fatal as in 1880. To this he adds that, "In both these years, 1875 and 1880, there was *a very wet July, followed by a hot August, and when such a sequence prevails, summer or autumnal diarrhœa prevails.*" Further, he says that so far as the limited data at his command go, "it would appear that the mean temperature and mean rainfall afford no guide, but that a certain relative sequence must be established—(1) a wet month, then (2) a hot and comparatively dry one. If these occur the atmosphere is in a condition to favour the rise of soil and other exhalations, and to favour the appearance of diarrhœa from these causes, and by setting up incipient fermentation in articles of food and drink, &c. No doubt overcrowding, foul air, and bad sanitary arrangements favour the development and fatality of summer diarrhœa, and require to be closely watched and guarded against; at the same time the natural tendency that is created in hot weather and hot climates to throw an excess of elimination of bile on to the liver, and so induce bilious diarrhœa, must not be forgotten."

SMALL-POX HOSPITAL ACCOMMODATION IN THE METROPOLIS.

We are glad to have to state that the Metropolitan Asylums Board have seen their way at least to a partial solution of their difficulty as to providing further hospital accommodation for cases of small-pox in the metropolis. They propose to give up the Homerton Hospital solely to small-pox, dispersing cases of "fever," which under ordinary circumstances would be sent there, in their other hospitals. Further, they are now forming on an extensive estate they have at Darenth, in Kent, where the Board has a very large imbecile asylum, a tent hospital for convalescents from small-pox, and which will accommodate at least 300 patients. The Board propose to take the whole responsibility of transferring convalescents from London hospitals to Darenth, which is sixteen miles from the metropolis by the high road—a drive in an ambulance which convalescents may well undergo without risk to their health. Thus the Board, by its arrangements at Darenth and Homerton, will set free for acute cases of small-pox some 500 beds.

THE NATIONAL HEALTH SOCIETY AND VACCINATION.

The National Health Society has issued an admirable little pamphlet for general distribution among the public, entitled "Facts Concerning Vaccination for Heads of Families." This pamphlet, it is stated, has been revised by the Local Government Board, and this Board has further sanctioned the repayment out of the metropolitan common poor fund the expense of printing twenty thousand copies, and of their distribution from house to house in the Poplar Union by thirty persons appointed by the local Guardians for this duty. We congratulate the Society upon its admirable little pamphlet and excellent action in this matter, and we hope the example of the Poplar Guardians will be largely followed in the metropolis. We trust also that large employers of labour and all who are interested in controlling the present epidemic will give to this pamphlet as much publicity as possible. The society are prepared to supply the pamphlet from their office, 44, Berners-street, W., at the cost of printing—namely, 18*s.* per 1000.

A case of small-pox has been imported into Bristol from London, and Dr. Davies, the medical officer of health, has thought it desirable to suggest to the Sanitary Authority the advisability of taking special measures of precaution as to vaccination. The patient is isolated in the sanitary hospital. At a recent meeting of the Authority, Dr. Davies reported upon some deposits of chemical refuse in the suburbs of the city. It appears that houses were built on a part of this refuse, which, although objectionable, does not appear to be unhealthy, and, indeed, has one negative advantage—namely, no drinkable water can be obtained from it, and so the residents on it are saved from the danger of drinking water from shallow wells and its liability to convey typhoid.

Mr. Dodson, the President of the Local Government Board, having consented to receive a deputation from the Poor Law Medical Officers' Association, on the subject of compulsory superannuation, has fixed Tuesday the 17th instant, at 2 P.M. precisely, at the Board's Offices, Whitehall. It is to be hoped that all Poor-law medical officers and others interested in this question will make an effort to attend, and that they will use what influence they possess to induce such M.P.s as they may happen to know to be present in support of the objects of the Association.

A case was recently heard before Mr. Justice Stephen, in which damages were claimed from the Manchester Corporation for injury done to a house from the bursting of one of the Corporation's sewers during a storm. The learned judge held that the Corporation were bound to see that their sewers were in a sound condition, and as they had failed to do this, they were liable to damage; but he stayed execution to give the Corporation opportunity to move for a new trial.

The Local Government Board have had to direct the attention of the Prescot Guardians to the exceptional entry, in a list of seventy-five children in a vaccination return, of eight reported as "insusceptible of vaccination." The Board have requested that the certificates of these cases shall be forwarded to them, cases of insusceptibility being of rare occurrence.

A milk-dealer has been fined at Warrington for not having notified to the Sanitary Authority a case of scarlet fever, a child in her house, which she attended and nursed while pursuing her business. The child died, but no medical man was called in until the day of death.

In a case preferred before the Master of the Rolls, for an injunction against a small-pox hospital erected by the Fulham District Board of Works in Little Wormwood Scrubs, the application was refused, but leave given to the appellants to serve motion at a later date, and produce further evidence.

No less than eleven district boards and vestries in different parts of the metropolis have made overtures to the Poplar District Board for accommodation for small-pox cases in their infectious disease hospital at West Ham.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further decline last week, and was lower than in any previous week of this year. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5205 births and 2929 deaths were registered last week. The births exceeded by 19, whereas the deaths were so many as 328 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 22·9, 22·0, and 21·2 in three preceding weeks, further declined last week to 20·1. The lowest rates in the twenty towns last week were 12·4 in Brighton, 14·4 in Leicester, 16·2 in Sunderland, and 16·5 in Birmingham. The rates in the other towns ranged upwards to 22·1 in Liverpool, 23·2 in Hull, 24·3 in Nottingham, and 28·5 in Wolverhampton. During the first five weeks of the current quarter the death-rate in the twenty towns averaged 21·7 per 1000, against 24·3, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 410, 382, and 375 in the three previous weeks, rose again to 410 last week; these included 105 from measles, 89 from small-pox, 76 from whooping-cough, 56 from scarlet fever, and 31 from fever, principally enteric. The annual death-rate from the principal zymotic diseases averaged 2·8 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Hull, to 3·4 and 3·7 in Portsmouth and London. Measles showed the largest proportional fatality in Sheffield, Bristol, and London, scarlet fever in Wolverhampton and Hull, and whooping-cough in Sheffield and Salford. The highest death-rate from fever was again recorded in Liverpool. The 22 deaths referred to diphtheria in the twenty towns included 12 in London and 4 in Portsmouth. Small-pox caused 94 more deaths in London and its outer ring of suburban districts, and 1 in Oldham; whereas no fatal case was recorded in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 963 and 942 at the end of the two preceding weeks, rose to 1093 last week; this is the largest number that has been under treatment in these hospitals since the epidemic of 1871–72. The new cases admitted to these hospitals were 363 last week, against 244, 227, and 178 in the three previous weeks; the Homerton Fever Hospital has just been opened for small-pox patients, which accounts for the large increase in the number of admissions last week.

The deaths referred to diseases of the respiratory organs in London, which had been 395, 338, and 328 in the three preceding weeks, further declined to 297 last week, and were 17 below the corrected average number in the corresponding week of the last ten years; they included 152 from bronchitis and 99 from pneumonia. The annual death rate from lung diseases, exclusive of phthisis, was equal to 4·2 per 1000 in London last week; while the rate from the same diseases was equal to 4·6 in Liverpool.

The causes of 89, or 3·0 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. This proportion of uncertified deaths did not exceed 1·6 per cent. in London, whereas it averaged 4·4 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Norwich, or Plymouth; while the proportions of such deaths were largest in Sunderland, Oldham, Leeds, and Hull.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 21·4 per 1000, against 23·5, 22·1, and 21·2 in the three preceding weeks; this rate exceeded by 1·3 the average rate prevailing in the twenty English towns. The rates in the eight Scotch towns ranged from 17·3 and 20·0 in Leith and Edinburgh, to 25·3 and 31·8 in Perth and Paisley. With reference to the recent high death-rate in Paisley, it is noted in the Registrar-General's return that it is probably over-stated by an under-estimate of the present population, as the recently enumerated numbers have not yet been revised and brought into use. The deaths referred to the principal zymotic diseases in the eight towns, which had been 82, 69, and 64 in the three preceding weeks, were again 64 last week; they included 17 from diarrhœa, 12 from "fever," 11 from whooping-cough, 11 from scarlet fever, 8 from diphtheria, 5 from measles, and not 1 from small-pox. The annual death-rate from these zymotic diseases averaged 2·5 per 1000 in the eight towns, and was 0·3 below the average rate from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 1·0 and 1·3 in Aberdeen and Greenock, to 2·9 and 3·2 in Glasgow and Paisley. The deaths referred to diarrhœa showed a further increase upon recent weekly numbers, and were equal to a considerably higher death-rate than that attributed to the same cause in the English towns. The deaths from "fever" (including typhus, enteric and simple continued), which had been 7, 11, and 7 in the three preceding weeks, rose to 12 last week, of which 7 occurred in Glasgow, 2 in Edinburgh, 2 in Dundee, and 1 in Paisley; the annual death-rate from this cause was equal to 0·48 per 1000, and was more than twice the average rate from fever in the twenty English towns. The 11 fatal cases of whooping-cough showed a marked further decline from the numbers in recent weeks, and included 4 in Glasgow, 2 in Edinburgh, and 2 in Paisley. The 11 of scarlet fever, however, showed an increase; 5 occurred in Glasgow, 4 in Edinburgh, and 2 in Dundee. Of the 8 deaths referred to diphtheria, 7 were returned in Glasgow; as were all the 5 fatal cases of measles. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had steadily declined from 163 to 116 in the four preceding weeks, rose again to 140 last week, and were equal to an annual rate of 5·5 per 1000, while the rate from the same diseases in London did not exceed 3·6.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a further decline last week, and was lower than in any previous week of the year. The annual death-rate in the city, which had been equal to 32·6 and 30·7 per 1000 in the two preceding weeks, further declined to 27·5 last week. During the first five weeks of the current quarter the death-rate in the city averaged, however, 30·1 per 1000, against 21·9 in London and 20·9 in Edinburgh. The 176 deaths in Dublin last week showed a further decline of 20 from the numbers in the two previous weeks, and included but 8, or less than 5 per cent., which were referred to the principal zymotic diseases, against 9 and 19 in the two previous weeks. These 8 deaths from zymotic diseases included 3 from fever (typhus, enteric or simple), 2 from whooping-cough, one each from small-pox, measles, and diphtheria, and not one either from scarlet fever or diarrhœa. The annual death-rate from these zymotic diseases was equal to 1·3 per 1000, while the rate from the same diseases was 3·7 in London and 2·4 in Edinburgh. The deaths referred to fever in Dublin, which had been 2 and 14 in the two preceding weeks, declined again to 3 last week; the annual death-rate from fever, however, was more than twice as high as the average rate from the same cause in the twenty large English towns. The fatal case of small-pox was the first recorded within the city since the end of March. The deaths referred to the other principal zymotic diseases were again satisfactorily few. The deaths of infants and of elderly persons differed but slightly from the numbers returned in the two preceding weeks.

VITAL STATISTICS OF TRINIDAD.

The Registrar-General of Trinidad has recently presented his report upon the vital statistics of the island during 1880, which contains some points of interest, although its statistical information is of a very meagre description. The population of the island is, for the purpose of this report, estimated at 140,000; but the estimate, it appears, is calculated by the addition of the excess of births over deaths since 1871 to the population then enumerated, without taking any account of the increase by immigration. This immigration, a considerable portion of which consists of coolies from India, has probably, it is said, raised the population to about 184,714, which number Sir S. Freeling, the Governor, anticipated would be enumerated in the course of a few days. With such an opinion of the present population of Trinidad it is not easy to account for the adoption of 140,000 as the basis for calculating the vital statistics for 1880. It is evident that the population of the island has rapidly increased in recent years, as only 109,638 persons were enumerated in 1871. In 1880 the births registered were 5346, against 3842 in 1871; and the deaths were 4010, showing an excess of births over deaths equal to 1336. The birth- and death-rates are given as 38·2 and 28·6 per 1000 respectively; both, however, are probably overstated by an under-estimate of the population. The mean death-rate for the ten years 1871–80 is given as 33·3 per 1000, and even assuming that this is somewhat overstated it is evident that the mortality is high enough to give undeniable evidence of insanitary conditions. It is disappointing to find that the report gives no information except the bare numbers of births, deaths, and marriages registered. Without tables showing the causes of death and the ages of the decedents it is impossible to form any sound conclusions as to the causes of the excess of mortality in the island.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

SCARLET FEVER AT HALIFAX.

Dr. Ballard, who has been engaged in an investigation of the recent unusual prevalence of scarlet fever in Halifax, met the Town Council there a few days ago and submitted to them the results of his inquiry to that date. In the main it would appear that these, particularly in regard to an infected milk-supply, have confirmed the results obtained by the previous investigations of Dr. Ainley, the medical officer of health, and he gave one example in this direction which we do not think has been made public before. One townsman during the outbreak had an evening party, and of thirty-five people who met there twenty-six were soon after attacked with scarlet fever or sore-throat. Dr. Ballard believed that this singular spread of the disease had to do with the distribution of infected cream. He animadverted upon the insufficient action taken by the sanitary authority in presence of the disease, and noted especially the want of proper supervision of inns where scarlet fever was present. He mentioned one instance especially where children suffering or convalescent from the disease were allowed to run about among the visitors without any check. He remarked also upon the action of the medical men in not sending reports to the medical officer of health of cases of scarlet fever coming under their notice, thus sacrificing the general good of the community to the professional feelings which had made Dr. Ainley's appointment so objectionable to them. But we apprehend that the profession in Halifax is as the profession elsewhere, and it was not to be expected that official success could be attained in the presence of such an anomaly as the appointment of a "homœopathist" to confer on health matters with the local practitioners of scientific medicine.

THE MILK EPIDEMIC AT ABERDEEN.

A Commission of Inquiry, appointed under the Public Health Act, has been held at Aberdeen into the curious outbreak of sickness which has recently prevailed in the town, apparently in connexion with the distribution of milk from a particular source. The Commissioners were Mr. Andrew Rutherford, advocate, Edinburgh, and Dr. H. D. Littlejohn, medical officer of health of that city, Mr. Charles Duncan, procurator fiscal, acting as their agent in the inquiry. A good deal of evidence was given in the course of the inquiry, but little was added to the information which has been already published in THE LANCET. The newer matter chiefly related to a series of microscopical examinations of the suspected milk conducted by Prof. C. Ewart, and which went to show that it contained numerous micrococci and bacteria spores. He believed that these microscopic organisms constituted a morbid element in the milk, but he had not completed his investigations regarding them; but so far as he had gone the results indicated that they were the cause of the disease. The Commissioners sat three days, and the results of their deliberations on the evidence submitted to them will be embodied in a report to the Board of Supervision.

Dr. W. B. Carpenter has contributed to the columns of *The Times* a letter, giving the results of his personal experience of vaccination and small-pox, and the question of vaccination generally. This statement of experience will, it may be hoped, cause anti-vaccinationists to pause in their suicidal course, and act as an antidote to the pernicious nonsense which they have scattered broadcast. Dr. Carpenter adds nothing new to our knowledge of the question, but he confirms in a most instructive and ample fashion the current views as to vaccination and revaccination as protective against small-pox.

THE SERVICES.

The *Bombay Gazette* of the 21st April publishes an announcement that Brigade-Surgeon Lundy, Army Medical Department, attached to the 2-22nd Regiment at Allahabad, had committed suicide by poison on the 19th of that month. On inquiry at the War Office we find that up to date no confirmation of the report has been received there.

Surgeon-Major A. Stephen, M.B., Bengal Medical Service, has been appointed Statistical Officer to the Government of India in the Sanitary and Medical Departments from the 18th November, 1880, in succession to Surgeon-Major J. L. Bryden, M.D., deceased.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet-Surgeon Charles John Fennell has been placed on the retired list of his rank from May 9th.

The following appointments have been made:—Staff-Surgeon Thomas O'Sullivan, M.D., to the *Mutine*, when commissioned; Staff-Surgeon William H. Colahan, M.D., to the *Revenge*, vice Surgeon M'Swiny; Surgeon William B. Drew, to the *Cockatrice*, when commissioned; Surgeon Myles O'C. M'Swiny, to the *Wrangler*, when commissioned. Staff-Surgeon H. Clerke, to the *Duncan* (in lieu of a surgeon), vice O'Sullivan; Surgeon Christopher Pearson, to the *Boscawen*, additional for the *Seaflower*, during cruising season; Staff-Surgeon Samuel Bamfield, to the *Implacable*, vice Campbell.

AT Highgate Police Court this week a first-class attendant at Colney Hatch Asylum was fined £2 and costs for kicking a patient on the side.

UNIVERSITY OF LONDON: CONVOCATION.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

A MEETING of Convocation of the University of London was held on the 10th instant. Dr. Storrar, Chairman, presiding. Mr. Allen was re-elected Clerk of Convocation.

Dr. POORE moved the adoption of the following resolution, recommended by the Annual Committee: "That it is desirable that the Preliminary Scientific (M.B.) Examination be held twice in the year—viz., in March and August; and that it be optional for candidates to take up either all four subjects at once, or two at a time, such subjects to be previously specified by them." A previous resolution had been passed unanimously by the House in January, 1880, and had been considered by the Senate. In that resolution it was recommended that the First M.B. Examination should also be held twice annually; but this was not so important as the Preliminary Scientific Examination. The Senate, with its usual readiness, had carefully considered the question, and referred it to an influential committee, and now awaited a further opinion of Convocation on the subject. The resolution was aimed at giving every facility to candidates without lowering the standard of the examinations. London afforded great opportunity for the study of medicine, greater than any place in the world, and yet, in order to obtain degrees, its students went to Edinburgh to graduate. The "paltry numbers" (the phrase used by a distinguished graduate, Dr. Bristowe, in a letter to the Chancellor) who take the London medical degrees were accounted for by the time and consequent expense entailed upon students who, matriculating in January, were unable to present themselves for the Preliminary Scientific Examination till the following July twelvemonth; and who, failing to pass the latter, had to spend another year before being able to make a second attempt. The clamour which had been raised in some quarters against the degrees was natural but unjustifiable; still the University was bound to give every facility if it would maintain its place and take away just grounds of complaint. The reasons in favour of doubling the examinations were shortly these. That the number of students seeking degrees is on the increase. That it would shorten the time required to take a degree, much time being at present used before the student can enter on his proper medical studies. It would be an act of justice to those who fail in only one subject—no inconsiderable number,—at present most hardly treated. Moreover, the increase in the numbers of those who take the London degrees would be an advantage to the professors, to the students, the university, and the teachers of science. The Edinburgh professorships were sought after because of their great value, and if London students were encouraged to go in for the science examinations, the teachers would reap the benefit. The objections raised to the change depended mainly upon the abolition of the Honours Examination, which was said to be a necessary outcome of the change. The objections were not raised by the students. They were as follows. That by doubling the examination the courses of study as at present prescribed would be deranged; but that was not an insuperable difficulty, and, besides, did not concern the University, which had only to consider the needs of its own graduates. It was said that it would increase the difficulties of examiners and render the obtaining of examiners a matter of difficulty; but surely this could not be seriously maintained. Then, there was the abolition of Honours, to which another resolution was devoted. The final clause of the resolution was proposed to meet the views of those who held that some students could carry two or three subjects in their heads at one time, but not four.

Dr. CURNOW seconded the resolution, and directed especial attention to the fact that the Senate had received replies to a request it had made to the deans of the metropolitan medical schools upon the desirability of this change, and that 13 out of 15 were in favour of it. This showed that those who were directly concerned in medical education, and who knew where the student's difficulties lay, were of opinion that the facilities asked for should be granted.

Dr. G. C. TAYLOR opposed the resolution, maintaining that it was of the greatest importance that nothing should be done to lower the standard of efficiency required of medical graduates.

Mr. R. T. **Roberts** moved an amendment, leaving out all the words after "August"; as, if the clause stood, it would not be justified in that examination alone, but would have to be applied to Matriculation also.

Mr. **Tidmarsh** seconded the amendment, on the ground that the clause in question was contrary to the spirit of the University.

Mr. **Tylor** questioned whether the Preliminary Scientific Examination should be retained. It was instituted in 1861, and contained few subjects really essential to medical graduates, to whom Greek was even more necessary.

Prof. **Thistleton Dyer** said the change proposed was one which was held to be of great moment by the executive officers of the examination. The argument that a great number of candidates presented themselves did not accord with the further statement by Dr. Poore, that the degrees were not sought after. The number of candidates was not larger than could be dealt with at the examination, and he considered the resolution as a subtle attempt to reduce the standard of these examinations. He could not see how multiplying examinations would afford facilities to decently prepared candidates, but only to those who would be encouraged to come up on the chance of passing, knowing that if they failed they could appear again after a short interval. The Edinburgh professorships were valuable because there was one great medical school in that city, and for no other reason. The resolution would have the effect of encouraging private study, to the detriment of teachers. He did not think much stress could be laid on the answers furnished by the deans of the medical schools. No doubt occasionally hard cases of rejection on simple subjects did occur, but such cases might be met if the Board of Examiners advised that a candidate so rejected might be examined in that subject only on his second appearance.

Dr. **Pye-Smith**, as one of those who signed the memorial to the Senate, gave his reasons for opposing the resolution if amended as proposed. In the course of his remarks he said all were agreed as to the desirability of affording facilities for obtaining medical degrees by a larger number of candidates, but care should be taken that the value of the degrees be not interfered with. It was undesirable to make the degrees easy, and he was of opinion that the examinations ought to be such as a majority of men could not pass, and he did not see how the taking of a degree could be facilitated without injuring its value. The idea of having two examinations annually was open to several objections. Twelve months was not too long for preparation for the Preliminary Scientific Examination, which stood on a footing quite distinct from the Matriculation. The latter dealt with subjects studied during the whole of school life, whereas the former embraces subjects to which only one year has been devoted. Holding the examination twice a year would practically lead to the inference that it was an examination which could be passed after six months' study, and would be a direct incitement to cramming. Therefore, unless the amendment were rejected, he would not vote for the resolution, which without the saving clause would be an unmitigated evil.

Dr. **Coupland** pointed out that the difficulties imagined had not been found by those other universities which held two similar examinations for their medical degrees more than once a year; that it would be easy to insist upon a year's interval elapsing between the passing of Matriculation and the Preliminary Scientific M.B.; that the value of the examinations did not depend upon their number, but upon their nature; and that the chief point which had been raised—viz., the disarrangement of class instruction—was not so great as not to be overcome. Students preparing for these examinations did not require lengthened courses, embracing the whole of the subjects (e.g., chemistry), and practically this was admitted in most medical schools where classes were instituted for the Preliminary Scientific Examinations, such classes not commencing before January, the examination taking place in July. The resolution was aimed at relieving a recognised grievance on the part of medical students.

Dr. A. W. **Bennett** was surprised that at any medical school in London the attempt should be made to compress the science instruction within six months. He supported the views of Dr. Pye-Smith, and urged that if the amendment were carried those who were interested in the value of this examination should vote against the resolution.

Dr. **Hilton Fagge** said the question was that a student at present had often to wait sixteen or eighteen months between the Matriculation and Preliminary Scientific Examination. He was not particularly anxious that only two subjects should be given; but at present it was a fact that the best men were excluded. He thought teachers overestimated the amount of work done through lectures; the student read books independently of them.

Mr. **Magnus** thought Dr. Pye-Smith's position an illogical one, and he did not see, if the resolution were carried and the change effected, any necessity for the schools to alter their courses.

Mr. **Spratling** said that science was becoming more and more taught outside medical schools, so that their convenience was not of moment.

Dr. **Poore**, in reply, said he did not feel strongly about the amendment. Professor Dyer had no right to say that this was a subtle attempt to lower the standard of the examination, and "cramming" was impossible in such a practical examination as the Preliminary Scientific.

The amendment was then put and declared carried; and the resolution as amended was also carried by a large majority.

Dr. **Poore** moved, and Dr. **Curnow** seconded, a resolution, "That instead of Honours in special subjects (in the Preliminary Scientific Examination) a general list be made at each examination as at Matriculation." This was opposed by Professor Dyer, but was carried with but few dissentients.

A discussion then took place on the desirability of an Act providing for the registration of teachers, but this and further resolutions bearing on the same subject and upon Sir John Lubbock's Bill were eventually passed over.

Mr. A. P. **Hensman** moved the following resolution:—"That it is just and desirable that women who are graduates of this University, and of the requisite standing, should be entitled to become members of Convocation, and to vote at the election of the Member of Parliament of the University," which was seconded by Mr. Nesbitt.

To this an amendment was moved by Mr. A. McDowall, seconded by Dr. A. W. Bennett, "That female graduates be admitted to Convocation."

The adjournment of the debate was moved by Mr. Tylor and seconded by Mr. Morris. It was supported by Mr. Hensman, and on being put to the vote was carried.

The House then adjourned.

INTERNATIONAL MEDICAL CONGRESS.

By the change in the presidency of the College of Physicians Sir W. Jenner becomes *ex officio* chairman of the General Committee of the Congress, a post the duties of which have up to the present time been so ably discharged by the chairman of the Executive Committee, Sir Risdon Bennett. Owing to a deficiency in space for the accommodation of the sections dependent on the fact that the honours' examinations of the London University will necessitate a portion of the buildings in Burlington-gardens being reserved, the Executive Committee have had to look for fresh meeting places, and these have been generously placed at their disposal by the authorities of the Royal School of Mines in Jermyn-street, and the Royal Institution in Albemarle-street, the use of the theatres of both these buildings having been granted. Two hundred and fifty foreign medical men have up to this time definitely announced their intention to attend. Abstracts of papers are rapidly arriving for translation into the three official languages of the Congress; these will be regarded as strictly private communications until the opening of the Congress, when they will be published in connexion with the programme already in circulation. Unless the abstracts are sent in early the translation and printing of them will become a sheer impracticability. The committee have received fifty guineas from another corporate body, the Faculty of Physicians and Surgeons of Glasgow, thus raising the sum now received from such sources to £235. The London Medical Corporations intend to show all the hospitality in their power; the College of Physicians have most liberally placed their house at the disposal of the Reception Committee for a head-quarters during the meeting, its central position making it especially desirable for such a purpose. The College of Surgeons will entertain the whole Congress at a conversazione in the Hunterian Museum, and the Society of Apothecaries purpose giving a dinner to a number of members in their hall at Blackfriars. The Executive Committee are anxious to make known to the profession that a register now lies at the College of Physicians in the charge of Mr. Gurner, where members can inscribe their names and pay their membership subscriptions. The inscription of names in this book is particularly to be wished, since it will very much diminish the press of members who will need to be enrolled on the opening day of the Congress. At the College of Physicians, also, forms are provided to permit those desirous of offering hospitality to enter their own names and the names of the guests they wish to invite.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, May 5th, a petition was presented from the Royal and Parliamentary burghs of Scotland for the abolition of the Scotch Board of Lunacy.

On Friday, in reply to Colonel Makins, Mr. Dodson stated that the small-pox tents at Fulham were near the Imperial Gas Company's works and the Fulham Waterworks, but to no other buildings whatever. Colonel Makins gave notice of a further question with regard to a proposal to erect a temporary hospital at Wormwood Scrubs. Dr. Farquharson gave notice that he will move the rejection of the Vivisection Abolition Bill.

On Monday, the second reading of the Vivisection Abolition Bill was deferred to July 13th. On the motion of Mr. Whitworth, a return was ordered of the amount of alcoholic stimulants used in Irish workhouses during 1880; and on the motion of Mr. J. Talbot, a return was ordered of the deaths from small-pox in the Metropolitan Asylums District from January 1st to April 30th, 1881. On the motion of Sir R. Cross, a select committee was appointed to inquire into the working of the Artisans and Labourers' Dwellings Acts. In reply to Colonel Makins, Mr. Dodson stated that the Fulham District Board applied to the Metropolitan Board of Works for permission to erect a temporary small-pox hospital at Wormwood Scrubs, and the application was refused, on the ground that the Act of Parliament under which the common was managed did not authorise its use for any such purpose. Replying to Mr. Hollond, Mr. Dodson said that as far as he could learn action under the Artisans' Dwellings Acts had been taken by local authorities only in two or three cases. The Local Government Board had issued a model set of by-laws under Section 90 of the Public Health Act, but of course the actual making of by-laws rested with the local authorities. Mr. Chamberlain, in answer to questions by Mr. O'Donnell and Lord Lymington, stated that the Board of Trade officers were making inquiries into the alleged "horrors on board an emigrant ship," described in the *Pall Mall Gazette* by Miss C. O'Brien. Mr. Fawcett informed Mr. Parker that he was about to make an experiment, which he hoped would be successful, in employing some deaf and dumb persons in sorting papers in the Savings Bank Department of the General Post Office.

Maintenance of Lunatics.

On Tuesday, Mr. Stanley Leighton gave notice that he would, on the 31st inst., call attention to the state of the law relating to the superintendence and maintenance of lunatics, and move, That it is unfair to the ratepayers to oblige them to maintain, out of the poor rates, asylums which are largely occupied by the middle and professional classes; that the practice of granting licences to individuals which authorise them to make a profit by keeping persons in private asylums is liable to abuse; and that it is the duty of the Government to undertake the charge of all lunatics.

Limerick Lunatic Asylum.

On Wednesday, Mr. O'Shaughnessy gave notice that on Monday next he will move for a return of the number of persons now inmates of the Limerick Lunatic Asylum charged to the city of Limerick; and on the same day will ask the Chief Secretary to the Lord Lieutenant of Ireland, if it is not true that the rates of the city of Limerick have lately become charged with the maintenance in the Limerick Lunatic Asylum of several persons, not natives or inhabitants of the city, who, being prisoners in the Limerick District Prison, were transferred thence on account of mental derangement to the Limerick Lunatic Asylum, and several soldiers, enlisted in the city, who, having become mentally deranged in the service, were transferred from Netley to the Limerick Lunatic Asylum.

Small-pox.

On Thursday, Mr. Hopwood asked the President of the Local Government Board whether it be the fact that Dr. Stevens, one of the inspectors appointed by the department at the board of guardians for St. Saviour's, Southwark, recently suggested that in future all children born in the workhouse should be vaccinated before they were allowed to leave, however young they might be, and, in answer to questions, was clearly of opinion that the guardians had the power to enforce this, even without the consent of the mother, upon admission. It was pointed out to him that, in the opinion of some medical men, this would be injurious to the mother, by causing much mental anxiety, and that fatal cases of this kind had been known, but he replied that it would cause the mother still greater anxiety were the child to have small-pox. And whether such a course of proceeding is justifiable by any, and what, law; and, if not, whether he will not at once express disapproval of it. Mr. Dodson said he found Dr. Stevens did suggest that children born in the workhouses should be vaccinated before leaving; and that, subject to the opinion of the medical officer in any particular case, it should be done on the sixth day after birth. Dr. Stevens did not express any opinion of his own as to whether the guardians could enforce this without statutory power, but he did refer to an opinion of the Poor Law Board to the effect that they could. That opinion seemed to have been given as far back as 1848. Mr. Hopwood asked if the right hon. gentleman would answer the last part of the question. Mr. Dodson said his own opinion was that vaccination could not be enforced if the mother objected.

Mr. W. H. Smith asked the President of the Local Government Board if he was aware that the small-pox hospitals of the Metropolitan Asylums Board were full, and that persons suffering from small-pox were now lying in lodging-houses in crowded neighbourhoods, to the great danger of the other inhabitants; and whether he would state what steps he proposed to take to provide the Asylums Board with the necessary powers to deal with the epidemic, and with sufficient authority to carry out the Metropolitan Poor Act, 1867. Mr. Dodson was sorry to say that the small-pox hospitals in the metropolis were full or nearly so. He had no information as to persons suffering from small-pox lying in lodging-houses, although he feared such might be the case. He had hoped that supplementary provision would have been made by the guardians of the district boards, and to some extent that had been done, but he deeply regretted to say that in other cases exertions that were made were paralysed by threatened legal proceedings. He was glad to announce that the Metropolitan Asylums Board were exerting themselves to the utmost to provide accommodation for 300 or 400 convalescents, which would considerably relieve the hospitals; and he might add that the Local Government Board were in communication with the managers respecting immediate further provision.

Correspondence.

LIVER ABSCESS AND DYSENTERY.

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 7th, 1881, in which you refer to the recent discussion at the Pathological Society on liver abscess in connexion with dysentery, it is remarked that I reaffirmed the opinion that the solitary abscess is usually the outcome of primary hepatitis, independently of dysentery, which may or may not be a concomitant, but that "many of those who spoke took the contrary view." It is further stated that you "believe that there is evidence of primary hepatitis even in cases of hepatic abscess arising in our climate under certain conditions where there has been no trace of intestinal ulceration, and where everything pointed to primary inflammation, or where, in some cases, thrombosis with necrosis of the liver was the cause of the abscess. In other cases a single abscess may result from a local infective process from diseased intestines. Such cases, however, may be originally produced by the fusion of several 'multiple' foci of secondary inflammation; but whether this be so or not they do not strictly come under the category of 'tropical abscess,' being linked etiologically with those cases of disseminated suppuration of the liver which are admitted by all to follow upon ulceration of the intestines, as well as upon other sources of pyæmic infection." With your permission I should like to make a few remarks on the subject, in confirmation of the views you uphold. In the first place, I would say that tropical abscess, though generally large and single, is not invariably so; that, though frequently associated with dysentery, it is often altogether independent of that disease, though co-existent in certain cases, and probably due to the same climatic cause as dysentery; yet that there is no direct connexion between them, and that in a large proportion of cases there is no evidence of dysentery having existed during any period of the disease. The fact probably being that this form of liver abscess is generally independent of the bowel ulceration, though due to the same cause. It might be further stated that it would be impossible to predict, if a number of men were exposed to malarial and tropical influences, how many would suffer from dysentery alone, from remittent fever, from liver abscess, and other hepatic disease; or how many from a combination of all these states.

Liver abscess occurring in this country in persons who have not been exposed to tropical influences is probably due to absorption from ulcerated abdominal viscera, or to pyæmia from other causes, especially such as wounds or injuries about the abdominal or pelvic viscera. These are certainly not identical with dysenteric liver abscess, though analogous to one form of that disease. Probably when they occur, there may have been some morbid condition of the liver substance, which predisposes it to suffer. Doubtless many of the liver abscesses met with in this country occur in persons who have been in the tropics, and may fairly be referred to climatic causes or to dysentery; but I imagine cases of apparently similar character occur from time to time in all countries, that are quite independent of such influences; and that the explanation which refers them to bowel ulceration (not dysenteric) is frequently correct; and I can hardly doubt that even the large, generally single, abscess conventionally called "tropical," may also occasionally be seen in our own and other temperate climates. After all, perhaps, there may not be so very much difference of opinion between the views of those who have observed at home and of those who have observed abroad.

The following are the forms of liver abscess with which my experience has made me acquainted:—

1st. Abscess, generally large and single, though occasionally double or even multiple, may occur in any part of the liver; it frequently forms with much constitutional disturbance: pain, swelling, pyrexia, and sweating, though sometimes these symptoms are almost absent, and so insidious is the process that it is only detected when it discharges its contents through the lung, bowel, or stomach; or when by opening into the peritoneum it causes death; or not until after death, when it is discovered during post-mortem examination. This form of abscess has a tendency to point and open in any of the directions above mentioned; but it also frequently approaches the abdominal or thoracic walls and opens, or is opened, with favourable results, either in the epigastric or hypochondriac regions, below or between the ribs, in front or behind. Many cases that have opened spontaneously through the lung, stomach, and bowels, recover perfectly; not so, I fear, when the pericardium or peritoneum are invaded; unless, indeed, in some rare cases where portions of those cavities have been isolated by the inflammatory process, and the effusion thus limited within the bounds so formed. Recovery after paracentesis is sufficiently frequent to render cases in which it is performed, at the right period, very hopeful; though, of course, they are necessarily always cases of great anxiety as well as uncertainty. This, the so-called tropical abscess, from its greater prevalence in tropical or subtropical countries, is due then to climatic causes, such as heat, malaria, over-stimulation of the liver from errors in food and drink, and the greater work thrown on the organ under the circumstances above named. It is generally unaccompanied by, and apparently independent of, dysentery or other form of bowel complaint, though it may be associated with that disease or with malarial fever; but, according to my belief, though due to the same *cause* it is *coexistent with*, rather than *dependent on*, them, and it frequently happens that post-mortem examinations confirm this view, showing the absence of evidence of existing or past dysenteric ulceration. But, assuming that the poison, or the cause of dysentery whatever it be, is of a specific character, there is, I think, some ground for believing that it may act *directly* on the liver, irrespective of transference from the intestines, and so give rise to a true dysenteric hepatic abscess. Such cases, however, I should regard as exceptional.

Tropical liver abscesses, I would remark, sometimes assume a very chronic and quiescent condition, and may remain for months, perhaps years, causing failing health, of which the true nature is almost unsuspected until some fresh disturbance or inflammation excites them into activity, though they are not always difficult of diagnosis. There is good reason for believing also that they sometimes dry up and disappear spontaneously by absorption. I have seen cases in which, I believe, this has occurred. There is, in my opinion, therefore, reason for believing that a large number of cases of so-called tropical liver abscess are independent of dysentery, and these are generally, though not invariably, solitary.

2nd. Abscesses frequently, not however invariably, multiple, of various sizes, from a pea to a hen's egg, or larger, scattered about throughout the parenchyma of the liver, and containing pus, puriform matter, and débris of disintegrated liver tissue, accompanied by, or following and *caused by*, dysentery, are not uncommon. They are, I believe, the result of either direct absorption of septic matters from the ulcerated bowel, through the portal vein, or are due to the more general condition of pyæmic poisoning which is set up by the disease, just as happens in pyæmia from other causes, such as wounds, injuries, and operations, especially when they involve the abdominal or pelvic viscera. I have frequently, in India, seen these pyæmic abscesses scattered about in the liver, lungs, kidneys, and spleen, in varying numbers, from one to many, after death from pyæmia, where there was not a trace of dysenteric ulceration in the bowel. I would remark that though most frequently multiple they are occasionally solitary, and that the mere fact of being single does not invalidate the probability of a pyæmic origin. I would also call attention to the pathology of these so-called abscesses, which are really at first no abscesses at all, but local deaths; necrotic patches of liver tissue caused by embolism or pyæmia. These patches of dead tissue are surrounded by congested tissue, and ere long by suppuration, the purpose of which is to throw off the dead tissue. Such abscesses when cut into are found to consist of dead tissue and sanies, with puriform matter, and after a certain time, pus; just as in the case of a tropical boil, where a quantity of pus forms round a nucleus of dead areolar tissue, killed by thrombosis. When life is prolonged and inflammatory changes have had time to take place, these necrotic centres or foci become the nuclei of abscesses of considerable size. Needless to say that such liver abscesses are in the last degree dangerous, perhaps generally fatal. I think it would be found, if statistics were appealed to, that they do not support the theory that ordinary tropical hepatic abscess is due to dysentery.

Moore, in the "Annals of Military Surgery," says that eight observers out of twelve reported 1532 cases of dysentery, with 295 cases of liver abscess, or 18 per cent. Other four observers gave a ratio of 39 per cent., or 52 cases of abscess out of 131 of dysentery. Macpherson gives a record of 13 per cent. in the General Hospital of Calcutta. Waring gives 663 cases of fatal dysentery, with hepatic abscess in 149, or 23·54 per cent.; Mr. Eyre, 22·18 per cent.—i.e., 118 cases—with 27 cases of abscess; Mr. Moore, 127 cases, with 27 of abscess, or 22·05 per cent. As Moore says, "If the theory of the formation of hepatic abscess be sound, how is it that 77 per cent. of dysentery had no hepatic disease?"

In conclusion, I would remark that the researches of Indian observers such as Morehead, Macpherson, Maclean, Moore, Martin, Parker, and others, seem to show that hepatic disease is a not unfrequent complication of dysentery, that it is also, and not unfrequently, caused by it. The weight of testimony is, as you say in THE LANCET, in favour of the view of a primary hepatitis, independent of dysentery, and that the same may occur under certain conditions, even in our own country, where there have been no traces of intestinal ulceration, and where all pointed to primary inflammation. The subject is one well worthy of further discussion, both in its European and tropical aspects, and I should be glad to think that the distinguished physicians who discussed it so ably and impartially last Tuesday may deem it worthy of further notice next session.

Yours faithfully,

May 8th, 1881.

J. FAYRER.

OÖPHORECTOMY.

To the Editor of THE LANCET.

SIR,—In reference to my paper on Oöphorectomy, which you did me the honour to criticise in last week's LANCET, I am quite aware that more value would attach to it had I written out more elaborate details of the conditions that existed and were considered to call for the operation. The ultimate effects of the operation can, of course, only be judged of after a longer period than at present has elapsed. I hope in the future to give the results in each case so far as they can be ascertained at the time.

You speak of my unsuccessful cases not having been published. I can only say that up to this date I have had twenty-eight completed oöphorectomies (both ovaries removed), one where only one ovary was removed, and one incomplete case, that of E. H——, mentioned in my paper and referred to by you, also published by me somewhat in detail in a pamphlet last year. These are the whole of my cases, and the patient in each instance recovered.

As showing the difficulty of drawing a line between ovariotomy and oöphorectomy, my last but one abdominal section was commenced with the view of an oöphorectomy being performed. The left ovary was removed; the right turned out to be an ovarian cyst, completely adherent to the pelvic brim and about the size of a Tangerine orange. Under which class of operations should this have come? My friends, Dr. Edginton, who assisted me, and Dr. T. Richards, who kindly sent me the case and who was also present, on being appealed to immediately after the operation, said that it was clearly an ovariotomy. Unfortunately this patient died of septic peritonitis; but I think her death will go to the debit side of ovariotomy rather than of oöphorectomy.

I am, Sir, yours truly,
Birmingham, May 3rd, 1881. THOMAS SAVAGE.

THE OLD UNIVERSITIES AND THEIR MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—I think the majority of medical students will feel grateful to you for your article in THE LANCET of April 9th, on the difficulties of obtaining degrees in medicine at our English Universities. I think, if the usual career of a medical student be considered, the cause of these difficulties will be found. Taking the average medical students who, after passing the Preliminary Examination of the college or hall, enter one of the London hospital schools and commence their studies for the Primary Examination of the Royal College of Surgeons, we may suppose in eighteen months all the best men to have passed, and it is at this time (and not before) we hear them expressing their regret that it is almost impracticable for them to proceed to a degree in our English Universities. Where does the evil exist? For answer one has but to look at the regulations, and list of students, of the University of Durham, which is the only English University that has recognised and is attempting to remedy it. In these regulations we find—

1. That only one year's residence is required for a degree, the said one year to be spent in a school which is about the best provincial school in England.

2. The Preliminary Examination in Arts of other bodies is recognised *pro tanto*, and the extra subjects required may be passed at any time before one presents himself for the final Professional Examination for the degree.

3. The fees are moderate and carefully arranged, so that a degree can be obtained with very little more expense than the licence of the College of Physicians of London. And who do we find availing themselves of these well-arranged regulations? Chiefly the class of students I name, for on turning over the list of the 177 students for this year studying at Newcastle, I find that out of this number there are thirty-five qualified men, one of whom is a Fellow of the Royal College of Surgeons, and several are Licentiates of the Royal College of Physicians of London and Edinburgh. But why do we find London men putting themselves to the inconvenience of residing in Newcastle when they might obtain a degree at home of far greater worth in the eyes of the medical profession? I do not for one minute believe that it is because they think they will obtain an easier examination at Durham, for its examinations are far from easy, and will well bear comparison with those of Oxford and Cambridge.

In answer to this question I think I may safely assert that if the London University would recognise medical studies pursued previous to passing the matriculation examination (provided always that the candidate was during the time on the Student's Register), and would recognise the Arts Examinations of other bodies *pro tanto*, we should at once see a great improvement in the number of students working heartily for the splendid degree that University gives.

Of the other Universities I cannot say much. Of Oxford I know nothing personally, but of Cambridge I may say this—that the practical hospital teaching is such that the majority of Cambridge students know no more of practical medicine and surgery, after four years' attendance on the practice of Addenbrooke's hospital, than an average London student knows after the first six months of his attendance in the wards of his hospital.

It may seem presumption on my part to attempt to advise the London University in this matter, but when one hears, as I did the other day, one of the best men of the Middlesex Hospital speak of going to Edinburgh for a degree, surely there is something wrong in London which is right in Edinburgh.

I am, Sir, yours obediently,
April 12th, 1881. A CAMBRIDGE UNDERGRADUATE.

STATISTICS OF COLOUR-BLINDNESS AMONG RAILWAY EMPLOYÉS.

To the Editor of THE LANCET.

SIR,—In an editorial notice of the examination of *employés* in India in your number for Oct. 2nd, 1880, p. 550, you mention it as a curiosity that so few Europeans there were found colour-blind. I would respectfully question whether this was not wholly due to the faulty method of examination which has prevailed till within a very short time, and still prevails in England, except with a few gentlemen among you who have taken up Professor Holmgren's method quite recently. From these gentlemen I hear that tests by proper methods show the same percentage in males as elsewhere in the world.

Even expert examiners using the best methods will report very varying percentage. I have been through several classes of fifty each in our schools without finding any colour-blind, and then in the next class there would be enough to bring the per cent. up to the average—viz., four. This last week in a high school in Salem, among seventy-two boys I found five colour-blind, but there were two colour-blind families represented: one of two brothers whom I had known as being defective from their mother having sent me the worsteds they confounded, which were Holmgren's green and a reddish-brown; and two of seven brothers, the others of whom I have not yet tested.

Recent experience has shown in this country that on railroads where the *officials* had tested their *employés* as instructed by railway commissioners, *ophthalmic surgeons* afterwards found 7 per cent. colour-blind and 14 per cent. with defective visual power. I do not think that science can accept any statistics unless we know the precise methods used and how these were carried out, and by whom.

I remain, Sir, respectfully yours,
Boston, U.S.A., April 4th, 1881. B. JOY JEFFRIES, M.D.

"THE LAWS OF THERAPY."

To the Editor of THE LANCET.

SIR,—I do not care to join in the discussion going on in your pages as to whether "orthodox" practitioners should meet homœopathists in consultation. That is a question that does not interest me in the slightest degree, for during a practice of now nearly forty years, I have never had the slightest wish to obtain the opinion of an "orthodox" physician on the subject of the medical treatment of a case. But I confess I am very much interested by a statement made by yourself in a note appended to Dr. Flint's letter in your impression of May 7th. You there say: "Neither ipecacuanha, Dover's powder, nor picrotoxin acts homœopathically or allopathically; the action is in each case strictly in accordance with the known laws of therapy." Pray oblige a searcher after truth, and direct me to where I may find "the known laws of therapy" set forth. That ipecacuanha in large doses will cause vomiting, and in small doses will sometimes cure it, I know not only from Ringer but from frequent experience, and this is undoubtedly an illustration of the homœopathic rule of treatment; but I quite agree with you that the fact itself does not show that the ipecacuanha acts homœopathically. We don't know how a remedy selected according to the homœopathic rule for treatment acts, and though some of us have tried to guess, our success has not been great in this direction. It would therefore afford us much satisfaction if you will kindly show what are "the known laws of therapy" in accordance with which ipecacuanha acts in curing, say, a case of vomiting. We homœopathists only see in our formula *similia similibus curantur* a rule for the employment of medicines in disease that was discovered, we may say, empirically. If "the known laws of therapy" will explain to us how medicines act in the cure of disease, we shall be only too happy; and on this ground, which would be a real scientific ground, we might perhaps find a happier *modus vivendi* with our "orthodox" brethren than we at present possess.

I remain, Sir, your obedient servant,

London, May 9th, 1881. R. E. DUDGEON.

⁂ It is inconceivable that Dr. Dudgeon does not recognise the well-known fact that *all* drugs act differently,—and, as it may seem to the unscientific, on totally opposite lines—in different doses. It is so with every form of vital function, and it is only natural that it should be so with the action of drugs on the organism. Stimulation of a nerve produces first excessive activity, and then an arrest of its special function: and a small dose of a drug produces one effect, while a larger dose produces a different and, almost uniformly, an apparently opposite, effect. The two "effects" are correlated, and mutually dependent, being governed by the same law. It is scientifically absurd to call one stage of the process a manifestation of the operation of "like" and the other of "contradictory." It would be just as reasonable, and no more so, to predicate a "homœopathic" or an "allopathic" property of nervous tissue because it acts on muscular tissue by stimulating it to contraction in one stage, and arrests its action and relaxes in another. No special work expounds this doctrine, because it is the universal law of therapy.—ED. L.

IRELAND.

(*From our own Correspondent.*)

AS mentioned by you last week, Mr. John K. Barton will be a candidate for the Vice-Presidency of the Royal College of Surgeons in Ireland, a probability to which I drew attention three months since. It was rumoured that two candidates would come forward, but it is likely that Mr. Barton—than whom a more eligible candidate could not be selected—will be returned unopposed. Mr. Chaplin, of Kildare, the present vice-president, will necessarily become president next June, and no doubt exists that the great majority of the Council will be re-elected.

An election for examiners in the College of Surgeons took place last week, when all the outgoing members of the Surgical Court, although opposed by four other candidates, were re-elected. The examiners in Midwifery were also re-elected, and the only change occurred among the examiners in General Education, where Mr. Davys was replaced by Mr. Tweedy. At the last general meeting of the Fellows it was resolved that the Council be recommended to take such steps as might be necessary for the holding of the general annual meeting of the College on the Saturday preceding the first Monday in June of each year, in order that the attendance of the Fellows who reside at a distance might be encouraged. With a view to carrying this into effect the Council have recently issued a circular to the Fellows requesting them to state whether they would prefer that the meeting of the Fellows to receive and discuss the annual report of the Council should take place, as heretofore, on the last Monday in May, or the Saturday preceding the first Monday in June. It is probable that the latter arrangement will be selected by the College.

In the proposed scheme of Education and Examination of the Royal College of Surgeons, which most probably will be adopted, as a large majority of the Council are in favour of it, the student who desires to obtain the licence of the College must pass four professional examinations. The candidate will be examined in anatomy at each of the four examinations, a regulation which, combined with the extra expense which will be incurred under the new arrangement, will undoubtedly lessen the number of applicants for the diploma in surgery as compared with those seeking admission under the present system.

The Scheme of Organisation of the Royal University of Ireland as adopted by the Senate has been issued as a Parliamentary paper. The regulations for the medical portion of the curriculum were published in THE LANCET (pp. 504–641), and no alteration of the arrangements there laid down has taken place. Some slight additions may, however, be noticed; for example, besides the necessary hospital attendance, candidates for medical degrees will be required to produce certificates of personal attendance on fever cases; of having compounded medicine for at least three months; of practical instruction in vaccination, and attendance on a course of lectures not less than twenty-five in number, and clinical instruction on mental diseases. The fee for the examination for the M.D. degree has been fixed at £5. Finally, the Senate require of each school seeking recognition a guarantee that in each class a roll shall be kept, which shall be called at the commencement of each lecture, the presence or absence of each student being thereon marked, such rolls to be open to the inspection of any person or persons whom the Senate may appoint for the purpose.

At a meeting of the Governors of Steevens's Hospital, Dublin, held last week, George H. Porter, M.D., Surgeon to the Queen in Ireland, was elected consulting surgeon to the hospital, in the vacancy caused by the decease of Mr. Christopher Fleming.

At a recent meeting of the Managing Committee of the Cork-street Fever Hospital the registrar reported that the hospital had been in a favourable state during the past month, fever having considerably abated, and small-pox entirely disappeared, with the exception of one case—a child, who appeared to have contracted the disease in London,—and which terminated fatally after four days in hospital. Plans are being taken for the formation of a new convalescent home, for which the Committee hope to obtain the necessary funds, and be enabled to proceed with its construction during the summer.

The Cunningham Gold Medal of the Royal Irish Academy has been conferred on Mr. Howard Grubb, in consideration of the eminent services rendered to science by improvements in the construction of telescopes.

The death is reported of Surgeon-Major Walter Blake, A.M.D., at Queenstown, on the 7th inst.

PARIS.

(*From our own Correspondent.*)

A NEW bi-aural stethoscope has been presented to the Academy of Medicine by Dr. Constantine Paul. The chest piece is surrounded by a circular box which is connected by a tube with an india-rubber ball. Upon aspirating with the ball the box when placed upon the skin adheres like a cupping glass, and the rarefaction of the air in the circular sucker is said to increase the intensity of the sounds. The instrument is completed by a Y-shaped metallic branch which emerges from the apex of the chest-piece, and which terminates in two flexible tubes for insertion in the ears. Another novel arrangement which can be made in the apparatus is the addition to each terminal tube of a secondary dichotomous metallic branch, to which are again attached a couple of terminal tubes. The further development of this system of dichotomous branching enables any number of auscultators to listen simultaneously to the same sound.

Antiseptic surgery is gradually gaining favour amongst French operators; but an occasional manifestation against it is made by some of the older members of the profession. At the Société de Chirurgie, M. Boinet has recently returned to the same objections that were advanced some two years since by M. Lucas-Championnière. In the first place, he claims that the credit of the application of carbolic acid in surgery is not due to Lister, but to the French school, and having demonstrated this, presumably to his own satisfaction, he goes on to affirm that antiseptic surgery is both useless and dangerous. This is attempted to be proved by two facts. On one occasion M. Boinet used antiseptic dressings in a case of ovariotomy and the patient died, "probably on account of the irritation of the peritoneum by the carbolic acid."

In a recent work on the effects of electricity in gynecological practice, Dr. Georges Apostoli comes to the following conclusions. Faradisation of the uterus is always inoffensive, it is constantly calming, and sedative. After parturition it shortens convalescence, accelerating the involution of the uterus, which, even with deep palpation, cannot be felt above the pubis after the sixth or eighth day. Faradisation is the best preventive treatment of uterine flexions and versions usually occurring after delivery. It seems to diminish the lochial discharge; its action as compared with ergot is quicker and more energetic.

Obituary.

R. W. FALCONER, M.D., D.C.L. DURH.

RANDLE WILBRAHAM FALCONER was the son and grandson of physicians of considerable eminence and fame in the ancient city of Bath, and had the advantage of inheriting and the honour of perpetuating a good name. Receiving his professional education at Edinburgh, he took his M.D. degree at that University in 1839, and at first settled in practice at Tenby, but after eight years moved to his old home, and was there busily engaged up till the very day of his death. He early became connected with the General and Mineral Water Hospital at Bath, and published some works on the value of the Bath waters in rheumatism and allied affections. Although busily engaged in a large and successful practice, Dr. Falconer was greatly interested in, and devoted a good deal of attention to, archæology and biological science, and also took a prominent part in local public affairs. He filled the office of mayor in the year 1857–8, and at the close of his term of office was unanimously re-elected. He was a prominent member of the British Medical Association, and held successively the offices of treasurer, president of the council, and president.

His death took place quite suddenly, while he was actively engaged in the practice of his profession. For some time past symptoms of a weak heart had shown themselves, and not long ago a serious syncopal attack gave warning of the approaching end. On the 5th inst. Dr. Falconer felt wearied before he had quite finished his rounds, and had to rest awhile at his club before proceeding home. Quite early next morning he was seized with dyspnœa, and in spite of all the skilful efforts of his medical friends, the prostration steadily increased, and he died the same evening. He had attained the age of sixty-five.

In addition to his university degree and the membership and fellowship of several societies, he was F.R.C.P. Lond. and D.C.L. Durh. His sudden removal from the midst of his active duties has caused a general feeling of regret, not alone among his patients, who have lost a wise adviser and friend, but throughout all classes in the city, for in many ways he proved himself a good citizen, and his memory will long be cherished with affectionate respect.

WM. SIMPSON, M.R.C.S., L.S.A.

WM. SIMPSON of Bradmore House, Hammersmith, has joined the great majority. Although his name may be known to but few of the present generation, his career has not been an undistinguished one. He entered at the united hospitals of Guy's and St. Thomas's in 1820, became a Licentiate of the Society of Apothecaries in 1824, and Member of the College of Surgeons in 1825. He commenced practice in Hammersmith, where he met with deserved success, his kindness to the poor, and disregard of his own safety in succouring the sick during the cholera epidemic, rendered his name a household word with those among whom he laboured. In spite of an increasing practice he found time for literary work. He contributed many cases to THE LANCET, which was then a young journal. He was editor and proprietor of *The Scalpel*, but the success of that paper did not warrant its continuance beyond a year or two. He also brought out "An Aid to Students for the Examination of the Apothecaries' Hall."

In 1850 he retired from practice and devoted himself to politics. He made his first and only appearance on the hustings at High Wycombe in 1852, when he contested the seat in the Liberal interest, but was beaten by Sir Geo. Hy. Dashwood. Though beaten, however, he was not disgraced, and as a mark of their appreciation of the zeal and purity with which he contested the election, the electors presented him with a magnificent silver cup.

In 1866 Mr. Simpson sustained an irreparable loss in the death of his wife, who had been his faithful companion for forty-five years. A severe illness at this time brought on paralysis agitans, and though the mind was as clear and active as ever the body was to all intents and purposes dead; but his cheerfulness never forsook him. Nursed by his niece, Miss Roy, who also read the daily papers to him, and the new books as they came out, for fourteen years he remained in this state of helplessness, until relieved by death on April 24th, 1881.

SAMUEL JOHN TRUMAN, M.R.C.S.

MR. TRUMAN, whose death took place at New Basford, Nottingham, on March 2nd, was the fourth son of Beckett Truman, Esq., who practised in Nottingham upwards of fifty years. He studied at Guy's Hospital, became house-surgeon in the Manchester Infirmary in 1868, and afterwards of the Lincoln General Dispensary. He then purchased a practice at Rippingale, in Lincolnshire, where he married. Five years since, owing to the delicate health of his family, he took up a portion of his father's practice in New Basford, where he soon became popular. His was one of those anxious and painstaking temperaments which, combined with a pleasing manner, soon establishes a cordial sympathy with patients and friends, and obtains a wide respect, but at the expense of a rapid wearing out of the constitution. Frequently, after his professional rounds, Mr. Truman reached his home exhausted and faint, and on the 1st of March he was brought back in his carriage in a state of syncope, from which, however, he rallied. He was attended by Messrs. Burnie and Macdonald, but expired suddenly early on the following morning. At the inquest the medical evidence was to the effect that death was caused by "pericarditis and syncope."

His sudden death, at the age of thirty-five, was regarded as a public calamity in the neighbourhood, and over a thousand persons sought and obtained a "last look" at their departed friend and doctor. Amongst these were several who were former patients in the Manchester Infirmary.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

H. H. Brown, Aberdeen; Thomas Birt, John F. Vince, Edwin W. D. Kite, and H. Simms, Birmingham; John F. L. Whittingdale and Walter Dawson, Cambridge; Matthew Johnston, John T. Walker, Charles N. Bensley, Morris J. Williams, Francis J. Stevens, Alfred A. Lankester, William C. Dalley, Thomas Jones, Alfred D. Edginton, and James H. Menzies, St. Bartholomew's Hospital; Robert K. Peacock, Edinburgh; Edward H. Armitage, James C. Bates, Arthur C. Deare, Hugh Lamb, Francis Heatherly, George E. Stewart, and Alfred E. Taylor, Guy's Hospital; Edward Stewart, Middlesex Hospital; William Turnbull, James M. Robson, and Frederick M. Blackwood, Newcastle-on-Tyne; Robert C. Bruce, Edinburgh and Charing-cross Hospital; Richard A. Jackson, St. George's Hospital; Edwin Roberts, Leeds; John Williams, Liverpool; Cadwallader E. Evans and F. W. Weir, Bristol; Thomas G. Parrott and Edward S. Hasell, King's College; F. de C. Skeete, University College; L. P. Mumby, Westminster Hospital.

[In the list published last Saturday of gentlemen who passed the Primary Examination at the College, for "William Fowler" read "Walter Fowler."]

UNIVERSITY OF DURHAM.—At the First Examination for the degree of Bachelor in Medicine, concluded on

Friday, April 29th, the following candidates satisfied the Examiners:—

Austen, Henry Hinds, M.R.C.S.
Beatley, William Crump.
Brown, Arthur Tresco Franklyn.
Brown, Richard.
Cock, Frederick W.
Doudney, George Herbert.
Hardie, Robert.
Hepworth, Arthur.
Howitt, George Grahamsley.
Hudson, Theodore J., L.R.C.P., M.R.C.S.
Hutchinson, Joseph Armstrong.
Lingard, Alfred, M.R.C.S., L.S.A.
Morgan, Llewellyn Arthur.
Norry, William Augustus.
Paley, Wm. Edmund, F.R.C.S.E.
Price, William Elliott.
Prowde, E. Longstaff, M.A.Cantab.
Ridley, George Walter.
Salvage, John Valentine.
Shuter, Charles Yalden.
Spicer, Frederick.
Tomson, Walter Bolton.
Turnbull, William.
Triay, Abelardo J., B.A., L.M. & S.
Vise, Christopher, M.R.C.S.
Walker, Basil Woodd, L.R.C.P., M.R.C.S.
Wigan, Charles Arthur.

Thirty-eight candidates entered for the examination, two withdrew, and nine were referred to their studies for a period of six months.

Faculty of Physicians and Surgeons of Glasgow. — At the April sittings of the Examiners the following gentlemen passed the Primary Examination:—

John Cable, J. Engles, D. P. Gage, H. G. Hughes, Robert Jope, H. C. Long, Wm. Middleton, W. Morris, Robert Rudland, R. W. Sclater, H. Sinclair, Oliver Sunderland, and Hugh Thomas, Glasgow; J. H. Blayney, Manchester; T. G. Hull, Leeds; J. F. Hobbes, Birmingham.

The following passed the Second Professional Examination and were admitted Licentiates:—

Bridgman, H. A., Ramsay.
Dell, J. F., Herts.
Donkin, Charles, Weybridge.
Hutchison, T., Barnard Castle.
Heron, A. W., Jamaica.
Ramsay, E. C. A., Fleetwood.

Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow.—At the April sittings of the Examiners the following gentlemen passed the Primary Examination:—

P. F. Shaw, Glasgow; G. D. Trevor-Roper, Manchester.

The following passed the Final Examination and were admitted Licentiates of both bodies:—

Guest, A. H., Glasgow.
Horn, Robt. J., Atterborough.
Murdoch, Alex. M., Glasgow.
Thomson, A. T., Metheringham.

Apothecaries' Hall.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on May 5th:—

Damania, Bhicajee Jivajee, Bombay.
Wilde, Frederick, Euston-road.

It is announced that the Prince and Princess of Wales will be the guests of the Treasurer of St. Bartholomew's at a conversazione to be given at the hospital on the 27th inst.

The Duchess of Edinburgh will open the bazaar in aid of the building fund for the extension of the National Hospital for the Paralysed and Epileptic, Queen-square, to be held at the Duke of Wellington's Riding-school, Knightsbridge, upon the 17th, 18th, and 19th of May.

At the thirty-third anniversary festival of the City of London Hospital for Diseases of the Chest, held at the Cannon-street Hotel on the 8th inst., donations to the amount of £2050 were announced. It was stated that £9000 were required to carry on the work of the institution on its present scale, and the annual subscriptions represented only £2400 of this sum.

St. Mary's Hospital.—On Wednesday the annual dinner in aid of the funds of this hospital was held at Willis's Rooms, Earl Stanhope in the chair. The munificent bequest of £25,000 by the late Mr. Stanford, for the purpose of enlarging and improving the building, was mentioned; and in reference to the maintenance of the new wing, the chairman suggested that paying wards, similar to those in use at St. Thomas's, should be established, and that the payment of a certain sum should be required of out-patients. Subscriptions to the amount of £650 were announced.

The will and codicil of Dr. William Hardwicke, coroner for Central Middlesex, late of Holder's-hill-house, Hendon, who died on the 15th ult. at Fulham-place, Paddington, were proved on the 19th ult. by Mr. Arden Hardwicke, the son, and Mr. J. W. Marchant, the executors, the personal estate being sworn under £4000. The testator bequeathes to his wife, Mrs. Sophia Hardwicke, a pecuniary legacy of £250; the residue of his real and personal property he leaves upon trust for her for life, and then for all his children in equal shares.—*City Press.*

Cantor Lectures.—The fifth and concluding course of Cantor Lectures for the present session, at the Society of Arts, will be delivered by Mr. R. Brudenell Carter, on the subject of "Colour Blindness, and its Influence on Various Industries." The first of the course of three lectures will be delivered on the 16th inst. This lecture will deal generally with the subject. The second will treat of methods of testing for colour blindness, the prevalence of the affection, mistakes of the colour blind, and methods of endeavouring to counteract the defect. The industries chiefly affected by colour blindness will be dealt with in the third lecture.

The Nightingale Fund.—The Council of the above Fund held their annual meeting on Friday last, at the Nightingale Home, St. Thomas's Hospital, when the report on the Nurse-training School for the year 1880 was read, and addresses were delivered to the probationer-nurses. Sir Henry Verney, Bart., M.P., the chairman of the Council, who was accompanied by Lady Verney, presided, and was supported by Mr. W. Bowman, F.R.S., Sir William M. Muir, K.C.B., Mr. W. Rathbone, M.P., members of the Council; Mr. Henry Bonham Carter, the secretary; Mrs. Wardroper, the lady-superintendent of the School; and Mr. Croft, F.R.C.S., the medical instructor. There were present also the Treasurer of St. Thomas's Hospital, several of the medical staff, and other visitors. The report mentioned that during the year 1880 twenty-five probationer-nurses had completed their training, so as to entitle them to be placed on the register as certified nurses, and had been appointed to situations. Thirty-nine admissions to the school had taken place, and, some having resigned or been discharged, there were thirty-two in residence at the end of the year.

Presentations.—Mr. W. T. Dinnen, of Holyhead, has received a gratifying token of the esteem of the inhabitants of Holywell, where he had resided as house-surgeon to the Flintshire Dispensary. The testimonial was in the form of a diamond breast pin and an illuminated address expressive of the best wishes of the donors for Mr. Dinnen's welfare in his new sphere of practice.—The parishioners of Newhills, Dyce, and Newmacher, Aberdeen, have presented Dr. John Carlyle with a gold watch and an oil portrait of himself on the occasion of his leaving the neighbourhood.—The senior house-surgeon of the Torbay Hospital, Mr. G. W. Hamilton Cumming, having resigned his appointment in order to practise at Wick, Bath, his friends took advantage of the occasion to present him with a testimonial to mark their sense of his conduct during the short time he had been amongst them. This was subscribed for by the weekly board on behalf of the hospital, and by the members of the board, the medical staff and the officials, nurses, and servants of the establishment. The presentation consisted of a silver and oak tea tray, salad bowl, and other valuable articles.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

Allen, A. H., F.C.S., has been reappointed Public Analyst for the Borough of Sheffield.

Bernstein, Dr. M. J., has been elected Senior House-Surgeon to the Borough Hospital, Birkenhead, vice Dr. Baker, resigned.

Bird, T., M.A., M.R.C.S.E., has been appointed Instructor in the Use of Anæsthetics at Guy's Hospital.

Brew, H. B., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for the Bray (co. Dublin) Dispensary District.

Briggs, H., M.B., M.R.C.S.E., has been appointed Resident Medical Officer to the Liverpool Royal Infirmary, vice R. H. Jones, resigned.

Brown, E., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Braughing District of the Bishop Stortford Union.

Clarke, Mr. F. H., has been appointed House-Physician to the Western Infirmary, Glasgow.

Davidson, Mr. A., has been appointed House-Physician to the Western Infirmary, Glasgow.

Dickson, Mr. G., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

Downie, Mr. J. W., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

Finch, H., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Colchester Urban Sanitary District, vice Waylen, resigned.

Glaister, J., M.B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Lecturer on Medical Jurisprudence in the Royal Infirmary School of Medicine, Glasgow.

Griffith, J. de B., M.B., M.Ch., has been appointed Resident Medical Officer at the Yarra Bend Lunatic Asylum, Melbourne.

Hopkins, F. F., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the First District of the Aston Union.

Hunt, Mr. J. M., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

Ker, Miss, L.M., has been elected Senior House-Surgeon to the Hospital for Sick Children, Birmingham.

Kinder, R., F.F.P.S.G., has been reappointed Medical Officer and Public Vaccinator for the Haddenham District of the Ely Union.

Littler, J. W., M.R.C.S.E., L.S.A.L., has been appointed one of the Surgeons to the Manchester and Salford Provident Dispensary Association (Medlock-street Branch).

McDonnell, M. A., M.D., M.Ch., has been appointed Medical Officer for the Workhouse, Toxteth-park, Liverpool, vice Lyster, deceased.

Malley, A. C., M.B., B.Ch., has been appointed Medical Officer for the Third District of the Church Stretton Union.

Mason, J. W., M.B., C.M., &c., has been elected Medical Officer of Health for the Borough and Port of Kingston-upon-Hull, vice J. Fearne Holden, deceased.

Moore, H. O., M.B., has been appointed Public Vaccinator for Dandenong, Australia.

Ormsby, G. H., L.R.C.S.I., L.K.Q.C.P.I., L.M., has been appointed Medical Officer to the Odd Fellows' Dispensary, Hull.

Pettinger, G. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Stretford Urban Sanitary District.

Porter, G. H., M.D., M.Ch., F.R.C.S.I., has been appointed Consulting Surgeon to Steevens's Hospital, Dublin, vice Fleming, deceased.

Priest, J. D., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon and Secretary to the Hertford General Infirmary, vice Vlieland, resigned.

Prichard, Mr. R., has been appointed House-Physician to the Western Infirmary, Glasgow.

Smith, J. M., M.B., C.M., has been appointed House-Physician to the Western Infirmary, Glasgow.

Waite, W. H., L.D.S. R.C.S.I., has been appointed one of the Honorary Dental Surgeons of the Dental Hospital, Liverpool, vice Philips, resigned.

White, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Crigglestone and West Bretton Districts of the Wakefield Union.

Young, J. M., M.A., has been appointed House-Surgeon to the Western Infirmary, Glasgow.

Births, Marriages, and Deaths.

BIRTHS.

Bennett.—On the 7th inst., at Upper Berkeley-street, Portman-square, the wife of H. Selfe Bennett, M.B. (prematurely), of a son, stillborn.

Davies.—On the 4th inst., at Cwm Dows House, Newbridge, near Newport, Mon., the wife of W. H. Davies, Surgeon, of a son.

Firth.—On the 3rd inst., at St. Giles-street, Norwich, the wife of Charles Firth, F.R.C.S., of a daughter.

Flower.—On the 10th inst., at Lincoln's-inn-fields, the wife of William Henry Flower, LL.D., F.R.S., of a daughter (Augusta Frances).

Fraser.—On the 11th inst., at 7, Lower Church-road, Weston-super-Mare, Somerset, the wife of Græme B. Fraser, M.R.C.S.E., L.S.A.L., of a son.

Ridpath.—On the 2nd inst., at Great Driffield, Yorks, the wife of David Ridpath, M.D., of a son.

Swain.—On the 8th inst., at the Three Counties Asylum, the wife of Edward Swain, Medical Superintendent, of a daughter.

Turnbull.—On the 30th ult., at Kelso, N.B., the wife of G. H. Turnbull, M.D., of a son.

Walker.—On the 29th ult., at The Elms, Parkhurst, Isle of Wight, the wife of George E. Walker, L.R.C.P., of a daughter.

Wright.—On the 2nd inst., at Alexandra-road, Southport, the wife of Strethill H. Wright, M.D., of a son.

MARRIAGES.

Blake—Mounsey.—On the 28th ult., at Goosnargh Church, Lancashire, Henry Blake, M.B., of Great Yarmouth, eldest son of Ethelbert H. Blake, M.D., Deputy Inspector-General A.M.D., to Lucy Agnes, eldest surviving daughter of Lieut.-Col. Mounsey, of Inglewhite Lodge, Preston, Lancashire.

Perkins—Harper.—On the 4th inst., at St. Stephen's, Lewisham, Whitefield Perkins, M.R.C.S.E. &c., of Glastonbury, Somersetshire, second son of J. R. Perkins, Esq., of Birdbush, Salisbury, to Constance Evelyn, youngest daughter of E. Norton Harper, Esq., of Northbrook House, Lee, Kent.

DEATHS.

Barrett.—On the 7th inst., at Pierrepoint street, Bath, J. Barrett, F.R.C.S.E., aged 69.

Bayes.—On the 8th inst., at New Walsingham, Norfolk, Frederick Thomas Bayes, M.R.C.S.E., elder son of F. H. Bayes, M.R.C.S.E., aged 22.

Falconer.—On the 6th inst., at his residence, Bennett-street, Bath, Randle Wilbraham Falconer, M.D., F.R.C.S., Hon. D.C.L., of Durham, youngest son of the late Rev. Thomas Falconer, M.D., of Leighton, Cheshire.

More.—On the 11th inst., at Rothwell, Northamptonshire, the youngest daughter of James More, M.D., aged 4 years.

Neville.—On the 8th inst., at Chorley, Lancashire, Amy, the beloved wife of J. J. Neville, L.R.C.P.Ed., L.R.C.S.Ed., in her 29th year.

Smith.—On the 3rd inst., at Rowlands, St. Mary Cray, Thomas Heckstall Smith, F.R.C.S., in his 75th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, May 12th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 6	30·30	W.	58	54	106	70	46	..	Cloudy
" 7	30·59	W.	55	51	99	71	45	..	Hazy
" 8	30·64	N.W.	59	51	101	69	47	..	Bright
" 9	30·60	N.E.	52	46	97	60	42	..	Cloudy
" 10	30·73	N.E.	47	41	77	55	39	..	Cloudy
" 11	30·66	N.E.	45	41	78	60	35	..	Cloudy
" 12	30·43	E.	53	46	97	64	40	..	Fine

Medical Diary for the ensuing Week.

Monday, May 16.

Royal London Ophthalmic Hospital, Moorfields.—Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Society for the Encouragement of Arts, Manufactures, and Sciences.—Cantor Lectures: Mr. R. Brudenell Carter, "On Colour Blindness and its Influence upon various Industries."

Tuesday, May 17.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Royal Institution.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

Pathological Society of London.—(Last Meeting of the Session.)—8½ P.M. The following specimens will be shown:—Case of Intestinal Obstruction; Tumour of Brain, with Polyuria; Heart with Calcareous Plates; Aneurism of Pulmonary Artery; Aneurism of Middle Cerebral; Aneurism of Posterior Communicating; Heart with Aneurism; Case of Pylephlebitis; Ulcer of Stomach in Infant; Partial Dislocation of Astragalus; Fracture of Astragalus; Dissection of Genu Valgum; Syphilitic Disease of Cerebral Vessels; Case of Pseudarthrosis; Lymph Scrotum showing Filariæ; Keloid Tumours of Ears; Specimens of Elephantiasis, &c.; Malformation of the Heart.

Wednesday, May 18.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital.—Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital.—Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital.—Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children.—Operations, 2½ P.M.

Association of Surgeons practising Dental Surgery.—7.45 P.M. Council Meeting.—8.30 P.M. Ordinary Meeting.

Sanitary Institute of Great Britain.—8 P.M. Dr. Richardson, "On Suggestions for the Management of Cases of Small-pox and of other Infectious Diseases in the Metropolis and large Towns."

Thursday, May 19.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital.—Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Royal Institution.—3 P.M. Professor Tyndall, "On Magnetism."

Harveian Society.—8½ P.M. Mr. J. Ernest Lane, "On Two Cases of Popliteal Aneurism."—Dr. G. C. Henderson, "On Cold Bathing in Acute Fevers."

Friday, May 20.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Royal Institution.—8 P.M. Mr. W. H. Pollock, "On Shakspeare Criticism."

Saturday, May 21.

Royal Free Hospital.—Operations, 2 P.M.

Royal Institution.—3 P.M. Professor C. E. Turner, "On Russian Literature: Pouschkin."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions submitted to the 143 candidates at the Primary or Anatomical and Physiological Examination for the diploma of Membership of the College, on the 6th instant, when they were required to answer four, and not more than that number, of the six questions, from 1 to 3 o'clock, in Anatomy :—

1. Describe the greater wing of the sphenoid bone.
2. Enumerate the joints in which interarticular fibro-cartilages are found. Describe the shape and attachments of each of these fibro-cartilages.
3. Describe the serratus magnus muscle, its attachments and relations.
4. Describe the course and relations of the abdominal aorta. Enumerate its branches in the order in which they are given off.
5. Give the dissection necessary to expose the external and internal plantar nerves.
6. Describe the general conformation of the thyroid body, and give its relations.

The following were the questions in Physiology, from 4 to 6 o'clock :—

1. What is meant by the impulse of the heart? how is it produced? State the method by which it can be graphically demonstrated.
2. What are the immediate and remote results on respiration of section of both pneumogastric nerves in the neck? How may these results be explained?
3. Describe the structure of dentine, and the contents of the pulp-cavity of a tooth.
4. What is meant by a ferment? What ferments exist in the human body? State the general and special conditions requisite for their action.

. Describe the phenomena of accommodation. What is meant by the terms emmetropia, hypermetropia, myopia, and presbyopia?

6. How is the movement of the blood maintained in the veins? How does the venous current differ from the arterial?

Therapeutist (Dublin).—Yes; resorcine has been employed in cholera infantum, we believe by physicians in Breslau, who report favourably of the action of the drug in the disease.

SPONTANEOUS EVOLUTION.

To the Editor of THE LANCET.

SIR,—Having recently had an interesting case of the above type, I take the liberty of sending the particulars for publication, for though I have been in practice for nearly fifty years, and had a large amount of midwifery, I have not met with one case that terminated as this did. I was called to the wife of a collier at Brotherton, near this village, on April 19th, at 3 P.M. A midwife was first sent for, and she, perceiving the nature of the case, sent for me; and on my arrival I found the right arm and shoulder down very low. The membranes were ruptured at 11 A.M. The poor woman had strong pains, so I gave sixty drops of tincture of opium at once, and after waiting a short time introduced my hand, but found decided hour-glass contraction, which prevented my reaching the fundus uteri to grasp a foot. I then decided to give chloroform, and though I administered the drug freely, I did not get my patient fully under its influence, for whilst I was applying it, she said, "It is coming." I had not attempted turning for twenty minutes, and now, on examination, I found the breech down, and the arm drawn up, so the delivery was soon effected. The child was dead and premature (eight months), the arm and shoulder very black and swollen. I am glad to say the patient did well. I think this is a decided case of "spontaneous evolution," as described by Dr. Denman.

I am, Sir, yours respectfully,
Ferry-bridge, Yorkshire, May 2nd, 1881. WILLIAM R. LOMAS

MEDICINE AMONGST THE CELESTIALS.

MR. MACGREGOR, who has been for sixteen years working as a medical missionary at Amoy, speaking recently at a meeting of students in Edinburgh, said: "The dense and crowded population, and the filthy condition of the people of China, constitute a fruitful source of skin disease, which is very common, so much so, that the Chinese themselves have a proverb—'out of ten men, *eleven* of them have the itch.' Various forms of eye disease are very prevalent, and to cure these the native doctors are quite helpless. Some complaints are due to climatic causes, as, for instance, dysentery and malarious fever. All kinds of tumours are common, and present an excellent opportunity for showing the superiority of European skill, as surgery is quite unknown to the native doctor, who invariably prescribes so much medicine to be swallowed, whether the trouble is an aching head or a broken limb. The practice of the native doctors sometimes tries the patience of the medical missionary very much. The usual way for a Chinaman to enter the profession is to procure a pair of spectacles with large bone rims, some grasses and herbs, an assortment of spiders and a few venomous snakes in bottles, which are placed in the shop window; then the medicine he gives *must* be nasty, and there should be plenty of it, as the Chinese go in for quantity, and reckon how they should be getting on by the amount they have taken. If not making satisfactory progress, he applies to a new doctor, but still continues to take the medicine prescribed by the one he first consulted, so that unless he is under your entire control, he may be taking your medicine, but in all likelihood he is, at the same time, dosing himself with the nostrums of half-a-dozen ignorant charlatans."

VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—After slowly drying the ivory points, properly charged with the vaccine lymph, I place them in a two-drachm bottle, in the bottom of which a pledget of cotton-wool has been previously placed. Another morsel of cotton-wool is put into the bottle before closing it with an accurately fitting cork. My failures with points thus preserved in China as well as in this country) have been very rare indeed, and I now never use tubes for preserving vaccine virus.

I am, Sir, yours truly,
Shepton Mallet, May 10th, 1881. F. PORTER SMITH.

To the Editor of THE LANCET.

SIR,—I should be glad to know, through the medium of your columns, whether other vaccinators have been unsuccessful in their vaccinations, as I have been, when using the vaccine lymph supplied by the National Vaccine Establishment.—I am, Sir, yours, &c.,
April 27th, 1881. A PUBLIC VACCINATOR.

THE EFFICACY OF SOLID OPIUM IN THE TREATMENT OF ENTERITIS.

To the Editor of THE LANCET.

SIR,—During this severe winter many cases of acute and chronic enteritis have come under my notice, which were treated in the usual way with fomentations and terebinthine counter-irritants. In the management of all these, however, my sheet anchor has been solid opium, the effect of which has ever been most satisfactory.

My object in writing this is to express how much I value the solid form of the opiate over all others in abdominal mischief, and this plan of treatment some time ago I was led to adopt in consequence of its success in a case of serious traumatic abdominal mischief—inflammation both enteric and peritoneal.

The case was this. Mrs. N——, whom I had attended for over twenty years with tertiary syphilis, ultimately got stricture of the rectum, evidently of a syphilitic character; and, besides using the ordinary medicinal treatment for this disease, she was ordered to have applied a rectal bougie daily, commencing at No. 2 and reaching to No. 6. This was done by an efficient nurse for several months, with the best effects, but the nurse being called away on private business, the office was delegated to one who did not understand, properly, the use of a bougie; and one evening in passing it, instead of going through the stricture, she pushed it through the bowel. The consequence was collapse. When I saw the patient an hour afterwards she was in great pain, pulseless, with a cold clammy skin, and unable to speak. Examining the bowel, I could feel the opening, and made certain of the amount of mischief done. Stimulants were given freely, and as soon as the patient rallied one grain of solid opium every hour, with fomentations and turpentine stupes. This treatment was continued, with certain modifications, for a fortnight, with the pleasant result of her complete recovery. Altogether during the fourteen days she took eighty grains of solid opium, and although this happened four years ago, she is now quite well.

My remarks point to this one fact—that the use of solid opium in such cases is more efficacious in the treatment of these diseases than opium n a liquid form either by mouth or hypodermically, and if administered by the mouth more serviceable than when used as a suppository.

There is no novelty in the use of solid opium in such cases, as it has long been a recognised fact in the profession as a "truism" in the treatment of all abdominal diseases.

I am, Sir, yours truly,
April 19th, 1881. JAMES WILLIAMSON, M.D.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

SIR,—The following case seems to me curious, not to say rather startling. O. H——, a strong, healthy, young man of twenty, working in a small-pox infected district, was vaccinated on April 26th. All the signs of successful vaccination were developed. On May 5th the eruption of small-pox appeared, and he now lies under my care with a severe confluent attack.

Presumably the incubation of small-pox began prior to his vaccination, but is it not singular that the incubation of the one and the course of the other should have been concurrent, and equally strange that the most severe form of the disease should have manifested itself? Or is there anything in the theory of worn-out lymph being capable of producing outward signs alone?—I am, Sir, your obedient servant,

May 10th, 1881. IN PERPLEXITY.

SANITATION IN CANNES.

To the Editor of THE LANCET.

SIR,—I have read in the *Italian Times* an extract from your paper giving an account of the intended improvements in the drainage of Cannes. Will you allow me to draw attention to the fact that so long as the authorities permit the sewers to empty themselves into the tideless sea, the promenade and houses near it will get more and more unbearable. I am, Sir, yours truly,

Hôtel des Iles Borromées, Stresa, WALTER HORNBLOWER.
April 28th, 1881.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your report of my paper on Acute Prostatitis in the proceedings of the London Medical Society, published in THE LANCET of this date, the term "prostatic tissues" twice appears instead of "prostatic *sinus*." Perhaps you will allow me to make this correction, otherwise my description of a somewhat rare affection simulating prostatitis is almost unintelligible.—I am, Sir, your obedient servant,

Liverpool, May 7th, 1881. REGINALD HARRISON.

Enquirer.—The report should be written on the same lines as the Instructions of the Local Government Board require for the annual report. If our correspondent has not the Instructions, he should apply to the secretary of the Local Government Board for a copy.

P. R. has omitted to enclose his card.

"A PRACTICAL PHASE OF THE LUNACY QUESTION."

To the Editor of THE LANCET.

SIR,—I read with much pleasure your admirable article on the general treatment of the inmates of our public asylums (see THE LANCET, May 7th, page 749), and am glad to offer my humble testimony to its truthfulness and accuracy. It may be well to go even a step further, and ask why this state of things should exist. The fault lies, as you clearly point out, in the system; yet it is the system on which the managers and committees pride themselves which is at the root of the evil. It may also be remarked, as a rule we do not find that first-rate men in the profession are attracted to this particular department; perhaps it would be difficult, without being invidious, to name any public asylum in which men of leading ability and high professional talent are found. With this drawback there undeniably exists the recognised principle of making things pleasant for all parties: the committee of management, superintendents, general officials, and patients included. To read the annual reports anyone must be struck by the conviction that the pervading tone belongs to the members of a mutual admiration society, and this is kept up by the entire programme on which these establishments are conducted. The lay element of "moral" treatment is everywhere; the medical or scientific nowhere. As the chairman of one of these institutions once remarked to me, we do not want medical skill for the treatment of disease; the general routine of management is most important. Routine is the alpha and omega of modern asylum practice. Reports, daily and nightly; registers, notebooks, forms without end; methodical arrangements; wheels within wheels; inspection and introspection; checks and counterchecks! You observe that "accidents" can scarcely be said to be numerous; it is still more remarkable how very few are heard of. Of course this happy result may be due to the skilful supervision. *Risum teneatis!* Method and discipline are important factors, and cannot be despised, but they do not altogether constitute "psychological medicine."

Something might be done by relieving the superintendent, not, as at present, by giving him subordinates who, if anything, add to his labour, but by dividing the charge into sections of two or three hundred patients, each under a separate medical officer who is responsible only to the committee of management, and three hundred is a sufficient number of patients for the conscientious attention of one man. It may be naturally objected that this plan necessitates smaller salaries; no doubt it would, but it should be also remembered the work is not for the man, but the man for the work, and large salaries do not imply higher results. In these the present system is lamentably deficient; it has been tried and found wanting. A new system is required.

I am, Sir, your obedient servant,

May 11th, 1881. EX-SUPERINTENDENT.

CASES OF HÆMORRHAGE AFTER THE EXTRACTION OF TEETH.

To the Editor of THE LANCET.

SIR,—I think the attention of dentists should be drawn to the many and serious cases of hæmorrhage that occur after the extraction of teeth.

During the last year my partner and I have been sent for to attend no less than six cases of this sort, in which nothing short of plugging the cavity sufficed to stop the bleeding. Such cases are sometimes really formidable, owing to the delay in sending for assistance, either from the impression that the hæmorrhage will soon cease spontaneously, or that some wash supplied by the nearest chemist will suffice.

I would suggest that dentists should satisfy themselves as to the complete cessation of bleeding in all cases of extraction before dismissing their patients, and should also give implicit directions about sending for professional aid without delay in the event of the recurrence of the hæmorrhage.—I am, Sir, yours faithfully,

Albion-street, Hyde-park-square, W., M. PRICKETT, M.D.
April 25th, 1881.

Dr. Wm. Thursfield.—We are sorry that our space will not permit us to publish the correspondence. It is strange that no communication has been received from the surgeon consulted, and this in two cases. We hope the remonstrance will be effectual.

H. S.—The disease is perfectly well known and recognised by medical men. Our correspondent should consult his own adviser and take his counsel in the matter.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Medical reform is the question of the hour of the nineteenth as it was of the eighteenth century medical world. I trust we shall have more success than our ancestors. Medical reform has a wide range. There is one aspect I should like to bring under your notice—viz., medical reform in its relation to the internal life of the profession. A short sketch of the inner economy of a certain section of the medical world in northern towns will certainly be novel, and may prove interesting to you. I wish to direct your attention to the following points.

A. We grumble at quacks and quackery, prescribing chemists, and others who violate the Medical Acts. Do we take into account the number of unqualified practitioners who are offending against the law inside the profession? In the small northern town from which I write there are twenty legally qualified practitioners, ten of whom have unqualified assistants. Some of the latter have been promoted from behind the counter of chemists' shops; some have spent a year or two at a medical school, and you meet them driving about with more than the airs of Fellows of the College of Surgeons of England. I need hardly say that these assistants are (1) violating the law; (2) imposing upon the public; (3) robbing the qualified men; (4) that their principals must almost necessarily commit actions liable to imprisonment—viz., signing certificates for deaths of patients they have never attended. The profession is said by some to be overcrowded. I deny it. There is work for all our qualified practitioners, but their place is usurped by those who have no right to practise, and whose employment is an injury and imposition upon the public. In addition to many excellent reforms proposed, I will add another—"that the abolition of unqualified assistants is imperatively demanded in the interests of the public and the profession."

B. You may ask how does it pay to keep unqualified assistants? In this wise. When a practitioner has more work than he can do, he engages for a wretched pittance one of these assistants, who keeps the books, makes up medicines, visits, and attends midwifery. The principal is thus able to do a larger practice and to handicap his qualified competitors. Unfortunately, owing to the want of education, the "doctor's man" goes down very well with the working classes. In a large practice low fees are charged, such as consultations at home and medicine, 1*s.* 6*d.*; visits and medicine, 2*s.* or 2*s.* 6*d.*; midwifery, 10*s.* 6*d.* to 15*s.*; clubs, 2*s.* 6*d.* or 3*s.* per head per annum. The assistant does a large share of this work. In a large practice of this kind there are, of course, a great number of bills to be sent out. A lower depth of degradation is reached in connexion with these bills. A "collector" is employed, to whom is entrusted the gathering in of a large number of these accounts. He calls round at the patients' homes weekly or fortnightly, and receives the money in instalments of 6*d.*, 1*s.*, 2*s.*, &c., until the account is paid off. If the collector finds any bad payers, the county court is resorted to, and the county court judge comes to the aid of the "doctor" (?) by making an order at the rate of so much—say 2*s.* 6*d.* per month. There is no trade conducted on such principles—no bootmaker, tailor, butcher, or baker would descend to such a method of conducting his business. I need hardly say that chemists have no necessity for such a method of payment; in fact, they smile at the professional men (?) who employ these collectors to gather in the money earned by their unqualified assistants, and chemists pride themselves on not having reached such a depth of degradation as to have to resort to such a practice. All the chemists here know the truths I am detailing to you. Internal reform in this direction is also needed. We want more of the professional spirit and more self-respect to put an end to such evils.

I am, Sir, yours faithfully,

April 14th, 1881. VERITAS.

MISSED LABOUR.

To the Editor of The Lancet.

Sir,—Seeing the discussion on "Missed Labour" in your journal, and thinking the following case may be of interest, I send it. I was asked by the clergyman of the parish to see a poor woman who was suffering, as he imagined, from an abdominal tumour. The history of the case was that the woman became pregnant, and distinctly felt the child up to the ninth month, when the movements ceased. The abdomen continued to remain in the same enlarged condition for six months longer, when I saw her, and diagnosed "missed labour." I ruptured the membranes, and twenty-four hours after she was delivered of a full-term child, having all the appearance of being in the uterus the time stated.

I am, Sir, yours, &c.,
Wareham, Dorset, May 10th, 1881. W. T. Boreham, M.D.

SPECIFICITY AND EVOLUTION IN DISEASE.

To the Editor of The Lancet.

Sir,—Your editorial comments on "Blood Diseases and the Germ Theory," in a recent number of The Lancet, induce me to send you the following reflections on the collateral question as to how far our commonly accepted notions of specificity of diseases should be modified by the doctrine of evolution.

This doctrine, which has so rapidly and entirely altered the face of the organic world, as we conceive it, has as yet made but a feeble impression, if any, on medical science and pathology.

The importance of the principle of specificity in disease has been clearly and generally recognised since the time of Laennec and Bretonneau; Trousseau, in one of his clinics devoted to the subject, remarks of specificity, "Elle domine toute la pathologie, toute la thérapeutique; en un mot, toute la médecine." And the same belief, tacit or avowed, would seem to pervade all modern medical literature.

Now, the argument upon which medical writers base their theory of specificity consists in an appeal to the analogy which exists between the natural history of diseases and the natural history of animals and plants. In the words of Sydenham, "Unaquæque mortorum non minus quam animalium aut vegetabilium species affectiones sibi proprias perpetuas ac pariter univocas ab essentia sua promanantes sortita est;" and until the last few years no better argument was possible.

Since, however, as regards the organic world, we have come to speak of an origin of species, and learnt to trace their differentiation under the influence of evolution to the eventual survival of the fittest, I would ask, should not our views concerning specificity of diseases undergo a similar modification? Is not the theory of specificity swallowed up in the larger theory of evolution? As with animals, so with diseases; may we not henceforth regard the several species and genera as descendants from a common ancestor? Starting from a non-specific inflammation or fever, may there not arise therefrom under favourable conditions an inflammation or a fever different from the parent stock, and capable of reproducing itself? I think so. Look at tubercle, a disease characterised by such well-marked features as to have been long since classed as a specific disorder, but whose natural history, revealed by the experiments of Cohnheim, Burdon-Sanderson, and others, shows that it may be derived by cultivation from the simplest common inflammation as that resulting from a chemical irritant; the non-specific has developed specific characters, the homogeneous become the heterogeneous. So it is with other diseases; even the ordinary stages of a common inflammation, pimple, vesicle, pustule, or scab, foreshadow and typify diseases which we call specific, wherein one or other of the stages predominate, while the rest are subordinate. The common ancestry of specific diseases once recognised would do much to remove the hard and fast line so often drawn between disease and disease in text-books and dissertations, but of which nature knows nothing.

I am, Sir, yours obediently,
W. J. Collins, B.Sc., M.R.C.S.
St. Bartholomew's Hospital, April 23rd, 1881.

420.—If our correspondent has not forgotten his letter of March, 1880, he can hardly be surprised that we should hesitate to accept as entirely accurate the statements contained in that of April 11th. If they are correct, we believe that a representation to the authorities of the injustice involved in the course complained of would meet with proper attention.

W. G. G.—Wilson's "Handbook of Hygiene and Sanitary Science," published by Messrs. J. and A. Churchill.

Communications, Letters, &c., have been received from—Mr. Hart, Sedbergh; Mr. Southam, Manchester; Mr. Todd, Hull; Mr. Vail, Kilmarnock; Mr. Morton, London; Mr. Lewis, Bath; Mr. Moffat, Hawarden; Dr. Williamson, London; Mr. Reginald Harrison, Liverpool; Mr. Pritchard, London; Mr. Stuart, Heckmondwike; Dr. Milner Fothergill, London; Mr. R. H. Firth, Blackburn; Mr. Robinson; Mr. Bonham Carter, London; Dr. Dudgeon, London; Mr. Dickson, Bootle; Mr. Jackson, Sheffield; Dr. Flinn, Brownhills; Mr. Snoad, Leicester; Mr. Raines, Ipswich; Mr. Taylor, Buxton; Dr. Gowan, Auston; Mr. Bakewell, Church Stretton; Mr. Fennel, Stourbridge; Mr. Lenderson, Lynn; Mr. Roberts, London; Dr. Clarke, Leicester; Mr. Nixon, London; Dr. Leapingwell, Cheadle; Mr. Corbin, Adelaide; Dr. Beaumont, Shirley; Dr. Morehead, Weymouth; Mr. Philpot, London; Sir J. Fayrer, London; Mr. T. Ely, London; Dr. Boreham, Wareham; Mr. Max Lindlar, London; Dr. Porter Smith, Shepton Mallet; Mr. Vinson, Rye; Mr. Merry, Hemel Hempstead; Dr. Thin, London; Dr. W. H. Day, London; Mr. E. B. Stephens, Doddington; Mr. Outlaw; Dr. Fowler, London; Mr. Thacker, London; Mr. Craigie, London; Mr. Adams, Maidstone; Dr. Dugald Sturk, Wantage; Dr. Maclagan, Hexham; Rev. C. T. Buchanan, Sheffield; P. R.; E. T., Wolverhampton; A Surgeon; The Secretary of the Society of Arts; Ex-Superintendent; &c., &c.

Letters, ***each with enclosure,*** **are also acknowledged from**—Dr. Atkey, Chichester; Mr. Jones, Bontnewydd; Mr. Beaty, Dublin; Mr. Pierce, Windsor; Dr. Boulton, Horncastle; Mr. Appleton, Beverley; Rev. C. Ward, Newton-le-Willows; Mr. Sinclair, Fordown; Messrs. Knight and Co., Rotherham; Dr. Grieve, Birmingham; Dr. McNicoll, Liverpool; Mr. Simpson, Sowerby-bridge; Mr. Saunder, Manchester; Messrs. Hart and Son, Saffron Walden; Mr. Elliott, Carlisle; Messrs. Lee and Nightingale, Liverpool; Mr. Price, Wolverhampton; Mr. MacMunn, Sligo; Mr. Slater, Ripon; Mr. Barber, Eastbourne; Messrs. Atkinson and Philipson, Newcastle; Mr. George, Liverpool; Mr. Maclehose, Glasgow; Mr. Coutts, Lichfield; Mr. Whiteley, York; Mr. Horne, Bootham; Mr. Ekin, Donaghmoyre; Mr. Jarvis, Bury St. Edmunds; Mr. Robinson, Hull; Mr. Ryan, Tipperary; Messrs. Keith, Edinburgh; Mr. Fosbrook, Birmingham; Messrs. Harrison and Brass, Elgin; Mrs. Chapman, Clapham; Mrs. Allsop, Manchester; Mr. Raines, Ipswich; Mr. Vaisey, Aylesbury; Mr. Frazer, Weston-super-Mare; Mr. Evans, Llandovery; Mr. Lawrence, Hemel Hempstead; Mr. W. Clark; Messrs. Macniven and Cameron, Edinburgh; Mr. Binks, Wakefield; Dr. Clarke, Folkestone; Dr. Ridpath, Great Griffield; Dr. Grove, St. Ives; Mr. Neville, Chorley; Mr. Calder, Liverpool; Mr. Pattrick; E. H., Peckham; Cappa; H., Nottingham; M. S.; Dr. J., Southwark; Medicus, Hornsey; O. P. Q.; X. Y. Z., Leeds; M.D., Cheltenham; Zoedone; M. S., London; Chirurgus; Medicus, Longsight; C. B. C., Winterton; Alpha; B. A., Upton; Medicus, Thanet; J. X., New Brompton; M. D. T. D.; B. D.; Dr. W., Maida-vale; K., Bayswater; Statim, Blandford; Alpha, Wickambrook; Iatros; Medicus; E. S. T.; G. A. M., Leeds; B. T. W.; C. J., Cunthorpe; Medicus, Llanfair; Lex, Edinburgh; M.R.C.S., Norwich; T. H. S., Great Torrington; Hibernicus; Veritas, Liverpool; &c., &c.

Shields Daily News, Hampshire Post, Blyth Weekly News, Flintshire Observer, Greenock Advertiser, Kilmarnock Standard, Hairdressers' Chronicle, Surrey Comet, &c., have been received.

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A Lecture
ON THE
PHYSIOLOGY AND PATHOLOGY OF THE OLFACTORY NERVE.

Delivered at the Hospital for Epilepsy and Paralysis, Regent's-park.

By JULIUS ALTHAUS, M.D., M.R.C.P.,
SENIOR PHYSICIAN TO THE HOSPITAL.

(Concluded from p. 773.)

If odorous substances are to be perceived, the nose must not be dry, for it is the nasal mucus which absorbs odoriferous molecules from the atmosphere, and brings them in contact with the olfactory cells. Anything that tends to check the secretion of mucus, such as extremes of heat and cold, the inspiration of dusty air, and the first stage of a cold in the head and the nose, will cause diminution or loss of smell. Persons who have habitually a dry mucous membrane can only smell well when there is a great deal of moisture in the atmosphere. But there must be no excess of mucus, which is equally prejudicial to olfaction. This is seen in the second stage of a cold, when the membrane is swollen and in a state of hypersecretion. Too much mucus not only prevents mechanically the access of odorous particles to the terminal branches of the nerve, but also macerates the olfactory cells, whereby the excitability of the nerve is diminished. Sneezing and blowing the nose may, under such circumstances, restore smell by clearing away a physical impediment.

In ordinary quiet breathing only little air enters the olfactory channel, for most of it passes through the posterior nares into the pharynx. If we, therefore, intend to smell keenly, we instinctively resort to the use of either the dilator muscles of the nose, whereby the passage is enlarged, or of the compressors, by means of which we sniff. The latter way is even more effectual than the former, for during sniffing the agger nasi is squeezed against the septum, and the respiratory channel is closed, so that the air is obliged to pass through the narrow groove leading to the olfactory cells. In facial palsy from disease of the portio dura the dilators as well as compressors of the nose lose their power, which is the reason why smell is lost in that affection on the side of the lesion.

The sense is also impaired or lost in chronic inflammation and thickening of the membrane, whereby the olfactory channel is obstructed; and in polypus, other tumours, and foreign bodies in the nose. Adhesion of the soft palate to the posterior wall of the pharynx has the same effect; a free incision into the palate will, in such cases, restore the smell at once.

The specific stimulants of the olfactory nerve are odorous substances, which must be either in the form of gases or capable of being changed into gases. Such substances give off exceedingly minute particles, which form a kind of atmosphere, the density of which diminishes in proportion to the distance from the substance. These particles, on coming in contact with the olfactory membrane, cause a peculiar vibration in the molecules of the nerve, which is transmitted to the olfactory centre in the brain, where it is appreciated.

A classification of odours is very difficult. Haller, the great physiologist, distinguished them into pleasant and unpleasant; but this appears unsatisfactory, as some people detest odours which are relished by others. The smell of assafœtida is horrible to most of us, yet it was used as a perfume by the ladies of the Roman empire; and in Afghanistan, from where it comes, it is called "scent for the gods." The Siamese are said to be fond of the smell of rotten eggs, and sportsmen enjoy the smell of the stable. The division of odours into mineral, vegetable, and animal is likewise not a good one, for the odour of musk is found not only in the animal Moschus moschiferus, but also in the plant Rosa moschata, and in some earthy substances; Japanese teapots are impregnated with it. The best classification appears to me that which has been proposed by Frölich, who distinguishes odours acting purely on the olfactory, such as essential oils, resins, and balsams; and others acting likewise on the fifth nerve, such as iodine, bromine, chlorine, nitric and acetic acids, ammonia, horseradish, mustard, &c. The former act simply as odours, while the latter irritate the mucous membrane of the eyes, nose, and throat, and cause lacrymation, sneezing, and coughing.

Professor Tyndall has struck out a new line of research by investigating the effects of odours on radiant heat, which he has found to be a more refined test than any other. Assuming the absorption of one atmosphere of dry air as unity, he found that perfumes intercepted many times the quantity absorbed by the air, and that the rate of absorption varied from 30 for patchouli to 372 for aniseed, intermediate numbers being found for sandalwood, geranium, oil of cloves, attar of roses, bergamot, neroli, lavender, lemon, portugal, thyme, rosemary, oil of laurel, camomile flowers, cassia, and spikenard. Thus, it was shown that—

> "The sweet South,
> That breathes upon a bank of violets,
> Stealing and giving odour,"

owes its sweetness to an agent which, although almost infinitely attenuated, may be more potent as an intercepter of terrestrial radiation than the entire atmosphere from "bank" to sky.

That the olfactory nerve is sometimes *congenitally absent* has already been noticed. Breschet has seen this peculiarity to run in a family. The patient under his care had inherited it from his father; he had an aversion to flowers, and disliked to see them on the person of a woman. He had an antipathy to gardeners and botanists; yet he was able to perceive the emanations from cesspools—namely, ammonia and sulphuretted hydrogen, and he was in the habit of taking mustard and snuff.

We know *atrophy* to be a common affection of the optic nerve; indeed, this is one of the principal amongst the early symptoms of locomotor ataxy. The same pathological process appears occasionally to invade the olfactory, more especially in the aged, where smell is impaired or lost, and sclerosis of the nerve has been discovered after death. This wasting appears to affect chiefly the external root, which is traced to the fissure of Sylvius, and which seems to be more important for olfaction than the middle or internal root.

Loss of pigment in the skin of the body has been noticed by Dr. Hutchison, of Kentucky, in a negro boy, to coincide with loss of smell; and this case has provided Dr. W. Ogle with a text for remarks on the importance of pigment for olfaction. We have already seen that the presence of colouring matter in the olfactory cells is really dependent upon the integrity of the nerve, and that after destruction of the latter the pigment disappears. It is therefore more in consonance with physiological facts to assume that this absence of pigment is not of itself a cause of anosmia, as Dr. Ogle would lead us to believe, but simply a consequence of withdrawal of nervous influence. Anosmia and loss of pigment have therefore to be looked upon as symptoms of a pathological condition, but do not stand in the relation of cause and effect.

I lately had an illustrious person under my care who is an Albino, and devoid of colouring matter in the hair and iris. In early life he had had great difficulty in reading, and had been warned by oculists whom he had consulted that he would lose his sight altogether if he continued to read much. He eventually constructed for himself a very simple and ingenious contrivance by means of which the rays of light were made to fall on the retina through an exceedingly minute aperture; and with this little instrument he has managed for many years to read all day long without fatigue. His smell and taste had never been very keen; and when he was about sixty-three years of age he lost them altogether. No accident or other obvious cause had given rise to this affection, and I therefore looked upon it as ultimate atrophy of a nerve which had never been highly developed, and consequent complete loss of any small quantity of pigment which might previously have been present in the sensorial cells of the nerve.

Injury to the head may give rise to anosmia from rupture of the olfactory nerves as they pass through the foramina of the ethmoid bone. In this place the nerves are exceedingly soft, and therefore particularly liable to be torn, while in the nose they have more power of resistance, from being invested with a sheath which is a continuation of the dura mater. The brain matter adjoining these nerves may therefore, on account of its greater firmness, escape laceration, so that the only symptom after an injury to the head may be loss of smell. It seems singular that it should generally be a blow or fall on the *back* of the head which causes rupture of these nerves, as they are situated in front. The injury acts, indeed, more by contrecoup than by direct violence; and that the anterior portion of the brain should be more liable to suffer in this way than the posterior is owing to the fact that the former is situated directly on the depressed and elevated surfaces of the cranial bones, which here present great irregularities in their shape, while the posterior lobes rest on a soft cushion, the tentorium cerebelli, whereby they are effectually protected.

Excessive stimulation may temporarily or permanently destroy the excitability of the olfactory nerve. It is related of Marshal Richelieu that he habitually lived in an atmosphere of the strongest scents, which made his visitors quite ill, while he was himself ultimately quite unaware of them. Scavengers, dustmen, and tallow-boilers become after a time insensible to the disgusting odours surrounding them, anatomists to the smell of the dissecting-room, and patients suffering from cancer to the emanations from their sores. But even true anosmia, or insensibility to *any* odorous substances, may thus be produced. Graves has recorded the case of a captain in the Yeomanry, who in the Irish rebellion of 1798 had to superintend the work of emptying out an old cesspool which was filled with the offscourings of the market and all manner of filth, and on the bottom of which 500 pikes were reported to have been concealed, and were actually discovered. He was all this time exposed to most abominable effluvia, and suffered greatly from the stench. Next day he found that he had entirely lost his smell, and thirty-six years afterwards, when Graves examined him, the anosmia still persisted. A similar thing happened to a surgeon at Bremen, in Germany, who had to make the post-mortem examination of an archbishop who had died of cancer of the stomach. The fearful emanations arising from the body of this dignitary of the church destroyed the surgeon's smell for life. Such cases are analogous to those of blindness from exposure to a too intense light, and deafness from explosions at close quarters. The pathology of these conditions has not yet been investigated, but I deem it probable that they are owing to capillary hæmorrhage in the nerve.

Inflammation of the olfactory nerve would appear to be an exceedingly rare occurrence, which seems singular if we consider the frequency of optic neuritis. The latter occurs almost invariably when the intracranial space is reduced by tumours, but such a condition does not seem to affect the first pair in a similar manner. The only case of acute olfactory neuritis which has as yet been placed on record occurred in a patient who was some years ago under my care at the hospital, and who suffered from an advanced stage of locomotor ataxy. He was a banker's clerk, aged forty-eight, married, and father of two children, and had been in good health until eight years before admission, when, apparently from having been exposed to cold draughts at his office, he began to feel numbness in his feet, and in walking it seemed to him as if he was treading on india-rubber or cotton. About the same time he was startled by perceiving a strong smell of phosphorus, which never left him for six weeks, and overpowered all other accidental smells. At the end of that time he noticed that he had become entirely insensible to odours of any description. I tested the patient with camphor, valerian, ether, opoponax, and a variety of other strong scents, none of which he was able to perceive. When allowed to sniff ammonia he experienced the usual sensations of tickling in the nose, choking and lacrymation, and snuff made him sneeze. The nasal twigs of the fifth nerve and of the spheno-palatine ganglion were therefore shown to be in their normal condition. The patient tasted sugar, salt, quinine, and acids, but the perception of flavours in eating and drinking was entirely gone. When his eyes were bandaged he was unable to distinguish between stewed onions, apples, and turnips which were given him, but he could tell the difference between roast beef and mutton by the tactile sensibility of the tongue. He did not perceive the flavour of wine; claret tasted to him like weak vinegar and water, and port wine as spirits and water. The patient died of collapse some months after admission, and Dr. Ferrier, who was then my colleague at the hospital, made the autopsy. There were found the naked-eye appearances of neuritis of the first pair at the base of the brain, and the specimens were removed and handed for microscopic examination to the late Dr. Lockhart Clarke, who was then likewise physician to the hospital. Unfortunately that gentleman died soon afterwards, and I have not been able trace the specimens, which is much to be regretted in a ca of such extreme rarity. That this, however, really was case of acute olfactory neuritis seemed evident from t symptoms which were observed during life. There was first a stage of sensorial hyperæsthesia which, after havi lasted for six weeks, merged into complete anæsthesia of t special sense. This corresponds closely with what I ha observed in neuritis of the fifth nerve, where there is likewi a first stage of hyperæsthesia, as evidenced by severe pain the parts supplied by that nerve, and lasting for five or s weeks, after which complete anæsthesia of the face a motor paralysis of the muscles of mastication set in. Th perception of the smell of phosphorus, which this patient ha had for six weeks consecutively, I attribute to the circu stance that the olfactory nerve responds to stimulation othe than by special odoriferous substances, by perception of thi peculiar smell. I have already spoken of this sympto when treating of the galvanic excitability of the nerve, an the case just related seems to show that it is also caused b irritation of the nerve through hyperæmia and inflammatio similarly as in retinitis flashes of light are perceived by th patient.

I have reason to believe that *chronic olfactory neuritis* leading to loss of smell, occurs in syphilitic patients, togethe with affections of other nerves at the base of the brain.

Tumours growing at the base, and irritating or destroyin the first pair, will cause, first, hyperosmia, and afterward anosmia. Lockemann has described the case of a woma who complained of horrible smells which nobody else coul perceive, and also suffered from vertigo and epileptifor convulsions. The smells ceased after a time, and it the appeared that the patient had lost the faculty of smelling o the left side. The other symptoms gradually increased i severity, and the patient died. On inspection a sarcomatous tumour was discovered in the left frontal lobe of th brain, which had completely destroyed the olfactory tract o the same side.

Finally, disease of the *olfactory centre* in the brain ma unduly exalt or destroy smell. That such a centre exist had been suspected for a long time, and pathologists sough it near the fissure of Sylvius and the island of Reil, and i close proximity to Broca's convolution, for anosmia has bee found associated with aphasia and right hemiplegia fro embolism and hæmorrhage. In such cases the loss of smel is unilateral, and confined to the side of the lesion. W have therefore right hemiplegia and left anosmia. Thi apparent discrepancy is satisfactorily accounted for by th circumstance that there is no decussation of the olfactor paths in the anterior commissure which joins the temporo-sphenoidal lobes, and smell is, therefore, appreciated on th same side on which it is perceived. Experimental physiolog has gone a step further in localising the seat of the olfactor centre more definitely. Dr. Ferrier finds it in the tip of th temporo-sphenoidal lobe, or the subiculum cornu Ammonis which appears likewise to contain the gustatory centre Faradisation of this part in animals is followed by a sniff which is evidently the outward expression of the excitatio of subjective olfactory sensations. Destruction of this par seems to cause loss of smell, and Ferrier's view is supporte by the circumstance that this structure seems to be particularly developed in animals which have a very keen sense o smell. Yet Munk, who has likewise investigated the relations of the cerebral cortex to the special senses, has com to entirely different conclusions, so that the question mus still be considered to some extent an open one.

Diseases of the olfactory centre have not yet been muc studied. It seems rational to assume that the hemi-anosmi of hysterical women, which is part and parcel of the hemi-anæsthesia from which they are so apt to suffer, is owing t a neurosis of this centre. The olfactory hyperæsthesi which is so frequently seen in certain forms of insanity hysteria, and as a premonitory sign of epileptic attacks, n doubt arises from undue excitability of the nerve-cells in th olfactory centre, which gradually spreads to the cells of th motor convolutions and tracts, and ends in a convulsiv epileptiform seizure.

The *treatment* of anosmia and hyperosmia remains to b considered. Of course, where the nerve is torn or destroyed we cannot hope to remedy the mischief which has been done yet cases occur from time to time in which treatment may b useful. There are two medicines which have a decided an antagonistic influence on olfaction—strychnia will exalt while morphia will impair and deaden it. Strychnia applie locally to the mucous membrane of the nose as a snuff, or taken internally in a suitable dose, wonderfully increases the keenness of the sense, the local application being the more effective of the two. Smaller quantities of scents are perceived, and their impression is more precise and pleasant. The sensitiveness to pungent odours is so much increased that snuff, ammonia, and acetic acid cause positive pain. It therefore appears that the excitability of the fifth nerve is likewise exalted. Morphia, on the other hand, has only insignificant effects when applied as a snuff; but if taken internally, and more especially if injected subcutaneously, confuses the appreciation of odours to such an extent as to produce a kind of chaos. Smell is not actually destroyed, but the odours appear, as it were, at an enormous distance, although the bottle containing them may be held right under the nose. The olfactory nerve is, in fact, narcotised.

Most other medicines which have an influence on olfaction act indirectly, and do so by altering the condition of the fifth nerve. Thus atropia and daturine cause great dryness in the mucous membrane, more particularly when injected subcutaneously. This interferes with smell, as has been pointed out above. The effects of pilocarpine on olfaction have not yet been studied, but will most probably be found antagonistic to those of atropine.

In anosmia I therefore prescribe one-twenty-fourth of a grain of strychnia mixed with two grains of powdered sugar, to be used as a snuff twice a day; and I increase the dose to one-sixteenth and one-twelfth of a grain should no effect be produced. In the hyperosmia of epileptic patients, when preceding attacks, I inject one-sixth of a grain of the acetate of morphia with one-sixtieth of a grain of the sulphate of atropia subcutaneously. This soothes the explosive tendency of the nervous centres, and acts as a preventive of epileptic attacks.

Electricity has been recommended by Erb and others for the treatment of anosmia; but as I have shown that the first pair is only influenced by a current of extreme power which would do harm in other ways, I warn you against the use of such a remedy for such a disease. Where syphilis is suspected or recognised iodide of potassium should be given.

In conclusion, I must say a few words on the *diagnostic importance* of certain smells in the sick-room, which was formerly much insisted upon; indeed, whole treatises have been written on the recognition of disease by sniffing. Dr. Heim, who was the popular physician of the day at Berlin some fifty years ago, recognised measles, scarlet fever, and small-pox by their peculiar smell on first entering a house, and before having seen the patient. Mr. Bernard of Upton Park has recently recorded in THE LANCET two cases of small-pox in which the patients themselves perceived a dreadful smell, apparently just at the moment of being exposed to contagion; and one of them when suffering from the eruption said that his perspiration had the same smell as that which made him sick before. When attending Skoda's clinique in Vienna, twenty-five years ago, I noticed that this celebrated teacher was in the habit of sniffing when approaching the bedside of patients suffering from the last stages of pneumonia, phthisis, typhoid fever, &c.; and he would give a bad prognosis when he perceived what he called the "cadaverous smell." Mr. Crompton of Birmingham has noticed a peculiar earthy smell from the body a week or a fortnight before death, which, he says, has never deceived him—an appropriate illustration of the saying, "Earth to earth." Dr. Begbie distinguished typhus and typhoid fevers by the sanguineous (others call it "mousey") smell of the former. Professor Parkes has noticed a peculiar odour in the skin of cholera patients. A pungent smell in the chamber of a lying-in woman shows that lacteal secretion is well established, while an ammoniacal smell has been said to indicate the approach of puerperal fever. Many women emit a peculiar odour while menstruating, which resembles a mixture of blood and chloroform; and this is believed to arise not so much from the discharge as from the more pungent character of the sweat secreted in the axilla. Persons of costive habit have a fæcal smell; and this is also often noticed in hypochondriacs and lunatics. In uræmia, whether owing to kidney disease or to severe retention of the urine, a urinous odour is emitted by the body; and the presence of pus in some part of the body has been recognised by a peculiar warm-milky smell of the patient.

Apart from the odour of the sick-room and the body generally, the smell of the sputa, urine, fæces, sweat, ulcers, &c., was carefully noted by the older practitioners, and utilised for prognosis and treatment. Unquestionably there was much that was fanciful in such ideas; but occupied as we are at present with the study of more precise and definite symptoms, we have, perhaps, gone to the other extreme in neglecting such signs altogether. Everybody has his own special odour, and this varies according to the circumstances of life, the food taken, and the state of health in which he happens to be. That it should be altered in disease, and that special diseases should have special odours, is only what one would expect; yet the increase of cleanliness and ventilation has no doubt done away with a large variety of smells which formerly used to assail the nostrils of the physician.

Are odours of any medicinal value? This may well be doubted. The vapour of hellebore has been used for purging, that of crocus and hops for procuring sleep, and the emanations of burnt feathers and wool for combating hysterical fits; but no doubt the imagination was largely influential in the production of any such effects. Chloroform, ether, ammonia, and similar substances, which have a definite physiological action, can hardly be looked upon as odours. On the other hand, it is certain that strong scents may be hurtful, more especially the sweet ones, such as those of lilies, violets, narcissus, nerium, oleander, and lobelia; and these, again, chiefly in nervous and hysterical women, in whom headache, dizziness, fainting and convulsive fits have thereby been caused. Yet we would hardly go so far as Pope, who considered it within the bounds of female delicacy to

"Die of a rose in aromatic pain";

or the German poet Freiligrath, who in his beautiful stanzas, "Der Blumen Rache," makes the spirits of flowers torn from their beds rise in the night and kill the maiden to whom they had been offered:

"Blumenduft hat sie getödtet!"

Indeed, we may safely rely on being able to combat any of the accidents or symptoms just mentioned by a very simple expedient—viz., opening the window.

A STUDY OF THE PATHOLOGICAL PHYSIOLOGY OF CONTRACTURES.[1]

BY DR. CHAS. RICHET.

IN order to become thoroughly acquainted with the physiology of muscle, it is necessary to study the morbid phenomena it exhibits, for physiology and pathology lend each other mutual support, each with its different method arriving at the same result—viz., the knowledge of the properties of muscular tissue and its relations with the nervous system. Let us, in the first place, refer to that physiological phenomenon described by M. Tiegel, under the name of *contracture*. If a fresh muscle, stretched by light weights, be stimulated, and if the stimulus be very strong, the contraction is continued for a very long time. Instead of having a simple shock analogous to that which is figured in all the classical works, where relaxation is nearly as rapid as contraction, there will be a very sudden contraction and a very slow relaxation; often, indeed, the relaxation will be *nil* and the state of contraction persist indefinitely. Again, certain muscles, when stimulated for a long time by powerful induction currents, are not relaxed, and remain contracted even when the stimulus has entirely ceased. This form of contraction thus passes into cadaveric rigidity. There is no intermediary between contraction—the active phenomenon, and rigidity—the phenomenon of the death of muscle.

But these facts cannot so far serve to give a definition of the pathological phenomenon of contracture. It is likely that there is a relation between these physiological contractures, produced by strong stimuli, and the contractions seen in certain patients; but it is as yet hypothetical to frame an analogy, and it is not suitable to introduce these physiological ideas into the definition of contracture. We may define it as a state of shortening of the muscular fibre which can no longer be relaxed by the influence of the will. In saying muscular fibre, we imply that retractions due to sclerosis must not be included with contractures, for the former are fibrous indurations, such as we observe in certain cases of chronic myositis, where there is a shortening of the whole muscle. Let us first examine in what cases contracture is observed.

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[1] Lecture delivered at the Paris Faculty of Medicine: Auxiliary Class of Physiology.

In cerebral or medullary affections there is contracture when the lesion is seated in certain motor regions of the cord. The important works of M. Charcot and of his pupils, especially Brissaud,[2] have determined in what cases these contractures are produced. In hemiplegia there are primary contractures, due probably to cerebral compression, and late contractures, due to degenerations of the cord. This degeneration involves the pyramidal fasciculus. In lateral sclerosis there is also observed a lesion in the white columns of the cord which determines the contracture. Thus, certain medullary lesions can provoke contracture, either of a limb or of one side of the body. It is probable that it operates not by suppression of action, but by irritation. It is because the cord is excited that the muscle can thus contract. Contracture is the analogue of hyperæsthesia; when the motor part of the cord is excited there is contraction; when the sensory portion, there are pain and hyperæsthesia.

Contractures are met with in many other diseases of the cord, and may all be explained in the same manner; the exaggerated excitability of the cord leads to contracture of the muscles. Somewhat analogous phenomena may be obtained experimentally on animals. Yet it is not simply by acting on the cord, but by stimulating certain parts of the brain, either the ventricles, as M. Cossy has done, or the cerebral cortex as MM. Rochefontaine and Viel, that contractures are obtained, transitory, it is true, but sufficient to establish the alliance between the facts of experimentation and those of pathology.

To sum up, we have a first series of contractures due to inflammation (chronic or acute) of the cord or the brain.

There is a second physiological process by which contractures are established. In the normal state there is a direct synergy between certain sensory nerves and certain muscular nerves, so that the stimulation of the sensory nerve provokes in the cord an immediate reflex on the motor nerves of the muscle. This hypothesis, which J. Müller propounded at the outset of the study of reflex movements, has been confirmed by a multitude of observations. Thus, the sensory nerves of mucous membranes, when stimulated, provoke contraction of the muscles adjacent to these mucous membranes; the conjunctiva, for example, when touched excites a reflex of the eyelids. Suppose that there has been on one of these mucous membranes a constant stimulation, as that which is produced by a burn or ulcer, there will then be a tendency to contraction of the orbicular muscle, as, in fact, is seen in a large number of cases. One knows that ulcerations of the conjunctiva determine spasm of the orbicularis; ulceration of the ureter a spasm of the muscular membrane of this canal; fissures of the anus a contraction of the anal sphincter, &c. Caustic injections into a joint of a guinea-pig or of a dog determine contracture of the muscles bordering on the joint. M. Valtat has made some exact experiments bearing on this, and he has seen arthritis determine firstly contracture, then atrophy of the muscles. Even on the cutaneous surface a painful stimulus may give rise to a kind of contracture. That is seen on the lower limb following ulcers &c. These latter facts establish a natural transition between contracture properly so called and the other varieties of spasm or convulsion of muscle (tetany, local tetanus, &c.). Inflammation and traumatic irritation of nerves produce contracture by the same mechanism—viz., by over-exciting the reflex activity of the cord.

We have then a second variety of contracture—contracture due to a prolonged peripheral stimulus.

There is a third class of contracture, observed in hysteria, and also beyond every morbid state in certain physiological or individual conditions. In hysteria there is very likely an increase in the activity of the cord, together with an abeyance of action of the higher nerve centres. Physiological experiments have shown that in separating the cord from the brain reflex medullary action is over-excited, as if there were in the brain moderating centres of reflex actions. Again, among hysterical subjects contractures are very frequent. So are they in the somnambulic state, which in so many points resembles hysteria. Hence this third class of contractures, which depend on an absence of action of the central nervous system.

In all cases the muscle may be contracted when the cord becomes over-excited. It is then a manifestation of the exaggerated activity of the cord, and it is necessary to study this condition with more detail.

It is admitted that in the normal state the muscle is linked to the nerve-centres by two kinds of nerves—a centrifugal motor nerve and a centripetal sensory nerve. These two nerves reach probably a very limited region of the cord, and the reflex from one to the other is very readily accomplished. All occurs as if there were a sensory nervous current constantly passing up to the cord from the muscle to determine a reflex on the same muscle. The descending nervous influence towards the muscle puts its tonicity into play. One knows that when the nerve of a muscle is cut the muscular fibre is relaxed (Brondgeest), and that its chemical actions diminish, so that the venous blood becomes redder (Claude Bernard). Suppose, then, that the cord is over-excited, the tonicity will have another character. Instead of being a state of semi-relaxation of the muscle it will be its prolonged contraction—in other words, its contracture. Thus the tonicity of the muscle is sometimes *nil*, as when all the nerves are cut; sometimes normal, as in the healthy individual, where there is a harmonious equilibrium between the different antagonistic muscles; sometimes exaggerated, as in hemiplegia and hysteria. Ultimately we reach this conclusion for the cause of contracture, that it is the state of exaggerated tonicity of the muscle.

One may demonstrate readily that of all the sensory stimuli which can provoke contraction by reaching the cord, it is the sensory excitation of the muscle itself which is most apt to determine contraction. Every strong muscular contraction is a sensory excitation of the muscle. Thus, in hysterical subjects it is sufficient for them to make an energetic movement in order to produce a contraction. The muscle which has been strongly contracted can no longer be relaxed, and remains contractured. The same result is attained by kneading, or exerting strong pressure on the muscular fibres. In the hypnotised, even in the first degree of somnambulism, the aptitude to contracture is quite as marked. Some individuals, even apart from the hysterical or somnambulic state, are subject to contractures or cramps consecutive to a rather feeble muscular contraction. That is doubtless a question of a more than ordinary medullary excitability. In the researches which I have undertaken with M. Brissaud upon this subject, we have found that excitation of the tendon had a directly opposite effect to contraction of the muscular fibre itself. Palpation of the muscle determines contraction, but palpation of the tendon determines its relaxation. Thus, the strongest contractions provoked are relaxed as one palpates more or less strongly the tendon of the contractured muscle. It all takes place as if the tendinous nerves were nerves of arrest, serving by an inhibitory action to make the contraction of the muscle cease.

The physiological state of the contractured muscle may be ascertained by different methods of investigation. If we introduce fine needles into the muscle and ascertain its excitability during relaxation on the one hand, and on the other during contraction, we do not ascertain notable differences. But if we try to take a myographic tracing of contractured muscles, we see that in spite of its extreme shortening the muscle excited by electricity can still shorten. Contracture is not then the maximum of shortening of the muscle, and the myographic line of the tracing occupies a level intermediate to contraction and flaccidity. Another method of exploration is founded on that very old idea of physiology, that the irritability of a muscle is only called forth if the muscle is traversed by oxygenated blood; whether the lack of oxygen or the products of denutrition accumulated in its tissue exert a baneful action on its contractility. Now, if we completely anæmiate a limb by applying methodically around it Esmarch's elastic bandage, at the end of five to six minutes the contracture will disappear; voluntary movements will be longer preserved, and at the end of about half an hour they will have disappeared. The electrical excitability only ceases at the end of an hour and a half. Thus there is in the excitability of the muscle this gradation—that excitability to contracture disappears the first; then excitability to voluntary movements; then excitability to electric action. If we remove the bandage from the muscle thus relaxed, immediately the blood flows into the muscle the contraction will return with as much if not more force than before. There was, then, in the relaxed muscle a true latent contraction. Whatever may be the explanation of this paradoxical phenomenon, we think that it indicates with sufficient exactitude this fact, that the muscle was strongly excited by the motor nerve and the cord; and that if it did not respond to this excitation by a contraction, it is because being deprived of blood, it could no longer become contractured. One may then say that this anæmiated muscle, not responding to neuro-medullary excitation, was in a state of *latent contracture.*

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[2] Recherches Anatomo-pathologiques et physiologiques sur la Contracture permanente des Hémiplegiques. Paris, 1880.

In hemiplegia the application of Esmarch's bandage dispels the contracture, as in hysteria. In certain cases, however, where there are old deformities or fibrous retractions, the limb does not return to its primitive position. By another mechanism chloroform makes contracture disappear—viz., by abolishing the activity of the cells of the cord. It is difficult to say if contracture is an active or passive state of the muscle. Researches have been made, but they are not very conclusive. M. Onimus fancied that he had been able to establish this distinction between the active or passive state of the muscle on the following grounds. If two needles in communication with a galvanometer be introduced into two healthy muscles at rest, the needle of the galvanometer undergoes no deviation; if one of the muscles contracts, it will become negative in relation to the muscle at rest, which is positive, and a current will be established, causing a deviation of the galvanometer. Now, a contractured muscle does not present this phenomenon. The observation of M. Onimus does not seem to me very well founded, for it is a change in the electric state which makes the galvanometer deviate, and this change can only take place if there is a change in the physiological state of the muscle.

Brissaud and Boudet by employing the myophone have found that the contracted muscle produces a rolling bruit (rotatory bruit, muscular sound), whilst the contractured muscle only produces a very weak and irregular bruit. It seems that the muscular fibres contract, the one after the other, incessantly reinforcing each other; some stronger, others weaker.

Brissaud and Reynard have also sought to establish if there was by the effort of contracture an increase of temperature; and, instead of finding hyperthermia, as in every strongly contracted muscle, they have found rather a diminution of temperature by some tenths of a degree in the contractured muscles of hemiplegics.

The argument has also been raised that the muscle cannot remain contracted for more than half an hour without there being enormous fatigue, and yet we see contractures persist almost indefinitely without the patient experiencing the least lassitude. In truth, that does not prove the passive state of the muscle; it only indicates that in voluntary contraction there is an effort which fatigues. We do not yet know the cause even of this fatigue. The experiments of Ranke in injecting lactic acid are nothing less than convincing in attributing the cause of muscular fatigue to an exaggerated acidification of the muscle. If, then, there is no fatigue in contracture, it is very probably because of the absence of voluntary effort much more than on account of the passivity of the muscle.

The analysis of different physiological states of the muscle, which are like transitions between the normal state and the state of contracture, may help us perhaps to define the state of the muscle.

Catalepsy is a feeble contracture. Once contracted, the muscle is no longer relaxed; but whilst there must be a very great force to overcome the resistance of a contractured muscle, a very feeble force suffices to conquer the resistance of a cataleptic muscle, and catalepsy might be defined as a feeble contracture.

Let us refer to the definitions given by physiologists of the physical properties of muscle. They have distinguished extensibility — viz., the property of being stretched by a weight; and elasticity, the property of returning to the normal position after the removal of the weight.[3] Thus a normal muscle is extensible and elastic. But if we divide its nerve, in consequence of the suppression of nervous action the muscle becomes more extensible. When we destroy the tonicity of the muscle, we increase its extensibility. The contractured muscle, on the contrary, has a minimum extensibility, and the heaviest weights can no longer stretch it; in other words, its elasticity is very strong. As to the cataleptic muscle, its extensibility is weak, but its elasticity is *nil*—in this sense, that after having been removed from its primary position it can no longer return to it. We may, then, from a purely physical point of view, define contracture to be a state of the muscle in which the extensibility is weak or *nil*, and the cataleptic a state of the muscle in which the elasticity is weak or *nil*. In truth, that does not indicate whether during contracture there is an active or passive state of the muscle; we do not know this in the case of normal contracture—how could we then know it in the case of a pathological phenomenon?

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[3] M. Marey calls extensibility what physicists designate feeble elasticity. A very extensible muscle is a feebly elastic muscle; but these terms, feeble or strong elasticity, complete or incomplete, serve to confuse those who are not familiar with the physical sciences.

NOTES ON ABSCESS OF THE LIVER.

By Surgeon-Major M. C. FURNELL, M.D., F.R.C.S.,
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I VENTURED in THE LANCET of November, 1878, to express my opinion of the superiority of opening abscesses of the liver by incision, followed by the use of trocar and cannula, especially if accompanied by antiseptic precautions, over the aspirator, and I strengthened the opinion thus expressed by giving some cases. I now add a few more.

CASE 1.—R——, aged forty, a brass-smith, admitted on May 28th, 1878; an emaciated man, of intemperate habits, with a round swelling, occupying the whole of the right half of the abdomen, descending as far down as the iliac fossa, said to have gradually enlarged for the last ten days. The patient states that about five days before the swelling appeared he had an attack of fever which left him as soon as the tumour made its appearance. The tumour is about the size of a cocoa-nut, and no pulsation can be felt in it, neither can any bruit be heard. I will omit for brevity sake the systemic examination as given in the case-book.

May 29th, 1878.—The patient is much in the same condition this morning; pulse slow and feeble; respiration hurried; fluctuation in swelling distinct; it was, consequently, determined to evacuate the abscess. The patient was placed under chloroform, when an incision was made immediately below the right costal cartilage, and a large trocar introduced, giving exit to about twenty ounces of purulent stinking fluid. The wound was kept open by a strip of lint, steeped in carbolic oil, introduced through the cannula before its withdrawal, and the wound dressed antiseptically. It would take up too much space to give each day's entry; suffice it to say the man recovered without an untoward symptom, gained flesh and strength, and was discharged quite well on June 22nd.

CASE 2.—A. H——, Esq., a coffee planter, admitted July 29th, 1879. History: Came to India in 1863, and enjoyed good health until 1869, when he was attacked with inflammation of the liver, which ended in abscess; for this he was sent home and the abscess was opened by Sir Wm. Jenner, and he made a good recovery. There is puckered cicatrix in the epigastrium, but the patient states that although his medical attendants in this country said it was an hepatic abscess, the distinguished physician who opened it in England was not of that opinion. Whatever it was he completely recovered, and came out again to this country. In 1875 he again was obliged to return to England, this time on account of some injury to his eye. He returned to India, and early in 1876 he suffered from malarial fever and hepatic congestion, from which he recovered. He remained fairly well until May, 1879, when he suffered from an acute attack of dysentery which was followed by acute lancinating pain in the right hypochondrium, accompanied by shivering fits, fever, and night sweats. He treated himself with calomel and counter-irritants; but obtaining no relief, he applied to Dr. Benson at Shimoga, who sent him on to the General Hospital, Madras. His state on admission, as taken from the hospital note book, was as follows:—

Circulatory system.—Extent of cardial dulness normal; heart's sounds natural, action regular; pulse 62 per minute.

Respiratory system.—Thorax well developed; expansion equal; respiration slow, full sixteen per minute. Nothing abnormal detected on percussion or auscultation.

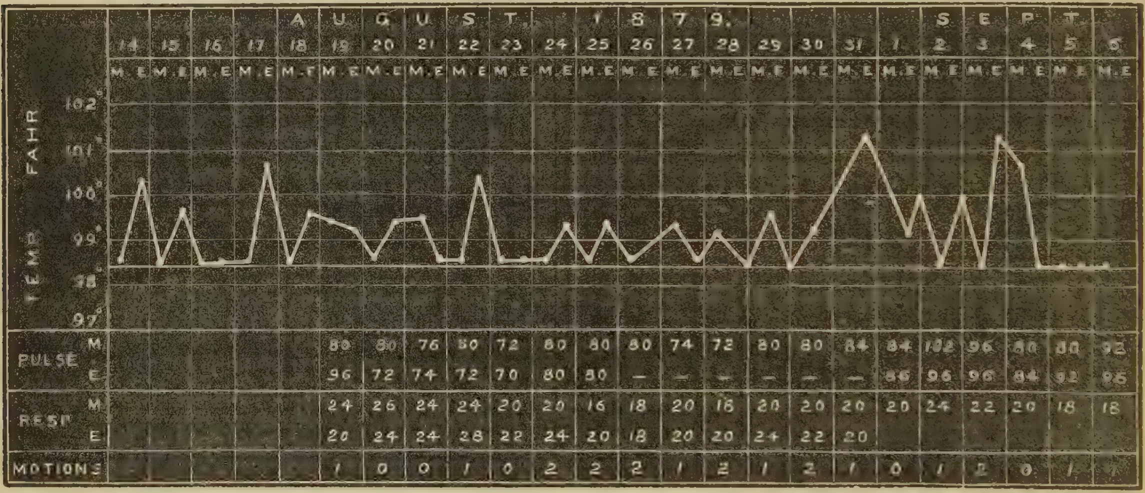
Nervous system.—Patient complains of pain in the right hypochondrium, increased on pressure or when patient lies on his right side; sleeps fairly at night.

Digestive system.—Tongue slightly furred, white; appetite fair; bowels moved thrice in the twenty-four hours, motions loose; splenic area normal; area of hepatic dulness extends from the sixth rib to two inches and a half below the costal margin; there is a slight bulging in the right hypochondrium, tenderness on pressure; no fluctuation can be detected.

Integumentary system. — Skin cool and moist; slight œdema over swelling in hepatic region; temperature normal morning and evening on day of admission. Treatment: The nitro-muriatic acid mixture, foot-baths, and pads to side.

I attach his chart, from which it will be seen that the patient did well for sixteen days after admission—that is, there was no hectic fever, the appetite was good and the usual functions of the body were normal in action. The patient was about, and went out in the evening in a carriage. There was no indication for any surgical interference, and he was strongly recommended to proceed to England. This, however, he declined to do. On Aug. 13th, he complained of slight pain in the swelling, and more especially when lying on the left side; temperature normal. Next day the pain was worse, and the temperature went up to 100°. He admitted having dined well, and taken a fair share of wine a night or two back, when dining with a friend. From this time forward the history is—daily attacks of pain in abscess, and, as will be seen from the chart, some hectic. On the 20th the abscess was opened in the usual way described in these papers, giving exit to about three ounces of laudable pus, with a quantity of blood of a dark colour. It was dressed in the usual manner, the aperture kept open with a strip of carbolised lint and antiseptic dressing used. During the 22nd the dressing, which had been put on at the morning visit, became deranged, and a medical officer on duty dressed the wound. This gentleman had been all the morning engaged in a post-mortem examination. The next day the edges of the wound had a distinct blush, and the parts looked angry. This gradually disappeared, and he did fairly well, but the abscess continued to discharge very freely, and as the weather was almost insufferably hot, it was thought he would do better if sent away to sea. The following are the two last entries in the hospital case-book:—Aug. 5th: Temperature yesterday evening and this morning normal; pulse 92, full; slept well after the night draught; tongue slightly furred towards the centre; appetite good; bowels moved once in last twenty-four hours; stools said to be scanty and watery; abscess doing well. To continue treatment and diet.—Aug. 6th: Had a sleeping draught last night; tongue slightly furred; appetite good; bowels moved once during the night. Temperature yesterday evening and this morning normal. Continue treatment.

Aug. 7th.—Embarked for England eighteen days after the operation. I saw a letter from the patient, written in Suez, in which he spoke of himself as better, but he reached England only to die a day or two after arriving home. The ship's doctor, from whom I subsequently heard, reports that the discharge became very profuse on board ship, and the patient's own statement that he was better at Suez was not warranted by his condition. I was intensely disappointed in this case, as it seemed a most promising one. I can only imagine, although there was no external or constitutional indications of more than one, it was a case of multiple abscess. It will be seen from his history that he suffered from dysentery immediately before his liver symptoms set in. Inflammation of the liver following dysentery mostly leads to multiple abscess.



CASE 3.—E. F. H——, aged forty-five. Service, twenty years; residence in India, seven years and two months; habits temperate. This patient, a conductor of the Ordnance department, was admitted under Dr. MacNally, the assistant physician, some time in February. The earlier part of the case seems to have been irregularly kept by the clerks, for no previous history or the man's physical state on admission is to be found in the notes furnished me from the hospital.—The first entry is February 2nd, 1880: Patient had a good night, pain over the hepatic region is much less, leg is healing, bowels moved once yesterday. My remembrance of the case, however, is very distinct. I was asked by Dr. MacNally to see the case with him in consultation, and found a weak, sickly man, with a distinct swelling in the hepatic region, and little or no fluctuation. As there was no indication for immediate interference, and the man was in a nervous, depressed state, it was determined to leave the abscess alone, at any rate for the present. Gradually it must have become more active, for on March 3rd, 1880, occurs this entry: Patient was put under chloroform yesterday in the semi-recumbent position, and the most prominent part marked by ink. An incision was made longitudinally about half an inch with a scalpel, after which a second sized trocar and cannula were introduced and the trocar removed; through the cannula flowed two ounces and a half of thick, lumpy, tenacious pus, tinged with blood; after the pus had ceased to flow a narrow strip of boracic lint was introduced through the cannula, which (cannula) was withdrawn. Over the wound boracic lint, four inches by three inches, was placed and Lister's antiseptic dressing put on. The carbolic spray was in play during the whole of the operation. The patient slept well and feels greatly relieved by the operation. Bowels not open since yesterday; appetite good, eats well.

The operation was performed by Dr. MacNally, as were all the subsequent dressings applied under his supervision. The man did well. I will omit the daily entrances, giving only one or two.—March 13th, 1880: Patient passed a very good night; had two motions since last visit; stools well formed. Patient is putting on flesh; takes all his food. Continue treatment; abscess redressed; discharge diminishing. The abscess, however, continued to discharge pretty freely until March 30th: Patient slept freely last night; tongue clean, appetite good; very little discharge now from the abscess. Continue treatment and diet.—April 13th: Patient discharged from hospital, much improved in health and strength. The abscess has closed up, but a slight superficial wound still remains unhealed. He leaves by this evening's train *en route* to England *viâ* Bombay, having obtained two years' furlough. He telegraphed from Bombay to say that he had borne the journey well, and was to embark in a troopship.

Madras.

CASE OF ATTEMPTED PARACENTESIS PERICARDII.

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THE following case presents more than one point of interest, and shows the difficulty there sometimes is in diagnosing between a largely dilated heart and an adherent pericardium. Reported as shortly as possible, it is as follows:—

Henry W——, aged twenty-three, was sent into the hospital on Jan. 30th, 1880, under my care, by my friend Mr. Wells, towards the close of an attack of acute rheumatic fever. He had had a previous attack eleven years before, when his aortic valves had been affected. During the first week of his stay in the hospital his left pleura (which was filled with fluid) was twice aspirated for the relief of distressing palpitations, dyspnœa and orthopnœa, and an attack of acute pleurisy on the right side was cut short by the application of leeches. When admitted he had a loud aortic diastolic murmur and a largely dilated heart, while in addition pericardial friction was audible over the greater portion of the cardiac area, and there were signs of much pericardial effusion. On Feb. 7th, as there were manifest signs of cardiac failure, and he was apparently on the brink of the grave, I determined to aspirate the pericardium. At that time the physical signs were noted as follows. Only slight pulsation over cardiac area; apex-beat weak and diffused about two inches and a half below nipple; intercostal spaces over lower portion of cardiac area obliterated; upper level of cardiac dulness indicated by a line drawn from the top of the sternum to the left nipple; cardiac sounds very weak below, but above midsternum loud and accompanied by a marked systolic and diastolic bruit, not variable and not increased by pressure; only slight epigastric pulsation; jugulars not full; pulse very irregular, weak and compressible, varying from 60 to 70 or 80 per minute. Respiration 50 to 60 per minute. Marked orthopnœa. Thoroughly recognising the fact that the heart was much dilated, and remarking to the pupils present on the possibility of pericardial adhesions complicating the case, I introduced the finest needle into the pericardium through the fourth interspace near the sternum, and pushed it steadily on for more than an inch, its point being directed upwards. As no fluid came, and the violent pulsation of the needle showed that it had entered the heart walls, it was withdrawn, a little blood being found within the point. No bad symptom followed, and it was my intention to repeat the attempt another day, entering the pericardium an interspace or two higher up, but was prevented by the temporary improvement of the patient, and by a considerable fall in the amount of pericardial dulness. He died from cardiac failure on February 14th. The medical treatment adopted consisted, for the most part, in the frequent administration of digitalis, carbonate of ammonia, and stimulants. Occasionally other remedies were prescribed as required.

At the post-mortem examination the heart was found to be enormously enlarged; it reached from the right border of the sternum to the left nipple, and extended to the top of the sternum. Its right border was crossed by the right lung which was emphysematous, and extended over the middle line. The pericardium was adherent throughout. Over the lower portion the adhesions were strong, and evidently dated some time back, but over the upper portion they were slender, and did not closely bind down the pericardium to the heart, while in their meshes there was some amount of fluid, which was evidently undergoing absorption. On removal, the heart, filled with clot, weighed 31 oz.; when emptied of clot, 28 oz. The aortic valves were incompetent. The left ventricle was enormously dilated, and the muscular walls very much thicker than normal; from their paleness and softness they were evidently undergoing degenerative changes. The left auricle was also hypertrophied and dilated, but the right ventricle only to a slight extent. The mitral was thickened, and its chordæ tendineæ thickened and shortened, so that it probably failed to close completely the auriculo-ventricular orifice. The mark of the aspirator-needle could be distinctly seen in the adherent pericardium over the right ventricle, whence its course could be traced for over an inch through the wall of the right ventricle into the very much hypertrophied ventricular septum. It nowhere entered either ventricle. There was no trace of inflammation, or any other morbid changes along the track of the needle.

Remarks.—The diagnosis in this case was no doubt difficult. A large amount of cardiac dilatation and hypertrophy, depending on the old standing aortic disease, was evident, while the presence of pericardial adhesions to some extent was more than probable. On the other hand, the very large area of cardiac dulness, the obliteration of intercostal spaces, the amount of pericardial friction audible on admission, and which was afterwards lost, rendered the presence of a large amount of effusion probable; and no doubt a considerable amount of fluid, which was afterwards absorbed, would have been withdrawn if I had inserted the needle a little higher up, as I fully intended to do if a second aspiration was indicated. It must be remembered that it was impossible to trace any increase of pericardial dulness at the commencement of his stay in the hospital, owing to the left chest being completely filled with pleural effusion, and pleural and pericardial dulness thus running into each other. The physical signs noted above are what were evident after the pleura had been emptied by two aspirations. It is worth remarking the absence of any ill effects following the introduction of the needle for some considerable distance into the heart walls, and I believe that no harm would have followed even if the needle had entered the ventricle, provided it had been immediately withdrawn, before the contraction of the cardiac walls had helped the needle to tear up their substance. This case may be compared with another in which I attempted to aspirate the pericardium in a case of pericardial effusion complicating rheumatic fever. To my surprise only a few drops of fluid were obtained. The patient died of hyperpyrexia, and post-mortem it was found that the pericardium was widely distended with fluid, but that at the one spot where I aspirated there were adhesions between the heart and pericardium, among which the needle had got entangled and blocked. At all other parts the heart was free from adhesions.

Wolverhampton.

ON GENERAL PARALYSIS OF THE INSANE CONSECUTIVE TO LOCOMOTOR ATAXY.

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I HAVE elsewhere[1] briefly referred to the subject of general paralysis consecutive to locomotor ataxy.[2] The cases referred to are those in which the symptoms of true general paralysis of the insane follow on those of true locomotor ataxy, and in which the pathological lesions of general paralysis have been supposed to originate in an extension upwards from the lesions of progressive locomotor ataxia. These cases, and others of like pathological import, have been designated as examples of general paralysis by propagation. The cases just mentioned, as other than those beginning with locomotor ataxy, but of like pathological import, are cases in which some cranial nerve or nerves have first suffered disease, the extension of which to the brain has set up some pathological process ending in general paralysis.

Broadly speaking, in general paralysis the rule is that cerebral symptoms precede spinal. Spinal symptoms, indeed, may be absent or slight, and when present, as a rule, they are secondary both in time and in importance. The usual motor spinal symptoms are either ataxiform or paralytic; the ataxiform are those almost invariably found; the paralytic are accessory and inessential, but, especially in their slighter degrees, are very frequent accompaniments of the later stages of general paralysis. Usually the spinal symptoms are of a mixed character, being both ataxic and paretic in nature.

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[1] General Paralysis of the Insane, 1880, pp. 82, 83, 141.

[2] The *disease*, "progressive locomotor ataxy," is referred to throughout this paper, not the mere *symptom*, the affection of gait.

There are examples of general paralysis, however, in which the spinal symptoms come on simultaneously with the cerebral; there are also cases in which the spinal symptoms distinctly precede the latter. By this last group the observer is brought a step nearer to the subject now in question, for in cases belonging to it we may, in thought, follow a morbid process which originates in the spinal cord and meninges, and subsequently passes upward to the encephalon and its meninges. But in this group are found the ordinary symptoms and lesions, both spinal and cerebral, of general paralysis; here the ataxy differs from the ataxy of tabes dorsalis. Obviously, cases of this group differ from those in which general paralysis is supposed to follow upon a propagation to the brain of disease from the cord in prior locomotor ataxy. This alleged pathology of the cases has not been fully accepted, and in the case to be related the *causal* relationship of locomotor ataxy to general paralysis is defective in proof. Widely differing cases have been placed on record to exemplify the relationships and co-existence of locomotor ataxy and general paralysis. In some of these it is difficult to be certain, from the description, whether or not true general paralysis, or, again, true locomotor ataxy, was present; in some, either the former or the latter was certainly absent; and in some others, where both seem to have existed, their order of priority is by no means clear; while, again, in some the symptoms of general paralysis and of locomotor ataxy seem to have both appeared and continued simultaneously. Thus, the subject has been obscured by the introduction of cases that will not bear the special interpretation put upon them; and this has partly been due to the formerly imperfect recognition of the ataxiform character of the chief motor affection in general paralysis, the minds of observers having been prejudiced by the word paralysis, as applied to this disease, and by the undoubted paretic and paralytic conditions so often observed therein. Hence, patients in whom the ataxy of general paralysis has been unusually pronounced may readily, but erroneously, have been supposed subject to locomotor ataxy.

There is a slight want of clearness in Voisin's description of the pathogeny and relations of the spinal lesions in general paralysis. Yet it may be gathered that he regards the cases in which the spinal disorders antedate the encephalic as capable of being placed in three groups; in the first of which the spinal and encephalic lesions occur successively but without any relation between them of causality or continuity, similar causes producing first a myelitis and later on the cerebral lesions of general paresis; while in the second group the spinal affection is supposed to cause the encephalic lesion in a reflex manner, primarily affecting the cerebral circulation, the influence of the spinal cord upon vaso-motor phenomena being acknowledged; and, finally, in the third group there is a direct extension of disease to the brain from the pre-existing disease of the cord—the very sort of case we have been speaking of above.

In speaking of general paralysis by propagation—i.e., of general paralysis from extension to the brain of pre-existing disease from other parts of the nervous system—attention will here be confined to the cases in which the antecedent affection has been progressive locomotor ataxy, or grey degeneration of the posterior spinal columns.

I will refer briefly to some of the few cases, supposed of this kind, and already on record. Horn long ago described a case of locomotor ataxy, of nine years' standing, in which general paralysis of the ordinary type supervened. H. Hoffmann placed a doubtful similar instance on record. Baillarger described five cases stated to present the clinical features of both locomotor ataxy and general paralysis; but in one only of these does it seem that general paralysis may have succeeded to undoubted locomotor ataxy. Yet the history is most imperfect, and the sequence of events conjectural. In three others the grandiose mania, and other symptoms of general paralysis, supervened in the first period of locomotor ataxy—that, namely, in which affections of optic and ocular nerves and lightning pains appear, and which, as described by Duchenne more than twenty years ago, precedes the ataxy of the limbs in a typical case, the ataxy of locomotion only appearing in the second stage.

In these three cases it is by no means clear, therefore, that general paralysis may not have existed as early as, or earlier than, the locomotor ataxy, for general paralysis usually exists for some time before distinct exalted delusions are evinced, and therefore in these examples may easily have existed prior to the incipient locomotor ataxy. In the remaining case the mental symptoms and dysphasia of general paralysis distinctly preceded locomotor ataxy by a year. Then, again, in two of these cases it is said that the locomotor ataxy was arrested when general paralysis supervened, and in one, as also in another quoted, the general paralysis underwent recovery, while the locomotor ataxy grew worse. Clearly these cases are dissimilar from those in which there was actual coexistence of the two diseases. Especially is a transitory epiphenomenal appearance of general paralysis in the course of another affection an explanation one cannot accept, and the symptoms should receive some other name. Illustrations of a like kind occur in certain cases recorded by Mr. Plaxton and Dr. Nicol. Teissier's case is inconclusive. The cases mentioned by Topinard, of mental symptoms arising in locomotor ataxy, do not appear to have been instances of general paralysis. Westphal found locomotor ataxy sometimes followed in the later stages of its course by mental disease. The latter, in the character of the mental derangement, in the accompanying paralytic symptoms and emaciation, and in the intercurrent apoplectiform and epileptiform seizures, bore a certain similarity to general paralysis. If standing or walking the patients staggered and fell when the eyes were closed. Vesical failure and the motor disorder in the limbs long preceded the mental symptoms. In these cases of grey degeneration of the posterior columns of the cord, although mental symptoms supervened, it can scarcely be said that there was true general paralysis. The patients were free from impairment of articulation, and at the necropsies no cerebro-meningeal adhesion was found, the deviations from the healthy appearances being that there was some increase of ventricular fluid, and sometimes pia-matral œdema, or softening of the central parts of the cerebrum and paleness of its grey substance. Ph. Rey described three cases of supposed locomotor ataxy with consecutive general paralysis. Motet recorded a similar case, and Falret and Dally a doubtful one, as also Magnan. Foville placed four cases on record as being examples of true locomotor ataxy followed by true general paralysis, after periods varying from two months to six and a half years. One case came under notice too late for recognition of the particular affection of gait present, but it is said that the necropsy revealed sclerosis of the posterior columns of the cord, as well as the ordinary lesions of general paralysis. In another case the patient was demented. In a third exaltation supervened on the mental weakness, and in the fourth an outburst of expansive ambitious erotic mania beset the course of a gradual intellectual enfeeblement. Two of these had amaurosis and one amblyopia, the frequent accessories of locomotor ataxy, and especially in its first stage.

But there are cases in which general paralysis is preceded for some time by an amaurosis unconnected with locomotor ataxy. Three cases of amaurosis preceding general paralysis are vouched for by Mobèche, and examples of a like sequence have been recorded by Lélut, Lasègue, Parchappe, Calmeil, and others. Two such Foville adds to his four cases of locomotor ataxy, making six, and for a seventh takes a case in which was prior paralysis of the third cranial nerve. Falret and Billod also recorded a case of similar antecedent paralysis of the third cranial nerve, while Esquirol speaks of precursory strabismus, and Baillarger of the same with or without ptosis.

(To be concluded.)

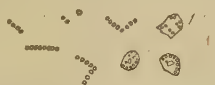
Cambridge: Downing College.—At the College Examination in Natural Science, to be held in June, 1881, in addition to the ordinary Foundation Scholarships, open exclusively to members of the College, one Foundation Scholarship of the annual value of £80 will be thrown open to all members of the University who have not kept more than six terms. The subjects of this examination will be, chemistry (theoretical and practical); physics (heat, electricity, and magnetism); comparative anatomy, physiology, and botany. The Examination for Minor Scholarships, which are open to all persons who have not entered at any College in the University, or who have not resided one entire term in any such College, will be held in Downing College, on Tuesday the 31st of May next and three following days.

ON THE
CONTAGIUM OF IMPETIGO CONTAGIOSA.

BY H. RADCLIFFE CROCKER, M.D.

THOUGH not altogether unknown, this disease did not meet with general recognition and attention until after the publication of Dr. Tilbury Fox's article upon it in the *British Medical Journal* in 1864. Inquiry was naturally directed to the cause of its being contagious. In this country Mr. Hutchinson, in the Pathological Transactions, vol. vi., figures a fungus found in the crusts of two cases only out of many examined, and confesses that therefore the fungus is not an essential part of the disease. Kaposi and Geber have also found a fructifying fungus in the crusts. Geber, however, regards it as accidental. Piffard, in the *New York Medical Journal* for June, 1872, as quoted by Duhring, describes a vegetable organism of various shapes and sizes, mostly extremely minute, circular, oval, biscuit-shaped, and rod-like structures; no mycelium or spores. Occasionally he saw the same fungus as Kaposi. All these organisms were found in the crusts only, and are naturally open to the objections that, besides not being constantly found, they were present in the parts exposed to the air, and were therefore probably deposited from without. Dr. Tilbury Fox searched repeatedly in the fluid, but found no fungus.

So far, therefore, the fungus theory appears to have broken down; but the facts daily accumulating in favour of contagia being particulate led me to investigate the subject anew, and feeling that it was useless to examine the crusts, I selected cases in which the vesicles or pustules were still unruptured, thrust in a capillary tube, and then immediately sealed up the fluid withdrawn. The clear fluid was first examined with a power magnifying 550 diameters, and floating free in the fluid chains of micrococci were found; these were mostly in lines of four, but some longer chains were found and some pairs. The number was not very great, and on account of their minute size could be easily overlooked. In the pustular fluid the organisms were not certainly recognisable, owing to the large number of corpuscles and epithelium present with their débris. On staining the fluid with methanilin-violet the difficulty was removed, and micrococci in far larger numbers than in the clear fluid were to be seen; some were free in chains of two to eight or more, either in curved or straight lines; others were attached to the epithelium, but, so far as was observed, not to the pus-corpuscles. These latter stained much more readily than the small epithelial scales, and the micrococci stained deeply, and were therefore readily discerned in or on the epithelium. They were situated for the most part at the borders of the epithelium, though sometimes they were in the centre as well. Besides the chains some larger circular organisms were seen, but separate and comparatively few in number. No bacteria were observed. The micrococci could be seen with a power of 350 diameters, but of course a higher power was advantageous. Are these organisms the source of the contagion? It must be admitted that there is not absolute proof of it, and nothing but their successful cultivation, and inoculation with the cultivated fluid, would give a complete answer; but that their presence is not merely accidental is evidenced by their uniformity, so far as I have investigated, in unruptured vesicles and pustules, and in greater number in the pustules; while that they are intimately connected with the contagious property of the fluid, either as the contagium itself or as carriers, is rendered highly probable by the facts accumulating almost daily, connecting similar organisms with other contagia. Further investigation can alone decide this; but at present I merely wish to place the facts already ascertained upon record.



Micrococci of impetigo contagiosa free in the fluid from a vesicle or pustule, and on the detached epithelial scales.

Welbeck-street, W.

ON THE USE OF THE SOLID RUBBER BANDAGE IN THE AFTER-TREATMENT OF SOME FORMS OF DISLOCATION AND ITS ATTENDANT RIGIDITY.

BY H. J. FORSTER, L.R.C.S.I.

PERHAPS in the whole category of complaints which the general practitioner has to treat there are none more productive of an annoyance to himself and anxiety to his patient than the partial anchylosis and œdema which are consequent more or less generally on all forms of dislocation. These disagreeable after-results might easily be avoided, or at all events reduced to a minimum, in suitable cases, if the medical attendant, after the proper manipulation of the joint and a few days' rest, were to apply a suitable elastic support and enjoin the patient to move about short of fatiguing the injured part. In the subjoined cases in illustration of the above remarks, no originality of treatment is claimed save in the material used, the advantages of which over the ordinary bandage I shall endeavour to prove.

In July last I was consulted by a patient who informed me that during the previously severe winter she had slipped and broken the small bone of her leg, as well as putting her ankle out. So the bone-setter under whose care she had been during the interval had told her. On examining the injured parts there were found considerable œdema and partial anchylosis. She also stated that her leg had been fomented and poulticed for some months, and as she had not regained her usual strength under this treatment, splints were applied from knee to ankle, and strict rest enjoined. On being requested by me to get up from the sofa on which she was lying and to move about, or even stand on her foot, she evidenced such symptoms of fear and dread of pain that I considered it useless to persist further. I consequently applied a rubber bandage as tightly as could be borne over the ankle and lower part of the leg, with the injunction it was to be removed at bedtime and reapplied in the morning. This treatment was persevered in for the next four days, when on again calling I found she could walk about fairly well, and that the œdema had almost entirely disappeared. After the expiration of a month, during which time she wore the bandage daily, she said she felt about as well as ever, and could walk any reasonable distance without help.

Another case, that of a man over whose ankle an empty cart had passed, after being under the care of an irregular practitioner for nearly three months, found himself at the end of that time with a more or less stiff joint. In his case, after the fibrous adhesions had been broken up in the manner so well described by Dr. W. Hood in the pages of THE LANCET, the bandage was applied and he was ordered to get about. In a short time the result was as good as could be desired.

Three cases of partial dislocation of the cartilage of the knee-joint, after being reduced, were treated in the same manner, and gave no further trouble, not even necessitating the usual preliminary few days' rest.

Four other cases of severe sprains, two of the wrist and two of the ankle, were also successfully treated in the same fashion.

The advantages which I have found to accrue from the use of the solid rubber bandage over the ordinary calico one are the continuous elastic resistance offered by it, and the consequent absorption both of fibrous, callous, and serous effusion, as well as a greater feeling of support, enabling the patient to move about with more confidence. In these points the calico bandage must be deficient for obvious reasons. Also, in the neighbourhood of the knee-joint, there is not merely greater adaptability in the bandage *per se* over even the ordinary elastic knee-cap, but by its greater density and elastic pressure it serves to keep *in situ* what a substance more or less wanting in these two properties can hardly be expected to fulfil. The one drawback experienced in the continuous use of the rubber bandage is the production of minute vesicles, which may become troublesome; however, this inconvenience may be avoided by punching several small holes in the material at suitable intervals.

Market Deeping.

A FEW NOTES ON A SUCCESSFUL CASE OF LARYNGO-TRACHEOTOMY IN ACUTE LARYNGITIS.

BY R. H. A. HUNTER, M.R.C.S.

ON the night of May 10th, 1879, I was asked to see E. P——, a stout, healthy-looking female child, aged nine years, said to be suffering from severe cold and sore-throat. On visiting the house I found the patient in bed, feverish, and complaining of slight pain in the region of the pomum Adami. There was difficulty of breathing, and a croupy cough. The throat and lungs were healthy. I ordered the air of the room to be kept warm and moist, and poppy-head fomentations to be applied to the throat. I prescribed a strong calomel and jalap powder, and a febrifuge mixture containing bromide of potassium, with light diet. On the following morning, finding the symptoms aggravated, I prescribed a second calomel and jalap powder, which, like the first, acted freely.

May 11th.—The cough, difficulty of breathing, and fever had increased. In the evening the patient became delirious. Respiration was greatly obstructed, lungs congested, cough smothered, and higher temperature. During the latter part of the day the child had suffered from frequent severe attacks of spasm of the glottis, requiring two attendants to prevent her jumping out of bed.

I now decided to perform laryngo-tracheotomy. With the assistance of a neighbouring practitioner, the child was placed on a table, and, chloroform being administered, the operation was completed in the usual way. On recovering from the chloroform, and being replaced in bed, the child breathed freely and easily.

13th.—The patient appeared much better. She had slept well, and the delirium had passed off. Ordered bromide of potassium mixture to be continued; diet, milk and beef-tea. During the day she continued to improve. The cough and respiration were easier, and the temperature lower; collection of mucus troublesome.

On the 14th and 15th the child continued to improve, and on the 16th she seemed so much better that I removed the tube, and allowed respiration to be carried on through the opening remaining in the windpipe. Ordered the wound to be frequently sponged with warm water containing a little Condy's fluid. Full diet.

On June 2nd the wound had completely closed; the child was out of bed, and able to eat, drink, and talk well.

Battersea-park-road, S.W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

CASES OF AMYOTROPHIC LATERAL SCLEROSIS.

(Under the care of Dr. FERRIER.)

UNDER the title "Sclérose latéral amyotrophique," Charcot has classified an assemblage of symptoms depending on symmetrical sclerosis of the lateral columns, and atrophy of certain motor nuclei of the medulla oblongata and anterior horns of the spinal cord. The symptoms usually commence in the upper extremities with paresis followed by rigidity, and ultimately by muscular atrophy more or less extensive. The lower extremities are also affected by paresis or paralysis and rigidity, but muscular atrophy is absent or slight. The last stage is the occurrence of bulbar paralysis.

The cases of this affection already on record are not so numerous as to render others at all superfluous, and more particularly as Charcot's nosography has been disputed by some. Leyden holds that there is nothing to warrant the differentiation of a separate class from those of the typical bulbar paralysis of Duchenne, with more or less extensive muscular atrophy elsewhere. In particular, he denies the fact of antecedent paresis or paralysis, and the occurrence of contracture or rigidity of the limbs. The following two cases confirm in all main points the association of symptoms described by Charcot. They do not, however, conform to the usual march of the disease. In both the bulbar symptoms were the first to attract attention, if not actually the first indications of the disease. The course of the symptoms is not, however, regarded by Charcot as an essential feature, and he refers to two cases in which also the disease commenced with bulbar symptoms.

CASE 1.—A. W——, aged thirty-eight, admitted on Oct. 15th, 1880. The patient had enjoyed good health, and never had specific disease. The present illness came on a year and a half ago. The morning after a long railway journey he found that his speech was affected so that he could not speak plainly. He also noticed some difficulty in swallowing liquids. He was treated at this time for relaxed throat. He thinks also that some mention was made of a polypus in the nose, owing doubtless to the nasal tone of his voice. Six months after the occurrence of the throat symptoms, about Nov. 1879, he observed that he had difficulty in turning a key in the lock, and about the same time that he had difficulty in walking. Dr. Robertson Lewis of Bristol, who had seen him in February, 1880, stated in a note that at that time there was very perceptible weakness in the arms. He had difficulty in writing, he could not raise his arms, and complained of pains in his shoulders. The legs were specially observed to be weak a month later. The arms and legs gradually became more weak and stiff. Decided wasting of the ball of the thumbs was observed in May.

Present state.—The patient is helpless, and unable to stand or walk, being obliged to lie in bed or sit propped up in a chair.—*Face:* The facial furrows are distinct, but not accentuated. He can purse up his lips somewhat, but cannot whistle or blow. He can inflate his cheeks if the nostrils are compressed, but cannot purse his lips sufficiently close to whistle. His voice is very nasal, there being a nasal souffle with all explosives. He pronounces "grub" as "ngrum," &c. The soft palate does not rise during inspiration or phonation, but contracts actively on being touched. The tongue is protruded straight, but is very tremulous and corrugated from muscular wasting. He keeps his head generally bent on the chest, but he can turn it to the right or left freely, though he cannot turn it back so far as normal. There is no marked rigidity in the muscles of the neck.

Upper extremities.—The upper arms are kept usually closely approximated to the chest, and the hands resting on the abdomen or thighs in the pronated position. He cannot raise the upper arms from the chest. Can only shrug the right shoulder a little; the left more readily. Can bring the left arm across the chest, and touch the right ear with the left hand, but cannot make a similar movement with the right. The movements are very slow and feeble, and accompanied with pain. Cannot cross the hands behind the back. Passive movements of the shoulder-joint indicate considerable resistance and rigidity, and cause great pain. The deltoids are much wasted. The trapezii are the seat of fibrillar tremors. The arms generally are emaciated, and fibrillar tremors are more or less general in the muscles. Can flex and extend the elbow joints. Can pronate and supinate the left hand, but cannot supinate the right. Can extend the left wrist feebly, and to the radial side only, but not the right. The muscles of the thenar and hypothenar eminences and the interossei are much wasted. Abduction and adduction of the fingers and apposition of the thumb impossible. The first metacarpal bone of the left hand is on a level with the second—the monkey thumb, and the basal phalanx of the forefinger hyper-extended. The wasted muscles are the seat of fibrillary tremors and subsultus. There is no reaction of degeneration to galvanic exploration, and the muscles react to the faradaic current, except the left thenar muscles.

Lower extremities.—There is no perceptible atrophy in any of the muscles of the lower extremities. There is marked rigidity and resistance to every movement, flexion, extension, and particularly to separation of the knees, which spring together forcibly when released, owing to the excessive contraction of the adductors. The feet bend to equino-varus position, and the proximal phalanges of the toes are hyperextended. When the patient is supported he can scarcely move the limbs. Though he can feebly flex or extend the leg it is with effort, and he feels as if his feet were glued to the ground. The patellar tendon reflex is greatly exaggerated, and ankle clonus readily excited on both sides. The plantar cutaneous reflex is distinct on both sides. The cremasteric reflex is obtainable on both sides. The abdominal and epigastric reflexes are obtained with difficulty. Sensation, general and special, is unimpaired throughout; and the functions of the bladder and rectum in normal condition. The ophthalmoscopic appearances are entirely negative.

The condition of the patient did not alter appreciably during the whole period of his stay in the hospital. He was treated mainly with the constant current daily, and for a month before his departure with extract of Calabar bean in gradually increasing doses, from a quarter to one grain and a half three times a day. The rigidity of the lower extremities diminished somewhat under the physostigma treatment, but the patient said he felt more feeble. No real improvement was effected, nor indeed could it be looked for.

CASE 2.—R. M——, aged forty-four, a ship steward. Five years ago he fell overboard, and remained in the cold water for about a quarter of an hour, to which immersion he attributes his illness, which began some months afterwards with difficulty of speech. His voice had a nasal tone, and he had difficulty in swallowing. Three or four months after this he experienced weakness and tremulousness of the legs, which caused difficulty in maintaining his footing on deck, and going up or down stairs. He continued at his occupation on board ship for two years after the onset of the symptoms, but he was then obliged to relinquish it. He was admitted into St. Bartholomew's Hospital in April, 1878, and was under the care of Dr. Church for two months. Dr. Ormerod published some notes of his case in the St. Bartholomew's Hospital Reports, vol. xiv. At that time the patient had nasal speech, without evident paralysis of his soft palate, irritability and feebleness of his muscles, and tremulousness and weakness of his legs, particularly the right, which he dragged somewhat. In October, 1878, he was admitted into the Regent's-park Hospital for Epilepsy and Paralysis, and was treated by M. de Watteville. At this time the symptoms, according to the notes supplied me by M. de Watteville, were great weakness and rigidity of the legs, particularly the right, with exaggerated patellar reflexes. The arms were also weak, and the tendon reflexes exaggerated. Speech was markedly nasal, and there was considerable difficulty in swallowing solids. The soft palate rose only slightly during inspiration or phonation. There was also some diminution of sensibility of the right side at this time. (See *Brain*, vol. ii., pp. 179–180.) Under galvanic treatment of the upper and lower part of the spinal cord, and local treatment of the pharynx and larynx, there was a marked improvement, in the bulbar symptoms especially. But, after a fall in the month of November, the weakness of the limbs increased, though the bulbar symptoms remained in abeyance. After this period the patient came under my care both at Regent's-park Hospital and subsequently at King's College Hospital, and he has been under my observation at intervals up to his admission into the National Hospital for the Paralysed and Epileptic on Jan. 28th, 1881.

Present state.—Face: The muscles of expression act normally on both sides. The tongue is protruded straight, somewhat tremulous and wrinkled. The masseters, pterygoids, and buccinators act energetically. The soft palate rises only very slightly during a deep inspiration or on phonation, but contracts readily to touch. He cannot purse up his lips so as to whistle. Deglutition is good. Speech is very nasal, and all explosives have a nasal souffle. They are pronounced quite distinctly when the nostrils are compressed. There is no observable rigidity in the muscles of the neck.

Upper extremities.—All the movements of the arms are retained, but are feeble, and the muscles are soft and flabby. There is some difficulty in raising the arms well away from the sides, owing to stiffness about the shoulders, especially the pectoral muscles, and on the right side more particularly. The interossei and muscles of the thenar and hypothenar eminences are soft, considerably wasted, feeble and tremulous. Grasp of the right hand, 45 lb.; left 40 lb. All the muscles of the arms respond with abnormal readiness to percussion, and the wrist, olecranon, and acromial tap excite active contraction. The faradaic excitability of the muscles is retained, and within normal limits. That of the interossei and muscles of the ball of the thumbs is slightly diminished.

Lower extremities.—The patient walks with great difficulty. The legs tend to adduct, and the feet to assume the equino-varus position. The feet seem to stick to the ground, and progression requires hitching up the shoulder to allow the feet to be raised and advanced, rubbing on the ground. This is more marked in the right leg than the left. When lying in bed he can lift the heel, and flex and extend either knee with considerable force. Abduction of the legs is difficult, and also dorsal flexion of the feet. Occasionally severe spasms come on in the adductors and extensors of the leg, and the feet assume the equino-varus position with hyperextension of the basal phalanges. The contraction of the adductors is sometimes so great as to resist all attempts to separate the legs, and to require the interposition of a pillow between the knees to obviate the painful pressure. The patient complains of more or less constant pain in the region of the adductors, shooting upwards into the pelvis. He also complains of pains in the hips. The patellar reflex is excessive on both sides. The slightest tap excites almost tetanic extension of the leg. Ankle clonus is readily obtained on both sides. Clonus of the hamstrings is also readily produced when he assumes the position of sitting down in a chair. The plantar reflexes are absent, as also the abdominal and epigastric. Tactile sensibility is acute in the legs, and also generally. There is no appreciable difference between the two sides. The special senses are normal. The functions of the bladder are fairly normal, except that it must be emptied immediately on desire, otherwise there is difficulty in retention.

The patient was discharged on April 30th, considerably improved in general health, and with some diminution of the rigidity and pain in the lower extremities. Various methods of treatment, electrical and medicinal, were employed, but large doses of the combined iodide and bromide of potassium and rest in bed seemed to prove most beneficial.

Remarks.—The symptoms in both these cases agree in the essential features of the association of paresis, rigidity, and muscular atrophy, bulbar and spinal, with the cases of amyotrophic lateral sclerosis described by Charcot, and shown by him and by Gombault, Debove, &c., to be associated with sclerosis of the lateral columns, and atrophy of the motor cells of the bulb and spinal cord. The exact order in which these regions are implicated does not materially affect the general result. The assemblage of symptoms differs sufficiently from simple bulbar paralysis, or bulbar paralysis with more or less extensive muscular atrophy, in the well marked paresis and rigidity of the limbs preceding the atrophic wasting; and from ordinary secondary descending sclerosis, or primary lateral sclerosis, in the muscular atrophy, as to justify their being classed together as a distinct systematic group.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

THREE CASES OF POISONING BY THE ŒNANTHE CROCATA OR HEMLOCK WATER-DROPWORT, ONE FATAL.

WE are indebted to Dr. H. A. Bampton for the following notes of these cases.

The recorded cases of poisoning by the Œnanthe crocata are so few in number, that the following may be of professional interest, the more especially as in this part of the country poisoning by this indigenous member of the Umbelliferæ family is by no means rare amongst watering parties of foreign seamen. In 1869, at Falmouth, a party of twenty-seven sailors ate of the herb; four of them died. Last year the crew of an Italian barque partook of the same herb, mistaking it for wild celery; five of them died. A boat's crew of H.M.S. *Wellington*, while on shore at Campbeltown some years since, dug up a quantity and partook of some. Eight became very ill; two of them died.

On March 12th, about 2 P.M., three sailors from the Greek ship *Orpheus* landed at Jenny Cliff to collect water at a spring which rises hard by the shore. Having completed their work, two of them, George and Nicholls, dug up a plant which they mistook for the wild celery which grows in great abundance in watery districts in Greece, and is in great favour amongst the seafaring population as an article of diet. George ate about a root and a half, the root being about the size of an average parsnip, which it resembles in appearance; Nicholls ate but an inch and a half of the root; and Andrews, a seaman from the Greek ship *Chios*, who was on a similar mission, the leaves and stalks of two or three plants. Andrews gave the following account of himself. He said the plant tasted as sweet as sugar. When he got on board, about three-quarters of an hour afterwards, his nose began to burn from eructations and constant spitting of thick stuff; his limbs felt weak and the muscles contracted, and he had tremors in the limbs and joints. He thought he had overworked himself, and he asked the captain for a shilling to go ashore to buy some rum, which he did, and soon felt all right after drinking it. He seems to have taken about a quarter of a pint of rum. He experienced no other symptoms nor discomfort. But Michael Nicholls, who ate more than one inch of the root, was not so fortunate. He states that the root tasted very sweet, but did not burn. He pulled off with others to the ship and emptied some casks, which occupied about three-quarters of an hour. He felt giddy and cold, had tremors in the limbs, could not see, but could hear. He was unconscious for half an hour, and on becoming conscious he had pain in the head, as if it were being cut off, and he had twisting, grinding pain in the stomach; thick phlegm collected at the back of the throat, and he was not sick till some melted butter was given him at about 4 P.M. He felt very weak and cold, with pain all over body, and could not walk without assistance. An emetic of sulphate of zinc was given to him by Mr. Fox, surgeon, about 6 P.M., after which he vomited, and was brought to the hospital a little after 7 P.M., nearly five hours after taking the poison. On admission, the patient was apparently conscious, though he stated afterwards he did not remember being carried to the hospital, though he remembered being put to bed by the nurses. From that time till noon the next day he did not remember anything further. His pupils were normal, the conjunctivæ highly injected. He moaned with constant expectoration, the pulse was fair, but the extremities were cold. Patient was placed in bed, and sinapisms were applied to the calves of the legs and thorax, and hot bottles to the feet, while hot brandy-and-water was administered internally; he would not take much, but crouched under the clothes and expectorated freely. Dr. Prance, one of the physicians to the hospital, saw him at this juncture.

On the following day he was drowsy and had a fair pulse. The urine contained abundant lithates. Patient complained of pain in the eyeballs, where there was increased tension; he said people in the ward looked very small till noon. The corneæ were dull and the conjunctivæ still injected. No pain anywhere else. As bowels were confined castor oil was ordered, which brought away a firm greenish-coloured stool.

On March 14th he expectorated viscid greenish-brown sputa. Roughened expiration; had a slight attack of epistaxis.

15th.—Rusty viscid sputa, with sibilant râles; felt quite well; no cough.

16th.—Discharged well.

George J——, whose case terminated fatally, ate a root and a half, and was able to perform the duties of rowing back to the ship, and unloading the boat, up to nearly an hour after having eaten the poison. He was walking across the deck when he suddenly fell down, as if shot, on the back of his head, inflicting a scalp wound. He cried out, "My God, I am done for!" vomited up some green stuff, and got green in the face, with eyeballs turned up. He foamed at the mouth with a thick mucus, which he was unable to bring up because he was apparently unconscious. He could not swallow. He was turned on his face by the crew, to endeavour to get rid of the mucus. The hands were clenched at times, and he had spasmodic contractions of the muscles of the legs and face. About five hours after the fatal meal he was carried to the hospital in a moribund condition. At the time of admission he was unconscious; the pupils were widely dilated; the pulse was perceptible, but slowed; respiration was impeded by a quantity of thick mucus, which filled his mouth and throat, and covered his beard. The extremities were cold. As respiration failed artificial respiration was tried, but with no avail; the patient died about ten minutes after admission. The muscular system was relaxed, with occasional spasmodic twitches.

Necropsy, forty-three hours after death.—Body well developed and muscular, age about thirty-five years. Post-mortem rigidity strongly marked; slight purple staining at back of neck and shoulders. The abdomen contained a small amount of gas. Diaphragm arched. The stomach was distended and of a bright pink colour, from injection of vessels. The transverse colon was contracted, and contained a small quantity of soft fæces; no trace of vegetable fibre could be detected even with a glass of high power. The stomach contained a quarter of a pint of grumous sour-smelling material, the colour of treacle. No trace of root could be found; there were several scattered inflammatory patches, and some brown discolourations where the mucous membrane was thin, at the greater curvature. Gall-bladder empty. On section of liver a large escape of dark-coloured blood. Spleen and kidneys normal. Bladder contracted, containing an ounce of urine. Descending colon and rectum distended, contained no fæces. The right ventricle of the heart contained a small quantity of fluid dark-coloured blood; the left a less quantity, thicker and darker. Muscular walls very relaxed and flaccid; muscular tissue soft and bloody. There were pleural adhesions. The lungs were congested and full of blood of a dark colour, and the bronchial tubes were full of mucus, as also trachea and mouth. No hæmorrhages from mouth, nose, or ears; no bruising of bone at seat of scalp wound. The dura mater was non-adherent at surface of the brain. The venous sinuses were distended, meningeal vessels injected, cerebral vessels strongly injected. Pia mater bled easily on section. There was a small effusion of lymph over surface of brain. The cerebellum was very soft, with small clots of dark blood between convolutions posteriorly. Small quantity of fluid in ventricles. The bright red vascularity of the surface of this brain contrasted strongly with the almost white brain from a subject who had died from scurvy, a necropsy of which was made on that day.

Remarks by Dr. BAMPTON.—The literature on this herb-poisoning is very scanty. Caspar gives an account, with an uncertain sound, of a supposed case. No symptoms were known. Post-mortem signs coincide with the above. Von Boeck gives some of the symptoms, but no post-mortem signs. Taylor mentions several cases, and gives the best account I have yet seen. The symptoms from the foregoing cases seem to be—muscular weakness, when small quantities are taken; complete paralysis in large; gastric irritation, visual disturbance, giddiness, excessive secretion of bronchial mucus—a marked symptom; more or less loss of consciousness, loss of temperature, enfeebled respiration. Cardiac action slowed; continued up to time that respiration ceased. Dilatation of the pupil in the fatal case, the third nerve participating in the general motor paralysis; loss of power in deglutition. The symptoms and post-mortem signs of poisoning from the Conium maculatum, Œnanthe crocata, Cicuta virosa, and Æthusa cynapium do not vary much. Motor paralysis is a prominent symptom. The post-mortem signs are: fluidity of the blood, hyperæmia of the brain, venous hyperæmia of the lungs, and the signs of death from asphyxia (Von Boeck). In the stomach extravasations and hyperæmic patches. The treatment indicated seems to be the early use of the stomach-pump, or of emetics; artificial respiration to be persevered with to the last; the administration of a strong infusion of tea to serve as a respiratory and general nerve stimulant; the tannin might also act as a chemical antidote by forming a precipitate; turpentine enemata and warmth. The explanation of the clinical experience, that conium is useful in allaying bronchial irritation, may be found in an analogous action to the Œnanthe crocata in promoting the secretion of mucus, thus covering the irritable surface and protecting it from cold winds in the upper portion of the respiratory tract. An anonymous correspondent in the *Standard* has taken upon himself to write that these cases of herb-poisoning must have been from the plant Sium angustifolium, and not the Œnanthe crocata, as stated. Now, the Sium angustifolium, or water-parsnip may be mistaken for watercress, but not for celery; whilst, on the other hand, the stem of the Œnanthe crocata may easily be mistaken for celery. The stem of a specimen procured by one of the sailors who recovered, from the same watering-place, was very like, as it had been bleached from being underground; the root is composed of a number of tubercles not unlike small parsnips, sweet to the taste. The most active part of the plant is the root—in its poisonous action especially—at this time of the year. It grows in great abundance in this neighbourhood. Browsing cattle are sometimes poisoned by it. It is unmistakably the Œnanthe crocata, and is well known to local botanists; and I doubt whether the anonymous correspondent of the

Standard could mistake it for the Sium angustifolium if he had ever seen it or compared the two. A Mr. Loverdo very opportunely suggests, in a letter to the *Standard* and other papers, that the captains of foreign ships should be warned of the various poisonous herbs that are indigenous to the localities about our seaports.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Intestinal Obstruction.—Tumour of Brain.—Calcareous Plates in Heart.—Pylephlebitis.—Ulcer of the Stomach.—Filaria Sanguinis Hominis.—Keloid of Pinna.—Pulmonary Aneurism.—Cerebral Aneurism.—Syphilitic Disease of Cerebral Vessels.—Encapsulation of an Ivory Peg in Bone.—Subastragaloid Dislocation of Foot.—Dislocation of Astragalus.—Genu Valgum.—Sarcoma of Femur.—Vesical Calculi.—Malformation of Heart.—Valvular Disease of Heart.—Cranio-tabes.

THE last ordinary meeting of the present session of the Pathological Society was held on Tuesday, May 17th, S. Wilks, M.D., in the chair. Two reports of the Morbid Growths Committee were presented, and although the list of agenda was a long one, the specimens were shown with such expedition that the meeting adjourned shortly before the usual hour.

Mr. BUTLIN read a report of the Morbid Growths Committee on Mr. Moulin's case of Cystic Disease of the Mamma, the conclusion arrived at being that it was an ill-developed carcinoma, the cysts being produced by plugging of the ducts with epithelium and secretion of fluid in the acini.

Dr. PAYNE read the report of Messrs. Beck and Godlee on Mr. Rushton Parker's case of Adeno-fibroma and Carcinoma affecting the same breast, by which Mr. Parker's description was fully confirmed.

Dr. TURNER showed a case of Intestinal Obstruction by a band. The patient, a child, under Dr. Sutton's care, was attacked with pain in the belly, followed next morning with intense pain and violent vomiting with free action of the bowels. When seen three days after the onset of the illness the belly was tympanitic and very distended; no great pain or tenderness. Mr. Rivington operated, and found several congested coils of intestine on the right side of a band which passed from the ileum to the umbilicus; the gut was reduced. The boy died in a few hours. Three bodies, like plum-stones, were found in the strangulated gut. The cord was found to contain a diverticulum of the ileum, and was situated about eighteen inches from the ileo-cæcal valve, the congested coils of intestine commenced just above the band.—Dr. WILKS asked if, at the time of operation, it was evident what the nature of the band was, and whether the surgeon was prepared to cut it through if necessary.—Dr. TURNER was not present, and did not know Mr. Rivington's views.

Dr. N. MOORE showed a Tumour involving the optic tracts, chiasma, and nerves within the skull. In nature it was a glioma. The whole of the rest of the encephalon was quite healthy. The man, aged thirty-four, died in St. Bartholomew's Hospital in January, 1881. He had been ill for ten months, with great thirst, loss of weight, and failing vision, with extreme white atrophy of the left optic disc, and to a less degree of the right. He passed from five to eleven pints of urine a day; no sugar or albumen ever found; sp. gr. 1004 to 1006. He became quite blind, and later on delirious, and then in a condition of stupor; no paralysis. Lancereaux records cases of diabetes insipidus from injury to the anterior part of the skull; this case was of interest in connexion with those cases.—Dr. S. WILKS asked if Dr. N. Moore had formed a theory as to the mode of production of the diabetes.—Dr. BAXTER asked what the condition of the right optic disc was during life, whether there was evidence of neuritis, or whether the atrophy was a primary change.—Dr. N. MOORE said he had quoted Mr. Vernon's opinion, the right disc was at first pale and later distinctly atrophied.—Dr. ORMEROD asked if the quantity of urine at all corresponded to the growth of the tumour.—Dr. N. MOORE replied in the negative.

Dr. BURNET exhibited a Heart with Calcareous Plates, obtained from a woman aged thirty-four. She suffered from ascites and anasarca. Rough rasping was felt over and with apex beat of heart; there was a strange click before running into systolic sound; later on the heart's action was very irregular, and a systolic bruit was observed. At the autopsy, in addition to other changes, four calcareous plates were found: two on the exterior of the ventricles and two on the inside, close to the auricles.—Dr. N. MOORE asked if either of the plates was pericardial, and whether one was connected with the auriculo-ventricular fibro-cartilaginous ring. They were not bony, and not associated with disease of endocardium, and possibly they had a different origin on the two surfaces of the ventricle.—Dr. BURNET thought they were neither pericardial nor connected with the auriculo-ventricular ring.

Dr. GOODHART showed a Microscopical specimen of Local Cirrhosis due to Pylephlebitis. A boy had abscesses and empyema, and lardaceous visceral disease. The portal vein was found completely obliterated with old adherent clot, with purulent matter in its centre. In various parts of the liver there were fibrous puckered scars with a yellow centre. Some of the smaller portal veins contained pus, and one cold abscess was found in the liver. His view was that the pylephlebitis had partly ended in suppuration, and partly in cirrhosis.—Dr. WILKS said the change was analogous to that found in surgical kidney.

Dr. GOODHART also exhibited a case of Ulcer of the Stomach in an infant at birth. The child vomited blood and died; a small perforating ulcer, with a small vessel at the bottom, was found at the extreme cardiac end of the stomach, at the greater curvature. It was in all its characters a miniature of the perforating ulcers of adults. There is only one, doubtful, similar case on record, mentioned by Dr. Wilson Fox.

Dr. THIN showed (for Dr. Manson of Amoy) a small Lymph-scrotum, with part of the female parent filaria sanguinis hominis still *in situ* lying in a dilated lymphatic, the male being, probably, Dr. Manson believed, in some part of the growth. He also showed an Elephantiasis Tumour of the Scrotum, in which the condition had supervened on that of lymph-scrotum. With these he exhibited also for Dr. Manson two Keloid Growths excised from the lobules of the ears of the same woman, growing from the earring punctures, the symmetrical character of the growths producing a peculiar effect, as was well seen from a photograph of the patient which had been sent with the specimens. Dr. Thin had examined part of one of the tumours minutely and had found the usual keloid tissue.—Dr. S. WILKS asked if this was the filaria sanguinis, and whether it was found in the blood.—Dr. THIN said "Yes," and that the filaria in the younger stage was in the blood of one person in ten in Amoy, but much more frequently found at night than during the day.

Dr. S. WEST showed two cases of Pulmonary Aneurism. In both cases the opposite lung was nearly healthy, and in one the disease very localised. In both there was a short history, while the disease must have been of long standing; in one a large laminated clot was found filling up a pulmonary cavity, in the other the lung was almost entirely excavated.—Dr. S. WILKS said that many cases of fatal hæmorrhage from pulmonary aneurism had now been recorded, and he thought all cases of fatal hæmoptysis were due not to destruction of the lung, but to secondary vascular change; and in such cases the disease was chronic and localised, with hardly any hint of phthisis.—Dr. S. WEST said he had always been able to find the cause of fatal pulmonary hæmorrhage.—Dr. S. WEST also showed an aneurism from a woman who had occasional sickness and headache, and who suddenly became unconscious, and died in four hours. Post-mortem, blood was seen covering the base of the brain and reaching into the fourth ventricle, and a small aneurism on the posterior communicating artery was found with an extensive rupture. No other disease. A boy, aged twelve, with adherent pericardium and mitral disease, was seized with sickness, headache, and coma, and died in a few hours. Suffusion of blood over the whole base of the brain was found, and a ruptured aneurism on the middle cerebral artery was discovered, the rupture being into the descending cornu of the lateral ventricle; the blood had reached the surface through the transverse fissure; the artery was very brittle; no evidence of embolism.

Mr. W. ANDERSON exhibited drawings of Syphilitic

Disease of the Cerebral Vessels. The special symptoms in the case were acute tetanus, hyperpyrexia, and coma just before death, and he thought this was an unprecedented occurrence in these cases. The changes found were those described by Heubner, and affected chiefly the intima.—Mr. W. ANDERSON also showed a specimen of Encapsulation of an Ivory Peg after Dieffenbach's operation for false joint. The peg had been retained for nearly four months; it was quite unchanged, apparently owing to its encapsulation.

Mr. H. MORRIS showed three cases—1. Subastragaloid Dislocation outwards of the Foot. Five years ago the man suffered a severe fall, one leg was amputated at the time. The other, much injured, was saved, but has been a constant source of annoyance to him, and he begged for its amputation, and thus the specimen was obtained. Its chief interest lay in the great laceration of all the tendons passing round the ankle. 2. Dislocation of the Astragalus. A woman, aged sixty, met with a fall sixteen years ago. The sole of the foot was turned in, the deformity being exactly like talipes equino varus. The astragalus is dislocated from the os calcis and scaphoid, and is rotated on itself, so that its upper and inner border is under the tibia. 3. Genu Valgum, a dissected specimen, showing an enormous hypertrophy of the inner condyle, and a large supplemental mass of cartilage on outer condyle, with very misshapen patella. Eight years before, the boy, now aged seventeen, met with a severe accident, in which, however, the knee was not injured. After it a lump formed over the lower part of the tibia, and was opened and sinuses developed, which have never healed; the knee swelled and grew big on its inner side. Six years ago he injured his elbow, and there also is a large growth. The fibula could not be traced all down the leg; the leg was amputated, and a fracture of the tibia was then found with a false joint, and the fibula is there in contact with the tibia and helping to support the weight of the body.

Mr. EVE showed a recent specimen of Sarcoma of the Femur. A young woman, aged twenty-five, four months ago had a blow on the right knee, followed by swelling. On admission to St. Bartholomew's the joint was swollen, and the skin red. The limb was amputated, and it was then found that the external condyle of the femur was destroyed by a malignant growth, which had also burst into the joint and infiltrated the synovial membrane. It was interesting as following on an injury and as simulating disease of the knee in its earlier stages. The tumour is a small spindle-celled sarcoma.

Dr. F. TAYLOR showed two Calculi (for Dr. Curran)—one of them of peculiar shape, which was situated partly in the urethra, and had to be pulled back into the bladder before it could be removed. The other, two inches long, was passed spontaneously by a woman in India.

Dr. TIRARD showed a case of Malformation of the Heart from a child five months old. There was no cyanosis during life. Post mortem the following changes were found:—two aortic cusps, four pulmonary cusps, a patent foramen ovale, aperture through the septum ventriculorum, and disease of both mitral and tricuspid valves.

Dr. CARRINGTON showed a specimen of Mitral Tricuspid and Aortic Disease; the Tricuspid disease was the most recent. The walls of the heart showed marked fatty degeneration.

Mr. CHURCHILL showed a specimen of Cranio-tabes from a child aged four, that died from congestion of the lungs. There was general rickety condition of the ribs, wrist, and tibiæ.

In a few closing remarks Dr. S. WILKS said that of all the interesting specimens shown during his presidency, those that struck him the most were the specimens of new growths; their whole structure was shown, their origin traced, and their relation to the normal growths explained. In this way there was hope that knowledge of the true mode of treatment, preventive and curative, might be attained; in his earlier years it was thought to be enough to examine into the histology only of such growths. Although the Society now suspended its meetings, its members he knew would continue their labours with unabated energy.

The following card specimens were exhibited:—Gummata of Brain, Cranial Bones and Spinal Cord, by Mr. F. Jordon; Osteo-sarcoma of Lower End of Femur, Cancer of Mamma following Eczema of Nipple, Drawing of a case of Cheiropompholyx, Sequestrum of Clavicle, by Dr. MacNaughton Jones; Ainhum, by Dr. Crombie.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Report of the Committee on Excision of the Hip-joint in Childhood.—Aortic Aneurism.—Anorexia Nervosa.—Antiseptic Osteotomy of the Tibia.

THE ordinary meeting of the Clinical Society of London was held on Friday, May 13th, Joseph Lister, Esq., F.R.S., in the chair.

Mr. HOWARD MARSH presented the Report of the Committee appointed to inquire into the value of Excision as a means of treating disease of the Hip-joint in Childhood, of which the following is an abstract. The points specially investigated were:—1. The indications for the operation; 2, its results; 3, the method of operating; and 4, the nature of the disease. In 45 cases treated by excision there was a total mortality of 35·5 per cent. from causes connected with the disease; 13·4 per cent. from some form of tubercular disease; the average duration of treatment was 1¾ years; the average shortening amounted to 2¾ in., while the movement at the hip was free, limited, or *nil* in the proportion of 11, 6, and 3. In 260 cases of suppuration treated without excision, there was a mortality of 30·4 per cent. counted as above, 9 2 per cent. from tubercular disease, an average period of treatment of 2½ years, with an average shortening in 33 cases of 1·6 in., and in 35 of the cases 30 walked with slight or no limp, 5 with considerable limp; the movement was free, limited, or *nil* in the proportion of 5, 4½, and 3. In 124 cases without suppuration the total mortality was 10·5 per cent., 7 per cent. from tubercular disease, and the movement was free, limited, or *nil* in the proportion of 5, 3, 3; in 17 of these cases the average shortening was 1·4 in., and in 1 there was apparent lengthening of ¾ in.; of 22 of them 19 walked well, and 3 limped. Sequestra were found in 59 per cent. of the specimens of the disease examined. Of a total of 203 cases of excision collected from various sources 13·7 per cent. died directly from the operation. The pathological indications for the operation are stated to be necrosis of head of femur, or formation of large sequestra, extensive caries of the bones, intrapelvic abscess from acetabular disease, and long-continued suppuration. The clinical indications are—rapid onset of suppuration, with severe local and constitutional symptoms, general albuminoid disease and long-continued suppuration in spite of other treatment. Pelvic disease is no bar to the operation. The mortality from tubercular meningitis, in cases of excision, was 4·4 per cent., in other cases of suppuration 6·1 per cent., in cases without suppuration 5·6 per cent. Of 429 cases 9 per cent. died from some form of tubercular disease. The limb is more generally less useful after excision than other modes of careful treatment. Only the diseased bone should be removed, and the great trochanter only when diseased or when there is extensive disease of the pelvis. While the occurrence of necrosis is shown to be proportionately very large, clinical records show that, in many instances, these sequestra are small, and either come away by themselves or are very easily removed in general operations.

Dr. WHIPHAM read a paper on a Case of Aortic Aneurism encroaching on the Trachea at its bifurcation, demonstrated during life by the Laryngoscope. A carpet cutter, aged forty-nine, was admitted into St. George's Hospital, under Dr. Wadham, on March 7th, 1881, almost speechless, and suffering severely from dyspnœa. The man had never had any serious illness, and had not suffered from syphilis. There was no history of asthma, and his occupation did not involve any severe strain. He had never before experienced an attack like the one for which he was admitted. He had for some weeks suffered considerable pain under the right scapula, for which he had been treated for dyspepsia. On the morning of March 7th, when he was going to his work, he was suddenly seized with a most severe attack of dyspnœa, which rendered him speechless and almost unconscious. He was brought at once to the hospital, and on his admission at 8 A.M. was in a state of extreme dyspnœa, ashy pale, unable to speak, and heedless of anything said or done. His hands were cold and his breathing stridulous. Leeches were applied to the throat, and he was ordered a mixture of ether and chloroform. By 10.30 A.M. his respiration had become perfectly natural, and his voice, though weak, was natural in tone. The heart was not obviously out of position; a systolic bruit was heard over the base, and to the right of the sternum. No abdominal pulsation or thrill was detected. The pulses in the radial arteries were equal and rather hard, 126. Wheezing, stridulous sounds were audible throughout the chest. At 2 P.M., at Dr. Wadham's request, Dr. Whipham made a laryngoscopic examination. The vocal cords were faintly pink, but there was no swelling of the larynx, and all movements of the cords were perfect. The first two or three rings of the trachea were visible, and normal in appearance; but below them, about three inches below the cords, the posterior wall of the trachea was bulged. The mucous membrane covering this swelling was much congested. At 4 P.M. there was a sudden recurrence of dyspnœa, and, without the least aggravation of the patient's distress, a second laryngoscopic examination was made. The bulging of the trachea was visible, as before, and the movements of the larynx were perfect; in fact, the extent of abduction of the cords was unusually great. The various remedial measures proved unavailing, and the patient was suffocated at 8 P.M. At the post-mortem examination an aneurism was found, involving the descending portion of the aortic arch and the commencement of the thoracic aorta; from the right of the upper part of the sac a secondary aneurism with thin soft walls arose, and this second sac had flattened and produced a certain amount of atrophy of the œsophagus, that caused the bulging seen just above the bifurcation of the trachea. The diagnosis during life was that a tumour (in all probability an aneurism) was the cause both of the appearances and symptoms, and the case was adduced as being a rare instance of actual demonstration of an aneurism pressing on the trachea at its bifurcation. The sudden access of the symptoms was possibly explained by rapid dilatation of the thin walls of the secondary aneurism.—Dr. C. WILLIAMS asked whether there were not any physical signs of the aneurism along the spine; in the cases he had seen there was generally some bruit, and usually a tubular sound over one scapula. An aneurism presenting and pushing forwards in such a way was very rare.—Dr. SEMON thought Dr. Whipham very fortunate in his case, for too often the physician cannot determine the seat of the obstruction. He had seen a case with Dr. Ord in which there was bilateral incomplete paralysis of the abductors of the larynx, but there was no local sign of aneurism, and the difficulty was to decide if any other source of obstruction existed lower down. Tracheotomy was performed, and the patient died ten days later from rupture of the aneurism which pressed on the trachea and both bronchi. He thought he had found that the inferior laryngeal nerve was differentiated, and that each laryngeal muscle had its own ganglionic centre, and that there was a tendency on the part of the nerves supplying the abductors to become diseased more quickly than the other branches of this nerve; much clinical and pathological evidence of this had been met with by him. Thus, paralysis of an abductor muscle was far more common in ascending or descending degeneration, and from pressure of the nerve-trunk on any part of its course, while functional disease, such as hysteria, has a similar proclivity to affect the part of the nerve supplying the adductor muscle. Professor Elsberg of America has observed that during convalescence after complete paralysis of the inferior laryngeal nerve, the adductor muscles are the first to show signs of recovery, and this fact may cause serious symptoms during true convalescence.—Mr. GOLDING BIRD had recently met with a similar case in Guy's Hospital, in which a pulsating tumour existed at the root of the neck, which on coughing was pushed up and ceased to pulsate. Dr. Wilks diagnosed an aneurism. He was readmitted under Dr. Fagge. Mr. Lane, the house-physician, observed during an attack of dyspnœa a bulging inwards of one side of the trachea. The right pulse was smaller than the left. The larynx was very easily examined, the abductors were acting to the full, the right side of the trachea was seen more plainly than the left. He cut down upon the tumour and found it was aneurismal, and then ligatured the common carotid artery. After death a perfect innominate aneurism (not affecting either of its divisions) was found, bulging inwards the trachea; there were other aneurisms in various parts of the body.—Dr. ORD had twice seen the vocal cord adducted in cases of aneurisms pressing upon the left recurrent laryngeal nerve. At present he had a case with hoarseness and permanent adduction of one cord, and other symptoms pointed to an aneurism of the arch of the aorta. The laryngoscope was useful not only for diagnosis, but also for practice to decide upon the probable value of tracheotomy.—Dr. LONGHURST had often observed extremely sudden attacks of dyspnœa in cases of aortic aneurism, and he asked how it was that an aneurism could exist in such a situation for years without any symptoms. Did Dr. Whipham observe the state of the pupils? What was the actual cause of death?—Dr. WHIPHAM replied that an accurate examination of the patient's chest was impossible owing to his condition. The laryngoscope had saved the man from tracheotomy. There was no difference in the tracheal swelling during the attack of dyspnœa. The pupils were not noticed. The patient died of suffocation.

Dr. DOWSE read notes of a Case of Anorexia Nervosa. A. J——, aged fourteen, was admitted into the Hospital for Epilepsy and Paralysis on July 5th, 1880, with the following history:—Family history good. Her parents are healthy and strong, and so are her brothers and sisters. She was always considered to be a delicate child, and during her infancy cod-liver oil was given her on account of her weakness. In the early part of last summer she began notably to decline, stating that she could not swallow food, and exhibited great obstinacy of disposition. She would cry at the slightest opposition to her wishes, and often without any apparent reason. Being a delicate child she had always been treated with more indulgence than the rest of the children, and in her sullen fits at this time she would never speak to her mother, except in tones of the greatest violence. She grew from bad to worse, and in February last year she went thirteen days without taking anything besides a little water, at least not to anybody's knowledge. She became so weak that her parents sat up with her for nearly a week, and one night she was thought to be dying. It is supposed she had a fit on one occasion, and it was thought she was dead. She would never begin a conversation or join in one, and it would sometimes be difficult to get a reply from her. Her aversion to food of any kind was most marked. On admission to the hospital she was unable to stand without help. Her eyes downcast, cheek-bones prominent from wasting, angles of mouth depressed; she looked the picture of misery. Voice scarcely audible; she was taciturn, shy, and reserved. There was a general morbid state of functional inactivity; all her movements were slow, and her mind was equally inactive. The breath was offensive, the tongue fairly clean, the bowels obstinately confined, and the evacuations were pale and clay-coloured. The temperature was never over 98° F., and frequently below it. The extremities were cold and of a bluish colour. The special senses were normal. Pupils sluggish. Pulse 120, respiration 20. There was no marked anæsthesia of the fauces, no globus, or other hysterical symptoms. Upon her admission considerable difficulty was experienced in getting her to take food, but forcible feeding was never had recourse to. She was in the hospital for two months, and her condition upon admission and departure was very striking and characteristic. She had gained considerably in weight, and instead of being taciturn and reserved she was cheerful and agreeable to all about her, and took food without any reserve or hesitation. The cure was brought about by the frequent administration of fluid nourishment. It was made compulsory for her to take in twenty-four hours three eggs, one pint of beef-tea, three pints of milk, and three ounces of brandy. No medicine was given, except half a drop of croton oil occasionally.—Dr. C. WILLIAMS had seen several examples of this disease, which had been brought to him as cases of phthisis. They are very cold and clammy to the touch, with a slow pulse; they are never febrile, and there are no physical signs of phthisis. The diagnosis is easy, but the management of them is very difficult. Mental treatment is very useful, but forcible feeding is often needful, and the nutritive enemata are the best means of applying force.

Mr. PEARCE GOULD read a paper on a Case of Antiseptic Osteotomy of the Tibia, in which rapidly fatal carbolic intoxication occurred. A lad, eight years of age, of robust appearance, was admitted, under his care, into Westminster Hospital in Oct. 1880, with rickety deformity of the legs, especially of the left tibia. Other treatment had been perseveringly tried at the National Orthopædic Hospital for some time without avail, and he was sent in for the purpose of having osteotomy performed. His general health was very good. On Oct. 30th chloroform was administered, and the left tibia divided with McEwen's chisel, with a careful observance of the details of Listerism. He quickly recovered from the effects of the chloroform, and slept well through the night; next morning (Oct. 31st) he took his breakfast and appeared quite well; temperature 98·4°. At 11 A.M. (twenty-one hours after the operation) he vomited; and vomited a watery fluid repeatedly up till 9.30 P.M. He also passed two orange-coloured loose stools. At 7 P.M. he was rigid, and at 8 P.M. very restless; at 9 P.M. he was almost unconscious, he was breathing hurriedly, pulse almost imperceptible at the wrist. At 10 P.M. Mr. Gould saw him; he was then conscious; lying quiet and quite flat, respiration 44 per minute, air entered lungs freely, pulse very small and rapid, pupils small. He died, asphyxiated, at 2.30 A.M., Nov. 1st, thirty-six hours and three-quarters after the operation. There was complete suppression of urine after 11 A.M. Temperature rose to 100·2°, and fell to 99·6° at 2 A.M. on Nov. 1st. The treatment consisted in the application of warmth and stimulants to the surface, and brandy internally. At the autopsy all the viscera were apparently healthy, with the exception of congestion of the tracheal and bronchial mucous membrane, and excess of mucus in these tubes, and slight congestion of the lungs. The left side of the heart was empty, the right side contained partly-clotted blood; blood in smaller veins all fluid, in the larger partly in soft clots, all of it black. No petechiæ; no staining of endocardium or intima; no sign of fat embolism. Bladder empty. A small blood-clot in the wound; no crushing of the medulla; no thrombosis of tibial vessels. Microscopic preparations of the organs were made for Mr. Gould by Dr. Heneage Gibbes, some of which were shown at the meeting. From these it was seen that there was thrombosis of the capillaries and smaller vessels of the lungs with minute spots of round-cell inflammatory exudation. Similar minute inflammatory foci were also found in the kidneys, while sections of the stomach showed intense inflammation of its mucous surface, only traces of its glands being visible, and at places the process was evidently advancing to suppuration. No sign of fat embolism. In discussing the cause of death Mr. Gould pointed out that shock, chloroform, the acute specifics, erysipelas, septicæmia, pyæmia, and fat embolism, might be excluded, as was also the ingestion of any irritant matter, but yet both the symptoms and pathological changes showed evidence of the circulation of some irritant in the blood. The symptoms were individually considered, and it was shown that the vomiting, diarrhœa with orange stools, collapse, rigidity, restlessness, loss of consciousness, very hurried respiration, slight rise of temperature, and death from asphyxia, were the symptoms observed in cases of undoubted carbolic intoxication. The urine passed before the onset of vomiting appeared to be normal, and was not preserved; the suppression of urine later on was a new fact in such cases. The softly coagulated and black blood had been noted before, but there was no record of any microscopical examination of the apparently healthy organs usually found. The quantity of acid absorbed was no doubt small, and the great susceptibility of the patient to its toxic effects must at present be spoken of as an idiosyncrasy; but from the absence of other cause, and of any facts to negative the supposition, as well as the agreement of the symptoms and post-mortem pathological changes in the main with those observed in cases of carbolic intoxication, he was forced to the conclusion that such poisoning was the cause of death.—Professor LISTER remarked upon the interest attaching to the suppression of urine, which he had not met with before. He had no doubt that Mr. Gould's view must be accepted, that this patient was one of those who had an unfortunate susceptibility to the toxic effects of carbolic acid. He had met with cases of such susceptibility, and one he called to mind was a lady whose breast he removed and dressed in his usual manner; intense symptoms of carbolic poisoning came on, and boracic lint was substituted for the gauze, dressing, but the spray was used when the lint was changed and this was sufficient to keep up the symptoms, which only abated when its use was discontinued. As an instance of the special local susceptibility of some patients, he mentioned a case of chronic synovitis of the knee-joint, which he opened and dressed antiseptically, and next day he found all the skin under the gauze intensely red and irritated. It had been stated that there was no antiseptic that could with safety replace carbolic acid, though several had been tried; but he was in a position to say that the oil of Eucalyptus globulus, if used properly, is a powerful and perfectly reliable antiseptic, and is also quite unirritating and without toxic effects. If the oil be made into an emulsion with spirit and water, and then used, it very quickly evaporates; but he had found that gum dammar holds it exceedingly well, and the mixture remains soft and strongly odorous of the oil even at the end of several weeks. He had used a gauze prepared with a mixture of one part of the oil, three of dammar, and three of paraffine, and he was able to assert that it might be thoroughly trusted as an antiseptic where carbolic acid was inadvisable.

The meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

Villous Polypus of Rectum.—Muscular Atrophy.

AT the meeting on April 25th Dr. Broadbent, President, in the chair, Mr. GOODSALL exhibited an adult male, who was under his care at St. Mark's Hospital, suffering from a large villous polypus of the rectum. The mass was about the size of an orange, and was rough and tuberculated on the surface. There was a frequent and copious watery discharge from the rectum, but the man had never lost more than half an ounce of blood at any one time, nor was he losing flesh in any marked degree. Mr. Goodsall had seen several such cases. In this instance the disease had been treated elsewhere as one of simple diarrhœa, no exploration of the bowel having been made. The pedicle of the tumour was well within the reach of the finger, and now of sufficient length to allow of the painless extrusion of the mass.—Dr. DE HAVILLAND HALL asked if in the other cases referred to there had been any recurrence of the growth after operation.—Mr. EDMUND OWEN remarked upon the necessity in any case of irritation of the rectum of making a thorough exploration of the bowel by the finger; in this manner only could a small villous growth or vascular polypus be detected.—Dr. COUPLAND questioned the applicability of the term "villous" to the lobulated mass which formed this polypus.—The PRESIDENT asked concerning the nature of the discharge of the pale and odourless fluid, and also what line of treatment would be followed.—Mr. GOODSALL, in reply, remarked upon the comparative rarity of the disease, and upon the peculiar watery discharge. He knew of no instance of recurrence after removal, and intended treating this by transfixing the base and securing the parts of the pedicle in three fine ligatures.

Dr. ALLEN STURGE read a paper on Muscular Atrophy, and exhibited two patients suffering from progressive muscular atrophy to illustrate his remarks. He began by giving a brief account of the condition leading to muscular atrophy, whether acute or chronic, stating that in either case the condition might be due to disease of the anterior horns of grey matter in the spinal cord, to disease of the anterior roots of the nerves, of the trunks of the nerves, or to disease of the muscle structures themselves. He called special attention to the fact that atrophy tends to affect groups of muscles in a limb rather than the limb as a whole, thus differing from other forms of paralysis. Muscles may be grouped in two ways: (1) anatomically—i.e., according to their position in a limb, or according to their nerve-supply; (2) physiologically, according to their association in function. When atrophy results from disease of the anterior horns, the muscles are affected according to their physiological grouping; when it is due to disease or section of a nerve, they are affected according to their anatomical grouping. This tends to prove that the centres in the spinal cord for the various muscles are arranged so that the centres for a set of muscles habitually employed together shall be contiguous to one another, and together form a large centre for the coördination of these muscles to produce some of the more automatic actions. Dr. Sturge then passed on to compare the acute with the chronic forms of muscular atrophy, stating that in the acute disease there is no tendency to symmetry, which, on the contrary, is often present in the chronic form of muscular atrophy; that in the latter there is not unfrequently seen a tendency to simultaneous affection of homologous groups of muscles in the upper and lower limb; that in the acute all parts of a muscle are affected in about the same degree, whereas in the chronic disease some bundles of muscular fibre are entirely destroyed, whilst others may be little, if at all, affected. This points to the presence, in the acute affection, of a gross lesion attacking a whole spinal centre at once. In the chronic affection individual nerve cells are attacked and destroyed, whilst others in their immediate neighbourhood are left untouched. In other words, the acute affection attacks the centre *en masse;* the chronic attacks it in detail.—The PRESIDENT remarked on the great value of Dr. Sturge's paper, and on the excellent way in which he had worked up the clinical and pathological details in one continuous account.—Dr. SYMES THOMPSON remarked on the question of chronic muscular atrophy depending upon central or peripheral change. He would like to hear more upon the electro-therapeutics adopted in these cases. Many years ago he read a paper on the subject before that Society; much progress had since been made in the knowledge of this and allied affections.—The PRESIDENT expressed his individual thanks to the author, and remarked upon the interest of the physiological grouping of muscles affected in infantile paralysis. He had been inclined to question the central origin of infantile paralysis; it had seemed to him that the peripheral nerve-endings had been much neglected, and he did not understand how an acute inflammation spreading by continuity in the grey matter could so constantly respect physiological limits. He certainly thought that, in the chronic cases, the change was central rather than peripheral.—Dr. STURGE, in reply, remarked that with central disease the influence of electro-therapeutics must be limited. It might restore a secondary wasting, but could not restore the diseased tissue. He used both the continuous and the interrupted current, and preferred the one with which he found he could obtain the more energetic result. In some cases of infantile paralysis certain groups of muscles were clearly picked out.

Dr. GILBART SMITH exhibited three machines used in the mechanico-therapeutic institution of Stockholm, and also photographs of others.

The Society then adjourned.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Retinal Hæmorrhages with High Arterial Tension.—Paralysis of both Third Nerves.

THE ordinary meeting of this Society was held on the 12th inst., W. Bowman, Esq., F.R.S., President, in the chair. The following card specimens were shown:—1. Microscopical Sections from a case of Optic Neuritis in an eye lost by corneal ulcer, by Mr. W. Lang. 2. Tumour (sarcoma) at cavernous sinus, causing complete paralysis of all branches of the third, fourth, and sixth nerves without affecting either the optic or the fifth, by Mr. Nettleship. The following living specimens were also exhibited:—1. Intra-ocular Tumour coming on in a young man who was already blind from post-neuritic atrophy caused by cerebral tumours, by Dr. Allen Sturge and Mr. Anderson Critchett. 2. Double Ophthalmoplegia externa, without other symptoms, in a lad aged eighteen, by Mr. Nettleship. 3. Case in which several years after an injury an Opaque Lens became dislocated into the anterior chamber, and then passed, when the patient was recumbent, into a pouch which had been formed by separation of the upper part of the ciliary body from the sclerotic. Living specimens were also shown by Mr. Spencer Watson and Dr. Allen Sturge in connexion with their papers.

Mr. SPENCER WATSON read notes of a case of Retinal Hæmorrhage with High Arterial Tension. A married woman forty-five years of age, whose menstruation had been regular up to two months before, but who had since not menstruated, had dimness of vision in one eye, which was found to be due to an effusion of blood in the region of the yellow spot. The arterial tension was found to be high, and though palpitations had been complained of, and great pain in one side of the neck and the corresponding shoulder, there was no discoverable disease of the heart, and no aneurismal dilatation of the aorta. Mr. Watson, by the advice of Dr. Sansom, gave nitro-glycerine in very minute doses, and this had the effect of relieving the pain. There was, however, no improvement in the state of the eye. Mr. Watson regarded the case as an instance of one of the local hæmorrhages likely to occur in women at the change of life. It was accompanied in this instance by long-continued and profuse epistaxis on one occasion.—Dr. SANSOM had seen several cases coming under the same category, presenting a constitutional tendency to high arterial tension, as pointed out by Dr. Mahomed, whose views Dr. Sansom endorsed. Such a tendency might be independent of any other pathological condition. In these cases he had often seen retinal hæmorrhage sometimes with symptoms of vertigo, sometimes headache, or pain in other parts of the body. In the present case, the condition suggested contracted kidney, but of this there was no evidence, but then that disease was very insidious. He had at present under his care a gentleman who had had retinal hæmorrhages, which had passed off leaving but slight traces, with considerable high arterial tension, and an extreme form of migraine. In that case there was no evidence of renal disease, and all symptoms disappeared under careful dieting. The attacks of migraine were controlled by nitro-glycerine, in doses of about $\frac{1}{250}$ grain. In another case, a woman with retinal hæmorrhages and high arterial tension, the cerebral symptoms were of the nature of vertigo, not pain. In another case there was intense pain at the epigastrium, which was benefited by nitro-glycerine. The pulse tracing in that case indicated atheroma of the aorta. In reply to Dr. S. Mackenzie, he added that there was no symptoms nor history of gout, and in reply to the President that in all these cases there is some hypertrophy of the left ventricle and accentuation of the aortic second sound.—Mr. BRUDENELL CARTER suggested that there must be some structural change in the arterial walls to account for the hæmorrhages, which could hardly be brought about by high arterial tension, a condition more likely to produce anæmia; as in the case of a boy who presented a pallid disc and pulsating retinal arteries, and in whom Drs. Anstie and Sturges found high arterial tension.—Dr. GILBART SMITH inquired as to the character of the second sound over the aorta, and the evidence of ventricular hypertrophy, which may be taken as the measure of the arterial condition.—The PRESIDENT remarked that the tension might be high in some parts and low in others, and that such inequality might be the cause of hæmorrhage.—Mr. CARTER said that if the effect of high tension was to diminish the calibre of arteries, hæmorrhage could not be explained; but the hæmorrhage of embolism was an instance of its occurrence when the tension was unequal.

Dr. ALLEN STURGE read the notes of a Case of Paralysis of both Third Nerves after an Apoplectic Attack. The patient, a boy aged sixteen, was seized while at his work, bottling beer, with sudden severe pain in the head, and giddiness; two or three minutes afterwards he fell down unconscious. He was taken at once to the Royal Free Hospital. He remained more or less unconscious for twenty-four hours, after which it was discovered that all the muscles supplied by both third nerves were completely paralysed. The pupils were not dilated, and acted, although sluggishly, to light, but the right pupil was slightly larger than the left. There was no other paralysis of any kind present. There was no optic neuritis. He suffered much from pain at the back of the head; the temperature was somewhat raised. Three days after admission a slight weakness was noticed in the left external rectus, which, two days later, had increased to complete paralysis. Eight days after the first onset power began to return in the right levator palpebræ, and subsequently in the left levator palpebræ, and in the recti in both eyes. He was discharged seven weeks after admission with complete return of power in all the muscles. Dr. Sturge remarked that this case was analogous to one exhibited by him at an earlier meeting of the Society, in which a paralysis of both third nerves, in conjunction with other paralyses, had come on after an apoplectic attack. He gave reasons for concluding that in both cases the lesion involved the central connexions of the nerves, rather than the trunks of the nerves, in their course from the brain to the orbit. To explain the relationship which these cases bear to other forms of ocular paralysis he referred to the anatomical facts ascertained in regard to the nuclei connected with the motor nerves of the eyeball, laying stress upon the fact, that although the chief mass of fibres forming the nerves appear to come from the so-called nuclei of origin, yet that in the case of the third nerve, at any rate, some fibres do not pass through the nucleus of origin of the nerve. When studied in the light of physiological experiment, it becomes evident that these nuclei of origin are not the sole portions of grey matter connected with the movements of the eyeballs, centres having been discovered which control the upward movements of the eyes; others controlling the lateral movements and so on. Independent centres for accommodation, for dilatation of the pupil and for contraction of the pupil, had also been ascertained to exist. All these centres had to do with bilaterally coördinated movements, and the grouping of fibres and cells in them corresponds to the coördination of muscles rather than to the association of fibres in the oculo-motor nerves. *A priori* reasoning would lead us to suspect that we should have three types of oculo-motor paralysis :—(1) The true peripheral paralysis of eye muscles from involvement of the trunks of the nerves. (2) Paralysis due to lesions involving the nuclei of origin of the nerves, which would resemble the peripheral paralyses in many respects, but would present points of difference, for these reasons : (*a*) that all the fibres of the nerves do not emanate from the nuclei of origin ; (*b*) that there are good reasons for believing that a low degree of coördinated association of muscles takes place in the nuclei of origin. (3) Paralysis due to lesion of the higher coördinated centres. In this type the association of the paralysed muscles would have ceased to correspond with nerve supply. Of this type there would be several varieties—e.g., (*a*) the paralysis might affect muscles involved in a single coördinated action alone, as the two superior recti ; (*b*) the paralysis might involve all the muscles of the eyeball *except* those used in a single coördinated action—all except the two levatores palpebrarum, for example ; (*c*) the paralysis might affect the centres for accommodation or for the pupils alone, or it might affect these in conjunction with some or all of the external muscles. Dr. Sturge then went on to consider to what extent these varieties are met with in practice, beginning with paralyses of the third type. In proof of the existence of the varieties (*a*) and (*b*), he quoted cases published by Mr. Hutchinson, Dr. Gowers, and Mr. Nettleship—cases to which Mr. Hutchinson has given the name "ophthalmoplegia externa." As examples of the existence of the variety (*c*), he quoted the cases described by Mr. Hutchinson under the name "ophthalmoplegia interna," which Mr. Hutchinson had attributed to disease of the ciliary ganglion. He mentioned that Dr. Gowers had suggested that the latter cases are really due to disease of the central nuclei governing the iris and ciliary muscle ; and he made an analysis of Mr. Hutchinson's cases to show that they contain internal evidence that Dr. Gowers' explanation is almost certainly the correct one. Clinically, there are six varieties of this type of paralysis, corresponding closely to those which might be suspected on *à priori* grounds to exist. These are, paralysis involving : (*a*) accommodation alone, (*b*) accommodation + pupils, (*c*) accommodation + pupils + external muscles, (*d*) pupils alone, (*e*) pupils + external muscle, (*f*) external muscles alone. His own two cases of paralysis after apoplexy he believed to belong to the second type of disease, involving the nuclei of origin, giving reasons in favour of this view; and he called attention to certain points in the cases which threw light upon the physiology of these nuclei.—The PRESIDENT, in thanking the author for his valuable and interesting paper, hoped that the subject might again be raised at some future time when Mr. Hutchinson could be present.

The Society then adjourned to July 6th.

Reviews and Notices of Books.

The Cat. An Introduction to the Study of Backboned Animals, especially Mammals. By ST. GEORGE MIVART, Ph.D., F.R.S. With 200 Illustrations. pp. 557. London: John Murray. 1881.

EVERY student of biology must have learnt at an early period with surprise and regret how few monographs exist in our own or in any foreign language of even the commonest animals. In the larger text-books of comparative anatomy the general features of each class are given, and the prominent characters of particular members receive brief notice, but any point on which information is sought is sure to be omitted, and if he live where he has no access to the museums of a large centre, it is probable that he must at great loss of time work out the point for himself. The only animal which up to a recent period could be said to be even fairly well and fully described is the horse, in a work written by a distinguished army veterinary surgeon, William Percivall, nearly half a century ago. More recently the translation by George Fleming of Chauveau's treatise on the comparative anatomy of the domesticated animals, which treated mainly of the horse, ox, and sheep, but gave also many details of the anatomy of the pig and dog, proved a very valuable addition to our literature, and Ecker has supplied a partial and, so far as it goes, excellent account of the frog. We have now before us a monograph on the cat, which supplies what was greatly needed—a description by a competent anatomist of a typical member of the carnivora, and which from the care and accuracy with which it has been completed has evidently been a labour of love to its distinguished author. Mr. Mivart states that his present treatise on the zoology of the cat is the precursor of a companion volume in which the natural history of the entire class of mammals will be treated of. Such a manual worked up to the present day is much needed.

The early history of the domestic cat is uncertain. It is not the common cat of zoology, which is the wild or native cat, an animal that existed abundantly in the forests in the time of Julius Cæsar, and was seen in Wales within the last twenty years. It appears to have come down to us from the Egyptians, being mentioned, Mr. Mivart informs us, in inscriptions as early as 1684 B.C., and being, as is well known, an object of religious worship, and the venerated inmate of certain temples. It was an emblem of the sun to the Egyptians, and according to Herodotus the death of a cat from natural causes was followed by the ceremony of shaving the eyebrows in token of mourning. From Egypt it must have been introduced into Greece, though Professor Rolleston, in his article on Cats in Humphry and Turner's *Journal of Anatomy*, considers that the cat of the ancients was the *Mustela foina*, the "beech" or "stone" marten. It was not a domestic animal amongst the Hebrews, though it was known to them, as we read in the apocryphal book of Baruch, who lived, it is supposed, in the reign of Jehoiakim, about 600 B.C., that "upon their bodies and heads sit bats, swallows, and birds, and the *cats* also."

The main body of the work is occupied with a thorough, complete, and systematic account of the anatomy of the cat, each bone, muscle, nerve, artery, and organ being described, while space is found for a concise history of its development, and for the chief facts in regard to its histology. Numerous and carefully executed drawings illustrate the text. The chief kinds of cats are described zoologically, including those of the Old World—as the lion, tiger, leopard, ounce, clouded tiger, cheetah, and caracal, and those of the New World—as the puma, jaguar, ocelot jaguar, eyra, and colocollo, with the lynx, which is found in both hemispheres. The fossil forms of machaerodus, hoplophoneus, nimravus, and dinictis are also described—genera which have been found in Nebraska and other parts of the American continent in miocene deposits. Nor have even the parasites of the cat been overlooked, a short section being devoted to the olulanus, the most important of all the feline nematodes, the tænia, and the pentastoma, with the flea, louse, and itch insect. One of the most interesting chapters of the work relates to the pedigree and origin of the cat. In this Mr. Mivart maintains consistently the doctrines he has advanced in his "Genesis of Species and Lessons from Nature," and which are by no means in accord with the prevalent Darwinian views. In regard to its pedigree he traces it from unknown insectivora-like animals which produced, among other forms, arctocyon. From this, as a root, the carnivorous branch divided into cynoid and arctoid branches—the former developing into the typical canidæ ; the latter, after giving off other branches, leading to the ursidæ, and through proelurus to the viverridæ, hyænidæ, cryptoproctidæ, and felidæ. In regard to the origin of the cat, Mr. Mivart has the following observations, which express very clearly the various modes in which the evolution of new specific forms may have been brought about :—1. The change may have been due, he says, first, entirely to the action of surrounding agencies upon organisms which have merely a passive capacity for being indefinitely varied in all directions, but which have no positive inherent tendencies to change, or vary, whether definitely or indefinitely; secondly, entirely to innate tendencies in each organism to change in certain directions; thirdly, partly to innate tendencies to vary indefinitely in all directions, and partly to limiting tendencies of surrounding conditions which check variations, except in such directions as may happen to be accidentally favourable to the organisms which vary. Fourthly, partly to innate tendencies to vary indefinitely in all directions, and partly to external influences, which not only limit but actively stimulate and promote variation. Fifthly, partly to tendencies inherent in organisms to change definitely in certain directions, and partly to external influences acting only by restriction and limitation on variation. Lastly, to innate tendencies to change definitely in certain directions, and partly to external influences, which in some respects act restrictively, and in other respects act as a stimulus to transformation. Mr. Mivart himself holds that the genesis of new species is due mainly to an internal cause, which may be stimulated and aided, or may be more or less restricted, by the action of surrounding conditions, and he devotes several pages to the explanation and support of his previously expressed opinions. His argument is of great weight, and may fairly claim the adhesion of those who hold the doctrine of a Divine Creator acting through secondary laws in opposition to atheistic conceptions, under which category, however, the doctrine of Darwin cannot in any way be included. We have great pleasure in warmly recommending the work to all who are interested in zoology and natural history.

Notes on Antiseptic Surgery in War. By Surgeon-Major H. MELLADEW, Royal Horse Guards. Pp. 36. 1881.

SURGEON-MAJOR MELLADEW took advantage of his winter leave to visit the military hospitals in Berlin, Dresden, St. Petersburg, Moscow, Vienna, Munich, and Paris, for the purpose of studying the system of foreign military hospitals and "to gather hints about antiseptic surgery as applied to service in the field." In the pamphlet before us he has published the substance of his inquiries on the latter subject. He has come to the conclusion that the system must be extended to the wounded on the battlefield, but in a modified form, owing to the disproportion between wounded and surgeons, and also to the impossibility of providing the necessary equipment for its full employment on the battlefield. It appears that many of the surgeons are of opinion that spray diffusers may be dispensed with, but the important condition of scrupulous cleanliness of hands, instruments, &c., must be strictly enforced, with the use of antiseptic dressings, and abstention from unnecessary probing or fingering the wound. The author goes into some detail with reference to the various disinfectant dressings recommended by Professors Esmarch, Nussbaum, Neudörfer, Bruns, and Münnich, and gives a description of a "soldier's packet," devised by himself, which seems to him to answer all requirements. The subject is one which is to be discussed in the section for military surgery and medicine at the forthcoming meeting of the International Medical Congress. In view of this our author's notes are well timed, and will be found useful as showing in a condensed form the conclusions arrived at on the Continent as the result of actual experience of the system on active service.

AT a late meeting of the Woolwich Board of Guardians, a committee was appointed to inquire and report on the system of nursing adopted at the London, Charing-cross, and Great Northern Hospitals, with a view to the improvement of the nursing at the union infirmary.

THE OLD UNIVERSITIES AND THEIR MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—I trust you will grant me space to criticise a statement likely to give rise to a good deal of misapprehension made by "A Cambridge Undergraduate" in his letter of the 14th inst. He there says—"Of Oxford I know nothing personally, but of Cambridge I may say this, that the practical hospital teaching is such that the majority of Cambridge students know no more of practical medicine and surgery *after four years' attendance* on the practice of Addenbrooke's Hospital, than an average London student knows after the first six months of his attendance in the wards of his hospital." From this statement one would suppose that the hospital teaching was extremely bad. Now, Sir, I and others with whom I have spoken, who, like myself, have studied both at the Addenbrooke's Hospital and afterwards at a large London Hospital, know that this is far from the fact. "Undergraduate" confesses that he knows nothing of the Oxford school, but when he speaks of Cambridge men spending four years at the hospital there he shows plainly that his knowledge of the Cambridge school is not much greater, for as a fact Cambridge students attend hospital practice for from two and a half to three years at the outside, and then pass on to a London hospital to *dress*, *clerk*, and gain a wider experience. The majority, I grant, do not learn much, not because the teaching is bad, but because they have before them triposes and other examinations which principally engage their attentions.

On the other hand, what is the state of the knowledge of the ordinary London student, as far as practical medicine and surgery are concerned, near the end of his second year? I have frequently found that he takes little interest in, and learns less at, the out-patient practice he is compelled to attend. The majority of second-year students know nothing of the therapeutic action of the drugs they see prescribed, or of the pathology and symptoms of the diseases which are brought before their notice; and I am not surprised, because, as they themselves own, their examinations in anatomy and physiology require their almost undivided attention, so that, as a matter of fact, the Cambridge student, having attended for two years and a half at the Addenbrooke's, finds when he passes on to London that he is but little behind London students of the same standing. Not unfrequently, however, men, after passing their second M.B., spend their long vacation and part of September at the Cambridge Hospital, and are then able to give their undivided attention to the work; and I have repeatedly heard them say that they have never met with a *better teacher* than Dr. Humphry, nor one who requires cases to be taken more thoroughly and accurately. As far as the rest of the staff are concerned I can bear ample testimony to their extreme willingness to teach those who show the slightest desire to learn. Therefore, let no one be dissuaded from becoming a Camb. medical student on the ground that the hospital teaching is bad.—Yours truly,

A CAMBRIDGE B.A.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editor of THE LANCET.

SIR,—The annual election of pensioners and foundation scholars in connexion with the Royal Medical Benevolent College will take place on the 23rd instant. In accordance with a recently passed resolution, a committee has recommended certain candidates as being most eligible for election, and a printed form to that effect has accompanied each balloting paper. My object in writing is to bring before the notice of the governors the fact, that out of the whole list of candidates selected by the "examination committee," not one is either a widow or child of a deceased subscriber. I do not doubt the urgency of the various cases thus recommended, but maintain that we should be just as well as generous, and not lose sight of the special claim upon us of the widows and orphans of those who by noble self-sacrifice and frugality supported the very institution their survivors are soliciting succour from.—Your obedient servant,

Commercial-road, E., May 17th, 1881. T. RICHARDSON.

THE LANCET.

LONDON: SATURDAY, MAY 21, 1881.

THE question of hospital reform is ripening. The public and the profession are alike agreed that the present system of hospital administration is seriously imperfect, and in some respects essentially vicious. The charges of alleged abuse of the metropolitan hospitals as charitable institutions are loud and frequent, and though they have no doubt been greatly exaggerated, they are by no means devoid of foundation. The abuse is, however, to some extent unavoidable, and is largely due to the manner in which medical relief at hospitals is at present administered. The complaint is repeatedly made that many persons attend the hospitals of London as out-patients, or are admitted as in-patients, who are not fit objects of charitable relief, and who can well afford to pay. This is in a measure true, but it is not always easy to decide what they can afford to pay. They may be able to pay the smaller charges of an ordinary practitioner, and perhaps have done so for weeks or months, but they cannot pay a physician's or a surgeon's fee for a private consultation, or if they are able to pay once or twice they cannot continue doing so for weeks or months. For a person desirous of receiving specially skilled advice there is no alternative between applying at a hospital for gratuitous relief or paying the customary fee of the physician or surgeon. As long as the relations of the public to hospitals and to the profession, on the one hand, and of the profession to the public and hospitals on the other, remain as they are, the kind of abuse now complained of must continue, and cannot well be checked. That the evil ought to be remedied everyone must admit, though there may not be an unanimity of opinion as to how this is to be done.

The deputation lately received by the Home Secretary dealt with a comparatively small part of the question of hospital administration. The Home Secretary himself took a larger view when he expressed his approval of the desire for an inquiry, even by a Royal Commission, as to all the London hospitals. We believe that nothing less than such an inquiry can grapple with the whole of the facts of the case. The system of hospital relief needs to be reconstructed, and in the process of reconstruction the interests of the profession will have to be considered. Sooner or later the plan of making some out- and in-patients pay a distinct charge will have to be tried, and in carrying out this plan it will be necessary to conciliate the rival sections of medical practitioners—namely, the physicians and surgeons attached to the hospitals on the one hand, and the general practitioners on the other. Whether the members of the medical and surgical staffs of hospitals should in all cases be paid for their time and service may be an open question, but no one can seriously maintain that this time and service should be given without remuneration to persons who are made to contribute towards the funds of the hospital for the advice they receive. When patients are made to pay it is certain the medical officers will have to be remunerated.

The matters that demand most attention and consideration just now, are whether all hospitals should continue as charitable institutions affording gratuitous relief or not; and whether the medical officers should be paid for their services to these institutions or not. Out of these considerations will arise many others—such, for example, as the difference between hospitals that offer facilities only for the relief of the sick poor, and those which, in addition, by being connected with a medical school, become centres for the training and education of medical practitioners. In any scheme of medical reform, these two classes of institutions cannot be placed in the same category. The essential *raison d'être* of the two is different, though their ultimate aim is not so dissimilar as some have imagined.

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IN the course of the recent controversy arising out of considerations of ethical propriety in regard to the consultation of orthodox professors of scientific medicine with actual or reputed homœopathists, nothing has so much surprised us as the inexplicable ignorance which prevails, not only throughout the lay community, but among medical men, as to the nature and effect of "homœopathy" and "allopathy" as medical theories. We have laid down the proposition that *similia similibus curantur*—or *curentur* as some would have it written—involves a fallacy. It would of course occasion no astonishment if this assertion were challenged, but it does not seem to be understood. Lest this strange circumstance should be due to some obscurity in our way of putting the facts, let us state them again. The homœopathist says, "I select a drug which if given in a large dose to a healthy person would produce symptoms *like* those of the case I am seeking to cure, and I give this drug, when found—in a small dose." The ordinary practitioner asks, "Why do you not give it in a large dose?" The homœopathist replies, "Because it would increase the symptoms I desire to remedy." In short, the homœopathist *avoids* the dose in which the remedy he selects is *homœopathic* to the disease, and gives it in a smaller dose. Now everyone knows that the "effects" of medicines differ with the doses in which they are exhibited, giving rise to "symptoms" which are seemingly contradictory, in large and in small doses respectively. It follows that the so-called "homœopath" does not practise on the principle *similia similibus curantur* (or *curentur*). He only resorts to the principle embodied in that aphorism in selecting his drug, and by so doing goes a roundabout way to discover the remedy, which lies close at hand, and which the "allopath," if there were allopaths (or antipaths), might claim as acting on the principle *contraria contrariis curantur*. We are anxious to make this plain to our readers, and especially to those who are interested in the present discussion, because it is the key-note to what we allege to be the *fallacy* of the homœopathic school; and it explains the reiterated assertion made by homœopathists, to the effect that remedies which they believe to act *homœopathically* are recommended by accredited authors in standard works on Therapy. It must be so. *All* remedies lie open to the charge or claim of being "homœopathic" if the homœopathist may class them by the effects they produce when given in one dose, while he employs them in another dose, of which the effect is totally different, and nearly always opposite.

Take the case of aconite. A moderately full dose of this drug will produce the local and general "symptoms" of fever and inflammation—if we may employ terms loosely. In a smaller dose its effects are such as to raise the tone of the vascular system, and, while acting on the skin, to reduce the local and general symptoms characteristic of the state called "feverish" and "inflammatory." What measure of *homœopathy*, then, can there be in selecting aconite for the "cure" of fever and inflammation because if given in large doses it will produce symptoms "like" those supposed to characterise these remedies, whereas it is given by the homœopath in a small dose, in which it produces totally different effects? It would be just as rational—and no more so—to assert that aconite produces the symptoms of fever and inflammation "allopathically" or "antipathically," because, being selected for its antiphlogistic effects when given in a small dose, it was followed by contradictory results when given in a large dose. Again, take the case of "nux vomica," another important drug claimed as "homœopathic." In large or full doses this medicine irritates the stomach and causes spasms. We are purposely using popular language in these definitions. If pushed far it will produce tetanic contraction of the muscles, and in toxic quantities the well-known phenomena of death by strychnia poisoning ensue. The homœopathist, recognising these effects of a large or accumulated dose, argues that the remedy will cure diseases exhibiting symptoms *like* those it produces. He therefore gives it for gastric disturbances; for dyspepsia, especially with spasm; and probably he would give it for the graver affections resembling those it is supposed to produce; and while he claims it as a "homœopathic remedy," he seeks to convict the ordinary practitioner of medicine because he, too, recommends it. Now, how do nux vomica and its preparations act in small doses? Why, as tonics to the muscular system. In short, the natural effect of a drug which is a powerful excitant when given in large doses is that of a gentle and restorative or strength-giving stimulant in small doses. The homœopathist affects to give the drug because it will produce the symptoms he desires to cure, but, we repeat, he avoids the dose in which it might produce these effects, and gives it in a smaller dose, in which its effects are directly contradictory. We might follow out the list of the Materia Medica in the same way. A small quantity of alcohol will stimulate the cerebral functions and quicken the intellectual and nervous functions, while a larger dose will depress and stupefy. A large dose of ipecacuanha will produce vomiting, while a small dose will act gently and restore the tone of the organ, thus allaying vomiting. A small dose of opium will excite, a large one acts as a sedative. In the same way large doses of "cathartic medicines" act as aperients, while small—or relatively small—doses produce constipation; or conversely, drugs which may be cathartic in small and moderate doses—as calomel—are distinctly sedative or constipative when given in large quantities. Scientific explanations of the way in which these apparently contradictory effects are produced by the same drug in different doses are ready to hand, but they have no place in this argument. Our immediate purpose is to demonstrate that the homœopath does *not* give his drug on homœopathic principles, and cannot claim it as homœopathic, because he employs it in doses which do not produce effects like, but widely *unlike*, the symptoms of the disease he seeks to cure. It follows that, so far as the *action* of remedies is concerned, homœopathy is a misnomer, and involves a fallacy.

We shall be curious to see how the homœopathists attempt to answer this objection. If they are honest men, they must confess that we are right, and that the *homœopathy* of their system concerns only the mode of selecting drugs, not their action. Should they take this ground, we shall then have to show that it, too, is untenable, because the selection of a drug by an inverse process of induction from its supposed effects can never be a sure or safe guide to its use. Moreover, it is unscientific to speak of a drug as producing "effects" or "symptoms" in the organism. In studying the properties of a medicine, it is always tried in the healthy, and the student of therapy knows well that there is nothing mysterious in the seemingly contradictory effects of different doses of the same substance, seeing that the so-called "effects" of a drug are the changes of state or modifications of function which take place in the organism under its influence or with its aid. The effects are not located in the drug! Before we can predicate any "property" of a drug, we must take into the account the properties of the organic state and functions with which it is to be brought into relation. For example, if a muscle fibre is inactive, a stimulant will either elicit healthy action, or excite it to morbid spasm, or paralyse it by exhaustion, in proportion to the organic state of the fibre, the integrity of its nerve-supply, and the amount of energy available for its use. It follows that the only *rational* way to try a drug is first in health and then in disease. In short, it is not possible to predict the "effect" which will follow its use until we have actually tested it first on a healthy and then on a morbid organism. The pretence of selecting remedies on any principle or theory of their mode of action in health alone is manifestly an affectation of the impracticable. The homœopathist does not choose his drugs on the principle *similia similibus curantur*, even making allowance for the fallacy we have already demonstrated. He falls back on his *experience*, and he knows perfectly well that he would not on any account give a drug in a dose in which it might be supposed to act *homœopathically*, because that would be to aggravate the symptoms he desires to relieve. And he would not give a drug, even in a small dose, simply because it produces "like" symptoms in a large dose, since it might so happen that a still larger dose would be required to produce the effects he desires to secure. In truth, so far as the homœopathist is a *practitioner* of medicine at all, he must and does employ drugs on rational and common-sense principles, and his parade of a special theory as to the action or selection of his drugs is schismatic as regards his profession, and an absurdly fallacious procedure as regards the public. We venture to suggest for the consideration of honest and intelligent thinkers now connected with "the homœopathic school," whether a recognition of the truth of our reasoning, and a consequent repudiation of the errors exposed, would not offer a timely occasion for reconcilement with the medical profession, on grounds welcome to both parties in this regrettable alienation and controversy.

PROBABLY the appointment of judiciously selected committees to investigate and report upon the whole or some particular question connected with the treatment of diseases is one of the highest functions of the Clinical Society. It certainly was one in which the late President took particular interest, and during his term of office several such committees were appointed and duly presented reports. But it will perhaps be generally admitted that the subjects of their investigation were in no case so generally important as that of the nature and operative treatment of Hip-joint Disease, which has been specially studied by a very influential committee for several months. Their report has just been presented, and while we print elsewhere an abstract of it, we would wish to notice here some few points suggested by it.

The first fact by which we are arrested is that the whole ground is by no means cleared, and some of the questions taken up are left pretty much where they were: e.g., the true nature of the change in morbus coxæ—whether it is strumous, tubercular, or "simple." Nor do we find in the main general principles insisted on, in any particular, a marked departure from the usual teachings of the schools on this subject. The one point in regard to the nature of the disease which is laid stress upon is the frequent occurrence of necrosis of the bones and the formation of larger or smaller sequestra, the percentage of such occurrences being placed at 59. Unfortunately we are not clearly told the data from which this conclusion is drawn—whether the specimens examined were only the parts removed in excisions and amputations, or whether they included other preparations in our museums; indeed we must express our conviction that in assigning any special percentage-frequency to the occurrence of necrosis the Committee have rendered their report liable to misunderstanding. Such a fact could only be ascertained by an examination of a series of specimens representing all grades and forms of the disease, the milder of which are but very rarely met with in our post-mortem rooms, and still more rarely preserved in our museums. Again, the treatment to which the unhappy subjects of this disease are submitted plays a very important part in its course. Too often the children are neglected in the early stages of the disease, when alone treatment can be thoroughly successful; or they receive such intermittent care that the resulting failure dissuades the parents from other and more patient efforts for recovery. We must not look upon any results which may be thus occasioned or modified as sequents of the disease alone, or as showing its inherent nature and course. We do not question the accuracy of the Commitee's result so far as it goes, but we desire to point out that it must not be deduced therefrom that necrosis to a greater or less extent does or must recur, from the nature of the affection, in 59 per cent. of cases of hip-joint disease. Necrosis, in fact, is but an accident in bone disease.

The doubtful points which it was hoped the Committee would clear up were—1st, the real benefits conferred by excision of the joint, especially as to its protecting the body from fatal tuberculosis, and the ultimate value of the limb for progression; and, 2ndly, whether there was any special form of the disease that could be clearly recognised, which was a reliable indication for excision. The answer made to the first inquiry is that in a number of cases which run their course without suppuration, tubercle in some one of its forms leads to the death of 7 per cent.; in cases with suppuration, and where excision is not practised, this disease is fatal in 9¼ per cent.; while in a series of cases that have been submitted to excision of the diseased structures, the mortality from tubercle in all its forms amounts to 13½ per cent. But excision appears to lessen the liability to tubercular meningitis, for in cases operated upon this form of tubercle occurred in 4½ per cent., in cases of suppuration not operated upon 6 per cent., and in cases without suppuration 5½ per cent. Until there is a clearer definition of tubercle than can be given now, and a more general agreement as to the changes to which the term should be applied, all inferences from such statements as the above must be drawn with diffidence. Are we to say that the tubercular diathesis caused the suppuration and led to such extensive disease that excision became necessary, or are we to view the facts in the other light, and maintain that the production of tubercle increased in proportion with the greater severity of the disease? Indeed, both views may be right. But, further, if phthisis plays, as no doubt it does, an important *rôle* in the causes of death, we must not ignore the fact that the treatment to which the severer forms of morbus coxæ are subjected is in many cases just that which predisposes to the outbreak of pulmonary diseases: the prolonged rest in bed, interfering both with the digestion, general nutrition, and particularly with proper performance of the respiratory function, must not be left out of sight; and if to this we add the greater pain and anxiety, we see at once that there lie outside the primary disease explanations for this varying tubercular mortality. The facts would seem not to warrant the view that the severer forms of the disease are dependent upon the tubercular diathesis; the difference in the tubercular mortality in the mild and most severe cases is too small to support such a great deduction. The statistics in reference to tubercular meningitis are, however, of special interest, as there is not the same difference of opinion as to the proper use of this term, as exists in other diseases, and the peculiar pathological changes have received a pretty uniform interpretation. It is also characterised by the presence of that particular form of tubercle—if, indeed, there be other forms—which has been shown to be produced artificially by inoculation experiments. We find that its frequency is but little different in cases that suppurate and those that do not; while it is distinctly less in the cases that have been subjected to excision, as if removal of the diseased part had an important bearing on the issue. We should be inclined therefore to correct the statistics as to tuberculosis in general by those relating to tubercular meningitis in particular, and to hold that inoculation may take place both from suppurative and non-suppurative arthritis, and that removal of the part lessens this danger.

This leads us to observe that the facts in this report do not lend support to the view that early suppuration, or suppuration at any period, is an indication of the tubercular nature of the primary disease. On the other hand, general pathological facts teach us that we may regard such a termination of the disease as an indication of either intensity of local action or diminished power of resistance—which may be a purely local or a general phenomenon,—or of both of these conditions combined. Constitutional deficient power of resistance may be fairly held to explain the cases of so-called tubercular disease in which the pathological change is not the development of grey granulations. We arrive at the same conclusion if we view the same facts in another light. If the cases of suppuration were examples of tubercular ostitis, and those of non-suppuration of simple ostitis, over and above those instances in which from either form of disease inoculation of tubercle in the cerebral membranes might be supposed to occur, there would be a certain number—and the history of general tuberculosis shows it to be a large number—of cases in which those membranes would be affected contemporaneously with the primary tubercular affection of the bones; while such is shown not to be the case. The value of excision from this point of view, then, is that it removes a distinct source of "tubercular inoculation." Before leaving this part of the subject we must express our fear lest this report should give any sanction to the opinion that the disease, as it affects the hip-joint, is different from that met with in the knee and other articulations. The pathological processes are inherently the same, modified only by certain local peculiarities, the most important of which is that the necessary mechanical treatment only too often entails confinement to the house if not to bed, while the same disease attacking the elbow or the shoulder does not prevent the patient having due exercise and fresh air. The conditions are simpler therefore in disease of the joints of the upper extremity, and pathologists would do well to bring their particular views to the test of these affections, rather than study exclusively the disease as it affects the knee or hip.

We can only further note that the report of the Committee bears out Mr. HOLMES'S view, which he expressed at Cambridge, that the limb left after excision is more often an imperfect one than that after recovery without operation, even where suppuration has occurred. When it is remembered that it is the humbler classes that afford the very large majority of cases of morbus coxæ, the great, almost paramount, importance of this consideration becomes apparent. Rigidity is the great requisite in the lower limb, and to some it may well seem that even the saving of life itself hardly compensates for the life-long burden of a useless limb.

THE great problem of medical reform is to reduce the number of mere licensing bodies, and to improve the conditions of obtaining a licence to practise medicine. We showed last week that centuries ago the notion of licensing to practise medicine was very like the notion of licensing to sell spirits or beer—a local affair, and an affair of money-making. It has ceased now to be a local or parochial matter merely, but it still continues to be an affair of money-making. The licensing bodies still depend on the money they make by licensing. At east it is undeniable that the love of money has led them into lax uses of their licensing function, which have been detrimental to the profession and the public. Of course, the abolition of the mere local character of the licence to practise has added greatly to its money value. A licence that includes the empire is more valuable than one that covers only four Scottish counties, and still more so than one that applied only to as much of Edinburgh as was included within the walls of the ancient city. The corporation whose powers were before 1858 so limited, and by the Act of 1858 were so enlarged, has naturally displayed the greatest tendency to excess in the money-making use of its diplomas. The late Professor SYME estimated that in one year after the passing of the Act this corporation made £10,000 by the easy gift of its lowest diploma. It is clear the abolition of the local jurisdiction of diplomas ought to have been accompanied with a reduction in the number of diploma-granting bodies, with securities for those that were left being conducted with equal severity, and under no temptation to make money by the exercise of this most responsible function. The Act of 1858 took no such securities. It left nineteen bodies to confer licences at their "own sweet will," and it is now well known that if one body has a strait gate, others have very elastic portals, that admit the entrant with what may seem a little pleasant pressure, but without friction or contusion. We are speaking now only of the lowest diplomas—not of higher qualifications—such as degrees, fellowships, &c., which will have to be considered by-and-by; but of the nineteen portals which it has been found simply impossible to control under the Act of 1858, simply because they were nineteen, and because the supervising Council of Education was practically a Council made up of the nineteen bodies to be supervised.

The terms of the Commission include a full inquiry into the nature and action of the Medical Council, its constitution, functions, powers, and procedure, its relation to the various bodies and to the medical profession. A Medical Council could not well be composed of members of more obvious influence and respectability than the present Council. It is composed chiefly of men in the consulting ranks of practice, and holding high places in the various nineteen bodies represented in the Council. But the representation is most peculiar. The Irish Apothecary Society, which is essentially a trading company, and the Faculty of Physicians and Surgeons of Glasgow, which before 1858 used to give licences to practise in four counties only, have each a representative, whereas the Edinburgh University, with over 3000 students, of whom 1600 are medical students, has only half a representative—that is to say, the University of Aberdeen and that of Edinburgh have one representative between them. Even if the representation of bodies were more proportionate to their professional value and importance, it is a grievous fault of the Medical Council that it consists so predominantly of bodies pecuniarily interested in the retention of half diplomas and of their own traditional individuality. The consequence of this feature in the constitution of the Council is that all changes and improvements suggested in medical education or in examinations for diplomas are viewed from nineteen points of view, and generally frustrated by the conflicting opinions and interests of the different bodies with which ultimately the decision rests. This brings us to another fatal defect in the Council. It has no authority. Its conclusions take the form only of Recommendations, and are not binding on the bodies. The Commissioners may easily satisfy themselves that many of the most momentous Recommendations of the Council remain unfulfilled and inoperative for want of this element of authority in it. What is worse, because more significant of the faulty constitution, is the fact that the Council has always shown an unwillingness to be made a responsible body. It meets at a great cost. It numbers twenty-three or twenty-four members of the highest personal and professional position. Yet it is always reviewing and repeating its debates and its conclusions, and always being reminded that they are not operative. It is afraid of the bodies it represents, or acts as if it were so. It has, further, ever been regarded as a grave defect of the Council that it contains no direct representatives of the profession. Considering that it exists to regulate the education and the examination of general practitioners, considering that the Council is maintained by what is to all intents and purposes a tax on general practitioners, that one of its great functions is to keep a correct Register of the profession, and, finally, that it has the judicial power of removing practitioners from the Medical Register for "infamous conduct in a professional respect," it seems most unreasonable that the profession, apart from its mere corporations, should be unrepresented. There was an understanding at the time of the passing of the Medical Act that the Crown representatives would be chosen from the ranks of the profession; but as a rule they have been prominent members of the Corporations already over-represented. It is not necessary to deny that the Council is composed of most respectable members of the profession, nor even that it has done a certain amount of good. What we are concerned to show is, that considering the personal character of its members, it should have done much more good than it has done. It has added enormously to the severity of examinations without having added correspondingly to the simplicity of the examining system or the efficiency of the medical schools.

Annotations.

"Ne quid nimis."

EARL DERBY ON HOSPITALS AND PROVIDENT DISPENSARIES.

In his speech at the festival dinner in aid of the Middlesex Hospital on the 13th inst., the Earl of Derby made some very judicious remarks. He pointed out that large hospitals were absolutely necessary for the treatment of the many sick whose homes were incompatible with proper care of the sick; whilst strongly expressing the hope that the country would in time be covered with provident dispensaries, so that people may contribute to their own support and recovery when they are ill, he justly remarked that no dispensary system, however perfect, would meet the requirements of those grave and dangerous cases which can only be dealt with in institutions where skill and attention were ever at hand. Provident dispensaries would relieve the over-burdened out-patient departments of our hospitals, and that would be a great gain; but they could never replace the advantages derived from hospital wards. Besides, hospitals are "schools of medicine, by which the wealthy profit quite as much as the poor and working classes. A rich man can always command the best medical skill, but the physician or surgeon who attends him would be greatly wanting in skill and efficiency if he had not acquired experience in the great hospitals. Again, in rural districts you have, happily, frequent and kindly intercourse between the rich and the poor. If the labourer is ill, the squire, his neighbour, does what he can for him. Here there is a different state of things. No one knows who his neighbour is in a vast city like London. But if you are to have no intercommunion between the rich and the poor, you will have the one class selfish and morally low, the other hostile and revolutionary. How are they to be brought together? Of all kinds of help that can be given to the poor in a place like London there is none so free from dangerous abuse as that offered by hospitals. However undeserving a man may be, you do not want him to die of disease; and, as regards imposture, a man may for money simulate disease, but unless he is half a maniac he will not do so to get into a hospital. Therefore a man who gives his money to one of these great London hospitals may fairly be described as not only benevolent but beneficent." These words of appreciation for the good work done by hospitals, coming from one who is not prone to form hasty judgments, must be full of encouragement to those who devote much of their time and energy to the development of these institutions, the maintenance of which, in a proper state of efficiency, is becoming every year a matter of increasing difficulty.

THE ANATOMY OF GHOSTS.

The hypothesis offered by Mr. Francis Galton in explanation of the phenomenon of "mental images"—namely, that the mind builds up the mental picture on the foundation and with the materials furnished by external objects, as "children and sick people get faces and forms from paper-hangings and curtains"; the eye seeing little, and the mind supplying the rest of the idea, is not new, though it may be true. Leonardo da Vinci, the great painter, showed his appreciation of this method in his direction "To compose a Battle Piece"—namely, to stare at a smoked and daubed wall until the confusion suggests the desired conception. And the same explanation has been submitted by all writers before and since the time and speculations of the author of "Demonology and Witchcraft." The chief merit of Mr. Galton's contribution to the literature of this subject is the admirable summary he has given of the known facts with regard to the association of sound and colour with form. The manner of this association is unimportant. It is the result with which we have to deal. Meanwhile, none of the theories or hypotheses raised by the expounders of hallucinations are entirely satisfactory, because they either do not recognise, or they practically disregard, some of the most potent factors in a class of experiences which has long constituted the opprobrium of introspective science. A man sees a ghost; to him it is as *real* as anything else he sees, and it is not to be explained away or accounted for by any reasonable process of argument. A reference to the power of the imagination will not satisfy the subject or victim of hallucinations. If he be weak-minded he will insensibly come to believe in their reality; and, even if he be strong-minded, they will worry and annoy, perhaps mislead, him. It is, therefore, a matter of moment that what we may designate the anatomy of ghosts should be scientifically investigated. By way of suggestion, we venture to throw out the following hints. Every personality or consciousness has surrounding it an atmosphere of its own, with clouds of hazy impressions and nebulous thoughts and all the apparatus necessary for mental spectres, from which the mind receives back more or less accurate, or distorted, reflections of its own ideas. In addition to this proximate source of "mental images"—which are external to the observer, and yet the mere reflection of his own mind—there is the remote, or true external, which is seen *through* the atmosphere, the surroundings or environment, of the mind itself. Such external objects as have a life and individuality of their own, have also *their* environments and systems of reflexes. So that what we see with the "mind's eye," when thinking of another person, is the aggregate or mean—or resultant—of our previous images of him. These images are made up of what we have in past times seen through our environment, and had reflected back from it, together with whatever impressions may now reach us through the environment of the person modified by his reflexes, and through our environment modified by the disturbing influences which it also must exercise on the impression we seem to receive. In short, every living object which is external is seen through two environments, and the image we form in our mind is modified by two sets of reflections. There is no such possibility as seeing things as they *are*. We see things as they are presented by the external, and as we think of them. It is at once obvious how many sources of fallacy there are, and how many possible ways of introducing new images, or of changing those which are transmitted, actually exist. A ghost may therefore be formed of materials cast up in either, or all, of four processes in the seemingly single and instantaneous mental act of observation. 1. We perceive an external object which suggests a thought of some person. 2. We seem to see the object in the form in which it has been presented to us on previous occasions and associated with remembered characteristics of colour and sound. Form, colour, sound, and even odour, or touch, stand on precisely the same footing as regards their mental associations, and either may play the part of a first agent or keynote in producing the impression. 3. When we see a form or colour, hear a sound, smell an odour, feel a touch which has been associated in our minds with the form of an absent friend we may be, as it were, visited by his ghost, or, in other words, the fragment of real external will call up, seemingly around it, but actually in our minds, the complementary properties of the object. 4. Receiving the picture projected from without, adorned by the memory of previous impressions of its subject, we still further develop it, adding the impression of our own present reflections, and probably finishing the picture according to the mood of the moment, making the "mental image" grave or gay, and adapting it to the supposed associations of the individual as we think of him under the influence of any fear or fancy our minds may cherish with regard to his condition or circumstances. The whole of this building up or fashioning of ghosts may be comprehended within Mr. Galton's hypothesis, or it may not. We do not quite gather the fact from his lecture. It is easy to say that "the eye sees little and the mind supplies the rest of the idea"; but this would not be the whole truth, because the mind takes the material for its construction of the ghost organism, not wholly or even in great part from its own inner chambers of imagery, but from the physical record of impressions which, if, at the moment, past, were originally received and not conceived. We should be glad if the view actually entertained by Mr. Francis Galton could be more definitively communicated. The subject is one of great practical interest to the sick, and to many who seem, and believe themselves to be, sound of mind and body, to wit, the whole class of "spiritualists" or believers in spiritism.

MEDICAL REFORM AT BRADFORD.

THE enemies of medical reform take pleasure in misrepresenting the aims of its friends. They say that the medical profession has no higher wishes than to get larger fees and more exclusive privileges. The great memorial of the profession in 1869, signed by nearly 10,000 practitioners, refuted this calumny. The following recommendations, arrived at at a meeting of the profession of Bradford and neighbourhood, will serve as another proof that, however medical men may be bent on maintaining the interests and dignity of the profession, it is their conviction that these are to be maintained chiefly by thoroughgoing measures for upholding and testing education, medical and general. The following are the recommendations agreed to by the meeting.

1st Recommendation: "That this meeting recommends a one-portal system of examination and admission to the medical profession for the whole kingdom, with various examining stations. The examiners should be appointed by the State; say nineteen from the present examining bodies, six by the State, and six by the general body of the profession. That the qualification given shall be an all-round one. Corporations still to give degrees when called upon." 2nd Recommendation: "That Preliminary Examination be high, embracing as essentials, Latin (so as to read easy authors), Greek (so as to read the alphabet and look out roots in the dictionary). One foreign modern language also to be necessary. The above to be passed before the commencement of any medical studies whatever." 3rd Recommendation: "Before commencing his more exclusively medical studies, the student should pass a second examination in physics, botany, natural history, and chemistry. A pupilage of at least twelve months with a qualified medical practitioner should also be required before obtaining his diploma or qualification to practise." 4th Recommendation: "Medical curriculum to extend over three years after the above examinations have been passed." 5th Recommendation: "Only duly qualified persons to practise as assistants."

EUCALYPTUS GLOBULUS AS AN ANTISEPTIC.

THE last meeting of the Clinical Society was of considerable interest to surgeons, and especially to those who practise antiseptic surgery as taught by Professor Lister. The subject of carbolic intoxication was raised by Mr. Pearce Gould, who asserted that he had had a fatal result from it, and Mr. Lister assented to his views, so that we may speak with confidence of their substantial truth. For the first time exact minute pathological changes were identified with the toxic effects of the acid in man, and although the observation needs corroboration, it yet throws light upon much that has been hitherto obscure. We are glad to observe that there was no attempt made to make this case a text for an attack upon any "system," or even upon carbolic acid itself. And we are particularly glad of this because Professor Lister was better able to make an important statement, which was a most welcome sequel to such a case. He frankly recognised the fact that there are some persons injuriously affected by carbolic acid, and that while many substitutes for it—thymol, salicylic acid, sulphurous acid, and so forth,—have been tried at various times, they have all been abandoned on account of drawbacks, even more serious than that attaching to phenol. His trials, however, of the oil of Eucalyptus globulus have shown him that while entirely free from toxic or locally irritant effects, it is a perfectly trustworthy antiseptic. Where, therefore, we have reason to fear carbolic absorption or where the carbolised gauze causes toxic effects, the oil of eucalyptus may be used without in any way imperilling the results of so-called asepticism. But the oil has its own drawbacks: one is its insolubility in water, and another the rapidity with which it evaporates from most of its solutions. An oily solution would very quickly become quite inert as an antiseptic for this reason; resin holds it in combination more firmly, but dammar gum, such as is used in mounting microscopical preparations, is better still, and has been chosen by Professor Lister as the medium for its employment. Gauze impregnated with this mixture and paraffin has been prepared, and is in appearance and feel exactly like carbolised gauze, but unlike it in having an agreeable aromatic odour. Obviously there are other details yet to be worked out, and experience warrants the hope that Professor Lister may soon be able to announce that he has overcome the difficulties they present, and that this new and safe antiseptic can be used as generally and as easily as carbolic acid. In its cost it probably will never rival the acid, nor is it certain that it will supersede it entirely; indeed, Mr. Lister did not for a moment hold out any such idea. Carbolic acid has been well tried as an antiseptic agent, and what we are really in need of is some guidance as to the circumstances in which it is liable to act injuriously. However hopeful we may be at the discovery of an antiseptic agent which is safer than those we now possess, we should yet gladly welcome any additions to our knowledge as to the true meaning or cause of these so-called "special susceptibilities," "idiosyncrasies," and the like, which make the means of life to one man the very cause of illness or death in another. Perhaps it is hardly to be hoped that a perfect antiseptic agent devoid of toxic properties for the human body will ever be found; for there are some, if not many, fundamental conditions alike required for the highest and the lowest forms of life. The laws governing the development of the bacteria and similar minute organisms, which are roughly classed together as germs, are probably the same, or at least closely allied to those ruling the growth of the cellular constituents of our own frames. And surprise ought not to be so much excited by the occasional occurrence of toxic symptoms when antiseptic surgery is practised, as by the more striking fact, constantly observed, that these agents can be used with entire success to destroy and prevent the development of these "germs" without destroying or even affecting injuriously the vital processes so akin to them. It would be an easy matter to speak with enthusiasm of this statement of Mr. Lister, and to prophesy the attainment of perfection in the antiseptic treatment of wounds, now that he has provided us with an agent that may be called safe and certain. All such enthusiasm would be out of place, however; the new preparation must be patiently tried; and although it is only right to entertain the hope that it will be found of extreme value, it is demanded in the interest of science that any expression of opinion as to its merits should be suspended until the facts are fully before us. It is not, however, too early to draw attention to the fact that Mr. Lister has afforded us another example of his devotion to science. His name has for years been associated with the use of carbolic acid in the treatment of wounds, and with it he has accomplished remarkable results; but he has kept his mind so open to its defects, that, being the most earnest in the search, he is the first to herald the discovery of a substitute for it. Would that all of us who have some pet theory or practice could learn this lesson!

BRIGADE SURGEON E. L. LUNDY, A.M.D.

THE Indian papers report the death of Brigade Surgeon Lundy, at Allahabad, on the 19th of April, under very painful circumstances. It appears that a few days previously he returned from Deolali to settle some matters which had occasioned him a good deal of trouble. On the morning of the 21st he went to the hospital and obtained three or four drachms of poison, the nature of which is not specified in the account which has reached us. He then returned to his hotel, where he was shortly afterwards found in his room breathing heavily, and quite insensible. Medical assistance was at once obtained, but he died in a few minutes afterwards. The verdict of the coroner's inquest was that he died by poison taken when in an unsound state of mind. Mr. Lundy was an officer of long and distinguished service. He served throughout the Crimean War, and was present at the battles of the Alma and Balaklava, and at the capture of Sebastopol. He went through the Persian Campaign of 1857 with the 64th Regiment, and was in the Indian Mutiny with Havelock's column as well as at the defence of the Alum Bagh, the defeat of the Gwalior Mutineers at Cawnpore, and several other minor engagements. Brigade Surgeon Lundy was much esteemed as an able, efficient, and zealous officer. We regret to add that he has left a wife and family.

THE NEW MEDICAL CORONERSHIP.

THE triumphant assertion once more of the preference in the metropolis for a medical coroner is a subject for great congratulation. The triumph indeed was so complete that the only danger before Dr. Thomas is that of thinking too lightly of an office which has come to him so easily. We do not think that Dr. Thomas is likely to make such a mistake, or to undertake the duties devolving upon him with an inadequate sense of their responsibility; but there can be no harm, when the desired result has been so successfully achieved, in stating what we expect from the election of a medical coroner. We expect, above all things, that the work he has to do will be so done as to bear the criticism of the medical profession. Every week brings us reports and complaints of the perfectly useless and formal way in which inquests are conducted without eliciting any data for an intelligent opinion as to the cause of death. We have a right to expect from a coroner of Dr. Thomas's character, and elected as he has been, that inquests shall be so conducted as to carry the respect of those best able to judge. Where an inquest can be dispensed with, for the sake of friends and human feelings, by all means let it be dispensed with; but when it cannot, let the evidence taken be of the best. It often lies entirely in the discretion of a coroner to select persons to make post-mortem examinations, on the revelations of which the accuracy of the conclusions of the jury entirely depends. He may leave this selection to a subordinate, whose choice may turn upon very irrelevant considerations. This is a duty which should be discharged not by the officer of the coroner, but by himself. On other occasions, too, even medical coroners, for the sake of a little passing popularity, have dispensed with medical evidence altogether, when without it an inquest was an unmeaning farce. We trust Dr. Thomas to avoid such errors. He owes his election to the intelligent preference of the public, guided by the profession, for a medical coroner, and we look to him to hold high the reputation of a medical coronership for dignity and usefulness.

ALLEGED INHUMANITY AT HAWARDEN.

WE have read with great pain the newspaper report of the Government inquiry into the death of the children of William Francis, of Stryt Issa. It is much to be regretted that Dr. Moffatt did not see the cases sooner, but it seems to us that of all the officials concerned he was perhaps the least to be blamed. It is a strange illustration—to which under less "urgent" circumstances we should have called the attention of the Premier himself—of the fact that in this highly Christian country sanitary law is in such a state that months after a most unsatisfactory report on the state of a house a child may die in it unattended by any medical man, be found dead in bed with another living child, two others ill crouching at the fire, all affected with scarlet fever, and the three be removed to the workhouse by a relieving officer in an open butcher's cart with twenty-three degrees of frost in the air. He would be further interested to learn that they were then received into a reception ward in which the tea and the barley-water both froze in the morning, and that they were allowed to remain unseen by the medical man for three days for want of a special message from the master. The whole story is most distressing. Although we cannot acquit the medical man of responsibility, we think it is very much qualified by his intimation to the master that unless there was some urgent necessity he would be unable to pay his usual visit on the Monday. The Local Government Board, in their distribution of censure, have properly not omitted to censure the Board of Guardians for allowing Francis's cottage to be inhabited after the bad reports made to them by their officer, and they should have added a special censure for having no better means of conveying scarlet fever cases than a butcher's open cart.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE extent of the forthcoming Exhibition shows a tendency to grow steadily, and the proportions which it bids fair to assume will not be far short of those minor International Exhibitions which followed the great show of 1862. The Horticultural Society have placed the whole of the arcades of their garden, which will accommodate a continuous line of exhibits over 2000 feet in extent, at the disposal of the Executive Committee. The Science and Art Department have given up about 200 feet of the Western Picture Gallery, which will serve as an excellent place for the exhibition of microscopes, surgical instruments, and other kinds of delicate apparatus. In addition there are four rooms under the Albert Hall which will be devoted to exhibition purposes, and one of which it is proposed to fit up as a hospital ward, to contain every variety of bed and ward appliance. Besides the space already mentioned there are the glazed quadrant arcades, so that the total space at the disposal of the Exhibition Committee will be not far short of 3000 feet of frontage. This ample amount of space will ensure to every exhibitor a good place for the display of articles, and there is no fear that any will be at serious disadvantage in this respect. The Committee have received over 400 applications for space, but they are still, we believe, ready to receive further applications. The galleries of the Western Picture Gallery will afford a great amount of additional wall space, and it is hoped that the authorities in the various watering-places and health resorts will take advantage of this for displaying pictures, &c., illustrative of the localities in which they are interested.

CADAVERIC ALKALOIDS.

MM. BROUARDEL and BOUTMY have communicated to the Académie des Sciences some further observations on the alkaloids developed in the animal body during decomposition —alkaloids which M. Selmi has termed *ptomaines*. According to Bouley and Lussana these substances may be developed not only after death but during life. It is still uncertain whether they are formed by simple chemical action or by the influence of minute organisms. The latter appear concurrently, but they may possibly be merely an indication that these alkaloids furnish a favourable soil for the development of this or that organism. The special object of M. Brouardel's researches was the discovery of means by which these substances may be distinguished from vegetable alkaloids. It is probable that the two have been sometimes confounded, and that this confusion has led to grave errors in medico-legal investigations. It was so in a recent case in Italy, where an expert believed that he had discovered, in the body of a deceased General, evidence of delphinine; the reactions supposed to be proof of it were, however, certainly due to one of these cadaveric alkaloids. The most effective method of distinguishing between the vegetable and the animal alkaloids is by making a complete examination of the chemical and physiological properties of the suspected substance; and if any one of these proper to a vegetable alkaloid is absent, it is probable that the substance is not this alkaloid, but a ptomaine which resembles it. This method is, however, tedious and difficult, and is only practicable when a considerable quantity of the suspected material is available. A more convenient method of distinguishing them is by the employment of ferricyanide of potassium. This substance is unaffected by the pure organic bases of the laboratory, or those extracted from the body of a person who is known to have been poisoned. The cadaveric alkaloids, however, instantly transform it into ferricyanide, and it becomes capable of forming prussian blue with salts of iron. The iodomercurate of potash gives similar reactions with both classes of substances, but the ferricyanide enables them to be distinguished. A few drops of a solution of the sulphate of the alkaloid are added to a solution of some of this salt in a watch-glass, and then a drop of a neutral solution of iron determines the formation of prussian blue if the base is a ptomaine, and not if it is a vegetable alkaloid. Unfortunately there are two important exceptions to this test: morphia produces a similar effect; and so also does veratrine, but in a much less degree.

RESULTS OF THE RECENT CENSUS.

IT is difficult to restrain a feeling of impatience for the issue of an official instalment of some of the results of the recent census. For weeks past the papers have teemed with paragraphs containing census figures of local origin, a large proportion of which is probably trustworthy within certain limits, while so many have been obviously misleading, as regards towns, on account of the numerous and conflicting boundaries used for municipal, parliamentary, or other purposes, that it is dangerous to formulate any conclusions on such information. Following previous precedent we may expect a preliminary census report, giving the unrevised figures for the whole of England and Wales, before the end of June. There will be no reasonable ground for complaint at this delay in the preparation of a return relating to a population little short of 26,000,000 of persons. In the meantime, however, there is a manifest inconvenience in having to wait so long for even the unrevised populations of the twenty large English towns dealt with in the Registrar-General's Weekly Return. It is noted in the last of these returns that new estimates of population, based upon the recently enumerated numbers, will shortly be substituted for the estimates still in use, which are mainly calculated upon the rate of increase that prevailed in the several towns during the decade 1861–70. It is at least undesirable that the Registrar-General should any longer continue to publish in his Weekly Return population estimates which have been proved erroneous, and rates of mortality based upon those estimates which differ widely from those supplied by local medical officers of health, who have now substituted the enumerated numbers for the incorrect estimates. Assuming the approximate accuracy of many of the population numbers locally issued, it appears certain that the population of most of our large towns was considerably over-estimated by the Registrar-General's method; in other words, the rate of increase of population in the last decade has been generally smaller than in the preceding decade. Especially were the populations of Leicester, Manchester, Salford, Bradford, and Sheffield over-estimated. These over-estimates are still used in the Registrar-General's Weekly Return, and the rates of mortality in several of the towns are thus understated to the extent of more than 2 per 1000. It may be hoped that this anomaly will soon disappear. If the locally published figures are to be trusted, the population of the city of Manchester actually declined to the extent of nearly 10,000, or about 3 per cent., during the last decade; this decrease, however, was to a great extent balanced by an increase of more than 50,000, or 41 per cent., in Salford, and by a still larger increase in other directions outside the municipal boundaries of the city.

AN INTELLIGENT JURY.

A case which lately came before Mr. H. C. Yates, the coroner for Sandbach, is rightly stigmatised by the local journals as "extraordinary," albeit that the facts are of a very ordinary kind. On the night of April 9th a Mrs. Froggatt, aged eighty-two, having been undressed by her servant in the presence of the servant's little daughter, bolted her bedroom door on the inside and retired to bed. The next morning she did not ring as usual, and when called failed to answer. The servant, in the presence of her daughter and another woman, then broke in a panel of the door, drew back the bolt, entered the room, and found Mrs. Froggatt dead. The medical man who was called in testified, in effect, that deceased had probably been convulsed at the moment of death, and searching for the cause he had found a set of twelve false teeth, which she had forgotten to remove when she went to bed, jammed into the lower part of the pharynx, and obstructing the larynx. The medical opinion was that death had resulted from suffocation due to the impaction of the false teeth. Notwithstanding this a post-mortem examination was ordered, and a medical gentleman other than the one who was called to the deceased was requested to make it. The post-mortem afforded evidence of death from suffocation, and an analysis of the contents of the stomach showed that it did not contain any poison. Not a particle of the evidence given at the inquest was contradicted, and to all ordinary minds the cause of death must have seemed certain. The coroner's jury, however, "drest in a little brief authority," thought fit to return the following verdict after a deliberation of half an hour's duration:—"That the deceased died from suffocation, but that there has not been sufficient evidence brought before them to show how such suffocation was caused. The jury wish to add that they consider Dr. Davies was guilty of an error in judgment in having taken the teeth from the deceased's throat without proper authority"! A coroner's jury seldom returns such a fantastic verdict as that arrived at by the twelve good men and true of Sandbach. We would point out, however, that the only logical sequence of such a verdict in the face of such apparently conclusive evidence would be a prosecution of all the witnesses for perjury.

AN AUTOMATIC THERMOMETER.

According to an announcement of the *Scientific American*, clinical thermometry is to be very much simplified. Automatic registration has been long employed with success in many meteorological investigations, and also in the physiological laboratory, but scarcely at all in clinical work. Dr. Adams of Colorado Springs has, however, invented a "thermograph," which is said to be capable of registering the variations of the temperature of the human body. The apparatus appears from the description to be not a little complex both in principle and in construction. First the heat is transformed into motion, the motion into electrical resistance, and the electricity is transformed, *viâ* magnetism, into registrable motion, the variations in which are thus indications of the variations in the electrical resistance, and therefore of the initial heat. The essential principle is that of using the variations in electrical resistance as the indications of a variation in another form of force—a further application of the pregnant discoveries of which the microphone was the first-fruits. Dr. Adams's instrument is said to consist first of a metallic thermometer—a spiral spring made of two springs of brass and steel, on the principle of the compensatory balance-wheel of a watch. The effect of a slight elevation of temperature is to cause the spring to twist, and a knob at its extremity to compress a powder made of plumbago, gas-carbon, and silver, which is contained within a vulcanite tube. Through this powder the electrical current is passed, and the variations in its force, which depend upon the varying compression of the powder, affect an ingenious electro-magnetic mechanism which traces a line on a moving surface, and the curves thus traced indicate the variations in the temperature of the body.

THE CRÉCHE.

Every now and again we hear of a paucity of useful work for women. It is essentially woman's work to nurse babies, and those who are not *above* such feminine service may do incalculable good by establishing créches for the safe and kindly custody of the children of the labouring poor while their mothers are engaged in their daily duties as bread-winners. We note with satisfaction that this laudable enterprise is extending, and that it is beginning to receive the support it deserves, alike from women of the wealthier classes and those for whose aid and convenience it has been inaugurated. The sufferings of infants which are either dragged or tossed about by their mothers during a hard day's toil, or left in the charge of children too young, and physically unable, to take proper care of them, are terrible and needless. Many are crippled for life, or contract incurable diseases, under this neglect or mismanagement. The créche is a home where mothers of the working classes can leave their babies on their way to work, and fetch them at night. The benevolent persons maintaining establishments of this description provide proper nurses and appliances for the care of the infants so deposited during the day. A small fee is charged, and this deprives the institution of a charitable character, which would prove ruinous to the prospect of success. We feel, and urge, the duty of supporting these créches by every means in our power.

DR. BORLAND OF KILMARNOCK.

Fifty years of medical work in and about Kilmarnock were crowned and celebrated on the 29th of April most worthily. The inhabitants assembled at a good old-fashioned Scotch supper, and made sure of the presence of Dr. Borland, the hero of the occasion. The chair was most ably and gracefully filled by Provost Sturrock, and, after supper, began such a flow of good feeling and good speech as has not often been exceeded. We do not use the words of form when we express our regret that we cannot find room for the eloquent speeches, especially those of the Provost and of Dr. Borland. The remarks of the former were backed by the presentation to Dr. Borland of £500, and a silver salver, with the following inscription: "Presented to John Borland, M.D., with a cheque for £500, and a gold brooch for Mrs. Borland, on the occasion of his jubilee, as a medical practitioner in Kilmarnock, in recognition of the invaluable services rendered to his native town during the past half century.—Kilmarnock, April 29th, 1881."

BRIGHT'S DISEASE AT BERBICE.

Dr. Grieve, the medical superintendent of the Berbice lunatic asylum, publishes a journal composed and printed at the asylum, which among other matters contains an article on the prevalence of Bright's disease in the colony as indicated by the asylum records. It would appear from the latest 100 cadaveric sections made in the asylum that advanced degeneration of the kidneys sufficient to account for death, or disease in a less advanced stage, but still distinct and unmistakable, was seen in 86 cases, whilst only in 14 bodies were the kidneys found to be free from this change, so that 80 per cent. of those who died and whose bodies were examined had been subject to Bright's disease. It is noted that this great extension of the malady is not confined to the asylum, because a few years ago Dr. Hackett undertook an examination of the urine of every patient under treatment at the time in the Berbice Colonial Hospital, and found albumen in the urine of nearly 90 per cent. of the cases. It is suggested that the anæmia so frequently seen in the colony and much of the chronic diarrhœa are concomitants of Bright's disease; and, further, to the prevalence of this disease the high rate of mortality which obtains in the colony is due.

IRISH UNION HOSPITALS FOR PURPOSES OF CLINICAL STUDY.

THE following memorial raises an important question, and directs attention to a great field of hospital study, which has not been sufficiently regarded either in Ireland or elsewhere. It is too readily concluded that the clinical study of disease is only to be carried on in hospitals formally attached to medical schools. We may revert shortly to this subject. Meantime we place the memorial on record as creditable to the physicians and surgeons of the union hospitals of Ireland.

"*Memorial of the undersigned Physicians and Surgeons to Union Hospitals to the Senate of the Royal University, respectfully sheweth,*—

"That clinical or bedside training is universally admitted to be of the first importance in the education of medical students. That a mere fraction of the resources available for such instruction is now at the disposal of such students. That during the year 1877, 111,134 patients labouring under all forms of sickness were treated in these various union hospitals, which are provided with every possible requisite for the treatment of disease, while during the same time not more than 16,000 patients were treated in those hospitals of Dublin, Belfast, Cork, and Galway, which have between them the monopoly of clinical instruction. That no system of concursus regulates the appointments to the medical staffs of those clinical hospitals in the four towns last referred to, and that no ground therefore exists for alleging such a difference in the attainments of the respective staffs as would furnish a plea for excluding provincial men from all share in clinical teaching. That the results of the present system of monopoly are such as might have been anticipated, and that the serious attention of the General Medical Council was long ago directed to those glaring defects in the practical training of medical students. That in the year 1877, chiefly at the instance of Sir James Paget, the Council resolved to recommend that one year of the medical curriculum should be spent by each student at a union or other provincial hospital. That local interests and the deficient powers of that Council have heretofore prevented this enlightened recommendation being given effect to. That having every confidence that your body will not allow such mere local interests to any longer oppose obstacles, and looking with every confidence to your University placing itself in the van of progress, the undersigned respectfully memorialise you to enforce this recommendation of the governing body of the medical profession."

VOLUNTEER SURGEONS.

WE observe with satisfaction that Mr. Childers has announced his intention of putting the Surgeons of Volunteer Corps on the same footing with regard to retirement as Militia Surgeons not on the departmental list. They will be entitled to retain their rank on retirement after fifteen years' service, and after twenty years' service will receive a step of honorary rank if duly recommended for it.

CHARLES MURCHISON MEMORIAL CLINICAL SCHOLARSHIP.

THE legal deed in connexion with this memorial is now being considered by the University of Edinburgh and the Royal College of Physicians of London, the two bodies with whom will rest, alternately, the award of this Scholarship. Another anonymous donation of £100 has been sent through Mr. T. H. Hills, and this, with some recent subscriptions, the balance of the St. Thomas's Hospital Fund (for the bust), and the interest on deposit account, brings up the total amount, after payment of expenses, to the sum of £1000. When the trust deed is completed this money will be handed over to the College of Physicians. It is hoped that the first award of the Scholarship may take place in London in April, 1882.

BOARDS OF GUARDIANS are, it is well known, not always just, and but seldom indeed generous, in their treatment of union medical officers. It is therefore with the more satisfaction that we note a graceful act on the part of the guardians of Holbeach—one the publication of which may, let us hope, quicken in other parochial authorities the sense of appreciation of the services of gentlemen whom they appoint to watch over the medical interests of the poor. Recently a young woman was received into the Holbeach workhouse infirmary suffering from an ovarian tumour. This was successfully removed by Mr. Harper, the medical officer; and the extra anxiety and attention necessarily entailed by the treatment of this case, as compared with those constituting the ordinary work of the infirmary, have been acknowledged by the guardians by the award to Mr. Harper of a fee of ten guineas.

THE BUILDER, in an article entitled "Traits of the Earl of Beaconsfield," recalls the fact that when Mr. Disraeli delivered his maiden speech in the House of Commons, "Thomas Wakley, the popular and eloquent member for Finsbury, of that time, remarked to me a day or two afterwards, in respect to it, 'That young man told us that we should listen to him some day—and I fully believe it—and that the country will do so also.'" This is strictly true. The same expression of opinion was made to Sir Robert Peel.

MR. A. B. JAY, the sculptor to whom was entrusted the modeling of the statue of Harvey, which is to be unveiled at Folkestone in August next, will be pleased to exhibit that statue, and one of Mr. Gladstone, which he has recently completed for the East-end of London, to members of the medical profession, upon presentation of their cards at the Studio, No. 8, the Avenue, 76, Fulham-road, South Kensington, on Tuesday or Wednesday next, the 24th and 25th instant.

MR. E. H. BENNETT, Professor of Surgery in the University of Dublin; Mr. Baker; and Mr. Meldon, Surgeon to Jervis-street Hospital, are candidates for a seat on the Council of the Royal College of Surgeons in Ireland.

AT the meeting of the Royal College of Physicians on the 16th inst., Dr. Burdon Sanderson was appointed Baly Medalist for 1881.

DR. ALLEN THOMSON has been elected one of the trustees of the Hunterian collection of the Royal College of Surgeons, in the place of the late Dr. Sharpey.

DR. BARCLAY will deliver the Harveian Oration at the Royal College of Physicians on Saturday, June 18th.

We gladly direct attention to the morning performance to be given at the Gaiety Theatre on Monday, the 30th inst., in aid of the funds of the Hospital for Hip Disease in Children, Queen-square and Bournemouth. The programme of the entertainment is of an attractive character, and the result, we trust, will be a large accession to the resources of an institution the value of which to the poor little sufferers from morbus coxæ is almost incalculable.

Drs. J. T. Banks, Peter Redfern, F. R. Cruise, W. A. M'Keown, and A. Macalister have been appointed to seats on the Senate of the Royal University of Ireland.

The Society of Medical Practitioners of St. Petersburg, at their meeting of May 2nd, decided to admit medical women to the membership of the Society.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Derby (*Urban*).—Mr. Iliffe reports for this borough during 1880, among an estimated population of 80,385, a birth-rate of 37·9 per 1000 inhabitants, and a death-rate of 20·0. But the sanitary condition of Derby does not appear to be so good as might have been anticipated in so important a town, as Mr. Iliffe finds it necessary to draw the attention of the Sanitary Authority *again* to the necessity of the removal of cesspools in crowded areas, and to the desirability of paving courts and alleys, which in many places, he says, are in a disgraceful state and positively injurious to health by allowing filth to accumulate on the surface of the ground without the means of being disposed of except by exhalation and soakage into the subsoil. The most interesting part of the report is the account given of a year's working of the Derby Improvement Act, 1879, which imposes a compulsory notification of infectious diseases to the Sanitary Authority upon the inhabitants of the borough. Mr. Iliffe believes that this provision, which on the whole appears to have been carried out without serious opposition, has materially contributed towards diminishing the number of illnesses, as well as the number of deaths from fever, &c. It has certainly been of practical value to him, he says, "in bringing to light many insanitary conditions existing in houses and areas, which otherwise might have been overlooked until further disease and death had taken place; and it has enabled him to prevent the spread of infection in many localities by adopting means of isolation, disinfection, &c., and also by keeping children likely to spread disease from attending school and other public resorts, a danger that was formerly only too common. It has been the cause of affording your medical officer the means of frequently tracing the cause of disease, and the origin of the various attacks, and it may be that in the future it may contribute materially towards saving the town from widespread epidemics." The action of the medical officer and his staff upon the information received from this compulsory notification appears to have been received by the people affected by it, as a rule, with "thankfulness and gratitude," and no opposition was experienced from the general public. The cases of infectious disease notified under the compulsory notification clauses of the Improvement Act were 1295, the greater number being measles. Derby is deficient in sanitary hospital accommodation; had it been otherwise, Mr. Iliffe would, doubtless, have been able to report still more favourably of the beneficial operation of the clauses.

Newbiggin-by-Sea, Urban (*Northumberland*).—Dr. J. C. Reid, assuming that the population has been virtually stationary since 1871, gives the death-rate of this urban district in 1880 as 18·96. He writes favourably of the health condition of the town during that year, and expresses a hope that the annual rate of mortality will be reduced to 15·0 per 1000 population, which, he holds, would be the normal mortality of the place.

Wareham and Isle of Purbeck, Urban (*Dorchester*).—Dr. W. W. Stainthorpe reports for this sanitary district, during 1880, a death-rate of 14·2 per 1000 population. He describes in detail his proceedings in the execution of his duties, and suggests, in view of the frequency with which the medical man is not called in in illnesss, the formation of medical clubs among the labouring classes after the manner of the Suffolk County Medical Club, by means of which a labouring man would be able to obtain the services of a doctor for himself, his wife, and family for a small annual sum. He would have it a rule of such clubs that notice should be given at once to the medical officer of health of the occurrence of a case of infectious disease.

Bingham, Rural (*Notts*).—Mr. T. Poyntz Wright reports for this sanitary district in 1880 a birth-rate of 30·54 per 1000 of the population, and a death-rate of 19·91. The water-supply of the district is not entirely satisfactory; the geological character of the locality being such as to render the water so hard and so loaded with mineral matter as to make it unfit for domestic consumption. Mr. Wright refers to several instances in which this difficulty has been successfully overcome by providing soft-water cisterns for houses. Alluding to the occurrence of typhoid fever in the district, Mr. Wright observes that in nearly every instance the disease has been produced by water which has become contaminated. The infant mortality of the district is in excess of what it should be, and Mr. Wright has some interesting remarks upon the relations of this mortality to the impoverished condition of the labouring classes during periods of agricultural depression, to bad and insufficient clothing and feeding of the children, and to general maternal neglect.

Stretford, Urban (*Lancashire*).—Mr. G. W. Pettinger reports for this district in 1880 a birth-rate of 27·25 per 1000 of the population (20,000), and a death-rate of 16·95. The prevalence of diarrhœa in August and September appears to have been the most noticeable fact of the health history of the year, and led to much limewashing and disinfection of privies. Mr. Pettinger thinks that "great heat and improper feeding, with a large number of delicate and atrophied children, are the chief causes of so great a mortality in that season of the year." The sanitary condition of the district is said to be much improved, and it would appear that old privies are being converted into new ones on better principles.

Greenock.—Dr. Wallace reports for the five weeks ending April 2nd a total mortality in that town at an annual rate of 18·4 per 1000 of the population. The most noticeable features in the disease history of the period were the diminution of cases of measles and the continuance of typhus. The cases of typhus embraced eleven distinct households, and had, in the majority of instances, a connexion with one another, or with cases formerly reported on.

Weston-super-Mare, Urban (*Somersetshire*).—Mr. C. Vernon Hitchins gives a very favourable report of this district for the past quarter. The total mortality was at the low annual rate of 12·7 per 1000 of the population, and no death was registered from any zymotic disease.

Huddersfield, Urban.—Dr. Cameron reports for this borough during the five weeks ending April 2nd, births equal to a yearly rate of 32·09 per 1000 inhabitants, and deaths equal to a yearly rate of 20·68. The sickness reported to the sanitary authority under the local Act in force in the borough is generally stated to have been "fever," and to have chiefly consisted of cases of scarlatina of a mild type. No return is given of cases treated in the sanitary hospital.

THE METROPOLITAN ASYLUMS BOARD AND THE LOCAL GOVERNMENT BOARD.

At a recent meeting of the Metropolitan Asylums Board the following resolution was adopted:—"That, in consideration of the alarming and continued increase of the epidemic of small-pox in the metropolis, and having regard to the recent decision of the House of Lords (in the case of 'Hill *v.* the Metropolitan Asylums Board'), a decision which has completely fettered the action of the managers, the Local Government Board be urged that immediate legislation is necessary, and that a Bill should at once be introduced into Parliament to define, and, if necessary, to enlarge, the powers of the Metropolitan Asylums Board and the several local authorities, to enable them to deal with epidemic disease in a successful and satisfactory manner, without molestation, and to discharge the duties which the Act of 1867 imposed upon them." That the Asylums Board should find itself compelled to take this course sufficiently indicates the anomalous nature of its relations with the Central Board. Hitherto it has been obviously a case of the blind leading the blind, and now it appears that the led are called upon to advise the leaders as to their leading. But it is not the law as to the metropolis which alone requires reconsideration as to the matters to which the resolution refers, but the general Public Health Law on the subject. The local authorities in the provinces are scarcely less subject to discomforts in respect to infectious disease hospital accommodation than the local authorities in the metropolis, and from similar defects in the Public Health Law. Until these discomforts and disabilities are swept away it is idle to expect that these special hospitals will be promoted to the extent that is desired in the interests of the kingdom.

Our readers will probably remember that the Lower Thames Joint Sewerage Board disputed an account of Dr. Collum, of Kingston, which amounted to £31 10*s.*, fees charged for services to the Board, and offered him £5 5*s.* in discharge of the claim. Dr. Collum refused to accept this, and proceeded against the Board in the County Court for the sum originally charged. The case was recently heard before the Judge of the Court, Vernon Lushington, Esq., Q.C. It appeared that meanwhile the joint Board had paid into the Court £15 15*s.* in satisfaction of the claim. The learned Judge, however, granted the original amount claimed by Dr. Collum, and commented somewhat strongly on the pettiness of the action taken by the joint Board.

Mr. Dodson, asked in the House of Commons by Mr. Hopwood, in reference to some proceedings of Dr. Stevens respecting the vaccination of infants in workhouses, had no hesitation in throwing over, after a fashion, his medical superintendent of vaccination arrangements, the circular of his own department respecting the importance of these workhouse vaccinations, and the law as it had been acted upon by his predecessors. Persons might have thought the question of vaccination a sufficiently difficult one in public administration at the present time, without its difficulties being augmented by the Minister who is responsible for the administration!

A curious case is reported from the Croydon Police Court. A woman was brought before the magistrate, charged with having absconded from the workhouse infirmary, Duppas-hill. She had been engaged in attending as a nurse upon cases of small-pox up to the day but one before, when she had first been sent into the general wards of the infirmary, and afterwards exposed among many persons in the police-station. The magistrate held that the exposure had been monstrous, directed the nurse to leave the Court, and the witnesses against her, and ordered inquiry to be made into the matter, but cautiously delegated the inquiry to other persons.

Mr. Wynter Blyth's number of his "Sanitary Chronicles for the Parish of St. Marylebone," containing his report for the quarter ending March 31st, commences with the peculiarity of limiting the account of the meteorology of the quarter to the month of March only. He introduces, moreover, certain "epidemic forecasts" relating to small-pox, for which he asks the same kindly consideration as has been given to weather forecasts. He discusses, also, "oleomargarine or butterine," and gives some directions (with illustrations) to enable the ordinary observer to ascertain whether he is dealing with butterine or butter.

Barking is considering the propriety of forming itself into a Local Board, but not before it is time, according to the statement of a speaker at the public meeting called to consider the question, and who said that there was no responsible authority in the town to look after the interests of the ratepayers, and to carry out the improvements which from time to time were necessary to prevent houses from being "tucked up" in back gardens without regard to decency and order, and from being infamously constructed, and without proper sanitary arrangements.

A curious vaccination scare was created in the neighbourhood of Dudley a few days ago, where a rumour was spread that the children in the Board Schools were going to be vaccinated by "three American black doctors." The mothers took the alarm and flocked to the schools armed with various ready missiles, and in a few instances windows were broken before the excited women could be convinced that they had been made the victims of a hoax.

Dr. Orme Dudfield's report on the health of Kensington for the four weeks ending April 23rd has interesting details of the occurrences of small-pox and other matters in the parish during the period, as well as of further proceedings relating to small-pox accommodation, which appear to have been substantially adopted by the Metropolitan Asylums Board; also a brief statement of the result of the late deputation from the metropolitan vestries and other bodies on the compulsory notification of infectious diseases &c. to the President of the Local Government Board.

The Thames River Bill (No. 2), brought into the House of Commons by Mr. Chamberlain and Mr. Ashby, although chiefly devoted to the abolition of compulsory pilotage and the free navigation of the river above Gravesend, and the better regulation of the traffic thereon (particularly with regard to the use of steam launches in the upper reaches), contains also provisions for successive owners and occupiers to be affected by notice as to flow of sewage, and for power to inspect lands &c. in relation to sewage &c.

A woman was committed for trial by the sitting magistrate at Hammersmith a few days ago for having given a false address on registering the birth of a child, the object being to conceal it from the vaccination officer. The death of the child, when the real place of residence was registered, led to the discovery of the fraud.

The relieving officer of Islington has proceeded in the Queen's Bench Division of the High Court of Justice against one of the district medical officers for libel in certain somewhat free comments which the medical officer had expressed upon his conduct in the pursuit of his duties. Judgment was given for the defendant, with costs.

Attempts on the part of the sanitary authorities of Fulham, Kensington, and Woolwich, to provide temporary hospital accommodation for cases of small-pox, have each been met with great local public opposition; and in the case of Fulham, the opposition has been carried into the courts of law.

The City of London has determined to use its port hospital ship *Rhin*, at Gravesend, for the isolation of convalescent cases of small-pox from the City, but it is not explained how exigencies on board ships entering the Thames during this use of the hospital ship are to be met.

Glasgow has received the contagion of small-pox from a body of emigrants who had passed by way of Leith through Edinburgh. Both cities are much perturbed by the untoward event.

Three members of the Aberdeen School Board were unable to attend a recent meeting from sickness caused by the so-called milk epidemic in the city.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality continues satisfactorily low. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 5330 births and 2944 deaths were registered last week. The births exceeded by 144, while the deaths were so many as 313 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had steadily declined in the four preceding weeks from 22·9 to 20·1, was equal to 20·2 last week. The lowest rates in the twenty towns last week were 14·5 in Plymouth, 15·6 in Bristol, 15·8 in Brighton, and 16·9 in Norwich. The rates in the other towns ranged upwards to 22·8 in Manchester, 23·7 in Newcastle-upon-Tyne, 24·0 in Oldham, and 26·5 in Wolverhampton. During the first six weeks of the current quarter the death-rate in the twenty towns averaged 21·5 per 1000, against 24·0, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 374 and 410 in the two previous weeks, were 396 last week; these included 114 from measles, 74 from whooping-cough, 70 from small-pox, 55 from scarlet fever, 32 from diarrhœa, 27 from fever (principally enteric), and 24 from diphtheria. The annual death-rate from these principal zymotic diseases averaged

2·7 per 1000 in the twenty towns, and ranged from 0·0 both in Brighton and Plymouth, to 3·2 in Sheffield, 3·4 in London, and 3·5 in Oldham. Measles showed the largest proportional fatality in Bristol and Sheffield, and scarlet fever in Salford. The highest death-rates from "fever" were recorded in Liverpool and Oldham. The 24 deaths referred to diphtheria in the twenty towns included 16 in London and 4 in Portsmouth. Small-pox caused 77 more deaths in London and its outer ring of suburban districts, and 1 in Liverpool, whereas no fatal case of this disease was recorded in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 942 and 1093 at the end of the two preceding weeks, further rose last week to 1225 on Saturday last, of whom 131 were convalescents temporarily accommodated in tents at Darenth. The new cases admitted to these hospitals further rose to 379 last week, from 178 and 363 in the two previous weeks. The Highgate Small-pox Hospital contained 86 patients on Saturday last, and 23 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had steadily declined from 395 to 297 in the four preceding weeks, further fell to 254 last week, and were 38 below the corrected average number in the corresponding week of the last ten years; they included 146 from bronchitis and 87 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 3·5 per 1000 in London last week; while the rate from the same diseases was equal to 5·7 in Liverpool.

The causes of 51, or 1·7 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·1 per cent. in London, whereas it averaged 2·3 in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Plymouth, Nottingham, Salford, Sunderland, or Newcastle-upon-Tyne; while the proportions of such deaths were largest in Sheffield and Wolverhampton.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 20·6 per 1000, against 21·2 and 21·4 in the two preceding weeks; this rate exceeded the average rate prevailing in the twenty English towns by but 0·4. The rates in the eight Scotch towns ranged from 13·3 and 16·6 in Greenock and Dundee, to 22·2 and 31·8 in Glasgow and Paisley. It is noted that the rate in Paisley is probably over-stated by an under-estimate of its present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 64 in each of the two preceding weeks, rose to 82 last week; they included 24 from whooping-cough, 20 from diarrhœa, 12 from "fever," 12 from scarlet fever, 7 from diphtheria, 7 from measles, and not 1 from small-pox. The annual death-rate from these zymotic diseases averaged 3·2 per 1000 in the eight towns, and exceeded the average rate from the same diseases in the twenty English towns by 0·5. This zymotic rate in the eight Scotch towns ranged from 0·0 and 1·5 in Perth and Aberdeen, to 3·8 and 5·2 in Edinburgh and Leith. The 24 fatal cases of whooping-cough showed an increase of 13 upon the number returned in the previous week; 13 occurred in Glasgow, 4 in Edinburgh, and 3 in Leith. The 20 deaths referred to diarrhœa showed a further increase upon recent weekly numbers, and were proportionally more numerous than those attributed to the same cause in the English towns. The 12 deaths from "fever" (including typhus, enteric, and simple continued) corresponded with the number in the previous week, and included 6 in Glasgow and 2 in Edinburgh; the annual death-rate from this cause was equal to 0·48 per 1000, and was nearly three times the average rate from fever in the twenty English towns. The 12 fatal cases of scarlet fever showed a further increase upon the numbers in recent weeks; no less than 8 were returned in Edinburgh and 4 in Glasgow. All the 7 deaths from measles were returned in Glasgow; and the 7 deaths from diphtheria included 4 in Glasgow, 2 in Edinburgh, and 1 in Paisley. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 116 and 140 in the two preceding weeks, declined to 111 last week, and were equal to an annual rate of 4·4 per 1000, while the rate from the same diseases in London did not exceed 3·4.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed an increase again last week. The annual death-rate in the city, which had been equal to 32·6, 30·7, and 27·5 per 1000 in the three preceding weeks, rose again to 29·9 last week. During the first six weeks of the current quarter the death-rate in the city averaged 30·1 per 1000, against 21·6 in London and 21·1 in Edinburgh. The 191 deaths in Dublin last week showed an increase of 15 upon the number in the previous week, and included 14, or rather more than 7 per cent., which were referred to the principal zymotic diseases, against 19 and 8 in the two previous weeks. These 14 deaths from zymotic diseases included 8 from fever (typhus, enteric, or simple), 3 from whooping-cough, one each from scarlet fever, diphtheria, and diarrhœa, and not one either from small-pox or measles. The annual death-rate from these zymotic diseases was equal to 2·2 per 1000, while the rate from the same causes was 3·4 in London and 3·8 in Edinburgh. The deaths referred to fever in Dublin, which had been 14 and 3 in the two preceding weeks, rose again to 8 last week, and were equal to an annual rate more than six times as high as the average rate from the same cause in the twenty large English towns. The 3 deaths from whooping-cough showed an increase upon recent weekly numbers; while the fatal cases of the other principal zymotic diseases were again satisfactorily few. The deaths both of infants and of elderly persons showed a further decline from the numbers returned in recent weeks; the increase of mortality in the city, therefore, must have occurred among children and adults aged between one and sixty years.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE PLAGUE.

The latest news received from Turkey in Asia as to plague appears to show that the disease has not extended beyond the area of the somewhat circumscribed district in which it first appeared, and that within this area it has ceased to prevail everywhere, except in the sacred city of Nedjef. The accounts of the progress of the disease to the present are still so incomplete that a connected history cannot well be written, but it would seem that at no time since the reappearance of the disease in this region in 1867 has the malady shown itself in a graver form. The destructive character of the scourge is stated to have been very great in the different villages and among the several nomadic tribes which have been affected by it. Nedjef particularly seems to have suffered much. This important place, although it has more than once been infected by plague in the outbreaks within the period 1872–1877, yet on each of the several times the disease appeared within its walls had but a small number of cases among its population, and but few lives were lost. But on the present occasion the loss of life appears to have been very great, and the infection is reported to be still continuing its ravages without any diminution of its virulence. As one of the two most important burial-places and centres of pilgrimage of the Shiite Mahommedans from Persia (the neighbouring city of Kerbela being the other city here referred to), the occurrence of serious plague in Nedjef is looked upon with the greatest uneasiness by the Ottoman sanitary authorities. To Nedjef and Kerbela are carried annually thousands of bodies from Persia in all stages of decomposition for burial in the sacred soil beneath and under the shelter of the two cities, and the old notion of the connexion of plague with a soil too much encumbered with the dead has again been broached with reference to the prevalences of the disease in this part of Mesopotamia—a notion which simply shows how carelessly the history of the recent prevalences of plague in Mesopotamia has been read by the responsible sanitary authorities. The infected localities have been surrounded by double and even triple sanitary cordons of troops, and the Ottoman sanitary authorities, aided by the nomadic Arab tribes, believe they have succeeded in shutting off the localities from the outer world. But in all the accounts which are given of these measures of quarantine, of which system the cordons form a part, not a word is said of any attempt to deal fundamentally with those local conditions of the marsh villages on the Euphrates, which Surgeon-Major Colvill and others showed were so closely connected with the appearance and development of plague. It does not seem even to be understood that the successive reappearances of plague in this part of Mesopotamia make this persistent recurrence to arbitrary measures of quarantine a wholly farcical proceeding, as unjustifiable as unreasoning—measures which even the persons instituting or claiming them recognise as not to be trusted in the least degree. Notwithstanding the extraordinary stringency of the quarantine measures said to be put in force by the Ottoman Government against the plague-infected districts in Mesopotamia, we cannot learn that a single quarantine power on the Mediterranean or Black Sea littoral has modified its own quarantine restrictions, but continues them as if the Ottoman restrictions did not exist.

FILTERING CAPACITY OF SOILS.

A supplement to No. 13 of the National Board of Health Bulletin, U.S., contains the first part of a report on a series of elaborate researches on the filtering capacity of soils, by Mr. Raphael Pumpelly, of great interest. This preliminary report is confined to the soils and some other substances, as filters, in eliminating living low vegetable organisms from air and fluids, but in this direction a beginning only is professed to have been made. Careful descriptions are given of the methods of research pursued, and already important indications of the value of the results to be obtained in determining the relation of soils to health are given. For example, in a section on filtering bacteria and their germs from liquids we have the following observations and conclusions: "From these results it appears very clearly that sand interposes absolutely no barrier between wells and the bacterial infection from cesspools, cemeteries, &c., lying, even at great distances, in the lower wet stratum of sand. And it appears probable that a dry gravel or possibly a dry very coarse sand interposes no barrier to the free entrance into houses built upon them of these organisms, which swarm in the ground-air around leaky cesspools, leaky drains, &c., or in the filthy made ground of cities;" and, further, it is concluded from the experiments, "That a house may be built on a thoroughly dry body of sand or gravel, and its cellar may be far above the level of the ground water at all times, and it may yet be in danger of having the air of its rooms contaminated by the germs from leaking cesspools and vaults; for if the drift of the leaking be towards the cellar, very wet seasons may extend the polluted moisture to the cellar walls, whence, after evaporation, the germs will pass into the atmospheric circulation of the house." The bulk of the report is chiefly occupied with the detailed results of air and liquid filtrations under different circumstances.

The Sanitary Assurance Association have published in a separate form the lecture recently delivered at the London Institution by Professor F. de Chaumont, F.R.S.; also the short addresses delivered after the conclusion of the lecture by Mr. Erichsen, F.R.S., President of the College of Surgeons, Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S., and Mr. R. Brudenell Carter, F.R.C.S.

Russian journals state that a notice has been affixed in the Students' Hall in the University, inviting volunteers from medical students in their fifth year of study to proceed to the district of Ovroutch, province of Volbynia, to give assistance in dealing with a serious epidemic of smallpox prevailing there.

THE SERVICES.

THE VICTORIA CROSS.

Amongst the recipients of this much-coveted reward is Provisional Lance-Corporal Joseph John Farmer, of the Army Hospital Corps, "for conspicuous bravery during the engagement with the Boers at the Majuba Mountain, on the 27th February, 1881, when he showed a spirit of self-abnegation and an example of cool courage which cannot be too highly commended. While the Boers closed with the British troops near the wells, Corporal Farmer held a white flag over the wounded, and when the arm holding the flag was shot through, he called out that he had 'another.' He then raised the flag with the other arm, and continued to do so until that also was pierced with a bullet."

WAR OFFICE.—The Secretary of State for War has appointed William Walter Weld, Esq., Surgeon-Major, to be Visiting Surgeon at Colchester, under the Contagious Diseases Acts, 1866 to 1869, vice E. Waylen, Esq., deceased, from May 10th inclusively; and James Bell Jardine, Esq., M.D. Edin., L R.C.S. Eng., to be Visiting Surgeon at Chatham, under the Contagious Diseases Acts, 1866 to 1869, vice W. W. Weld, Esq., appointed Visiting Surgeon at Colchester, from May 10th inclusively.

ARMY MEDICAL DEPARTMENT. — Brigade - Surgeon Wallace Haward has been granted retired pay, with the honorary rank of Deputy Surgeon-General; dated April 25th, 1881. Surgeon-Major John Harrison Robotham to be Brigade-Surgeon, vice E. L. Hiffernan, deceased; dated April 25th, 1881. Surgeon-Major Frederick Robert Wilson, M.B., has been granted retired pay, with the honorary rank of Brigade-Surgeon; dated April 17th, 1881. Surgeon-Major Henry Lamb is granted retired pay, with the honorary rank of Brigade-Surgeon; dated May 18th, 1881. Surgeon-Major Edward Nicholson has retired on temporary half-pay. Dated May 8th, 1881. Surgeon John Joseph Crean to be Surgeon-Major; dated May 1st, 1881.

MILITIA MEDICAL DEPARTMENT. — Surgeon Rowland Hill Coombs, Bedford Militia, to be Surgeon-Major.

ADMIRALTY. — The following appointments have been made: Staff-Surgeon Robert J. McMorris, to the *Malabar*, vice MacClinton; Staff-Surgeon John Buckley, to the *Téméraire*, vice Fennell; Staff-Surgeon John Mockridge, to the *Warrior*, vice Buckley; and George W. F. Armstrong, M.D., to the *Ruby*, vice Brunt.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

ON Tuesday afternoon a deputation from this Association had an interview with Mr. Dodson and Mr. Hibbert, at the office of the Local Government Board, for the purpose of urging the desirableness of making the superannuation of Poor-law medical officers compulsory, instead of permissive. The deputation was introduced by Sir Trevor Lawrence, M.P., president of the Association, and included Mr. Thorold Rogers, M.P.; Dr. Lyons, M.P.; Sir W. Palliser, M.P.; Dr. Rogers, chairman of the Council; Mr. Wickham Barnes, hon. secretary; Dr. Norman Kerr; Dr. Burchell; Dr. Elliott Porter, Lindfield, East Sussex; Mr. D. B. Balding, Royston; Dr. Whitwell, Shrewsbury; Dr. Fegan, Woolwich; E. Marshall, Esq., Mitcham; T. Walford, Esq., Reading; O. Lousley, Esq.; Dr. Walter Smith, London; — Bland, Esq., Isle of Sheppey; — Pardoe, Esq., London; Dr. Bain, London; Dr. Young, Aldershot; E. Child, Esq., New Malden; Dr. Smythe, London, &c. Sir T. Lawrence, in opening the subject, remarked that at present the Local Government Board could only recommend that a superannuation should be granted, and said the treatment of medical men after long public service should be such as would tempt men of high qualifications to become poor-law officers.—Dr. Rogers referred to a return showing that of 122 suitable applications to boards of guardians for superannuation fifty were refused, and mentioned instances of refusal after from forty to fifty years' service. He maintained that superannuation should in all fitting cases be compulsory, and that in the event of public opinion proving to be not sufficiently advanced for that the Local Government Board should, after due inquiry, have power to order superannuation.—Mr. Wickham Barnes, after thanking Mr. Dodson on behalf of the Poor-law Medical Officers' Association, and Poor-law Medical officers generally, for granting them this interview, stated that there were one or two points he wished to touch upon—namely, in reference to the returns asked for by Professor Thorold Rogers relating to the applicants for superannuation. Mr. Barnes stated that this return, however valuable, did not give any idea of the demand for superannuation, because before superannuation could be asked for the Poor-law medical officer must resign, which in the great majority of cases he was afraid to do. Referring to the promise of Mr. Sclater-Booth that any deserving case of long continuous service should receive his special attention towards urging on the claim for liberal superannuation, Mr. Barnes mentioned that the cases of Mr. Terry and Dr. Downes (both of whom had served forty years in their respective unions) were brought under the notice of the central authority, and though in one case a

Government inspector was sent down to press upon the guardians the necessity of superannuation, yet no good result followed. Mr. Sclater-Booth laid great stress upon continuous service, but Mr. Barnes thought it often acted prejudicially to the medical officer, who frequently outlived his friends at the Board, the new members having no sympathy with him. Referring to the argument that the Poor-law medical officer did not give his whole time to the service, Mr. Barnes stated that practically he did so, as he never could be absent from his post day or night without leaving a deputy in charge. —Mr. Hibbert asked what the deputation proposed to have done in cases where the service was not continuous in one district.—Dr. Rogers said that in his opinion each district should contribute.—Mr. Dodson, replying, said there were many difficulties connected with superannuation. One was that just referred to by Mr. Hibbert—namely, that in many cases the entire service was not continuous in one union. Another was that where officers did not devote their whole time to the work, it would not be easy to measure or apportion superannuation, and another that Poor-law authorities were the only local authorities that had the power of granting any superannuations. As regarded the suggestion that the Board should have power to arbitrate in the matter, he thought that a centralising measure of that kind would be viewed with considerable jealousy by local authorities. He wished to know whether it was proposed that the power of the Board should apply to existing medical officers, or only to such as might hereafter be appointed.—Dr. Rogers and Sir Trevor Lawrence expressed a desire that the power should be retrospective as well as prospective.—Mr. Dodson added that that would of course alter the conditions of service. The right hon. gentleman proceeded to say that he admitted that there was strength in the arguments which had been advanced, and promised that the matter should be carefully considered by the Board.—Mr. Thorold Rogers, M.P., afterwards pointed out that the guardians who paid medical officers the least were generally those who were most persistent in refusing superannuations.—The interview then terminated.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following is the proposed scheme of education and examination as prepared by the Education Committee and as amended by the Council of the College in committee. It has been adopted by the Council, but has been sent back to the committee for the filling up of certain details, and will then come before the Council previous to its final adoption: Each student shall be required to pass a Preliminary Examination and four Professional Examinations. The Preliminary Examination will include the English language (including grammar and composition), arithmetic (including vulgar and decimal fractions), algebra (including simple equations), geometry (first two books of Euclid), Latin, while the alternative subjects are Greek, French, and German. The First Professional Examination will include physics, the elements of chemistry, botany (descriptive and physiological), anatomy (human osteology), and practical pharmacy. Before admission to the Second Professional Examination candidates must produce evidence of having passed the First Professional Examination, and shall be examined in anatomy, bones, joints, muscles, and topographical anatomy of the viscera of the chest, abdomen and pelvis, histology, and the physiology of the circulatory, respiratory, and digestive systems; surgery —the signs, terminations, and treatment of inflammation, wounds, hæmorrhage, burns and scalds, ulcers, bandaging, chemistry, and materia medica. Before admisssion to the Third Professional Examination candidates must produce evidence of having passed the Second Examination, and will be examined in anatomy, physiology, and surgery. In like manner before being admitted to the Fourth or Final Professional Examination the candidate must prove that he has passed the Third Professional Examination, and shall then be examined in surgery—clinical surgery (including ophthalmic surgery, operative surgery, with surgical anatomy), medicine, midwifery and diseases of women, and medical jurisprudence. The examination in physics may be passed either at the Preliminary or the First Professional Examination, and the anatomical examinations of the second and subsequent years shall include dissection by the candidate of the parts indicated for his examination and demonstration by him of dissected parts.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday, the Marquis of Huntly, in reply to a question by Lord Stanley of Alderley as to whether the Government would prohibit the importation of American hams and oleomargarine, said it was very doubtful if the Government had the power of prohibiting the articles named, but the matter had received careful attention.

Metropolitan Food Supply.

In the House of Commons on Friday, May 13th, Mr. Warton called attention to the injurious effect of the London market system in raising the price of food to the consumer, and showed that owing to combinations amongst salesmen and wholesale dealers the producer was often mulcted of his fair profit. The hon. member referred in particular to the unsatisfactory and wasteful arrangements for the sale and distribution of fish at Billingsgate. He had a motion on the subject, put down in the form of an amendment to Supply, but was unable to bring it forward, and at the close of the hon. member's speech the subject dropped. A Government resolution, authorising licences for supplying refreshments on Pullman railway cars, was agreed to.

Limerick Lunatic Asylum.

On Monday, in reply to Mr. O'Shaughnessy, Mr. Forster stated that two insane soldiers were sent from Limerick district prison to the county asylum, where they now remained. Only one was sent from Netley, and he was a native of the county. It would be difficult always to send military lunatics to the asylums to which they were naturally chargeable, but in individual cases the matter might be arranged by the Inspector of Asylums, as was done in this case.

The Basuto Wounded.

Mr. Grant-Duff stated to Mr. Summers that the Government knew nothing of the refusal by the Cape authorities to allow a French missionary to pass through the lines of the colonial forces with medicines and ambulance materials for the use of the Basuto wounded; but there was some correspondence some time ago with the French Missionary secretary, which would be found in the South African papers.

Volunteer Surgeons.

Mr. Donaldson-Hudson asked the Secretary of State for War whether Her Majesty's Government will accord to Volunteer battalion surgeons, after twelve years' service, the rank and title of surgeon-major, as in the case of Militia battalion surgeons; and whether they will give to them, under the Memorandum showing the principal changes in army organisation, &c., intended to take effect from 1st July, 1881, the same privileges upon retirement, after fifteen years' service, as to other officers of the Auxiliary Forces. Mr. Childers said Volunteer surgeons would be put on the same footing as Militia surgeons—viz., after twenty years' service they would receive a step of promotion, or in case of retirement after that period a step of honorary rank, and they would also be entitled to retain their rank on retirement.

The Alkali Bill.

Mr. Dodson, in answer to Mr. Warton, said complaints were made before the Royal Commissioners of the noxious gases emanating from cement works, but no sanitary authorities had made any representation to the Government on the subject.

The Vaccination Act.

On Tuesday, Mr. P. A. Taylor asked the Secretary of State for the Home Department whether it was the fact that the Warrington magistrates recently fined six persons £1 16*s.* 6*d.* each (including costs) under section 29 of the Vaccination Act, which section applies only to children under twelve months old, whereas the children in question were from three to six years old; whether this was not illegal; and whether he would direct that the fines be remitted.—Sir W. Harcourt replied that he only received the facts of this case this morning. It appeared that the conviction did take place under the 29th section of the Vaccination Act, and such a conviction, as suggested in the question, would be irregular and improper. The proceedings should have been under the 31st section. He would inquire into the matter and see what was to be done.

The Contagious Diseases Acts.

MR. Hopwood gave notice that on Friday he will ask the Secretary of State for the Home Department, whether it is the fact that one or more surgeons employed in the compulsory examination of prostitutes under the Contagious Diseases Acts have been made justices of the peace, in order that they may carry out the Acts in a twofold capacity, administering and executing the law; whether he will state by what Minister such gentlemen were recommended to Her Majesty for appointment; whether he approves of such a confusion of duties; and whether the individuals in question should not be called upon to make their choice once for all to act either as magistrates or as surgeons.

The Case of Captain Chatterton.

On Thursday, Mr. Grantham asked the Secretary of State for India, as he has now received the promised reports from India on the case of Captain Chatterton, if he can tell the House whether by the report of the Medical Board, dated Sept 5th, 1868, signed by Surgeon-Major Peskett, Surgeons Lowdell and Condon, and Assistant-Surgeon Walsh, at Myne Tal, Captain Chatterton was not recommended to take twelve months leave of absence, for the purpose of returning to England to undergo an operation—viz., the division of the left tendo Achillis, on the ground that it was not safe to perform the operation in India; whether Surgeon-Major Powell, acting as garrison surgeon in Fort William, Calcutta, did not afterwards in April, 1869, confirm the above recommendation on the same ground; and whether the only report on which the despatch of June 5th, 1869, ordering the compulsory retirement of Captain Chatterton, was founded, and which practically alleged that he was shamming, was not that made in November or December, 1868, by Assistant-Surgeon Macdermott, who was shortly afterwards removed from the medical charge of that and other cases previously under his care; and how it was that Captain Chatterton was dismissed the army in 1869, on the report of an assistant-surgeon, when Captain Chatterton was acting on the reports of very eminent surgeons, made both before and after the report of the assistant-surgeon.—The Marquis of Hartington said it was true that the Medical Board recommended that Captain Chatterton should be sent to England to undergo an operation. It was afterwards found there was no occasion to send him home, as the operation was a very simple one and could be performed in India. The decision was overruled by a higher authority. The action taken with respect to Captain Chatterton was not only founded upon the report of Assistant-Surgeon Macdermott, but on the report of the Court of Inquiry. This Court took the evidence of several military officers of experience, and the report was considered by the Commander-in-chief in India, and on the report and after communication with the Field-Marshal Commanding-in-Chief, the Secretary of State placed Captain Chatterton on half-pay. He had not been dismissed; but out of fifteen years and a half, he had been six and a half on medical leave, and claimed another year. On these grounds the Government were entitled to place him on half-pay.

Animal Vaccine.

Dr. Cameron asked the President of the Local Government Board what has been done since Dr. Cory's appointment to provide for the public supply of vaccine lymph direct from the calf; whether the Vaccination Department has been, or will be, instructed to issue lymph free for purposes of revaccination to all medical men who may ask for it; and what steps have been taken to supply adequate hospital accommodation for small-pox cases, and so put an end to the public danger which arises from the treatment of so many cases of that disease in their own homes, and the consequent maintenance of so many separate foci of disease.—Mr. Dodson said great and unexpected difficulty had been found in obtaining the necessary premises for the new vaccine establishment, but premises had now been secured and the necessary alterations were being made without delay. Preliminary arrangements had been made, under which, as soon as the buildings were ready, a succession of calves would be provided. He feared it was not practicable for the department to undertake to supply lymph for revaccination to any medical man who might apply. Accommodation had been provided for a considerable number of convalescent patients on the property of the Metropolitan Asylums managers at Darenth, and owing to the unremitting and praiseworthy efforts of the managers 251 convalescent patients had been removed there in one week. Negotiations were going on with a view of obtaining additional accommodation, but the matter was one of great difficulty owing to the proceedings taken in some cases, and threatened in others, of closing existing hospitals or preventing them being opened.—Mr. Sclater-Booth asked whether the Government did not intend to propose legislation with a view to give the Asylums Board the power which they ought to have in order to carry out the objects of the Act of 1876?—Mr. Dodson said he would be glad to confer with any one who would advise him as to what were the requisite powers.—Dr. Cameron gave notice that he should take the first opportunity of drawing the attention of the House to the subject.

THE FARR TESTIMONIAL FUND.

A MEETING of the Executive Committee, charged with the promotion of the testimonial to Dr. William Farr, C.B., M.D., F.R.S., was held at Somerset House on Thursday afternoon last. It was announced that the net proceeds of the subscription amounted to £940. It was decided that this sum should be at once invested, and that every effort should be made to obtain the remaining £60 required to raise the Testimonial Fund to £1000, which it is proposed, at the request of Dr. Farr, to invest in the names of trustees for the benefit of his family. Any contributions towards meeting this deficiency will be thankfully acknowledged by the Honorary Secretary, Mr. Noel A. Humphreys, General Registrar Office, Somerset House.

DR. KIDD ON THE CASE OF THE EARL OF BEACONSFIELD.

To the Editor of THE LANCET.

SIR,—A few weeks' absence from England prevented my replying to the remarks in THE LANCET of April 16th.

The following information as to the case of the late Lord Beaconsfield may interest your readers. For some months before I had the honour of originally attending Lord Beaconsfield he had been attended by Sir William Jenner, but in vain, as his treatment failed to relieve. Sir William Gull also was called in, but his treatment again failed to relieve the patient. By the vigorous application of "one set of convictions" I was enabled to afford prompt and perfect relief for three years and a half.

Self-respect and regard for the honour of the medical profession prevented my noticing Sir William Gull's letter to the *Standard*, but I desire now in the proper place to protest against his accusation. I never advised "compromise;" my worst enemy never accused me of it. The aim and object of my little volume, "The Laws of Therapeutics," is to destroy compromise, to protest against eclecticism and schism, to bring the "catholic spirit" into medicine, gathering "all knowledge" to the aid of suffering humanity, and thus to help the introduction of scientific precision into therapeutics. I remain, yours faithfully,

May 17th, 1881. J. KIDD, M.D.

P.S.—A week before THE LANCET drew my attention to the fact that my name still appeared in "The British Homœopathic Directory" and "The Homœopathic Medical Directory" for 1881, and on the list of the Medical Council of the Homœopathic Hospital, I wrote requesting that it might be withdrawn from all.

MEDICAL VOLUNTEERS.—The committee of the National Rifle Association have acceded to the request of the United Hospitals' Rifle Association, that their challenge cup should be shot for at Wimbledon, and have named July 18th for the competition. This cup is of the value of fifty guineas, and is offered for annual competition by members of the metropolitan hospitals, being efficient volunteers. Any further information will be readily given by the hon. secretary, Mr. G. S. Pollard, Guy's Hospital, S.E.

SKETCHES OF CONTINENTAL HOSPITALS.

(*By our Special Correspondent.*)

BOLOGNA.

The rich city of Bologna, with its magnificent churches and ancient university, is well deserving of a lengthened description. It holds pre-eminence among the medical schools of Italy, not merely on account of its past scientific traditions, but because it boasts at the present day professors of the highest ability, and a clinical hospital which is on a par with the most recent and well-managed institutions of a similar character either in England, France, or Germany.

The old university in the Archiginnasio Antico is memorable as containing the anatomical theatre in which Morgagni and Galvani lectured. It is a room of noble proportions, lined with cedar, and capable of containing 150 people. The rostrum, or pulpit, in which the professor stood, is surmounted by a baldachino, the supports of which are two life-sized anatomical figures, the one showing the muscles and the other the vessels. Around the room are marble busts of the great masters in medicine and anatomy. At one end are ranged Hippocrates, Galen, and Malpighi, while opposite to them are Varolius and Arantius. The busts at one side of the theatre represent Mondinas, Argiolata, and Varignano, while those on the other recall the frames, if not the features, of Fracosatus, Bartolettus, and Taliacotius.

Galvani, who was Professor of Obstetrics in this University, made his celebrated experiments on the frog in this theatre in 1786. Here also lectured Malpighi, Valsalva, and Mariani, of all of whom handsome marble statues have been erected in the adjoining loggia. Near to them, also, is a monument of great curiosity. It is dedicated to Anna Maria Mansolini, a lady who once held the Chair of Anatomy in this University. Adjoining the anatomy theatre, which, by the way, is now no longer used, is the magnificent library in which the great linguist Mezzofanti laboured. The series of rooms in which the books are admirably arranged is upwards of 600 ft. in length, and is rich in the possession of the noblest works of all the languages of the world. The acquisition of forty-two languages and seventy dialects by the marvellous librarian may, thus, in some small degree, be accounted for.

The Archiginnasio Antico is now no longer used as a medical school; that has been removed with the other departments of literature and science to a handsome and extensive new range of buildings. At the present time there are between 400 and 500 medical students, about 250 of whom are following the systematic courses of the university, while the remainder are pursuing their clinical studies at the hospitals. The academical course is much more extended than in the British isles; of the six years required to be spent in the acquisition of professional knowledge three are occupied with systematic lectures in the university, and three in the various hospital cliniques. The latter part of the time is not necessarily spent at Bologna, but may be passed at Florence or Milan, where there are also large clinical hospitals, to which I shall call attention in a future article.

The museums of the university are of great value, and embrace an enormous number of dissections and admirably executed wax preparations. There are separate rooms for: 1. Osteology. 2. The muscular system. 3. The organs of circulation. 4. The nervous system. 5. Embryology. 6. Zoology. In addition, there is a pathological museum containing many valuable specimens of the various branches of external and internal pathology, which is especially rich in illustrations of the deformities produced by rachitis and osteo-malachia. The dissecting-room is small considering the number of students, and is provided with only twelve tables.

The Clinical Hospital of St. Ursula is just outside the walls of Bologna, and close to the Porta St. Vitale. It occupies a large extent of ground and has gardens around it, in which a large quantity of vegetables for the use of the patients is grown. The front of the hospital is plain and unimposing; the wards in that part are low, and such as might be expected in an old convent, but at the back of them a handsome new building was erected in 1870, capable of holding 220 beds, and this part is used for clinical instruction. The new wings are well arranged, and fitted with every convenience: the floors are of stone and kept remarkably clean; the windows in the wards are large, they are placed opposite to each other, and reach up to the ceiling. Over the head of each bed is an electric bell, so that a patient can without difficulty summon one of the nurses; the bedsteads are of iron, and each has a movable wooden footboard. The mattresses are of horsehair, and beneath them is an iron spring netting, so that the beds are thus made very comfortable. The waterclosets are clean and sweet, the seats being of white marble, and the supply of water ample. In each corridor is a bath-room, with a large metal bath. The larger wards have thirty-two beds, the smaller from six to eight. The nursing is done by paid nurses in ordinary dress, there being three to each of the larger wards and one to the smaller. Sisters of Charity are conspicuous by their absence; and, *mirabile dictu*, there are for the spiritual needs of this large hospital only two priests among the list of officers! It is evident that the hand of reform has thus been at work in this once priest-ridden place, which formerly was, next to Rome, the most important city of the Papal States, and which literally swarmed with monks of every order in Christendom. There are special wards for syphilis, with twenty-five beds for men and an equal number for women; the latter patients are kept under lock and key, and are very closely looked after. It is the practice to submit all prostitutes to periodical examination, but in spite of this, syphilitic diseases are of great frequency. The treatment adopted in such cases is much the same as that employed in England: mercury being used in the primary and iodide of potassium in the secondary forms. For leprosy and psoriasis an ointment of chrysophanic acid is in great repute; for eczema, unguentum picis is much in vogue.

There are no special wards for children. Simple fractures are mostly treated by immobilisation with plaster-of-Paris or silicate of potass bandages, and compound fractures by the apparatus of Scultetus with a many-tailed bandage, the limb being kept *in situ* by means of bran pads.

Resections of joints are said to be frequent, but I did not see any at the time of my visit. Lister's treatment is in general use, and I may mention two cases in which its good effects were manifest. One was the case of a man with an extensive lacerated wound of the axilla, in which rapid union by the first intention had taken place, and the other was a man with a crushed foot, for whom a Chopart's amputation had been performed three weeks previously, and in whom the stump was all but healed. In one case of compound fracture of the leg, where three fragments of the tibia had been extracted, the wound had been dressed with lint dipped in a solution of carbolic acid, and in six weeks union was perfect. Stone in the bladder is a common disease; Professor Loreta has had upwards of one hundred operations, and on this subject he has published a valuable memoir. He performs the lateral operation, but with special instruments designed by himself and manufactured by Lollini of Bologna. He uses a beaked knife with a movable back, and a staff which is centrally grooved, the said groove being broad at the handle and narrowing towards the point, so that when the knife is pushed along the staff it cannot slip out of the groove unless withdrawn by the operator; the movable arrangement of the back of the knife also allows the blade to be lateralised in the after part of the operation, so that the prostate is not entirely cut through. The instruments have been very successful in Professor Loreta's hands, and no doubt they will be found serviceable, especially by young or inexperienced operators.

Plenty of material is always on hand for clinical teaching, and large classes attend the visits of the various professors. The operating theatre will accommodate 150 students, and is well arranged and lighted. Around the walls are busts of former surgeons of eminence, as Alti, Venturoli, Rizzoli, Landi, Fabbri, and Magni. The instruments and surgical apparatus are abundant, and of the best quality. The thermo-cautery of Paquelin is a favourite instrument, particularly for malignant tumours of the uterus.

I might say much more in praise of this hospital, but I cannot conclude without calling attention to the excellent post-mortem room and pathological department, which are in a separate building at the back of the grounds, and approached by a long corridor with open windows on either side. In the theatre of this building the practical examination in surgery for the doctorate of the university is carried out, and candidates perform operations on the dead body, not only in the presence of the examiners, but also before the general body of students. In one examination I witnessed the subject was tied up in a chair as though it were a living being, and among other operations resection of a portion of the lower jaw had to be performed. A more practical or searching system of examination is rarely to be met with than that which prevails for the degrees of the University of Bologna.

Obituary.

DR. HUMPHRY SANDWITH, C.B., D.C.L.

DR. HUMPHRY SANDWITH was born at Bridlington in 1822, and died in Paris on the 16th inst. He was the son of a well-known physician in Yorkshire, and in 1849 settled in practice at Constantinople. He was subsequently attached to Mr. Layard's expedition to Nineveh. In 1853 he joined General Beatson's force of Bashi-Bazouks on the Danube as medical officer, and was afterwards appointed chief of the medical staff of the force engaged in the defence of Kars, under Sir Fenwick Williams, an account of which he published under the title of the Siege of Kars. On the termination of the siege, General Mouravieff gave Dr. Sandwith his liberty in acknowledgment of the services he had rendered to the Russian wounded. For these services he was made a Companion of the Bath, and had the honorary degree of D.C.L. conferred on him by the University of Oxford. In 1857 he was appointed Colonial Secretary of Mauritius, but resigned the appointment in 1860. He contested unsuccessfully the Borough of Marylebone as an advanced Liberal in 1868. During the Servian and Russian campaigns he took an active part in organising hospitals and providing for the care of the wounded. He died in Paris after an illness of three weeks.

Medical News,

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Fellows of the College on May 16th :—

Black, James Watt, M.D. Edin., Clarges-street.
Ewart, Joseph, M.D. St. And., Brighton.
Ewart, William, M.B. Camb.,Curzon-street.
Hall, Francis de Havilland, M.D. Lond., Queen Anne-st.
Hicks, J. Wale, M.D. Lond., Sidney College, Cambridge.
Lees, David Bridge, M.D. Camb., Thurloe Houses.
Potter, J. Baptiste, M.D. Edin., George-st., Hanover-sq.
Turner, Francis Charlewood, M.D. Camb., Finsbury-sq.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on Monday last :—

Bassett, W. F. Prichard, M.B. Ed., Bathurst, N. S. Wales.
Burton, William Henry, M.B. Toronto, Tottenham.
Grinling, John Campion, Barton-under-Needwood.
McCormick, Alexander, M.B. Edin., Edinburgh.
Verrey, Louis, M.D. Leipzig, Lausanne, Switzerland.
Wells, Charles M.D. Queen's Univ. Irel., Stowmarket.
Willett, George Gilmore Drake, Bristol.
Woodruff, John Winthrop, Wallington, Surrey.

The following gentlemen were admitted Members of the College on Tuesday last :—

Batson, Robert Sewell, Torrington, Devon.
Branson, G. Attenborough, L.R.C.P. Ed., Ladbroke-grove-rd.
Green, Harry, L.S.A., Cound, Shrewsbury.
Keys, Elias, Plymouth.
Maitland, Alfred Derwent, Hyde Park-square.
Minchinton, Henry James, Brixham, Devon.
Mivart, Fred. St. George, L.R.C.P. Ed., Devonport-street.
Newsholme, H. Wilkinson, Hellifield, near Leeds.
Pritchard, Owen, L.S.A., Anglesea.
Ramsden, Albert, Clapham.
Thane, Philip Thornton, Montague-street.
Thornton, Bertram, Margate.
Willis, Arthur, L.S.A., Soham, near Ely.
Willis, Arthur Keith, St. George's-road, Kilburn.

The following gentlemen were admitted Members on Wednesday last :—

Alexander, Frederick William, Hatton Garden.
Chard, R. A. Selway, Upton Lovell, Wilts.
Coutts, Joseph Alfred, Aldridge-road.
Currie, Oswald James, Blackheath.
Dixon, George Frederick, Market Harborough.
Jones, William Wansbrough, Macclesfield.
Owen, John Morgan, Fishguard, Pembroke.
Rigby, John, L.S.A., Preston.
Rowley, Charles, Barnsley.
Shore, Robert George, Stoke, Staffordshire.
Tripp, C. L. Howard, Tiverton, Devon.
Wood, Louis Edmund, Marlborough, Wilts.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 12th, 13th, and 14th inst. :—

Stephen R. Thompson, Frederick W. C. Jones, Aubrey D. Chapple, Henry G. Read, Francis H. Julyan, Maitland Thompson, and Walter T. Strugnell, St. Bartholomew's Hospital; Alexander G. Andrews, Richard L. Holland, Francis E. Little, Arthur E. Hayward, and Frederick A. N. Bateman, St. George's Hospital; Lionel J. Shepherd, John Llewellyn, Henry R. Kenwood, and Alfred F. Peskett, London Hospital; William A. Aikin, James P. Martin, Alfred Linnell, Herbert R. Mead, William L. W. Marshall, Alfred L. Scott, and Arthur J. Carter, Guy's Hospital; Henry R. Hodges, Alfred G. Webster, George Wale, Sidney Herbert, and Anton H. Syree, King's College; John Scott, Cambridge and St. Bartholomew's Hospital; Frederick W. McDonogh, Herbert W. Hart, Herbert J. Pulling, and George S. Baker, Westminster Hospital; George H. F. Ferguson, Newcastle-on-Tyne and St. Thomas's Hospital; George Herbert, University College; Reginald B. Anderson, Middlesex Hospital.

Of the 144 candidates examined during last week 59 failed to satisfy the Board of Examiners, and were referred for three, and 10 candidates for six, months' further anatomical and physiological study. The Primary Examinations in Anatomy and Physiology for the Membership of the College, which commenced on April 1st, were brought to a close on the 14th inst. The total number of candidates examined was 543, which will be found to be greatly in excess of previous years. The rejections were 164. The First Part of the Professional Examination for the Fellowship commences this day (Friday), for which there are over 100 candidates.

The Library of the College will be closed on Friday and Saturday the 27th and 28th, and also on the following Monday, May 30th, for the Fellowship Examination.

UNIVERSITY OF CAMBRIDGE.—The following gentlemen passed the First Part of the Examination for the degree of M.B. :—

FIRST CLASS.
Fuller, H. R., B.A. Caius.

SECOND CLASS.
Bagshaw, M.A. St. John's.
Birdwood, B.A. St. Peter's.
Browne, P. A., M.A. Trin.
Howe, B.A. Clare.
Marshall, B.A. Clare.
Tooth, M.A. St. John's.
Webber, B.A. Downing.

APOTHECARIES' HALL. —The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 12th :—

Greenleaf, Alfred William, Alderney-street, Pimlico.
Kemm, Frederick St. John, London Hospital.

COLLEGE OF PHYSICIANS IN IRELAND. — At examinations held on the 9th inst. and succeeding days, the under-mentioned obtained the licences in Medicine and Midwifery of the College :—

Augustus James Arthur Browne, Louis John Patrick Carroll, Walter John Clarke, Edmond Francis Flynn, James Garland, Edward Gloster, Thomas Higgins, William Wall Jacobs, Patrick Andrew McDermott, Harry Strickland McGill, John Henry Cornelius Maw, George Cathcart Montray, William Joseph O'Keefe, and Thomas Kay Whitehead.

The following Licentiates have been admitted Members :—

Dane, Arthur Henry Cole, Surg. Bombay Army.
Lamb, H. Surg-Maj. A.M.D.
Marques, Lourenzo Pereira.
Nugent, Edward Joseph.
Whitty, Patrick J.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — At the April examinations the following obtained the licence in Surgery :—

Howard W. Acheson, James A. Baird, Charles D. Barrett, John Brady, John G. W. Bullock, Richard Callan, John P. J. Coolican, Patrick J. Dempsey, John B. Dunlop, Frederick D. Elderton, John S. Gelston, Walter Jones, Michael F. Kenna, Thomas W. Lewis, James C. McMullen, John H. O'D. McGuinness, Claude H. McSwiney, Michael C. Maloney, Edmond Murphy, George Nelis, Augustus Nickson, Francis R. O'Brien, Joseph F. O'Carroll, Edward H. O'Doherty, Michael J. O'Doherty, John A. C. Penny, John A. Powell, Robert Power, James Quirke, Thomas O'C. Redmond, Alexander Ross, Ventry A. J. Smith, Jones C. L. Stawell, Robert J. Tate, Macnamara M. Williamson, Augustus Woodroffe.

IT is expected that the Prince and Princess of Wales will be present to open the new Marylebone Infirmary at Notting-hill early next month.

THE subscriptions received at the festival dinner on the 13th inst. in aid of the funds of the Middlesex Hospital, Earl Derby in the chair, amounted to £3000.

DR. J. C. BRUMWELL has been nominated to the Commission of the Peace for Burnley.

THE salary of Dr. Young, medical officer of the Farnham Union, has been increased by £5 annually.

MR. J. S. STEELE, late Medical Officer in the Reigate Union, has received a superannuation allowance of £70 a year.

SOCIETY OF MEDICAL OFFICERS OF HEALTH. —The next meeting has been fixed for Friday, May 20th (this day), at 7.30 P.M., at 1, Adam-street, Adelphi, when B. W. Richardson, M.D., F.R.S., will read a paper entitled "A Study of the Periods of Incubation of the Communicable Diseases."

THE Hospital Saturday collections in aid of the local medical charities were made at Birmingham last week at nearly all the manufactories and other places of business in the town. The total sum as yet received is £2947 13*s.* 9*d.* It may be interesting to know the amounts realised in previous years: 1873 (first year), £4215; 1874, £3850; 1875, £3606; 1876, £3484; 1877, £3069; 1878, £2994; 1879, £3330; 1880, £3666.

MEATH HOSPITAL, DUBLIN.—The following prizes were presented last week to students attending this hospital:—Medical Prizes: Reginald Mosely, first; Donald Grant, second; Macnamara Williams, third. Senior Surgical Prizes: Howard Atkinson, second; Frank J. Newell, third. Junior Surgical Prizes: Timothy Howard, first; James Bolger, second; Percy Newell, third. The gentleman who obtained the First Senior Surgical Prize was unable to be present at the distribution.

A MEETING in aid of the East London Hospital for Children and Dispensary for Women, Shadwell, was held at the Mansion House on Monday, under the presidency of the Lord Mayor. The immediate object of the meeting was to obtain further provision to meet the enormous amount of out-patient work. The claims of the institution were powerfully advocated by the chairman, by Dr. Andrew Clark and others, and it is to be hoped that the result of this effort will be to largely increase the means of usefulness of this valuable charity.

AT the last meeting of the Colchester Medical Society the following resolution was passed:—"This being the first meeting of the members of the Colchester Medical Society for the year 1881, they cannot help expressing their deep sorrow at the grave loss which they have sustained by the death of their hon. secretary, Mr. Edward Waylen. He was an intelligent and constant attendant at its meetings, a kind-hearted honourable man, a true and faithful friend, and a courteous and excellent secretary. This meeting begs to express its sympathy and condolence with his widow, to whom a copy of this resolution is now sent."

THE bazaar projected for the purpose of providing the funds necessary to meet the expenses of adding a new wing to the National Hospital for the Paralysed and Epileptic was opened on Tuesday at the Riding School, Albert Gate, by the Duchess of Wellington, in the absence of the Duchess of Edinburgh, who was prevented by her recent bereavement from attending. Several distinguished ladies assisted at the fair, and the sale, which was continued on the two following days, is likely to prove a success.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. Thomas Biggart, late of Baidlandhill, bequeathed £200 to the Western Infirmary, Glasgow. The late Colonel Gascoyne bequeathed £100 each to the Royal Hospital for Incurables and the National Hospital for the Paralysed and Epileptic. Mr. John Watt, late of Aberdeen, bequeathed the residue of his estate, in equal parts, to the Royal Infirmary and the Dispensary, Aberdeen. The will of Mr. Stephen Barron, late of Orsett-terrace, contains the following bequests: £4000 to St. Mary's Hospital, £2000 each to the Surrey County and the Brompton Consumption Hospitals, £1000 each to the Royal Hospital for Incurables, the Highgate Small-pox Hospital, the Great Northern Hospital, Ventnor Consumption Hospital, the Middlesex Hospital, Charing-cross Hospital, and the East London Hospital for Children. Surgeon-Major Newland, late of Carrickmines House, Co. Dublin, has bequeathed £1000 to Mercer's Hospital, £500 to the Hospital for Incurables, and £250 to the Medical Benevolent Fund Society of Ireland. The Misses Brooke have given £100 to the Adelaide Hospital, £50 to the Meath Hospital, and £50 to Coombe Lying-in Hospital, Dublin.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—The tenth annual dinner of this Society was given on Tuesday evening in Willis's Rooms, Mr. Greenish, president, in the chair. The loyal toasts were warmly greeted, after which Mr. Schacht proposed "Science," to which Dr. Richardson replied. Dr. Broadbent acknowledged the toast of the "Medical Profession." Professor Abel gave "Prosperity to the Pharmaceutical Society," noticing with pleasure the efforts of the organisation to associate with an examination testing the private study of candidates for admission another that should give proof of a satisfactory curriculum of practical study. Mr. Greenish, responding, ascribed the progress of the pharmacy of Great Britain, which, he said, would compare favourably with that of any other country, to the work of this Society.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the lates*

ALMARAM, Mr. A., has been appointed Resident Clinical Assistant at the Hospital for Consumption and Diseases of the Chest, Brompton, vice Welch, resigned.

BALLANCE, C. A., L.R.C.P., M.R.C.S.E., L.S.A.L., has been appointed Senior Assistant House-Physician to St. Thomas's Hospital.

BERRY, W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer and Public Vaccinator for the Twelfth District of the Wisbech Union.

BOLTON, R. E. N., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Ballickmoyler and Newtown Dispensary Districts of the Carlow Union.

BUCKLE, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Bardfield District of the Dunmow Union.

COLLIER, M. P. M., M.R.C.S.E., L.S.A.L., has been appointed Junior Assistant House-Physician to St. Thomas's Hospital.

CUMMING, G. W. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Fourth District of the Chipping Sodbury Union.

DICKSON, Mr. T. A., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

DODDS, W. J., M.D., D.Sc., has been appointed Assistant Medical Officer to the Birmingham Borough Asylum.

DOUGLAS, G. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Fourth District of the Ongar Union.

FOSTER, H. G., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer of Health for the Swaffham (Norfolk) Rural Sanitary District, having previously been appointed Medical Officer of Health for the Wayland Rural Sanitary District, Civil Medical Examiner of Recruits for Regulars and Militia, and District Surgeon to the Great Eastern Railway, vice C. B. Wiles, resigned.

GRIFFIN, Dr. W., has been appointed Resident Clinical Assistant at the Hospital for Consumption and Diseases of the Chest, Brompton, vice Shearman, resigned.

HASLAM, W. F., M.R.C.S.E., L.S.A.L., has been appointed Resident Accoucheur to St. Thomas's Hospital.

HAYCROFT, Dr. B., has been appointed Professor of Physiology in Mason Science College, Birmingham.

HESLOP, T. P., M.D., F.R.C.P.L., J.P., has been appointed Consulting Physician to the Birmingham and Midland Skin and Lock Hospital.

HUDSON, G., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Sixth District of the Beverley Union.

JONES, Mr. H., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

JORDAN, F., F.R.C.S., has been appointed Consulting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

LAMONT, J., M.A., B.Sc., M.B., C.M., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

LAWRIE, Mr. W. J., has been appointed House-Physician to the Glasgow Royal Infirmary.

LEWIS, F. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the First District of the Llandovery Union.

LINDSAY, Mr. R. W., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

LONG, J. P., L.R.C.S.I., L.A.H.D., has been reappointed Medical Officer for the East Deptford District of the Greenwich Union.

LOW, C. A., M.R.C.S.E., L.S.A.L., has been appointed a District Surgeon to the City of London Lying-in Hospital, vice W. Burton, resigned.

LUNN, J. R., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Senior Resident Medical Officer to the new Marylebone Infirmary.

MCGEAGH, J. P., M.D., M.Ch., has been appointed Senior Assistant House-Surgeon to the Public Hospital and Dispensary, Sheffield.

MCLENNAN, Q., M.B., C.M., has been appointed House-Physician to the Glasgow Royal Infirmary.

MIDDLETON, W. H., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Visiting and Consulting Physician to the Mullingar Lunatic Asylum.

NOAKES, S. S., L.R.C.P.L., M.R.C.S.E., has been appointed Temporary Assistant Medical Officer to the County Asylum, Lancaster.

PEMBERTON, O., F.R.C.S., has been appointed Consulting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

PEPPER, A. J., M.S., M.B., F.R.C.S., has been appointed Surgeon to the London Fever Hospital.

POTTS, J. A., M.B., M.R.C.S.E., has been appointed House-Surgeon to the Glasgow Royal Infirmary.

RAILTON, T. C., M.B., F.R.C.S.E., has been appointed Honorary Assistant Medical Officer of the Clinical Hospital, Cheetham-hill-road, Manchester.

READ, M., M.B., B.A., M.R.C.S.E., has been appointed Junior Resident Medical Officer at the Hospital for Sick Children, Great Ormond-street, vice F. G. D. Drewitt, M.B., M.A., M.R.C.P., resigned.

ROBERTS, N. E., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for No. 1 District of the Toxteth Union.

RUSSELL, J., M.D., F.R.C.P.L., J.P., has been appointed Consulting Physician to the Birmingham and Midland Skin and Lock Hospital.

SMITH, G., F.R.C.S.E., has been appointed Acting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

SMITH, P., M.R.C.S.E., has been appointed Consulting Ophthalmic Surgeon to the Birmingham and Midland Skin and Lock Hospital.

SPICER, R. H. S., B.Sc., has been appointed Demonstrator of Comparative Anatomy and Botany at St. Mary's Hospital Medical School.

STEEL, Mr. R., has been appointed Clinical Assistant to the Glasgow Hospital and Dispensary for the Diseases of the Ear.

SUTTON, S. W., L.R.C.P., M.R.C.S.E., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

TAYLOR, J. W., F.R.C.S., has been appointed Acting Surgeon to the Birmingham and Midland Skin and Lock Hospital.

TREHERNE, F. H., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a House-Surgeon to the West London Hospital, Hammersmith, vice D. G. L. Johnson, M.B., resigned.

WALKER, Mr. P. H., has been appointed House-Physician to the Glasgow Royal Infirmary.

WATSON, Mr. J. M., has been appointed House-Physician to the Glasgow Royal Infirmary.

WELFORD, C. H., M.B., C.M., has been appointed Senior House-Surgeon to the Sunderland Infirmary.

WHITEHOUSE, J., M.R.C.S.E., L.R.C.P.L., has been appointed Junior House-Surgeon to the Sunderland Infirmary.

WILLEY, C. H., M.B., M.R.C.S.E., has been appointed Junior House-Surgeon to the Borough Hospital, Birkenhead.

WILLIAMS, Mr. T. H., has been appointed House-Physician to the Glasgow Royal Infirmary.

WOODFORDE, W. T. G., M.D., has been reappointed Medical Officer of Health for the Berks Combined Sanitary Districts.

Births, Marriages, and Deaths.

BIRTHS.

BUSHELL.—On the 13th inst., at Edith-road, West Kensington, the wife of Dr. S. W. Bushell, Physician to H.B.M. Legation, Peking, of a son.

DALTON.—On the 12th inst., at Llandudno, the wife of Thomas Dalton, M.D., of a daughter.

GIBBONS.—On the 12th inst., at Cadogan-place, the wife of R. A Gibbons, M.D., of a son.

JAMISON.—On the 11th inst., at St. Helen's, Lancashire, the wife of Arthur Jamison, M.D., of a daughter.

ORWIN.—On the 10th inst., at Halifax, N.S., the wife of Surgeon-Major Orwin, Army Medical Department, of a son.

SANDILAND.—On the 14th inst., at 191, Southgate-road, N., the wife of A. H. Sandiland, M.R.C.S.E. & L.R.C.P.L., of a son.

SWANSON.—On the 13th inst., at Lawrence House, Yorks, the wife of George I. Swanson, M.D., of a son.

MARRIAGES.

ALLEN—MAW.—On the 11th inst., at St. Ann's Church, Bishop Auckland, R. G. Allen, L.R C.P., M.R.C.S.E., of Belper, to Annie Blythe Maw, of Bishop Auckland.

LITTLE—MELLOR.—On the 12th inst., at West-end Congregational Church, Southport, Joseph Henry Little, M.B., C.M., of Woolton, to Agnes Elisabeth, youngest daughter of Wright Mellor, Esq., J.P. and D.L., of Cote Royd, Huddersfield.

DEATHS.

BOND.—On the 13th inst., at Stoke Newington, Edward Thornley Bond, M.R.C.S.E., L.S.A.L., in his 84th year.

CARR.—On the 12th February, at Machanga, Central Africa, of tetanus, William Ward Carr, M.D., formerly of Lee, Kent, eldest son of the late William Carr, M.D., also of Lee, aged 34.

JAMESON.—On the 16th inst., at Oakwood Lodge, Upper Norwood, Hugh Jameson, F.R.C.S., Deputy Inspector-General of Hospitals and Fleets (Retired), in his 77th year.

SANDWITH.—On the 16th inst., at Avenue Friedland, Paris, Humphry Sandwith, M.D., C.B., D.C.L., late Colonial Secretary of Mauritius, and Author of "The Siege of Kars," aged 58.

SHERLOCK.—On the 13th inst., at Powyke, Worcester, after a short illness, James Sherlock, M.D., for twenty-seven years Medical Superintendent of the Worcester County and City Lunatic Asylum, aged 53.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 19th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 13	30·22	W.	54	48	99	75	44	..	Bright
" 14	29·96	W.	55	50	91	69	43	..	Cloudy
" 15	29·76	S.W.	60	53	88	64	47	..	Cloudy
" 16	29·43	S.W.	52	49	82	59	41	·02	Raining
" 17	29·97	S.W.	53	47	86	61	40	·02	Bright
" 18	29·58	W.	55	54	94	64	51	·10	Raining
" 19	29·60	W.	57	51	99	63	47	·20	Fine

Medical Diary for the ensuing Week.

Monday, May 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Cantor Lectures: Mr. R. Brudenell Carter, "On Colour Blindness and its Influence upon various Industries."

Tuesday, May 24.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Dr. Allen Thomson, "On some Bone Necklaces from the Andaman Islands."—Mr. E. H. Man, "On the Arts of the Andamanese and Nicobarese."—Mr. M. J. Walhouse, "On some Vestiges of Girl Sacrifices, Jar Burial, and Contracted Interments in India and the East."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Lawson Tait, "On Three Cases of Hepatotomy," and "On the Removal of the Uterine Appendages for the Arrest of Uterine Hæmorrhages."

Wednesday, May 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, May 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

Friday, May 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Professor H. E. Roscoe, "On Artificial Production of Indigo."

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Wiltshire, "On a Case of Traumatic Rupture of an Ovarian Cyst."—Dr. T. C. Fox, "On Two Cases of Chromidrosis, in which a Blue-black Pigment exuded upon the Skin of the Circum-orbital Regions."—Mr. MacCormac, "On a Case of Reunited Fracture of the Olecranon Process, in which bony union was obtained by Suture of the Bones."—Dr. Sturge and Mr. Godlee, "On a Sequel to a Case of Stretching of the Facial Nerve."

Saturday, May 28.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor C. E. Turner, "On Russian Literature: Lermontoff."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE Pass Examination for the diploma of Membership of the College was commenced on the 13th instant, when the following questions on Surgical Anatomy and the Principles and Practice of Surgery were submitted to the ninety-five candidates, who were required to answer at least four, including one of the first two, out of the six questions.

1. Describe the surfaces of the bones which enter into the formation of the wrist-joint and the synovial membrane.
2. Describe the relations of the popliteal artery.
3. What is the nature of the affection called ganglion? In what parts does it usually occur, and how would you treat it?
4. Describe the symptoms previous to an operation for hernia which would lead you to suspect mortification of a strangulated intestine, and the appearance during an operation which the intestine in such a state would present.
5. What cystic tumours commonly occur upon the surface of the head and face? How may they be distinguished from each other?
6. Give the usual causes and consequences of inflammation of the lymphatics of the arm.

The following were the questions on the Principles and Practice of Medicine:—

1. Enumerate and discuss the symptoms of hemiplegia and of paraplegia respectively, and point out the chief lesions to which these paralyses are due.
2. Describe the morbid anatomy of the lung in pulmonary phthisis; and give the clinical history of the disease.
3. What are the therapeutic uses of squill, ammoniacum, arsenic, and silver? What are the pharmacopœial preparations of these drugs, and what the composition and doses of these preparations? State the physiological effects, the medicinal uses, and the doses, of the dilute forms of hydrochloric, nitric, nitro-hydrochloric, sulphuric, and hydrocyanic acids.

"A NOTE ON INTENTION IN THE DETERMINATION OF SEX AND OF THE MENTAL AND PHYSICAL INHERITANCE OF CHILDREN."

To the Editor of THE LANCET.

SIR,—English readers who are interested in this subject will find the original paper (part of which found its way into THE LANCET last week from a German source) in the *Boston Medical and Surgical Journal*, vol. cii., p. 471. Mr. Fignet's theory will, I have little doubt, share the fate of so many other theories which are based on insufficient data, and in ignorance of the "law of error" which pervades statistics of observations of complicated natural phenomena. He has had a "run of luck," as they say at Monaco, but by no means an extraordinary one, and it would be interesting to know if his "fortune" is still true to him. Mr. Darwin, in giving the relative proportions of the sexes in domesticated animals, observes of cattle ("The Descent of Man," 2nd edition, p. 246): "Of cattle I have received returns from nine gentlemen of 982 births, too few to be trusted; these consisted of 477 bull-calves and 505 cow-calves—i.e., in the proportion of 94·4 males to 100 females. The Rev. W. D. Fox informs me that in 1867, out of 34 calves born on a farm in Derbyshire only one was a bull." I have often discussed this question with the breeders of shorthorns and racehorses in my native county, and the Yorkshire breeders have the credit of being the most experienced breeders in England, and therefore, probably, in the world, and I never met one who had any confidence in his powers to determine the sexes of his horses or cattle, while all of them were satisfied with their ability to develop or eliminate other physical qualities to almost an unlimited extent.

I am, Sir, your obedient servant,
Bolton-row, Mayfair, May 9th, 1881. CHARLES ROBERTS.

RAILWAY SIGNAL-MEN.

IT is a disquieting consideration that the signal-men on railways are kept through long hours on duty in boxes sometimes a great distance from a station, but at points which are important to the safety of the traffic. An official of this class was recently found dead in his box. The engine-driver of a train found the danger signal on, and thus the occurrence was discovered in time to prevent an accident. Supposing he had found the "line-clear" signal on—which was quite as likely to happen—there would probably have been a serious accident. It is not to be expected that railway companies will see the need and wisdom of strengthening their staff so as to reduce the length of the hours on duty, and to establish a system of working in couples or of very frequent inspection; but the public may like to know the risks they run, and it is chiefly with a view to extend that information we, in common with our contemporaries, record the circumstance.

VACCINATION AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—Can you give me some definite rules for the practice of revaccination? 1. At what age should revaccination first be practised? 2. If, on revaccination, a certain amount of irritation is produced for a few days at the punctures, but no distinct vesicle is formed, is this sufficient proof that the lymph has taken, but that the full course is aborted by previous protection? 3. Is one revaccination sufficient, or should it be repeated at intervals, and if so how frequently?

I am, Sir, yours obediently,
May 17th, 1881. M.R.C.S.

*** The rules of revaccination practised in this country are those adopted by the National Vaccine Establishment. Our correspondent should write to the secretary of the Local Government Board, Whitehall, and ask for a copy of the official memorandum on the subject. Here we may say briefly in respect to his questions—1. From fifteen to eighteen years of age, or, in immediate danger of small-pox, at twelve years of age. 2. "When persons who have once been efficiently vaccinated are, some years afterwards, revaccinated with effective lymph, there sometimes result vesicles which, as regards their course and that of the attendant areolæ, cannot be distinguished from the perfect results of primary vaccination. But far more usually the results are more or less modified by the influence of such previous vaccination. Often no true vesicles form, but merely papular elevations surrounded by areolæ; and these results, having attained their maximum on or before the fifth day, afterwards quickly decline. Or if vesicles form, their shape is apt to vary from that of the regular vesicle, and their course to be more rapid; so that their maturity is reached on or before the sixth day, their areolæ decline on or before the eighth day, and their scabbing begins correspondingly early. In either case the areolæ tend to diffuse themselves more widely and less regularly, and with more affection of the cellular membrane, than in primary vaccination; and the local changes are accompanied by much itching, often by some irritation of the axillary glands, and in some cases on the fourth or fifth day by considerable febrile disturbance."—(Gregory, revised by Ceely and Marson.) 3. In this country one efficient revaccination is held to be sufficient.—ED. L.

Mr. G. E. Pritchard.—1. Papers may be obtained from the College on application.—2. Bristowe, Guy and Ferrier, Farquharson, Ringer, Wilson, and Attfield.

C. K.—THE LANCET of Nov. 9th, 1878, and Jan. 9th, 1881.

CARBOLIC ACID IN THE TREATMENT OF WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—I have read with interest Dr. Lee's papers upon whooping-cough, and am able to personally confirm his statements as to the efficacy of carbolic acid in the treatment of that disease. During last March I had been troubled with a cough. Early in April I found myself whooping in a most unmistakable manner; in fact, two medical friends voluntarily called my attention to the fact. Being the house-surgeon of a provincial infirmary, and constantly interviewing persons professionally, the desirability of taking a holiday was obvious to me.

Knowing the custom was very prevalent here of taking children to the gas-works when suffering from whooping-cough, the same idea occurred to me as to Dr. Lee as to what could possibly be the rationale of the benefit derived from the inhalation of gas-tar vapours. As I was daily in the habit of using the carbolic spray in the course of my professional duties, I made it a point of inhaling the spray for five minutes or so. On one day I had nineteen paroxysms of whooping; after three days of carbolic-acid treatment they were reduced to five. Since then I have quite recovered, never having taken medicine. No one fortunately took the affection, and I have had no need to absent myself. Judging from the effect upon myself, I think this treatment is worthy of trial. Doubtless if individual members of the profession will inquire into its value, we may ere long learn why and how it acts.

I am, Sir, yours faithfully,
Blackburn, May 7th, 1881. ROBERT H. FIRTH.

Medico.—We do not know to what new regulations our correspondent refers, as we have not seen any on the subject in the Army Circulars. If he will send us the date on which they were issued, we will look into the question.

The letter of *M. B.* on the lunacy question will appear in our next.

Vis Medicatrix had better consult our Students' number.

UTERINE DILATORS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 14th we notice a new "uterine dilator," by Dr. James, of Thurloe-square. Kindly allow us to say that we have made for some time past identical instruments for Dr. Chambers, who has been using them successfully in several cases. We can show the instruments to anyone who wishes to see them by calling, having several made for the demand we have had for them.

We are, Sir, your obedient servants,

May 19th, 1881. MAYER & MELTZER.

"THE LAWS OF THERAPY."

To the Editor of THE LANCET.

SIR,—Though I have tried my utmost to understand the position you have taken up, I must confess that I am unable to do so. I am quite aware that the term "allopathist" does not correctly describe the practice of the orthodox practitioner—far from it,—and I did not make use of the term, though it is pretty well understood to whom the term applies, and what it means. But when the homœopathists are charged with having "two sets of convictions," it is to be presumed that those who make the charge have one set, or that they are at all events diametrically opposed to one; the uninitiated public will think that such is the case, and that that is the reason why the homœopathist and the so-called allopathist cannot meet in consultation; and if this be not so, it seems to me to be as difficult to understand the standing of the modern orthodox practitioner as it evidently is for him to understand that of the modern homœopathist.

When, about fifteen years ago, I was in Edinburgh for a short time, I went to hear a clinical lecture by a certain celebrated professor of medicine at the university—it was not Dr. Henderson,—and I was very much struck by a remark he made, "that it was well always to have a theory of the action of the remedies used, and that it was better to make a theory for oneself, even though it should be a false one, rather than to have no theory at all." This teaching rather startled me then, but it showed me what I now believe is quite true, that every educated practitioner has or is searching for a theory of the action of the remedies he uses, and that he does not satisfy himself with using remedies simply to attain a certain result.

When I was studying in the London schools I was taught the "evacuating" theory, the theory of "*contraria contrariis curantur*," the "chemical" theory, and the true "allopathic" theory,—i.e., as I understood it, the medicinal treatment of a healthy organ with a view of relieving thereby an unhealthy organ of physiological sympathy; all these I could understand and appreciate, with the exception, perhaps, of the first; but I was not taught the theory of *similia similibus curantur*, and in this respect I venture to think my medical education was very defective.

It certainly is not by any of the first four of these theories that the action of small doses of ipecacuanha, or Dover's powder, or picrotoxin, in the respective cases alluded to can be explained.

Dr. Murrell, in his very valuable remarks in the *Practitioner* on the use of Dover's powder and similar drugs in the treatment of the night sweating of phthisis, makes the following significant statement:—"It is a noteworthy fact that pathological sweating may be arrested not only by drugs that exert an inhibitory action on the sweat centres, but also by agents that in health promote perspiration." And, again, "Seeing that pathological sweating might be arrested by Dover's powder, an agent extensively employed as a diaphoretic, I determined to turn my attention to other sweat excitors." This very valuable indication led him to try several remedies in a manner which before a very recent period would have been thought of as being anything but orthodox. No arrangement of words can do away with the plain fact that there is here an application, which we can thoroughly appreciate, of a very useful rule.

I think myself that it will be found to be true that *all* drugs act on apparently opposite lines in larger and smaller doses, but I was not aware that this was recognised as a well-known fact. Nothing can be clearer than this, that Dr. Murrell did not perceive this as a universal law when he made his experiments some two or three years ago, but that he was led by the fact that in one case an agent which in health promoted perspiration arrested it in disease, to try other similar agencies; had he recognised a law, what need to mention one case as a warrant for a similar trial? Whenever we apply the law of gravitation we do not quote the fall of Newton's apple, or some similar illustration. No; it appears to me that all we *know* at present is that some few drugs act on apparently opposite lines in larger and smaller doses, and that we may only infer that what is true of some is true of all. Until this is clearly made out, it is only the formula of *similia similibus* which can help us to work out the problem in our dealing with disease, for we have only to know the action of the larger dose of a certain drug, which can always be ascertained by experiment in health, and to find it similar to the manifestations of disease, and we have it in our power to find out whether it will cure the disease or arrest its action by the use of the smaller dose of the same drug. This is what Dr. Murrell did with much success; and if it be, indeed, a well-known *law* of therapy that *all* drugs act on apparently opposite lines in large and small doses, many more orthodox practitioners will do likewise. It is, however, nothing more nor less than homœopathy, and homœopathy "pure and simple."

It was the neglect, nay, rather the repudiation, of this formula by the majority of practitioners which brought about a homœopathic sect, and there can be no doubt that when the beauty and simplicity and trustworthiness of this rule are more generally appreciated by the profession, homœopathy as a system will die out. The truth will be absorbed, and the name expire. While this is taking place, as it is undoubtedly now doing, would it not be better to try to heal divisions than to open up prejudices based on past misunderstandings?

I am, Sir, yours truly,

Scarborough, May 14th, 1881. F. FLINT, M.D.

To the Editor of THE LANCET.

SIR,—I thank you for your courteous reply to my note. You are quite justified in wondering at my ignorance, for it is quite true that I did not know "that *all* drugs act differently—and, as it may seem to the unscientific, on totally opposite lines—in different doses." But if that is the case—and far be it from me to deny it—then it would follow that the true therapeutic rule is to select for a case of disease a remedy that in one dose, say a large dose, will produce a morbid state similar to that disease, and administer it in another, say a small dose, which, according to your "universal law of therapy," will produce what "may seem to the unscientific" a totally opposite state. Thus in a case of vomiting from stomach derangement we should give, in a small dose, a medicine that is capable of causing, in a large dose, the stomach derangement that produces vomiting, and the opposite state—viz., cessation of the vomiting and restoration of the stomach to its normal state will ensue. But this is just the homœopathic therapeutic rule, so that, at all events, "the universal law of therapy" is not antagonistic, but, on the contrary, favourable to the homœopathic therapeutic rule. This rule is, I must repeat, no explanation of the *modus operandi* of medicines in disease; it is merely a rule for the solution of the remedy. "*Similia similibus curentur*" (not *curantur*, as your printer insists on making it), "let likes be treated by likes," not "like cures like," which would require quite other Latin.—I am, Sir, your obedient servant,

London, May 13th, 1881. R. E. DUDGEON.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

SIR,—Your correspondent, "In Perplexity," in your issue of last week, need not go out of his way to theorise about "worn-out lymph," as facts, which appear to be well-known to experienced vaccinators, are quite sufficient to explain the case. The protective areola in vaccinia is not complete till the ninth or tenth day in primary vaccination, but one or two days earlier (seventh or eighth) in secondary vaccination. The eruption of confluent variola is generally stated to appear on the third day after invasion, therefore in this case invasion took place on May 2nd, and at this date the variola had spread throughout his entire system, as shown by the constitutional signs of invasion, while the vaccinia (assuming it to have been a case of revaccination) was little more than local, being only at its sixth day, at least one day short of the time required for complete protection. It is probable, however, even in this case that the abundant eruption would subside, and not be accompanied by severe symptoms at maturation; and it is to be hoped that "In Perplexity" will give us the further history of the case. It would also be interesting to hear whether it was a case of vaccination or of revaccination.—I am, Sir, yours truly,

Torquay, May 16th, 1881. M.B.

To the Editor of THE LANCET.

SIR,—In the year 1870 I revaccinated two young ladies, sisters. I am unable just now to refer to the exact dates, but they were both vaccinated on a Thursday, and on the next Thursday I called to see the result. The younger sister's arm showed the operation to have been abortive, but the elder sister's was like a first vaccination.

On the Saturday following the inspection I was sent for to see the elder sister, who was said to be very ill. I found her in a high state of fever, and racked with pain in every joint. The next day (Sunday) the eruption of small-pox appeared, entirely covering the body, and she soon became almost one confluent mass. The case appeared to me to be nearly hopeless, when on the Friday the vesicles began to dry up. There was no secondary fever, no purulent stage, and the patient got rapidly well.

This case in its onset closely resembles the one given by "Perplexity" in this week's LANCET, and I should be glad if your correspondent will give the termination of his case, to see if there be an equal resemblance at the finish. I am, Sir, yours obediently,

Lechlade, May 16th, 1881. W. H. BOX.

To the Editor of THE LANCET.

SIR,—Had "In Perplexity" consulted section 86 of the "Medical Digest" he would have seen that the co-existence of vaccinia and variola was by no means unusual.—I am, Sir, yours, &c.,

May 19th, 1881. RICHARD NEALE, M.D. Lond.

A JAPANESE PHARMACOPŒIA.

THE Japanese Government having some years ago issued regulations for the examination of candidates for a licence to engage in practice as apothecaries, have supplemented that step by deciding to establish a standard pharmacopœia. A special commission charged with the duty of compiling the work has been appointed, and has commenced its labours. Hitherto, it appears, English, American, Dutch, and other pharmacopœias have been in use in Japan.

THE CASE OF CHRISTINA MARSHALL.

To the Editor of THE LANCET.

SIR,—I am glad to be able to report a favourable and timely change in this case. Towards the end of last week the girl became less apathetic. On Sunday last she took two teaspoonfuls of milk; on Monday a little cream every three hours; on Tuesday a few grapes and some beef-tea and milk; and this was repeated on Wednesday. Her pulse is now 64 and of better calibre, and she expresses herself as feeling a little improvement in her condition.

I am, Sir, yours truly,
JAMES DOUGAL.
Bolton, May 12th, 1881.

THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH.

To the Editor of THE LANCET.

SIR,—Permit me to thank "Public Vaccinator" for calling attention to the quality of the lymph supplied by the National Vaccine Establishment, and to express a wish that his appeal to the profession on the subject may receive a hearty response in your columns; for myself, I am sorry to state that my experience is in perfect accord with his own. I have on several occasions been supplied with lymph from that establishment which was nearly inert, and out of the total number vaccinated from a recent supply, there was but one successful case, if a single vesicle appearing and maturing six or seven days later than the usual course may be termed "successful." Being called to meet a neighbouring practitioner, who is also a public vaccinator, about that time, I took the opportunity of asking him his experience on the same subject, and he informed me that he had for some time given up sending for lymph to the National Vaccine Establishment owing to his want of success with it, and now preferred paying for it to a wholesale house which supplied it, and that the lymph he had so obtained had so far given him every satisfaction.

I am, Sir, truly yours,
P. V., No. 2.
May 14th, 1881.

To the Editor of THE LANCET.

SIR,—In answer to the letter of "Public Vaccinator" in this day's LANCET, I beg to inform him that I had a supply of lymph from the National Vaccine Establishment. I vaccinated four children with it on April 4th; three failed, and in the fourth case the vesicles came forward too soon, so that when brought for inspection there was no lymph to be had. As I had relied on these cases for a supply, I had to fall back on some points charged in October and kept in a half ounce bottle, and these cases were almost all successful. I think the National vaccine lymph is not so good as it used to be, for formerly I very seldom had an unsuccessful case.—I am, Sir, yours, &c.,

Bucks, May 14th, 1881. ANOTHER PUBLIC VACCINATOR.

To the Editor of THE LANCET.

SIR,—In reply to "A Public Vaccinator" in your last issue, I may say that about a fortnight ago I obtained from the National Vaccine Establishment two tubes of lymph, with which I operated on ten infants without being successful in a single instance. On reference to my register, I find that during the past two years the proportion of my unsuccessful cases has been 1 per cent., and, curiously enough, in each of the unsuccessful cases lymph from the National Vaccine Establishment was used.—I am, Sir, yours obediently,

Lewes, May 16th, 1881. ANOTHER PUBLIC VACCINATOR.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Crocker, London; Dr. W. R. Smith, Cheltenham; Dr. B. Fenwick, London; Dr. Saundby, Birmingham; Dr. Thomson, Ulverstone; Dr. Percival Hunt, India; Mr. Mann, Glasgow; Mr. R. Park, Glasgow; Mr. Box, Lechlade; Messrs. Hirst and Co.; Mr. Colston, New Whittington; Mr. P. Chalmers, London; Mr. Rideal, Thetford; Mr. C. Foster, Leeds; Dr. Strange, Worcester; Dr. Moullin, London; Dr. Imlach, Liverpool; Dr. Macnaughton Jones, Cork; Messrs. Dunlop and Arthur, Bradford; Mr. G. Meadows, Hastings; Messrs. Pridham and Slater, London; Dr. Dougal, Bolton; Mr. Gopal Shivram, Bombay; Mr. Taylerson, Whitby; Dr. Dudgeon, London; Dr. T. Gilbart Smith, London; Dr. Finny, Dublin; Dr. Nicholson, Greenwich; Mr. Wilmot, London; Surgeon-Major Curran, Ashton-under-Lyne; Dr. Collins, Oxford; Dr. Flint, Scarborough; Dr. Ferrier, London; Mr. Dobbin, London; Dr. W. B. Burn, Balham; Mr. Berridge, Loughborough; Mr. Wilmot, Bradford; Mr. Davis, Cefn; Mr. Moulding, Liverpool; Mr. Leatham, Doncaster; Dr. Flinn, Brownhills; Mr. MacCormac, London; Mr. Dolan, Halifax; Mr. Petrie, London; Mr. Richardson, London; Mr. Pollard, London; Mr. Gilbert, London; Mr. McWatters, Nowgong; Mr. Reid, London; Mr. Greene, Liverpool; Dr. Barnes, Eye; Dr. Hunt, Wolverhampton; Dr. Neale, Hampstead; Mr. Mason, Pontypool; Messrs. A. and C. Black, Edinburgh; Mr. Symmons; Mr. C. R. Buckland, Sydney; Mr. Jackson, Blackburn; Mr. Evans, London; Sir Wm. Miller, M.B., Londonderry; Mr. Barker, Hull; Mr. A. B. Joy, London; Mr. Eastes; Dr. Blackwood, Philadelphia; Fleet-Surgeon Hargue; Another Public Vaccinator; Lynedale, Newcastle-on-Tyne; Medico; The Secretary of the Victoria Institute; M.R.C.S.; A Country G.P.; P.V. No. 2; A Voice from the Wilderness; Sanitas B; R. T. J.; O. U. I.; M.B. Univ. Dub., L.R.C.S.I.; A General Practitioner; Medicus; Qualified Assistant certified to Vaccinate; A Reader of THE LANCET; R. B., Lowestoft; M.B.; F.R.C.S. (Exam.); Senex; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Gowan, Anston; Mr. Fotherick, Wolverhampton; Mr. Dickson, Bootle; Dr. Gill, Canterbury; Dr. Swanson, York; Dr. Parsons, Hastings; Miss Goodbar, Leicester; Mr. Taylor, Buxton; Mr. Hunt Hall; Mr. Townsend, Exeter; Messrs. Stickland and Rowe, London; Sir H. Thompson, London; Messrs. Wolley and Sons, Manchester; Mr. Frampton, Weston-super-Mare; Mr. Cartwright, Oswestry; Miss Thompson, Oldham; Mr. Fearson, Leamington; Mr. Hinde; Mr. Forbes, Fordoun; Mr. Nicholls, Walsall; Mr. Buckrell, Burton-on-Trent; Mrs. Allsop, Manchester; Mr. Astley, East Langdon; Mr. Young, Bridgwater; Mr. Taylor, Teignmouth; Mr. Jesse, Henbury; Mr. Saunders, London; Mr. Egar, Woking; Mr. Warters, Derby; Mr. Pattrick, Meesham; Messrs. Keith and Co., Edinburgh; Mr. Somerville, Edinburgh; Mrs. Tubbs, Ealing; Mr. Jones, London; Surgeon; A. B. C., Paddington; Medicus, Earls Barton; Medicus, Taunton; E. P., Camberwell; M. S.; J. G., Brighton; Assistant, Burton-on-Trent; W. C., Hackney; Cymro, Brecon; T. S.; M.R.C.S., Grantham; Ergo; Doctor, South Kensington; A. B. C., Eastbourne; Surgeon M.; Index; Omega, Leeds; M.R.C.S., Norwich; Alpha, Uxbridge-road; M.R.C.S., Southwark; T. H. S., Great Torrington; Medicus, Manchester; Medicus, Coventry; C. B., Oxford; W. W., Birmingham; W. D., Green Heys; Omega; Beta, Hartest; A. B., Hull; Sartorius, Upper Norwood; J. W., Huddersfield; Spes; Alpha, Long-acre; T. P. M. D.; Pendente M.D.

The Asylum Journal (*Fort Canje*), *South of India Observer*, *South Wales Daily Telegram*, *Japan Mail*, *North British Daily Mail*; *Westminster and Chelsea News*, *Pioneer Glasgow Herald*, *Italian Times*, *Spalding Free Press*, *Western Mail*, *&c.*, have been received.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Clinical Lecture

ON

CASES OF ANOMALOUS RHEUMATIC FEVER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,

PHYSICIAN TO ST. MARY'S HOSPITAL.

Gentlemen,—I call your attention to-day to some cases which I think are very important subjects of study. I designate them "anomalous" rheumatism because they differed very materially in their progress from ordinary examples of that malady. Their course was not even (not ὁμαλος), but irregular. Diseases have mostly a form and course which they observe—a norm of their own,—and deviations from it bode no good. So long as the symptoms follow the usual and orderly evolution, though they may be severe and even perilous, we are not at fault—we know what to expect and how to act; but when unusual and strange symptoms arise, when danger threatens, now from one quarter and then from another, we are prone to get perplexed and lose our heads. Articular rheumatism, though severe, confined to the joints, or with but moderate cardiac complication, is a tolerably straightforward matter; but rheumatic fever with little joint affection, and much delirium, hyperpyrexia, or lung œdema, is quite a different thing.

Case 1. *Articular rheumatism of small amount; more prominent pericardial, pleuritic, pulmonary, and intestinal inflammatory disorder; morbilloid eruption copiously developed, followed by sudamina, some delirium, persistent hyperpyrexia.*—A. S——, aged thirteen, errand-boy, was admitted on Dec. 17th, 1880. His mother died of phthisis, and one brother also; another, aged four, died of measles; two sisters are living, one of whom is weak. Three months ago he was struck by a stone over the left eye, and has never been well since. Had always been delicate, but never had any special illness. On Dec. 7th he felt unwell, and on the 10th he had to leave his work, complaining of pain in his limbs and in his right side. On the 13th he had pain in the back; he gradually grew worse, and was admitted into hospital. He is a thin, weakly-looking boy; his feet and hands are swollen and painful, and pericardial friction is heard. Dulness on left side extends from third space to sixth rib, and from mid-sternum to apex, which is situated in fourth space outside vertical nipple-line. Dulness in first left space is less absolute than in the second and third. Sternum is dull up to about level of the second rib; laterally dulness extends to about right edge of sternum, and to the left about half an inch beyond right nipple line. Harsh, grating friction sound heard from the level of the second space down to the fifth rib; is less distinct below than higher up; it is well heard in upper left front. Breathing in upper left front is harsh and imperfect; in the lower left back breathing is harsh, and rather weak, attended with crepitation and rhonchus; in the upper left back the breathing is better; the right back in the same state as the left. He lies on the right side; heart's impulse better seen than felt; abdomen moves very little in respiration; area of hepatic dulness normal; no splenic enlargement.—19th: Delirious all night, getting out of bed; takes plenty of nourishment, milk, and beef-tea; lower ribs move well; pulse 114, soft; bowels open four times, the stools very light-coloured; no spots. To take five grains of salicylate of soda, four minims of sedative solution of opium, and an ounce and a half of chloroform water, every four hours; five grains of chloral, ten grains of bromide of potassium, and an ounce of camphor mixture, every night.—20th: Had two doses of the sedative; slept much better, and had less delirium.—23rd: Pulse 116, soft; respiration 33; lies down well. The icebag to præcordia ordered on the 21st is continued; he likes it; it is applied a good deal. Friction sound still evident; dulness extends nearly to the top of the sternum; tongue red and moist, coated. He complains of pain across chest and belly, which latter is large and tympanitic, and moves but little. Urine red, thick, loaded with lithates, sp. gr. 1032, contains albumen. Cardiac impulse is felt most distinctly in fourth space. At midnight, being very restless and wandering, in spite of half a grain of opium every four hours, and the temperature being 104·5°, he had fifteen grains of quinine. At 2 A.M. the temperature fell to 102°; at 4 A.M. it rose to 104°; at 6 A.M. fell to 101°, and at 8 A.M. to 99°. He slept better after the quinine. On the night of the 22nd he had two enemata of fifteen minims of tincture of opium on account of diarrhœa and wandering.—26th: At 2.30 P.M. the pulse was 114; temperature 101°; respiration 28; was delirious in the night, but takes nourishment well; has pain across the chest. Had much diarrhœa after fifteen grains of salicylate of soda every hour (six times last evening). Quinine repeated at 11 P.M.; tongue very dry and red; sternum resonant down to the third rib, left front also more resonant; urine pretty copious. To take five grains of disulphate of quinine every four hours; four ounces of brandy; continue opium pill every four hours.—28th: Slept well during last night; eyelids swollen and puffy, and nose also; a rash has appeared on chest, neck, shoulder, and upper arms, scarcely seen on abdomen or lower limbs, absent from face; it is of a dull red colour, consists of spots and short streaks, tending to coalesce, scarcely elevated, with interspaces of natural colour. Abdomen large; bowels open twice; stools loose, but not so loose as they have been. Heart's apex beats in fifth space well within vertical nipple-line; no murmur; sounds well heard at fifth space. Shrill tube-sounds of small size, inspiratory and expiratory, over all left front, much less marked in right front, where air enters well, producing vesicular murmur. In the right back there is extensive dulness, occupying more than the lower two-thirds of the back; in this region the entry of air is very weak, and scarcely anything is heard but muco-crepitant râles. In the left back dulness is less extensive; air enters tolerably at upper fourth, but very defectively in lower half, where numerous crepitations are heard. Urine in fair quantity, clear, not albuminous. Ice-bag applied pretty regularly until to-day, when it was omitted.—29th: Last evening, the temperature being 105°, at 8 o'clock and at 10 he had a bath cooled down with ice. The temperature fell to 101° before he left it; rash quite disappeared. The temperature at 11.30 P.M. was 100·2°; pulse 112; respiration, which before the bath was about 40 and laboured, fell to about 30, and was much easier. At 2 A.M. (29th), the temperature having reached 105·6°, he had a second bath, after which the temperature fell to 98·8° at 4 A.M. The rash at 6 A.M. was a very bright red, and all over the face. At 2.30 P.M. he was quite rational; pulse 110. The rash was visible on the thighs, as a rather faint flush in some parts, in others as a mottling. A third bath was given at this time. The temperature, which was 104·6° before the taking of the bath, soon after fell to 100°. Pulse 120, small and weak. At 3.10 P.M. the temperature was 97°.—31st: Friction-sound ceased; sternal dulness commences at about third cartilage; in left front the third space is dull, the second half resonant, and the first quite. Pulse 102, distinct. Weak entry of air in all the right back; a good many small, incomplete crepitations are heard. In the left back air enters more freely, and crepitations are more developed. Night bad. No bath since 10 A.M. of 30th. One grain of opium at bed-time.

Jan. 1st, 1881: Has had more hyperpyrexia; three baths have been given; he was very restless and thirsty before; shivered very much after the first bath, and was very prostrate; had to be removed soon from bath and take brandy. Subsequently cold sponging was had recourse to, when the temperature ran high; opium did not quiet him, but he slept after the bath. Eruption gone; tongue very dry. No deafness. Pulse 110, distinct; respiration 45. Air enters, but imperfectly, in both backs, especially at lower parts; some dulness near bases; some sickness. Omit the quinine.—4th: Slept well with fifteen minims of tincture of opium in enema at eight P.M. last evening; was extremely restless before. Pulse 130, weak. Takes food well. Lower ribs expand well. Yesterday air entered well in both backs, producing numerous crepitations; no murmurs. Has several red papules, much larger and more raised than those of typhoid, at left iliac region, and a few elsewhere. A bedsore threatens to form on left hip. Only one bath given since the 1st. Rheumatism is reappearing in some of his joints. Half a grain of opium given as circumstances require. 7th: Is very thirsty when restless fits come on; a copious crop of sudamina on chest. Pulse 108, distinct. Large intestine much distended; belly large. Bowels open twice; perspires very freely. Feet are swollen and painful; he cannot bear to have them moved. One grain of calomel to be given at night, five grains of Dover's powder, and half an ounce of acetate of ammonia mixture three times a day.—9th: Previous night rather restless, though he had opiate enema. Ordered ten grains of disulphate of quinine to be taken at 6 P.M., and again at 7 P.M. About 9.30 P.M. he had a rigor, and was very sick and vomited, and bowels acted in bed. Face flushed; no headache. Respiration 42, moans; pulse 135, rapid and running. Picks his nose constantly. Has been very restless and excitable all the evening; complains of constant pain in dorsal region of back, and holds himself rigidly. No pains in joints; mind quite clear at present; belly very tympanitic; trunk covered with sudamina; pupils natural. Temperature 105°. Sponging. Fifteen minims of tincture of digitalis, three grains of carbonate of ammonia to half an ounce of water every four hours.—10th: Omit mixture, add fifteen minims of tincture of digitalis to each dose of acetate of ammonia mixture, with Dover's powder.—13th: Pulse 100; temperature normal. Bowels loose; stools fully bilious.—15th: Makes a miserable whining noise all night long, disturbing the other patients. Takes food very well. Tongue and mouth clean; pulse 96. Fifteen minims of tincture of digitalis, three grains of carbonate of ammonia, one drachm of tincture of cinchona, and one ounce of the decoction of cinchona three times a day.—19th: Slept much better, better than he has yet. Much pain on movement. Takes food well. Has a bedsore at bottom of sacral region; it commenced as an angry pimple, which he picked, so he has others, but only this has come to a sore. The next day there was a deep hole, exposing a sacral spine, where the bone was felt denuded. He was ordered to be kept lying on his face, and the wound to be dressed with carbolic lotion under oil silk and tenax.—26th: Sore stationary. Bowels very irritable, act after any ingesta two or three times in an hour, then become quiet again for some time. Gets irritable and restless at times; would have no sleep but for subcutaneous morphia. He was ordered five grains of oxide of zinc and one quarter of a grain of opium four times a day. This did not succeed in quieting the bowels; sickness came on, and after two or three days the powders were omitted. On Jan. 31st he was ordered one drachm of malt extract, with cod-liver oil.

On Feb. 3rd the digitalis mixture was omitted.—15th: He is very much improved, the sore on sacrum is all but healed; the denuded bone seems covered. He is much more cheerful, but becomes restless and very thirsty at night occasionally, drinks copiously, then becomes quiet and sleeps. He has not had an attack of this kind for a week until last night.

TEMPERATURE TABLE. (CASE 1.)

Date.	T. A.M.	T. P.M.	Date.	T. A.M.	T. P.M.
Dec. 17	—	101·8°	Dec. 22	103·2°	102 °
,, 18	103·8°	104	,, 23	102·4	104·5
,, 19	—	101·4	,, 24	99	104·5
,, 20	103·4	103	,, 25	102·6	103–104·5
,, 21	103·2	104·5			

Date.		Temp.
Dec. 25	5 P.M.	[1]104·2°
,,	6 ,,	103
,,	7 ,,	103
,,	8 ,,	102·4
,,	9 ,,	102
,,	10 ,,	103·6
,,	11 ,,	104·6[2]
,,	12 ,,	104·6
Dec. 26	1 A.M.	104
,,	2 ,,	102·6
,,	4 ,,	101·6
,,	6 ,,	100·8
,,	8 ,,	103·2
,,	10 ,,	105
,,	2 P.M.	101
,,	4 ,,	102
,,	7 ,,	104
,,	9 ,,	104
,,	10 ,,	101·6
Dec. 27	1 A.M.	100·2
,,	2 ,,	100·2
,,	4 ,,	99·8
,,	6 ,,	104
,,	8 ,,	102·2
,,	10 ,,	101
Dec. 27	12 A.M.	101°
,,	2 P.M.	101·8
,,	4 ,,	101·4
,,	6 ,,	101·2
,,	8 ,,	100·4
,,	10 ,,	100·8
,,	12 ,,	100
Dec. 28	2 A.M.	100·6
,,	4 ,,	101
,,	6 ,,	102·2
,,	8 ,,	103·4
,,	10 ,,	103
,,	12 ,,	104·4
,,	2 P.M.	103·8
,,	4 ,,	103·4
,,	6 ,,	104
,,	8 ,,	105
,,	10 ,,	105·2[3]
,,	12 ,,	101
Dec. 29	2 A.M.	105·6[3]
,,	4 ,,	98·8
,,	6 ,,	104·6
,,	8 ,,	105·2
,,	10 ,,	104·8
,,	11 ,,	103·6
Dec. 29	12 A.M.	105·2°
,,	2 P.M.	104·6[3]
,,	3 ,,	97
,,	4 ,,	99
,,	6 ,,	104[3]
,,	6½ ,,	100
,,	7 ,,	97
,,	8 ,,	100·4
,,	10 ,,	103·6
,,	12 ,,	105[3]
Dec. 30	2 A.M.	102·4
,,	4 ,,	104
,,	6 ,,	103
,,	8 ,,	104[3]
,,	10 ,,	99
,,	12 ,,	101·6
,,	2 P.M.	103
,,	4 ,,	103·4
,,	6 ,,	103·8
,,	8 ,,	103·6
,,	10 ,,	103
,,	12 ,,	103
Dec. 31	2 A.M.	103·2
,,	4 ,,	103·2
,,	6 ,,	103·4
,,	8 ,,	102
,,	10 ,,	102
,,	12 ,,	100·6
,,	2 P.M.	100
,,	4 ,,	101·8
,,	6 ,,	102
,,	8 ,,	101·4
,,	10 ,,	101
,,	12 ,,	102·2
Jan. 1	2 A.M.	105[3]
,,	2½ ,,	98
,,	4 ,,	102
,,	6 ,,	105[3]
,,	6½ ,,	99·6
,,	8 ,,	102·8
,,	10 ,,	104[3]
,,	12 ,,	99·4
,,	2 P.M.	102·8
,,	4 ,,	102·6
,,	6 ,,	103·8
,,	10 ,,	101
,,	12 ,,	104·2[3]
Jan. 2	12½ A.M.	96·6
,,	2 ,,	103
,,	4 ,,	102
,,	6 ,,	102·4
,,	8 ,,	101·6
,,	10 ,,	103
,,	12 ,,	103
,,	2 P.M.	103·6
,,	4 ,,	102 8
,,	6 ,,	102·4
,,	8 ,,	100 8
,,	10 ,,	100
,,	12 ,,	101
Jan. 3	2 A.M.	104·8
,,	4 ,,	104·6
,,	6 ,,	103
,,	8 ,,	103
,,	10 ,,	102
,,	12 ,,	102·4
,,	2 P.M.	103
,,	4 ,,	102 6
,,	6 ,,	103
,,	8 ,,	102·4
,,	10 ,,	101
,,	12 ,,	101
Jan. 4	2 A.M.	103
,,	4 ,,	104
,,	6 ,,	103·6
,,	8 ,,	103
,,	10 ,,	101·4
,,	12 ,,	100·6
,,	2 P.M.	101·2
,,	4 ,,	101
,,	6 ,,	101·6
Jan. 4	8 P.M.	101·6
,,	10 ,,	102·4
,,	12 ,,	103·8
Jan. 5	2 A.M.	103
,,	4 ,,	102·6
,,	6 ,,	102
,,	8 ,,	101·4
,,	10 ,,	100·6
,,	12 ,,	101·6
,,	2 P.M.	103
,,	4 ,,	101·6
,,	6 ,,	101
,,	8 ,,	102·6
,,	10 ,,	103
,,	12 ,,	101
Jan. 6	2 A.M.	101·2
,,	4 ,,	102·8
,,	6 ,,	102·6
,,	8 ,,	102
,,	10 ,,	101·6
,,	12 ,,	100·6
,,	2 P.M.	100·8
,,	4 ,,	101·6
,,	6 ,,	102
,,	8 ,,	102·6
,,	10 ,,	103
,,	12 ,,	102·6
Jan. 7	2 A.M.	103
,,	4 ,,	102·2
,,	6 ,,	102
,,	8 ,,	101
,,	10 ,,	100·6
,,	12 ,,	101
,,	2 P.M.	99·4
,,	4 ,,	100·6
,,	6 ,,	101
,,	8 ,,	101·2
,,	10 ,,	102·6
,,	12 ,,	103·4
Jan. 8	2 A.M.	103·6
,,	4 ,,	103
,,	8 ,,	101
,,	10 ,,	99
,,	12 ,,	98·6
,,	2 P.M.	98·6
,,	4 ,,	98·8
,,	6 ,,	98
,,	8 ,,	99·4
,,	10 ,,	100·8
,,	12 ,,	102·2
Jan. 9	2 A.M.	104
,,	4 ,,	104
,,	6 ,,	104
,,	8 ,,	100
,,	10 ,,	100·4
,,	12 ,,	98·6
,,	2 P.M.	99
,,	4 ,,	98·8
,,	6 ,,	98·8[4]
,,	8 ,,	100[4]
,,	10 ,,	103·6
,,	12 ,,	105
Jan. 10	2 A.M.	104·8[5]
,,	4 ,,	102·6[5]
,,	6 ,,	105
,,	8 ,,	104
,,	10 ,,	104·6
,,	12 ,,	103·2
,,	2 P.M.	101·6
,,	4 ,,	102
,,	6 ,,	101·6
,,	8 ,,	101·4
,,	10 ,,	101·6
,,	12 ,,	102
Jan. 11	2 A.M.	102·4
,,	4 ,,	101·8
,,	6 ,,	101
,,	8 ,,	100·6
,,	10 ,,	99
,,	12 ,,	99·8
,,	2 P.M.	99

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[1] Six doses of salicylate of soda.
[2] Fifteen grains of quinine.
[3] Bath.
[4] Quinine.
[5] Sponging.

Date.		Temp.
Jan. 11	4 P.M.	99·2°
,,	6 ,,	98·6
,,	8 ,,	97·6
,,	10 ,,	98·4
,,	12 ,,	97·8
Jan. 12	2 A.M.	97·8
,,	4 ,,	98·6
,,	6 ,,	98·8
,,	8 ,,	99
,,	10 ,,	98·8
,,	12 ,,	98·8
,,	2 P.M.	97·8
,,	4 ,,	99·4
,,	6 ,,	100·2
,,	8 ,,	100·2
,,	10 ,,	98·6
,,	12 ,,	99
Jan. 13	2 A.M.	99[6]
,,	6 P.M.	100[6]
,,	10 ,,	100
Jan. 14	2 A.M.	100
,,	2 P.M.	100·4
,,	4 ,,	100
Jan. 14	6 P.M.	100°
,,	8 ,,	100
,,	10 ,,	100·2
,,	12 ,,	100·8
Jan. 15	2 A.M.	102
,,	4 ,,	102·6
,,	6 ,,	101
Jan. 16	6 P.M.	100
,,	8 ,,	100·4
,,	10 ,,	100·4
,,	12 ,,	100
Jan. 17	6 P.M.	100·6
,,	8 ,,	102
,,	10 ,,	102·6
,,	12 ,,	102·6
Jan. 18	2 A.M.	102·6
,,	4 ,,	102
,,	6 ,,	101
,,	2 P.M.	102·6
,,	4 ,,	104
,,	6 ,,	102·8
,,	8 ,,	102·6
,,	10 ,,	100
Jan. 19	6 A.M.	100·4°
,,	8 ,,	100
,,	12 ,,	100·6
,,	2 P.M.	100·6
,,	4 ,,	102
,,	6 ,,	103
,,	8 ,,	103
,,	10 ,,	102·2
,,	12 ,,	102
Jan. 20	2 A.M.	100
,,	6 ,,	101·6
,,	10 ,,	100
,,	12 ,,	100·8
,,	2 P.M.	101·6
,,	4 ,,	102·2
,,	6 ,,	102·6
,,	8 ,,	100
,,	12 ,,	100·6
Jan. 21	2 A.M.	100[7]
,,	10 P.M.	100·6[7]
Jan. 22	2 A.M.	100·2[8]
,,	10 P.M.	101·2[8]
Jan. 23	6 ,,	101[8]
Jan. 23	10 P.M.	[8]102·4°
Jan. 24	2 A.M.	100·6[8]
,,	10 P.M.	100·4[8]
Jan. 25	2 A.M.	100[8]
,,	10 P.M.	102[8]
Jan. 26	6 ,,	101[8]
,,	10 ,,	101[8]
Jan. 27	2 A.M.	100[9]
,,	10 P.M.	100·2[9]
Jan. 28	2 A.M.	100·4[9]
Jan. 29	10 P.M.	100[9]
Jan. 30	2 A.M.	100·4[7]
,,	10 P.M.	102·6[7]
Jan. 31	—	—[9]
Feb. 1	10 P.M.	100[9]
Feb. 2	10 ,,	100[7]
Feb. 3	10 ,,	100[7]
Feb. 4	10 ,,	101·8[7]
Feb. 5	10 A.M.	100·8[7]
,,	2 P.M.	100[7]
Feb. 6	2 A.M.	103·2[7]
,,	12 ,,	102·6[7]

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[6] From this date the temperature is only given when it reached 100°. Observations made bi-horally till Jan. 21st.

[7] Three observations.

[8] Five observations.

[9] Four observations.

March 9th. — The temperature has remained normal or nearly so ever since, but has not been taken at midnight. The only exceptions have been on Feb. 15th and 16th, when it ranged about 100°; and on Feb. 23rd it marked 100·4°. On March 16th and 17th the temperature was taken three times during the night, and was found normal.

TABLE SHOWING EFFECTS OF BATHS IN CASE I.

	Temp. before.	Temp. soon after.	Temp. 2 hs. after.	Temp. 4 hs. after.	Temp. 6 hs. or more after.	Interval of
1st Bath	105·2°	—	101·0°	105·6°	—	1st and 2nd, 4 hours.
2nd ,,	105·6	—	98·8	104·6	105·2°	
3rd ,,	104·6	97·0°	99·0	104·0	—	2nd and 3rd, 12 ,,
4th ,,	104·0	97·0	100·4	103·6	103·0	3rd and 4th, 4 ,,
5th ,,	105·0	—	102·4	104·0	103·0	4th and 5th, 6 ,,
6th ,,	104·0	—	99·0	101·6	103·0	5th and 6th, 8 ,,
7th ,,	105·0	98·0	102·0	105·0	—	6th and 7th, 38 ,,
8th ,,	105·0	99·6	102·8	104·0	—	7th and 8th, 4 ,,
9th ,,	104·0	—	99·4	102·8	102·6	8th and 9th, 4 ,,
10th ,,	104·2	96·6	103·0	102·0	102·4	9th and 10th 14 ,,

March 14th: Going on very well; has gained much flesh; walks about.

(To be concluded.)

NOTES ON THE

SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA CONNECTED WITH UTERINE DISEASE.

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I AM anxious to bring very briefly under the notice of the profession in England a method of dealing with certain grave and most intractable forms of nervous disorder familiar to all who see much of the diseases of women, which I first became acquainted with through the study of a remarkable and interesting little work by Dr. Weir Mitchell of Philadelphia, entitled "Fat and Blood, and how to make them." In doing so I have no original contribution to medical science to make; I have simply followed Dr. Mitchell's directions, but with results so astonishing and satisfactory to myself, in cases which were quite heart-breaking from their obstinate resistance to all ordinary management, that I am confident I shall be doing the profession a service if I can secure for Dr. Mitchell's plan, which is based on sound theory and accurate clinical observation, a more extended trial than it has as yet received. I am the more encouraged to do this since Dr. Mitchell informs me that he is not aware that his principles of management have hitherto been tried at all in England, although well known in America. "Here," he writes to me, "the treatment has rescued hundreds of women, and is used by men like Perry and Goodell with increasing confidence. I hope at some time to write for some English journal a *résumé* of the treatment, but it were far better done by one like you, who could quote cases of success in England."

Pending Dr. Mitchell's promised contribution, which will, I am sure, be read with interest, I may, at least, try to prepare the way by the recital of a few of the cases in which I have found his plan so useful.

The class of cases referred to is not easy to define or describe accurately, and yet they must be perfectly familiar to all. I have called the condition, in the heading to these notes, "Nerve Prostration and Hysteria connected with Uterine Disease." Goodell, who has an interesting chapter on the subject in his "Lessons on Gynæcology," heads it, "Nerve-tire, or the Relations of Neurasthenia to Diseases of the Womb." The protean symptoms we have to deal with are such as gradually develop themselves in those confirmed invalids who are so widely scattered over the country, who have been from one doctor to another, subjected to all sorts of uterine medication, mechanical and other, with no lasting improvement, until eventually they become bedridden, or nearly so, sleepless, victims to chloral and morphia, worn and wasted, and burdens to themselves and their families. Now, in a large number of these cases there is, or has been, very real uterine mischief. I shall not be accused, I am sure, of any disposition to minimise the influence of local uterine disorder on the general health. As a matter of fact, however, many of these cases have drifted far beyond the point at which local treatment, however judicious, is capable of effecting a cure. The pain, the backache, the leucorrhœa, the difficulty in progression, the disordered menstruation which are attendants on the local troubles, have ended in producing a state of general disturbance in which all the bodily functions become implicated. The nervous system is profoundly affected, the blood impoverished, and the general nutrition at the lowest ebb.

I shall not attempt here to explain the pathology of this state, but rather to describe the class of case, which, however, all my readers will at once recognise. Such cases have two or three prominent symptoms in common, among the most marked of which are wasting of the fatty tissues, combined with anæmia, the patient having gradually lost all appetite, professing a total inability to take a healthy amount of food, and often consuming barely enough to support vitality. Associated with this are very marked dyspeptic symptoms, too often aggravated by the pernicious habit of deadening pain by chloral, morphia, or stimulants. As a necessary consequence of such a state, and partly no doubt from local pain, all exercise is abandoned, and the patient becomes entirely confined to the house, or even to bed. Another group of symptoms which soon show themselves under such conditions are those of a moral character, the patient becoming emotional and hysterical, constantly craving for sympathy, which she often obtains to a degree most prejudicial to her welfare, until at last the whole household becomes victimised by the morbid selfishness thus developed. Every practitioner must know of cases of this kind, and must be familiar with the useless endeavours at cure which have been made by tonics, water cure, and a hundred other plans, each of which has proved equally unsuccessful.

It is in such cases that Dr. Mitchell's method is applicable, and it is based on the principle, which must be admitted to be perfectly physiological and reasonable, of removing the patient from the unwholesome moral atmosphere in which she has been living, combined with the renewal of her vitality by excessive feeding, which, under ordinary circumstances, could not be assimilated, but which is rendered possible by passive muscular exercise obtained through the systematic use of shampooing and electricity. At first sight this sounds, perhaps, chimerical; and, had I not myself witnessed the astonishing success which followed its use, I would doubtless be as sceptical as others may be as to its value. I propose, however, to relate the first four cases in which I have followed Dr. Mitchell's method, each of which had been for years in a state of hopeless misery, subjected to all sorts of treatment in vain, and I trust that the simple narration of these remarkable cases, which are not selected, but are the first which have come under my observation, may secure for this rational treatment a fair and extended trial. Before relating them, however, I shall shortly describe the method of treatment I used, and in doing this I merely paraphrase Dr. Mitchell's directions. I must necessarily be extremely brief, and I must refer those who are disposed to try it to Dr. Mitchell's book, in which full details for their guidance will be found. The plan involves four principal heads, each of which I shall refer to separately.

1. *Seclusion and rest.*—An important element in the treatment, and one which, from what I have seen of these cases, I believe to be absolutely indispensable, is the entire seclusion of the patient under a competent nurse, and her removal from the morbid atmosphere of invalid habits, which has gradually grown up around her. Unless the patient is entirely removed from the injudicious sympathy and constant tending of her friends, it will be next to impossible to gain that moral influence over her which is really essential to success. This is a point which involves so severe a strain that it may be found very difficult to obtain the consent of the patient and her friends to a measure which will seem to them so harsh and strange. I do not think, however, that any compromise on this point should be admitted, and if it be found impossible, from domestic reasons, to secure the removal of the patient from her house, it should, at least, be made an absolute *sine quâ non* that she should be placed in a separate room with her nurse, and that she should not be visited by any one except her medical attendant. On this point Dr. Mitchell's experience is worthy of note. "I have often," he says, "made the effort to treat these cases in their own homes, and to isolate them there, but I have rarely done so without promising that I would not again complicate my treatment by such embarrassments. Once separate the patient from the moral and physical surroundings which have become part of her life of sickness, and you will have made a change which will be, of itself, beneficial, and will enormously aid in the treatment which is to follow." The first step, on commencing, is to place the patient at rest in bed. It will readily be understood that this absolute repose is only intended as a temporary resource, until, by the means presently to be described, the nutrition is improved, and new tissues are built up. Space will not permit of my following Dr. Mitchell in his explanation of the manner in which this proves serviceable; but, independently of the physical benefit in patients apt to suffer from exhaustion on the slightest fatigue, there is a distinct moral gain. "From a life of irregular hours, and probably endless drugging, from hurtful sympathy and over-zealous care, the patient passes to an atmosphere of quiet, to order and control, to the system and care of a thorough nurse, to an absence of drugs, and to simple diet." As a rule, in bad cases this repose in bed is continued during the greater part of the treatment, averaging from six to eight weeks; and at first the rest is made absolute, the patient being only allowed to rise for the purpose of passing her evacuations, and is neither allowed to read, to sew, nor to feed herself. Practically there is so much to do with feeding, massage, and electricity, that this is not found so wearisome as might be supposed; but, no doubt, the monotony of the life and the growing strength, which accompanies a satisfactory progress towards cure, tend to make the patient the more willing to throw off her old habits of invalidism when the proper time arrives to make the effort. By degrees the period of repose is lessened, and the patient is gradually made to sit up for several hours, until towards the end of the cure she only rests on the bed for three or four hours daily.

2. *Massage.*—This, combined with faradisation, is a very important part of the treatment, and it consists in systematic shampooing and exercise of all the muscles, both of the extremities and trunk, first for half an hour or so twice daily, but very soon for not less than an hour and a half night and morning. By this means the cutaneous circulation is improved, and the muscles are brought into active exercise without the expenditure of nerve force. To do this effectually considerable experience is required, and although in one or two cases I have had it done successfully by the nurse, it requires so much intelligence on her part, and she is besides otherwise so fully occupied by the rest of her work, that I think it preferable to employ a regular rubber. Full details of the method to be adopted, and the best way of exercising the various groups of muscles and the joints will be found in Dr. Mitchell's book. It is surprising how soon the patient comes positively to enjoy a manipulation that for the first few days is very trying. Soon all local tenderness disappears, and a pleasant sense of exhaustion, followed by refreshing sleep, is alone experienced. In two of my cases the abdomen, especially in the ovarian regions, was so tender that the patient at first shrank from the slightest touch, but in a very short time she could be freely handled and kneaded in every part.

3. *Electricity.*—This forms a valuable subsidiary means of exercising the muscles. The interrupted current is employed twice daily from half to three-quarters of an hour. Here, again, some practical skill is necessary, but with a little careful teaching on the part of the practitioner, the use of the battery can be safely and efficiently entrusted to the nurse. The poles, armed with wetted sponges, are placed on the muscles to be operated on in turn, about four inches apart, and slowly moved until the muscle is fully and freely contracted. Commencing with the feet, the whole body, except the head, is thus systematically gone over. There is no doubt that this is painful and disagreeable, but it is of unquestionable utility, especially in cases such as the one to be presently narrated, in which there was long-standing hysterical paralysis, and consequent atrophy from disuse of extensive groups of muscles.

4. *Diet and regimen.*—These form the most important and most characteristic part of the cure. It is perfectly astonishing how, under the conditions above described, a pale, anæmic, and wasted invalid, able to eat next to no food, can be brought to consume, and not only to consume but perfectly to assimilate, an amount of nourishment that would appear to be incredible had experience not amply

proved the fact, so that she shall gain flesh, weight, and strength so rapidly that the change is almost apparent to the eye from day to day. The first step, after secluding the patient with the nurse, and before the massage is commenced, is to place her on a diet of milk alone, given at intervals of three hours. At first three to four ounces are given at each feeding, but in a couple of days or so the amount is increased to eight or ten ounces, so that within three or four days she is consuming two to three quarts of milk within the twenty-four hours. No difficulty is experienced in getting the patient to take this quantity, and if she suffers, as so many of these cases do, from dyspeptic symptoms, they rapidly disappear. After the first two days, when the stomach is settled, the massage is commenced, and along with it an increased amount of food is administered, commencing with bread-and-butter, an egg, or the like, for breakfast; then, in a day or two, a chop finely cut up, with some vegetables, is given at midday, and so on progressively, until in from ten days to a fortnight three full meals daily are given, besides from a quart to two quarts of milk in divided quantities, and a considerable amount of soup made from raw beef, after a receipt given in Dr. Mitchell's book. It seems impossible, but it is nevertheless a fact, that under the use of massage and electricity these large amounts of food are taken readily without the slightest feeling of dyspepsia or discomfort. In illustration I copy the food journal on the fourteenth day of treatment of one of my patients, who had been bedridden for many years, and who all that time had existed on a dietary almost as remarkable from its smallness, frequently not taking more than half a tumbler of milk in twenty-four hours, and who could not be persuaded to eat more than one strawberry at a time, as forming a meal too large for her capacity. The treatment was commenced on October 16th with three ounces of milk every third hour. On Oct. 30th this was what she consumed with appetite:—5 A.M.: Ten ounces of raw meat soup.—8 A.M.: Cup of black coffee.—9 A.M.: Plate of oatmeal porridge with a gill of cream and a tumbler of milk.—12.30: Milk.—1.45 P.M.: Whiting, bread-and-butter, rumpsteak, cauliflower, omelette, and a tumbler of milk.—4 P.M.: Milk.—5 P.M.: Milk and bread-and-butter.—7 P.M.: Fried haddock, chicken, cauliflower, apple and cream, and a glass of burgundy.—9.30: Milk.—11 P.M: Raw meat soup. (The milk between 8 A.M. and 9.30 P.M. amounted to two quarts.) Nor is this exceptional. In every case I have treated on this plan similar amounts of food were taken, and with the same advantage. Of course, certain difficulties are apt to be met with, but only in one of my cases was any nausea or oppression experienced from the administration of this apparently excessive diet, and in that I attributed the sickness rather to too sudden an attempt to stop the hypodermic injection of morphia the patient had been accustomed to than to the feeding. At any rate, should sickness supervene, a temporary return to milk alone for a day or two will be sufficient to settle the stomach.

I have only attempted to sketch, in very rough outline, the principles on which the treatment is conducted; the results will be better appreciated by a short narration of a few of the cases in which I have employed it with success.

CASE 1.—Early in October of last year I was asked to see a lady thirty-two years of age, with the following history: She had been married at the age of twenty-two, and since the birth of her last child had suffered much from various uterine troubles, described to me by her medical attendant as "ulceration, perimetritis, and endometritis." Shortly after the death of her husband, in 1876, these culminated in a pelvic abscess, which opened first through the bladder and afterwards through the vagina. Paralysis of the bladder immediately followed the appearance of pus in the urine, and from that time the urine was never spontaneously voided, and the catheter was always used. Soon after this she began to lose power in the right leg and then in the left, until they both became completely paralysed, so that she could not even move her toes, and lay on her back with her legs slightly drawn up, the muscles being much wasted. Towards the end of 1877, after some pain in the back of her neck and twitching of the muscles, she began to lose power in her left arm and in her neck, so that she lay absolutely immobile in bed, the only part of her body she was able to move at all being her right arm. Up to this time the pelvic abscess had continued to discharge through the vagina, and occasionally through the bladder, but it now ceased to do so, and there were no further symptoms referable to the uterine organs. Her general condition, however, remained unaltered, in spite of the most judicious medical treatment. She was seen, from time to time, by several of our most eminent consultants, all of whom recognised the probable hysterical character of her illness, but none of the remedies employed had any beneficial effect. There was almost total anorexia, the amount of food consumed was absurdly small, and the necessary consequence of this inability to take food, combined with four years in bed with paralysis of the greater part of the body, and the habitual use of chloral to induce sleep, had reduced a naturally fine woman to a mere shadow. In October, 1880, her medical attendant was good enough to bring her to London for the purpose of giving a fair trial to the Weir Mitchell method of treatment, with the ready co-operation of herself and her friends, and she was conveyed on a couch slung from the roof of a saloon carriage, so as to avoid any jolt or jar, since the slightest movement caused much suffering. Two days after her arrival my friend Dr. Buzzard saw her with me, and, after a careful and prolonged electrical examination, came to the conclusion that contractility existed in all the affected muscles, and that the paralysis was purely functional. I could find no evidence in the pelvis of the abscess, the uterus being perfectly mobile, and apparently healthy. After a few days' rest the treatment was commenced on October 16th, the patient being isolated in lodgings with a nurse of my own choosing; and this was the only difficulty I had with her, since she naturally felt acutely the separation from the faithful attendant who had nursed her during her long illness. Her friends agreed not to have communication with her of any sort. It is needless to give the details of the treatment in this and the following cases. A mere abstract will suffice to indicate the rapid and satisfactory progress made.

October 16th.—Twenty-two ounces of milk were taken, in divided doses, in twenty-four hours; on the 17th, fifty ounces of milk; on the 18th, the same quantity of milk repeated; massage for half an hour; on the 19th, milk as before; bread-and-butter and egg; massage for an hour and a half; twenty minims of dialysed iron twice daily; on the 21st, a mutton chop in addition to the above; massage an hour and fifty minutes. To-day she passed water for the first time for four years, and the catheter was never again used. Chloral discontinued, and she slept naturally all night long. On the 23rd porridge and a gill of cream were added to her former diet; massage three hours daily, and electricity for half an hour, and this was continued until the end of the treatment. Maltine was now given twice daily.

30th.—She is now consuming three full meals daily of fish, meat, vegetables, cream, and fruit, besides two quarts of milk and two glasses of burgundy. Considerable muscular power is returning in her limbs, which she can now move freely in bed.

Nov. 6th.—Sat in a chair for an hour. The massage and electricity are being gradually discontinued, and the amount of food lessened.

Nov. 17th.—Walked downstairs, and went out for a drive, and henceforth she went out daily in a bath chair. She has increased enormously in size, and looks an entirely different person from the wasted invalid of a few weeks ago.

On Nov. 26th she went to Brighton quite convalescent, and on Dec. 11th came up of her own accord to see me, drove in a hansom to my house, and returned the same afternoon. She has since remained perfectly strong and well, and has resumed the duties of life and society.

A somewhat curious phenomenon in this case, which I am unable to account for, was the formation on the anterior surface of the legs, extending from below the patellæ half way down the tibiæ, of two large sacs of thin fluid, containing, I should say, each a pint or more, freely fluctuating, and quite painless. I left them alone, and they have spontaneously disappeared.

(To be concluded.)

THE METROPOLITAN DISPENSARY.—The Lord Mayor presided at the biennial dinner held at the Albion Tavern last week in aid of the funds of this institution. Last year relief was afforded to about 8000 persons at the dispensary and about 3000 others at their own homes. Each patient pays a penny at the time of being seen by a medical officer.

A BRIEF OUTLINE OF

DR. ZANDER'S MECHANICO-THERAPEUTICAL INSTITUTION IN STOCKHOLM.[1]

By T. GILBART SMITH, M.A., M.D.,
ASSISTANT-PHYSICIAN TO THE LONDON HOSPITAL.

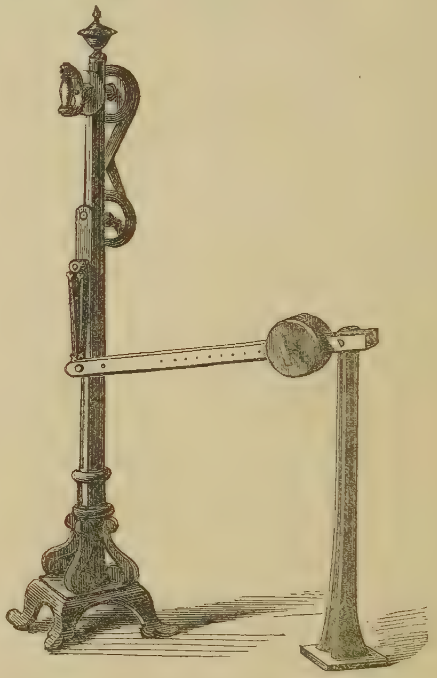
Gymnastic exercise has in Sweden long been regarded as a valuable aid to therapeutics, and what we in England call rubbing and shampooing are there developed into a recognised art. Several institutions exist having for their object the preservation and re-establishment of health by means of muscular exercise and through certain operations on the human body. In these institutes the various exercises are manually performed or induced. The patient is placed in charge of an operator, who stretches, bends, or twists the different joints and muscles of the patient while the latter makes a certain resistance, or the operator himself makes resistance while the patient executes the above-mentioned movements. These are called *active movements. Passive movements* consist of various operations on the body of the patient—such as shaking, chopping, rubbing, &c.,—and are executed by the operator while the patient remains in perfect repose; the object of these movements being to produce wholesome vital activity and a harmonious development by means of judicious exercise. But the achievement of this by manual means is beset with difficulties arising in connexion with both patient and operator. The former may be unable correctly to estimate the amount of force suitable for him to use in the various movements, and may fail to derive benefit by under-estimating what strain he can bear, or may actually diminish his strength by over-estimating the exercise it is capable of enduring without injury; the latter (the rubber) may be deficient in that tact, experience, and judgment which are requisite in order for him to accommodate the increase or decrease of the resistance to the varying strength of the patient upon whom he may be operating. In fact, these manual operations, to be really of use, require that only such persons should be employed as rubbers as are naturally endowed with the requisite qualities (and these are absolutely necessary), and have gained dexterity by long and assiduous training; and, moreover, however well trained the rubber may be, he must at the end of an hour or two be more or less tired, and his sensibility of touch impaired.

Dr. Zander, during his experience as a gymnast, was struck by the difficulty not only of adapting the amount of force to be used by the rubber exactly to the strength of the patient, but also of producing that slow and gradual increase in the use of the muscular power so necessary where employed as a therapeutic agent. To remedy this defect it occurred to him to replace the gymnast by machines, as these could always be regulated to whatever amount of force was desirable, and consequently a gradual increase of their action very easily produced. It is this idea which has been carried out by the Mechanico-Therapeutic Institution.

Dr. Zander was induced to commence experiments twenty-two years ago. After trying several systems of gymnastic exercises, he came to the conclusion that their defects rendered them almost useless, and he therefore set about constructing machines to be worked by most of the different sets of muscles. The resistance made by the machine was adjusted to a maximum and minimum in proportion to the average amount of force generally produced by the respective sets of muscles. The maximum and minimum as well as the intermediate degrees of force were indicated by a graduated scale. Dr. Zander first tried his experiments on the pupils in a large school with which he was connected. He found as a result a marked increase of strength, even in the most delicate children, combined with marked improvement in weight, appetite, and spirits. This led to the opening of his institution in 1865, furnished with twenty-seven machines, which have since then been considerably improved and largely added to. The apparatus of the Mechanico-Therapeutic Institution of Stockholm consist at present of sixty-seven machines: seventeen for active arm movements, eighteen for active leg movements, nine for active trunk movements, and twenty-three for passive movements. In these machines spiral springs are not used for the required force, inasmuch as with a spring resistance is greatest at the close of the movement.

In accordance with nature, in which the muscles act upon the bones as upon levers, Dr. Zander has constructed his machines on similar principles, and the weight to be moved, being placed upon a graduated lever, furnishes a resistance which, conforming to the mechanism of nature, is greatest in the middle of the movement and least towards the beginning and end. By the mechanical method alone can an accurate record of the development of the different muscles and the strength of the remedy suitable to each case be obtained; it provides the patient with a fixed measure of the increase of power gained by him by which he can regulate his exertion.

Arm-turning Machine.



With this apparatus two separate motions are performed—one (*backward*), pronation; the other (*forward*), supination—which act especially upon the muscles of the inner side of the forearm, and in a minor degree on those of the shoulder. The adjustment of the weight upon the lever regulates the resistance in conformity with the strength of the patient. If the arm cannot be held perfectly straight the exercise is too powerful, and the resistance must be diminished.

As an instance of the practical working of this we may suppose the case of a patient who desires to exercise his arm by bending. The apparatus designed for this movement is first arranged so as to offer a weak resistance; should this resistance be too weak it is increased until the patient must make a slight effort to overcome it. The measure of this amount is found on the scale of the apparatus, and the number noted. If the patient finds after some time that what at first was felt to be a slight exertion has entirely ceased to be so, one may conclude that the strength of the muscles has increased, and therefore the resistance of the apparatus must also be increased. The gradual development of the muscular system cannot be obtained in a more perfect manner. It is of much importance to be able thus to modify the amount of exercise with accuracy, especially in cases of weak persons whose sense of fatigue varies from day to day. Movements performed thus by machinery, which never tires or suffers from illness, as is unfortunately the case with shampooers, allow the institution to accommodate a larger number of patients, and that, too, at a moderate cost, an important feature which places the benefits of this mode of treatment within the reach of many. Dr. Zander's institution is open daily from October 1st to June 1st; four and a half hours daily for gentlemen, and two to three hours for ladies. To each patient is given a prescription ordering specified movements, and fixing the force to be employed in accordance with his or her strength and requirements.

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[1] A paper read before the Medical Society of London, where three of the machines and photographs of others were exhibited to the Fellows.

Although most attend for the relief of some special ailment, yet many go through the various exercises in order to ward off the effects of a sedentary life. Dr. Zander enumerates the following as the complaints which are most frequently treated by him :—Chronic heart and lung diseases, catarrhal condition of the throat, stomach, and intestines, constipation, hæmorrhoids, uterine diseases, paralysis of various forms, cramp, diseases of the joints, such as anchylosis, sprains, &c., rheumatism, spinal curvatures, deformities, &c.

At first sight this method of treatment would hardly appear adaptive to the distressing symptoms of persons suffering from heart disease, but on closer inspection it will be easily conceivable that well-arranged, varied, and regular exercise, if not overdone, may beneficially influence even a circulation disabled by valvular lesion. Judicious muscular contraction by promoting the onward flow of the blood in the peripheral vessels, and by stimulating arterial tension, facilitates the circulation, thus relieving an overloaded and obstructed ventricle and regulating the heart's action. And such practically Dr. Zander has proved to be the case in the large number of patients who attend his institution for the treatment of various cardiac derangements. Their symptoms are essentially mitigated under the judicious use of these mechanical contrivances; palpitations become less frequent, dyspnœa and distress are considerably diminished. In that condition of soft and wasted muscular tissue, combined with general want of mental and physical tone, so invariably found in connexion with convalescence from acute and severe illness, not only does this method provide an invaluable aid to therapeutics, which may induce a speedy restoration to health, but is also well calculated to prevent disorders which so often imperil complete recovery at such periods.

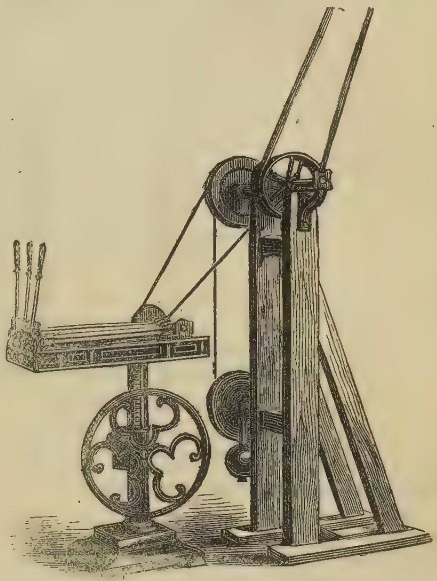
For the treatment of lung disorder, accompanied with deranged bronchial secretion, loss of elasticity, congested vessels with want of power in the respiratory muscles, the mechanical method promises well. Moreover, even during pregnancy, a regular and careful exercise of the muscles has proved highly beneficial to the general health. It is impossible in the scope of this short paper to allude to all the different machines devised by Dr. Zander, or to name even the diverse movements for which they are used; but amongst others I may be permitted to quote their inventor relative to the value of the following passive movements—viz., vibrating, chopping, foot-rubbing, trunk rolling, and chest expansion :

"*Vibrating machine* for shaking various parts of the body. Shakings are especially valuable as curative agents on account of their well-defined physiological effects. On tired or aching muscles and nerves they have a very refreshing and relieving effect. Pain is often entirely subdued by a single shaking during some minutes. Sensitive persons taking a foot-shaking feel a certain sense of coldness in the feet during the operation, but become soon afterwards warmer than before the movement. When taking a shaking on the os sacrum, one can easily feel that the walls of the rectum and the bladder vigorously contract, especially if they are full. Shaking of the chest or the throat facilitates the expectoration in catarrhs, and the absorption of pleural exudations. Shaking of the back between the shoulder-blades has a specific effect upon the action of the heart; it always makes its contractions less frequent and more effective. Persons suffering from nervous palpitation feel very much relieved after such a movement; the pulse has in one case been observed to fall from 130 to 90. In cases of fatty degeneration of the heart, when its action is very weak and very rapid, the back-shakings, together with such movements as facilitate the action of the heart by lessening the pressure of the blood in the arteries, are invaluable.

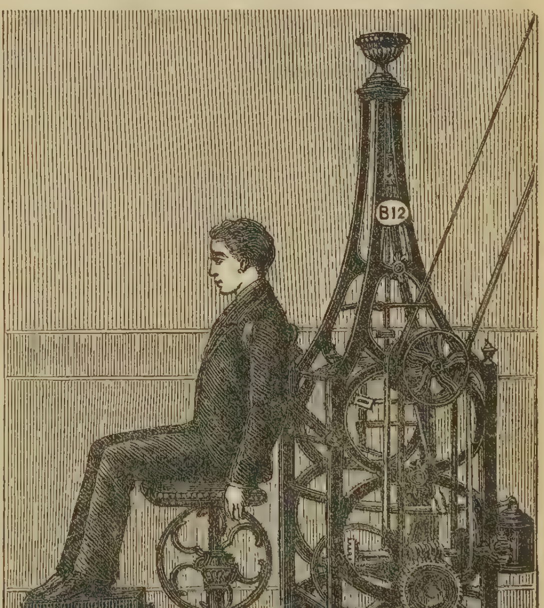
"'*Chopping*' *or rapid* '*hammering*' on various parts of the body has a more superficial effect than shaking. The movement consists of a number of alternating and rapidly succeeding compressions and relaxations of the superficial soft parts, draws the blood to the part acted upon, and produces an increased warmth and vitality. It is used as a stimulant and derivative agent.

"*Foot-rubbing.*—The patient puts the soles of the feet against the rapidly revolving, furrowed wheel, a piece of soft chamois being placed between the feet and the rubbing surface of the wheel. The operation has a stimulating and warming effect, and is very efficacious in drawing blood to the lower extremities.

"*Trunk-rolling.*—The patient takes his seat on a sort of saddle fastened to the top of a vertical lever, the lower end of which is made to rotate in larger or smaller circles, the fulcrum being near to the saddle. By this means the saddle is successively inclined in all directions; the angle of inclination being large in proportion to the diameter of the circle, which the lower end of the lever describes. The patient, seated on the saddle, is obliged to use all the muscles round the waist to keep his balance. Moreover, the abdominal viscera are, as it were, kneaded and rubbed against each other and the abdominal walls; which cannot be without a beneficial influence upon the circulation in their bloodvessels, as well as their respective functions. The movement is used not only to strengthen the back and abdominal muscles, but also to cure torpidity and circulatory disorders of the abdominal viscera.



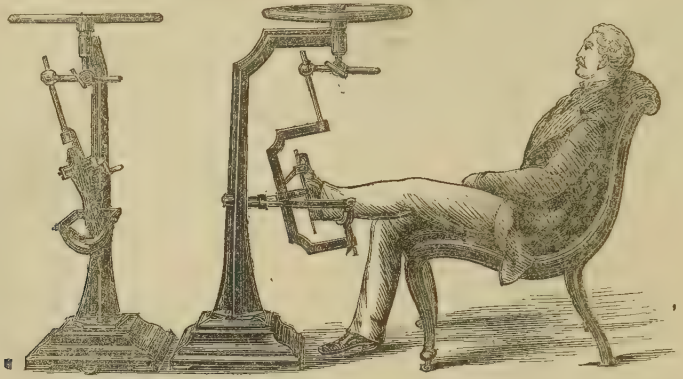
MACHINE FOR RAPID HAMMERING OR CHOPPING.



MACHINE FOR CHEST EXPANSION.

"*Expansion of the chest.*—The thorax is pulled upwards by means of two levers, while a pad makes a horizontal pressure on the back. The trunk is hereby elongated a few inches, and the spine and the walls of the chest are stretched. After some seconds the machine permits the thorax to sink down, and the movement is repeated seven to ten times. The patient remains perfectly passive, only inspiring during the pulling up, and expiring during the sinking of the thorax. Persons who carry on a sedentary life respire very superficially; the walls of the thorax become too stiff, and make the respiratory function laborious; the lower lobes of the lungs partake very little in the respiration. By using the chest expansion, the walls of the chest recover their elasticity, and the patient is made to inspire deeply, so that the air can penetrate to every part of the lungs."

MACHINE FOR ROLLING THE FOOT.



Rolling of the foot acts upon the muscles, which bend and straighten the foot, working the ankle in a circular manner. If the thigh be not fixed, the rolling movements are the result of the action of the muscles of the whole leg. This, while being less tiresome, is not of such benefit to the ankle as when the thigh is kept in a fixed position. It greatly assists the circulation in the lower extremities.

Harley-street, W.

ON GENERAL PARALYSIS OF THE INSANE CONSECUTIVE TO LOCOMOTOR ATAXY.

BY W. JULIUS MICKLE, M.D., M.R.C.P.,
MEDICAL SUPERINTENDENT, GROVE HALL ASYLUM, LONDON.

(Concluded from page 820.)

I WILL now describe an example of general paralysis of the insane following locomotor ataxy, and recently under my care.

CASE. *Locomotor ataxy of about five years' duration; general paralysis of nearly four years' duration; death; necropsy.*—Mr. ——, aged forty-three, married, admitted on July 24th, 1877. As one of his friends expressed it, "he had lived his life." When a youth he had indulged in sexual excess; subsequently he married early, had a large family, and was confessedly amorous in his marital relations. Without drinking to any decided excess, he had always been of a convivial turn, and fond of spending the night with companions, playing at cards, and drinking and smoking more or less. He had been active in his vocation, had worked hard, had been anxious to succeed in business, and ambitious to place his family in still better standing. Physically he was not strong, and had often over-exerted himself. For a long time before the patient's admission his medical attendant (since deceased) noticed the patient's gait become impaired in a way similar to that existing on admission. He had also been laid up with severe pains in the back and limbs after a fall, and for a long period before mental symptoms supervened he had from time to time suffered from sudden, shooting, darting pains in the lower limbs, which usually were only transitory, and even momentary. He had, however, behaved very strangely to his wife on one occasion immediately after her confinement, and about a year before his admission to the asylum. At the time of his admission she was again several months advanced in pregnancy. Pronounced symptoms of insanity, recognised as such, had existed for three weeks before his admission; but for several months the patient had shown some mental alteration, although he was not then looked upon as being insane. Latterly he became speculative, bought and sold horses and cattle, drank more than usual, lent or gave away money to undesirable and unsteady acquaintances, and was unwontedly active, fussy, restless, and violent in temper. During the three weeks of more active symptoms immediately preceding his entry he had threatened to poison his brother, under the delusion that the latter was an illegitimate pretender; he had been coarse and violent in language and in manner before his wife and children, and in public places and railway carriages; his buying and selling had been reckless; his temper violent; his driving furious; his language had been incoherent, and had revealed extravagant views as to his money and possessions. Transactions resulting in loss he declared to be fruitful of gain. He stated that he would live long, and would leave each of his children £10,000; that he was about to buy an estate, and had a horse about to win £10,000 in a race.

On admission, the patient was found to be 5ft. 8in. in height, and to weigh 137 lb.; thin; viscera healthy; cardiac sounds loud, the second widely heard; pulse 120, full, compressible; pupils equal, rather small, slightly irregular in shape, sluggish; tongue protruded slightly to left, irregularly and shakily, pale, large, flabby, indented, furred; face somewhat flabby; occasional facial and labial trembling or twitch during speech, sometimes on the left side only; complexion rather muddy, dilated venules on cheeks; speech tremulous, occasionally slightly hesitating or pausing, and mainly so when he commences to speak. Gait ataxic, steps high and somewhat wide, feet thrown outwards, toes at first out, but turn in at moment of reaching ground, heels somewhat brought down, whole movement of walking irregular, shaky, and jerking. He can stand with the feet close together so long as the eyes are open, but when these are closed he at once sways and falls; with feet wide apart and eyes closed, his frame sways and rocks unsteadily to and fro, but he does not fall. Grasping power of hands good, handwriting shaky, and slightly irregular and erratic. The patient denies having had venereal disease, except gonorrhœa once when young. He speaks of former lumbar pain and tenderness, of former severe pains in legs and feet, and failure of power in the legs. Shortly after admission he twice hurled a flower-pot through the window-glass. Demands £210,000 as compensation for his illegal detention. "Has 400 acres of land, six hunters, three nice grooms, a pack of hounds, and will hunt for sixty years." "Sold seven horses last week for £200 each." "Will win £100,000 each on the Newmarket, Cesarewitch, and Liverpool races." "Has bought 100,000 hats." "Has been kind and good to everyone, and is beloved by all." "His father was the best man who ever lived." Wants to be off; even at midnight demands a cab. Says his wife is here or near at hand; is easily diverted; at one moment crying, denouncing his detention, and threatening vengeance; at another he is smiling, patronising, and good-humoured. Ordered physostigma and iron, and a night draught of chloral and potassium bromide.

After being active, restless, and energetic for a time, he became depressed early in August, weeping often, and the physostigma was omitted, and, as he now slept well, the hypnotic was also discontinued. The face, lips, tongue, and gait were less affected than before. Cod-liver oil was given.

At the end of August the exaltation and extravagant delusions were buoyant. "God had told him that his father and mother were sitting next to Him in heaven, and that after death he himself would sit next to God." "At night he sees angels sitting on his bed." "Has £30,000 a year, and will derive enormous wealth from two patents; will buy and clip all the sheep in the world." Speech, tongue, lips, face, and pupils worse again, and now much as on admission. Iris thrust forward, gait variably ataxic. Pulse 102 and 114, compressible. Resume physostigma and iron.

October.—Very depressed; weeps about being detained; worries about imaginary losses of large sums of money. "Had £1018 from an 'accident company,' which must pay him £300,000 more." Pulse 110.

November.—Occasionally depressed, and even refusing food for a meal or two. Writes letters containing the foulest abuse of some of his friends. Writes letters to me, and to himself, purporting to be from his friends, and to make arrangements for his discharge, and tries to get them secretly posted. Delusions of identity, fancying he formerly knew certain of his fellow-patients. Gait highly ataxic, although he boasts that he can run better than ever. Speech and facial condition, which had been worse, were now improved. Pupils small and somewhat sluggish. Refuses any medicine.

December.—Now takes cod-liver oil.

Jan. 1st, 1878.—"He, his wife, and children will live until the resurrection day. Is God by Jesus Christ. God sent an angel to him last night to tell him so; it perched on his foot, and stroked his face with its wings to wake him; he did not see it, but heard its message and felt its touch." Still makes claims on an "accident company" for large, varying, and often odd amounts.

March.—Weight 137 lb.

August.—Handwriting same as on admission. Gait ataxic, forehead and brows often affected by twitches of occipito-frontalis and upper part of orbicularis palpebrarum; during speech there were occasional twitches about the upper lip, zygomatici, and levatores labii superioris alæque nasi, and either during speech or at other times twitching of the left cheek. Pupils equal, small, slightly irregular, somewhat sluggish. Speech occasionally pausing, hesitating, with partial repetition of syllables, and quasi-stammering. The tongue was tremulous on protrusion, and then slight twitches played about the lips and face. The lower part of the face was losing the lines of expression; the skin was now clear, and there were traces of a florid complexion. Incontinence of urine occurred by day and night. At every passing train he shouted "drop," and explained that whenever he did so the engineers on the train dropped dead, and that 100,000 of them were piled up dead at the station. He struck them dead, he said, because they were quite naked and drove trains without freight or passengers, thus putting him to an enormous expense to repair 4,800,000 carriages. "There are only a dozen people in London, little cads, whose lives he had saved. He had supplied all England with meat and saved her from dying, and God says he's the best man who ever lived. He bought 150 of the best pictures in the world at 1*s.* a-piece." He talks to God, replying to his own queries, and in this imaginary conversation the replies, he says, are uttered by God.

May 6th, 1879.—Weight, 135 lb.

Sept. 15th, 1880.—No patellar tendon-reflex; no ankle clonus, but some twitches and startings when either foot is forcibly extended upon the leg; moderate twitches and jerks of legs in reaction to tickling of soles of feet; pinches of feet are not much noticed; occasional spontaneous, irregular, twitches and jerks of legs. Gait excessively jerking and ataxic; can scarcely take a step safely; in attempting to walk the feet are thrown outwards and the heels are brought down in a wildly erratic manner. Pupils equal, small, act moderately to light and in accommodation. Tongue flabby; very jerkily, irregularly, and imperfectly protruded, twitching and shaking much. Speech much embarrassed; cannot give his name; to everything replies, "All right"; and often wears a happy, fatuous look. Continual incontinence of urine, and, occasionally, of fæces. At and after this time the locomotor disability was so great that he had to remain in an easy-chair. But while in it he continually straightened and extended the lower limbs. The upper limbs also were kept straight and extended, and the forearms extremely pronated, wrists flexed, and hands abducted, so that the palms were turned outwards, backwards, and even somewhat upwards. The voluntary movements of the arms were attended with twitching and jerking, which also occurred when the parts were at rest. As for the usually straight, extended, and more or less rigid legs, voluntary and involuntary movements of them were attended with twitching and jerking, and slight pinches or scratches, or passive motion of the legs brought these on as well. The right foot was in the position of mild talipes varus; there was now slight ankle clonus; speech was much affected; tongue protruded with great difficulty, and with much jerking and twitching of it, and simultaneous twitches of face and lips, the spasm playing over the features for some times afterwards. Some anæsthesia and analgesia, of lower limbs especially. The patient was smiling and "all right" to the last, although at times scarcely able to utter the words. During the last two months of life he was continuously bedridden, and for a month or two before that had been unable to leave an easy-chair.

Dec. 23rd.—Severe convulsions came on at 2 A.M., but had ceased by the time he could be seen by the medical officer called to him. After the convulsions the patient became, and continued to be, comatose, with slow pulse, infrequent gasping respiration, livid and pale face, and pupils of moderate size. Brandy enemata were given. Died at 10 A.M.

Necropsy.—Brain: Dura mater slightly thickened and congested. Olfactory tracts and bulbs wasted. Optic nerves rather shrunken, but white. Other cranial nerves of ordinary appearance. Arteries at base of brain healthy. Superior and posterior meningeal veins full; meninges hyperæmic. Arachnoid highly opaque over superior external and internal cerebral surfaces; the opacity is patchy, it is only slight over the tips of the occipital lobes. Pia-matral œdema, corresponding in relative degree and distribution with the opacity of arachnoid. Adhesion and decortication of summits of gyri marked. On the right cerebral hemisphere this adhesion occurs especially over the entire upper surface of the first and second frontal gyri, and over that part of the third adjoining the vertical branch of the Sylvian fissure. Scattered points of the same are found on both ascending convolutions; the supra-marginal gyrus suffers severely, the angular rather less, the postero-parietal lobule slightly, the first occipital very slightly, the temporo-sphenoidal are considerably affected along their whole external surface, the under surface of the temporo-sphenoidal lobe suffers somewhat, the back part of the orbital surface considerably, as also the inner cerebral surface bordering on the periphery of the great cleft. On the left hemisphere are well-marked, extensive adhesions over nearly the whole area of the summits of the first, second, and third frontal gyri, the lower two-thirds of the ascending frontal, and the supra-marginal. Moderate adhesions over angular, front part of postero-parietal, whole external and inferior surfaces of temporo-sphenoidal lobe; also on orbital surface. Slight adhesions over front part of occipital lobe. The ascending parietal escaped this change, except its lower half inch. Surface of erosions reddish. Grey cortex wasted in frontal and parietal regions; rather pale at base. Brain considerably vascular; also soft and flabby, except the anterior portions of white substance. Fornix diffluent. Lateral ventricles appear fairly healthy. Basal ganglia rather soft, and contain a liberal blood-supply. Cerebellum: Some adhesions on its surface, consistence rather diminished. Pons Varolii and medulla oblongata rather soft and vascular. Ependyma of fourth ventricle thick, and of a gelatinous sanded appearance. Weights: Right cerebral hemisphere, 18½ oz.; left, 17¾ oz.; cerebellum, 5¼ oz. Pons Varolii and medulla oblongata, 1 oz. Fluid from brain, &c., 3 fl. oz.—Spinal cord: Meninges thickened, chronically inflamed. Spinal dura mater congested. Spinal pia mater thickened, particularly over the posterior aspect. Well-defined grey degeneration and induration of the posterior columns of the cord. This is most marked in the lower dorsal region, where the grey degeneration affects the entire width of the posterior columns, ceasing on each side with the posterior horn of grey matter and posterior root-zone; at least, extension to the lateral columns was not obvious in the sections examined. At this portion of the cord the posterior nerve-roots are grey and indurated. But as the grey degeneration is followed upwards, instead of reaching transversely from posterior nerve-root to posterior nerve-root, it gradually becomes limited to that portion of the transverse section which extends half-way from the posterior median fissure to the posterior grey cornua, and finally, at the upper part of the cervical region, is almost confined to the slender posterior median columns. This limitation gives it something of the aspect of a secondary lesion here. The posterior roots of the cervical spinal nerves are of natural appearance and consistence. Above, the sclerotic change runs to the rib of the calamus scriptorius, where it ceases on the surface, and apparently ends, or dips into the floor of the fourth ventricle.

THE PATHOLOGY OF HEPATIC CIRRHOSIS.[1]

By WM. ROBERT SMITH, M.D., F.R.S. Ed., F.C.S.,
PHYSICIAN TO THE CHELTENHAM DISPENSARY.

Before entering upon the subject matter proper of hepatic cirrhosis let me refer very briefly to the normal structure of the liver. It is a very large glandular organ situated in the right hypochondrium, weighing on an average about three pounds. It measures in its transverse diameter from ten to twelve inches, and from six to seven in its antero-posterior, and at the back part of the right lobe, which is always the thickest part, two and a half to three inches. Its upper surface is convex, and, owing to its capsule, is smooth, regular, and glistening, of a bluish-pink colour, whilst its under surface is concave and mapped out into several lobes by the various fissures. On section the liver is found to be of a chocolate colour, of a firm elastic consistence, and to be composed of lobules, which are, however, very indistinctly seen. The various openings are in great part those of the portal veins, the others being hepatic veins. Under the microscope the capsule is found to be attached to the liver by bands of connective tissue, which join the connective tissue of the stroma of the organ. The lobules are remarkable for the great indistinctness of their outline. This is their normal appearance. At the centre of each lobule is the opening of the hepatic vein. This varies very much in size. From it radiate the rows of liver cells which form the bulk of the substance of a lobule. The cells are nucleated protoplasts having no periplast, and more or less spheroidal in form, but their shape varies much, owing to pressure from their fellows. They are from the one-thousandth to the two thousandth of an inch in diameter. Round each cell is a small capillary bile-duct.

The hepatic artery ramifies in the middle part of the lobule, breaking up into a capillary network, which encloses the cells. The portal vein is distributed at the lobular periphery. For pathological purposes, then, the liver is divided into lobules, and the lobules into three zones: the inner, or zone of the hepatic vein; the middle, or zone of the hepatic artery, and the outer, or zone of the portal vein.

In cirrhosis of the liver the morbid appearances found in cirrhosis are of two kinds: in the one case the liver is reduced in size, when it is called the coarse cirrhotic—the small, hobnail, or gin-drinkers'; whilst in the second variety the liver is enlarged, when it is called the fine cirrhotic, the hypertrophic or large.

We will take the small variety first, the coarse cirrhotic. In this the liver is much reduced in size, being about one-third its normal state; it has also lost weight; very tough in consistence, resembling a piece of soaked leather more than anything else; it is hard and has a distinct fibrous feeling. The surface of the organ is very irregular, being marked with elevations varying more or less in size from the dimensions of half a millet seed to those of a small filbert. These elevations are rounded masses of fibrous tissue enclosing perhaps in some instances small portions of the liver parenchyma, and between these elevations are depressions where the capsule is found to be very much thickened; the edges of the organ are thinned, and finally become a mere indurated border containing no liver tissue.

On section very often great resistance is experienced, resembling that met with in dividing a scirrhous growth, and the same elevations are seen as on the surface. The organ is usually found jaundiced of a canary or olive green colour, whilst the whole of the cut surface appears to be beset with fibrous tissue; the large branches of the portal vein are usually much dilated and filled with blood.

Under the microscope the capsule is seen to be very irregular in outline, showing elevations and depressions. Below this the subcapsular tissue is much thickened; in some cases it is alone thickened, whilst certainly in the majority it is more thickened than the capsule. From the capsular depression bands of fibrous tissue proceed, which, as we trace them into the liver substance, are seen to divide dichotomously, enclosing within these divisions several lobules of the liver. These bands shortly contract very much, causing the depressions in the capsule, and sooner or later the destruction of certain of the cells by fatty degeneration.

The fibrous tissue is composed of three elements: first, of small, round, embryonic cells; second, of a large quantity of white fibrous tissue, yellow elastic tissue never being reproduced in the body; and, thirdly, of very delicate, spindle-shaped cells. If the fibrous tissue is young, the small, round, and spindle-shaped cells will be found in greatest abundance, whilst if the tissue be older the white fibrous tissue preponderates. No doubt part of this tissue arises from the connective tissue investing the individual lobules, but by far the greater part comes from the liver cells. In the first place, the nuclei of these cells are seen to enlarge considerably; this enlargement is rapidly followed by their division; very shortly then division of the whole cell takes place. This cycle of changes goes on over and over again, the nuclei being large, whilst the protoplast is small, until at last free nuclei are produced. These then elongate into spindle-shaped cells, and ultimately develop, into the white fibrous tissue. The remaining cells undergo atrophy from fatty degeneration, and so the whole of the cellular elements are destroyed.

The fibrous tissue is abundantly supplied with blood-vessels. In the section under the microscope the vessels will be seen both large and numerous. The smaller branches of the portal vein are in great part compressed or obliterated by the cicatricial tissue, whilst the area of distribution of the hepatic artery steadily increases. To this narrowing of the portal veins may be traced the dilatation of the larger branches and the subsequent congestion in the intestines and spleen, the ascites and other distressing symptoms. Owing to the increase in the distribution of the hepatic artery and the diminution in the size of the lobular portal capillaries, the bile is, to a great extent, elaborated from arterial blood.

The hepatic ducts, as a rule, remain pervious, the jaundice, which so frequently occurs in cirrhosis of the liver, especially towards the fatal termination of the disease, is most probably owing to a catarrh either of the hepatic duct or the ductus choledochus, or both, causing swelling of the mucous membrane, and consequent obstruction to the exit of the bile.

In the second variety of cirrhosis, the fine, hypertrophic, or large, the organ is found to be enlarged in size, whilst the surface is uniformly smooth, or but very finely granular. On section the organ is seen to be jaundiced, and much portal distension is present. The fibrous tissue, however, is more distributed, and each lobule is distinctly mapped out by a band of cicatricial tissue, enclosing and isolating it. This tissue does not undergo contraction to the extent so remarkably characteristic of the coarse variety, and consequently we do not find the irregularities of the surface, the elevations and depressions, which were such marked features in the other variety, nor do we notice in this form of the disease that extensive destruction of the cellular elements which was so noticeable in the other. The reason the organ is increased in size is that the tissue is so abundant it more than compensates for the loss occasioned by the destruction of the cells.

Royal Hospital for Children and Women.—The claims of this institution were, on Wednesday last, warmly advocated by the Prince of Wales, who presided at a dinner given at Willis's Rooms in aid of the funds of the hospital. The annual expenditure in working the charity is, it appears, nearly £2500 more than the present subscribed income; and there is at the present time a sum of £3000 required to meet the expense attending the purchase of freehold deemed necessary to complete the building Over £2000 in contributions were announced at the meeting.

The salary of Dr. Robinson, medical officer of the old workhouse, Lambeth, has been increased from £50 to £75 per annum.

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[1] A paper read at the Gloucestershire Branch of the British Medical Association, with microscopical demonstrations.

PYÆMIA AFTER ENTERIC FEVER.

BY R. BRUCE LOW, M.D. EDIN.

THE occurrence of pyæmia in the course of enteric fever is of sufficient rarity to warrant me in placing the details of my case on record. I shall briefly relate the facts.

J. A——, aged fifty, a farmer, was attacked with enteric fever, and passed through the usual phases of this disease till the twenty-first day, when he had an alarming collapse. He was pulseless at the wrist, and the skin was bathed with a cold and clammy sweat, which was believed to be his "death agony." From these and other symptoms perforation was diagnosed, and an unfavourable prognosis was given. Restoratives, with other remedies, were prescribed, and he rallied. Two hours after the collapse his pulse was 140, and his temperature 97·2°. For the next seven days he remained free from pain, but with a slightly tympanitic abdomen; his stools were black at first, but gradually became pale and semi-solid, being studded with "scabs" on certain occasions, as stated by his wife. The temperature between the twenty-first and twenty-eighth days remained about normal; on the last-named day it was 99·8°. On the twenty-ninth day, or eight days after the collapse, he was seized with a most violent and prolonged rigor, followed by a very profuse perspiration, which saturated his night-shirt, and extended to the ticking of the bed on which he lay. The next day he had three severe rigors, followed by some copious sweats; and from this date, the twenty-ninth day of his primary illness, till the sixty-second (or thirty-three days from his first rigor) he continued to have rigors and sweats at more or less regular intervals. The morning, about nine o'clock, was the usual time of the attack. After the rigors had continued a week they began to miss a day, and, finally, they missed two days; but on all occasions the shiverings were of the most prolonged and most severe character, and were always followed by such sweatings as actually to cause the bed-ticking on which he lay to rot. The temperature, pulse, and respiration were taken regularly from the beginning of his illness for a period of sixty-five days, two or more observations being noted each day. After the first rigor the temperature rose to 103·4°, the pulse to 124. The highest point reached after a rigor was 105°, the highest point of pulse and respiration being respectively 160 and 52. It was noted that each rigor was followed, sooner or later, by the expectoration of a few mouthfuls of bloody sputum, which contained nearly always a small clot or coagulum about the size of a pea. This bloody sputum occurred only after a rigor, and at no other time during the illness; this fact is interesting as bearing on the diagnosis, as will be seen. The patient had severe diarrhœa after the twenty-eighth day, most offensive and at times containing blood. He had often vomiting before or after the rigors. No physical signs of consolidated lung could be made out. The right foot and leg became painful, and ultimately a large and painful swelling occurred in and around the ankle joint. He became now greatly prostrated, and could not even turn himself, and his motions were passed in bed. He often had a tendency to faint when the bowels were being moved. When the rigors missed a day the temperature remained normal, the pulse and respiration also came down. His skin became yellow and shrunken. He lay with his eyes shut and asked to be allowed to die without being disturbed. From this point he began to mend, and his last rigor is noted on the sixtieth day of his illness. For three months after this the patient was unable to go out of doors, but now he is able to go about on his farm. He is, however, still in feeble health.

Although writers on the subject of pyæmia admit that it may occur as a sequel of typhus, variola, or enteric fever, yet doubt is often thrown on the records of these cases. It is asserted that the diagnosis of enteric fever has not in these cases been satisfactorily made out, or if it has, that the so-called pyæmia has been only a relapse of the fever, an acute pneumonia or the like. That the case I have just related was in the first instance purely enteric is proved by the clinical history of the case, the presence of the usual symptoms, the spots, the diarrhœa, the temperature, &c. Two medical men saw the case with me, and concurred in the diagnosis. Enteric fever had seized twelve persons already in the neighbourhood. Seven of these cases were in the same street. During this illness the patient's eldest daughter, aged twenty-one, who had helped to nurse her father, took enteric fever, and died from hæmorrhage from the bowels on the sixteenth day of her attack.

In discussing the diagnosis of pyæmia I may state that the patient had a small bedsore on his sacrum before the collapse came on. As to pyæmia being the secondary affection, I point out the occurrence of the prolonged and recurrent rigors, followed by the profuse perspirations and the apparently normal condition between the rigors; the local lesions in the lungs, as shown by the expectoration of the extravasations, or pulmonary clots, which had ruptured the capillary network and thus escaped, and also by the inflammation and threatened suppuration of the ankle joint. The absence of other local morbid manifestations may be accounted for by the fact that in a certain class of cases of pyæmia the lungs are the only organs which are affected by these extravasations, and it is well known that the lungs are almost invariably affected by these deposits in pyæmia. Again, our patient had the intense prostration, the sickness, the bloody stools, the sallow countenance, and so on. The temperature showed a characteristic change from the typical enteric form. After the rigors it always rose, and it invariably on this account had its highest point in the forenoon and its lowest in the evening. The high pulse (160) after a rigor, and the quickened respiration (52), returning to almost normal in the absence of the rigors, are also points worthy of remark. What was the immediate cause of the pyæmic infection I cannot pretend to say, but it seems to have proceeded either from the lesion of the intestines, perforation, or abscess from local peritonitis in the region of an ulcerated Peyer's patch, or it may have resulted from purulent infection from the small bedsore on the sacrum. There is no ague in the district; the patient had never been abroad.

The house in which the patient lived was extremely defective in its construction. The old thatched roof was rotten and admitted rain in many places, the walls were blackened with damp, and the only ventilation in the sick-room was by means of the room-door. There was no fireplace in this damp bedchamber. The usual sanitary defects of these rural homesteads were present in an exaggerated form. I may say that no puerperal septicæmia or surgical fever had been found in the district for many years, and that therefore there could have been no infection from without. The treatment adopted was the ordinary rational treatment of such cases, known to all medical men who are interested in the subject. I need not, therefore, recapitulate; but only mention that quinine, stimulants, and the rigid enforcement of all possible hygienic measures, with an almost unvaried diet of milk, soda-water, and brandy (of which combination he never tired), were the remedies chiefly relied upon.

Helmsley, Yorks.

CASE OF PAPILLOMA OF FAUCES; REMOVAL.

BY J. LLOYD, M.B., M.S. DURH., F.R.C.S. ENG.

W. J——, aged seventeen years, a strong robust youth, consulted me about six months ago, suffering from sore-throat, evidently the result of catarrh. He soon shook off this condition under simple treatment, but it was followed in three or four days by an attack of monarticular rheumatism, the joint disease being confined entirely to the left knee, and accompanied by high temperature, loaded urine, and sour-smelling sweatings. I have related these few facts as illustrating a point to which attention has recently been called, the association of sore-throat with acute rheumatism. When examining his throat I noticed a growth attached to the right anterior pillar of the fauces; it was the size of a horse-bean, cauliflower-like in its surface, pale in colour, covered by a mucous membrane similar to that lining the general buccal cavity; it was pedunculated, soft and freely movable, lay between the root of the tongue and the fauces, and was painless and not very sensitive to pressure. He says he first noticed it about eighteen months ago, that it gives him neither pain nor inconvenience; he thinks it grows a little larger, but decidedly objects to have anything done for it, as he has been told that if it is cut he may bleed to death.

I had occasion to see this patient again early in March for a small superficial abscess of the cheek, and at the same time

I examined his faucial tumour. It was decidedly larger than when I saw it between five and six months previously. It was now the size of a marble, otherwise it had not altered in appearance. At the patient's request I removed it by simply catching it with vulsellum forceps and cutting off with curved scissors, being careful to take away the entire thickness of mucous membrane at the base of the pedicle. There was scarcely any hæmorrhage and little pain, the whole thing being too simple to deserve the name of "operation." There is now no sign of recurrence (two months afterwards), and no mark to indicate from where the tumour was removed. To the naked eye, after removal, the little growth had the characteristic appearances of papilloma; it was soft, compressible and branched, and very much resembling an ordinary gonorrhœal wart. It was composed of connective tissue covered by elongated papillæ with their surrounding thick layer of squamous epithelium.

I have considered this case, although not a serious one at the time of its treatment, well worthy of record from its comparative rarity and from the unmistakable features possessed by the growth. Although not strictly speaking a tumour of the pharynx, yet from its position it may have given rise to some of the accidents incidental to those tumours, such as impaction in the larynx, &c., and may also have been expected to resemble them in structure. I have been unable to find any case recorded as papilloma, undoubtedly the variety of tumour under which the present one would be classified by modern pathologists. The "soft fibrous tumour," described by Billroth as occurring almost exclusively in the cutis, approaches in appearance and structure the nearest to my case; this kind of tumour consists, however, of a maximum amount of connective tissue with a minimum of papillary growth, whereas in my specimen there is a maximum of papillary hypertrophy with very little connective tissue development. Another point I should like to mention is that in excision of any papillomatous growth less hæmorrhage follows its removal when the whole thickness of skin or mucous membrane is taken away than when the incision is carried more superficially. This fact was well illustrated in a case of gonorrhœal papillomata, which I recently removed from a young woman, where the growths extended from the pubes to the coccyx, completely obscuring the pelvic outlets and being as large as two closed adult fists. The tumours were rapidly excised with scissors, the whole thickness of the skin at their bases being taken away; the hæmorrhage was easily controlled, and the patient made a quick and perfect recovery. This treatment also does away with the necessity of applying caustics to the bases from which the tumours are cut away.

Birmingham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

> Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

MIDDLESEX HOSPITAL.

INTRA-UTERINE FIBROID TUMOUR, SESSILE; ITS ENTIRE DISCHARGE BY EXFOLIATION PROMOTED BY INCISIONS OF GRADUATED DEPTH INTO THE GROWTH.

(Under the care of Dr. HALL DAVIS.)

FOR the following notes we are indebted to Mr. W. E. Dixon, obstetric physician's assistant.

Elizabeth J——, aged twenty-eight, single, of dark complexion, and medium stature, was admitted on May 9th, 1879, on account of uterine hæmorrhage, of which she had been the subject for the last five months, most copiously at the menstrual periods.

On admission, the muscles were flabby, the lips, gums, and tongue pallid. Pulse 80; temperature 99°. An enlargement of regular outline in the central position could be distinctly felt on abdominal palpation, extending upwards from the pelvis to within an inch of the umbilicus. Vaginal examination discovered an enlargement of the body of the uterus, with an elongation of its neck. The axis of the uterus was very nearly in the axis of the pelvic brim. The uterus was mobile; its orifice would not admit the passage of the forefinger. The patient complained of aching and shooting pains in the hypogastric and sacral regions, reaching down to the knees. The patient was debilitated, constipated, the subject of palpitation of the heart, and of cardiac and arterial murmurs due to anæmia.

The bowels were first fully relieved by enemata and mild aperients. The os uteri was then gradully dilated by laminaria and sponge tents. The os uteri was thus at length sufficiently dilated to admit of the passage through it into the cavity of the uterus of the index-finger, and around the free surface of the tumour. This was felt bulging inwards from the anterior wall of the uterus, to which it was found attached sessile. Dr. Davis attempted to detach it from the uterus with the fingers, but its intimate union made that endeavour unsuccessful. The depth of the cavity, taken by the uterine sound, measured four inches. The patient was now placed under anæsthesia by ether, and the metrotome introduced into the uterine cavity, the knife being projected to the third of an inch, at the same time applied to the tumour, and drawn down through it; the os was also intentionally incised while withdrawing the metrotome.

No hæmorrhage of any consequence followed, but some pain ensuing was subdued by twenty minims of Battley's sedative solution. The uterus was washed out daily with Condy's fluid. During the following days portions of the tumour were discharged. The pulse generally was 100; the temperature from 99° to 102·6°.

On May 30th a repetition of the previous operation was resorted to under ether, after dilatation of the uterine orifice, as the tumour had not been wholly cast off, and therefore the cause of the hæmorrhages was not removed. More of the growth was discharged; some febrile disturbance followed, with a temperature of 103°, but this soon subsided.

On June 12th a re-examination discovered as yet a portion of the growth remaining, which, being incised, was entirely expelled, leaving the uterus perfectly free from all remains of the tumour, as ascertained by careful examination of the interior of the uterus.

No hæmorrhage had recurred since the first operation.

Note.—Since Aug. 11th the patient had been able to sit up daily, a tonic and restorative treatment having been pursued. On Aug. 25th she was sent to her home near Droitwich for further convalescence. Several months subsequently, having received a proposal of marriage, she returned to the hospital for an opinion as to her then condition and as to the question of matrimony. Dr. Davis found the uterus had quite subsided into the pelvis, and learnt that the hæmorrhage had not recurred even at the menstrual periods. She was informed that she might consider herself cured, and could arrange for her marriage after a further accession of strength.

Another case of sessile intra-uterine fibroid, equally therefore non-removable by the écraseur, had been in the hospital under Dr. Davis, but in which one section only of the growth had been followed by the expulsion after a few days' interval of the entire mass, and thus of the removal of the cause of heavy losses of blood.

INTRA-UTERINE AND INTRA-MURAL FIBROID OR MYOMA, REMOVED BY ENUCLEATION.

(Under the care of Dr. HALL DAVIS)

For the following notes we are indebted to Mr. R. M. Webster, obstetric physician's assistant.

Florence K——, aged thirty-five, married, stout, a blonde, blanched, was admitted on Feb. 21st, 1881. Her father died of phthisis; mother, brothers, and sisters healthy. Her menstrual function commenced at the age of twelve, and recurred at intervals of three weeks, but not profusely nor painfully. She married at nineteen, but did not conceive till seven years afterwards, when she had a premature labour through falling downstairs. A year later she had at full term her only child, now seven and a half years old.

At the end of September, 1880, the catamenia commenced to recur every fortnight, and profusely, lasting from nine to twelve days, attended by blood-clots. She was at first, for five days, an out-patient, but was then advised to come into the hospital. On admission she had all the appearances of anæmia. Pulse 100; temperature 96°; great pallor of surface and of the exposed mucous membrane; breath sounds generally and percussion note normal; a few crepitant râles at bases of lungs behind were alone heard; there was a slight cough; a systolic murmur heard all over the cardiac region and slightly in left axilla; no venous-hum heard above the clavicles. Vaginal examination of the uterus showed it to be bulky and suspended below normal level in the pelvis. The os uteri just admitted the index-finger, and within the uterine cavity was felt a smooth, dense fleshy body. The sound passed in beyond the normal depth, and could be swept around the enclosed tumour. The uterus could not be perceived above the pubes. Urine: sp. gr. 1027, acid, slightly albuminous on submitting it to the action of heat and nitric acid. Bowels constipated; tongue, besides being blanched, slightly furred; some headache.

To correct an offensive uterine discharge a solution of Condy's fluid was injected and an aperient given; guarana was administered at intervals with relief to the headache.

On the 24th and 25th, after washing out the uterus, sponge tents were inserted within the neck of the uterus, between it and the polypus, and changed for fresh ones of larger size at intervals of three or four hours.

When the required dilatation had been effected the single wire loop of an écraseur was adjusted around the polypus, and the wire gradually tightened till it crushed through its substance. On re-examination it was found that only about one-third of the growth had been removed. Therefore the loop was immediately again applied, pushed up over the tumour, the uterus being at the same time depressed, and the wire was tightened close to the uterine surface, but before it had made its way half through the dragging on the mass led to enucleation of the growth at the point of its attachment, which appeared to be situated within the uterine wall, and presented at the site of its connexion a convex surface. The patient was placed under anæsthesia by ether during the second application of the écraseur, as she had become restless. The entire polypus, which proved to be a myoma, was of the size of a full-sized fowl's egg. The uterus was afterwards washed out with a solution of Condy's fluid morning and evening as long as necessary, and the patient made a good recovery under ordinary treatment and a generous diet, completed by bitter and chalybeate tonic, being discharged convalescent on March 11th. About four weeks later she visited the hospital again with scarcely any pallor, and had had a normal period. A few weeks later she again applied, but only to assure us of her complete recovery and thankfulness. The anæmic murmurs had entirely vanished.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

RHEUMATIC FEVER WITH HYPERPYREXIA AND COMA; COOL BATH; CURE.

(Under the care of Dr. CARTER.)

EMMA R——, aged thirty-three, married and the mothe of a large family, was admitted on December 18th, 1880 suffering from her first attack of rheumatic fever. She had had slight pains for about ten days, but had only been confined to bed since the 13th. For the first three days the case presented nothing special beyond the fact that slight noise in the head was complained of before treatment was commenced, and that she had not slept for several nights owing to the intensity of the pain in the larger joints. Beyond this sleeplessness, which was easily accounted for, and the slight tinnitus there was nothing in her appearance, symptoms, or antecedent history leading to the anticipation of cerebral disturbance. She was a well-nourished, healthy-looking woman. Bowels regular; heart's sounds normal; pulse 104; respiration 28; temperature 100·2° at 11 A.M. A milk diet was ordered. The joints were wrapped in cotton-wool, and at 2.30 P.M. she commenced taking a mixture containing in each dose twenty grains of salicylate of soda and twenty minims of bromhydric acid. The first six doses were given at intervals of an hour, and the temperature had fallen from 101·8° at 2.30 P.M., to 99° at midnight. After the sixth dose the medicine was given every third hour. The pains, which had been so severe that all pressure of the bedclothes had to be taken off the inflamed joints, were greatly relieved, but it was noticed that with this relief and the fall of the temperature which accompanied it there was no corresponding decline in the pulse, which at midnight was still 114, and during the next two days varied from 114 to 122, the temperature being generally low, and only once for a short time reaching 101°. After the ninth dose of medicine she complained of deafness and giddiness; the respiration became somewhat sighing, and she vomited slightly at 4.30 P.M. on the 19th. Upon this the medicine was ordered to be given every fourth hour, and in soda-water. She again vomited at 10.15 P.M., but afterwards passed a good night. During the day the face had been flushed, and she had perspired profusely. On the 20th she was quite free from pain, had less noise in the head, but, as she had again vomited twice, and still complained of giddiness and deafness, the medicine was discontinued at 2 P.M. At 5.30 she for the first time became delirious. Immediately after the commencement of the delirium, which was at first mild, the temperature was only 101°, but whether it rose during the next few hours is uncertain, as her violence soon became such as to prevent the possibility of using the thermometer. To the hand, however, the skin felt quite cool. As she obstinately refused to take either food or medicine she was brought under the influence of chloroform, though with much difficulty, in consequence of her violence; and while unconscious two attempts were made to introduce enemata containing chloral hydrate and bromide of potassium into the rectum, but these were not retained a moment. Immediately on coming from under the influence of the chloroform she became as violent as ever; it was once more applied, therefore, and a quarter of a grain of acetate of morphia injected hypodermically. Further attempts, made later on, to introduce nutrient enemata into the rectum were unsuccessful. She slept well, but the temperature began quickly to rise, and by 2.10 A.M. of the 21st was found to be 105°, when the surface of the body was sponged with tepid water. The temperature fell under the sponging, which was twice repeated, to 100·6° at 5.30 A.M. At 6.30 she awoke, when the house-surgeon, finding her still delirious and refusing to take either food or medicine, again injected a quarter of a grain of acetate of morphia. At 7.45 the temperature was 106·2°. By 10.50 it had fallen to 104·4°, but at 11.50 was 107°. The patient was then deeply comatose, and unable to be roused by any external stimulus. It was not quite clear how long this very high temperature had lasted, as an hour had been allowed to elapse between the last two observations, and during that time an increase of nearly three degrees had taken place. She was immediately put into a bath at 90° F., while cold water was steadily poured over her head, and the temperature of the bath reduced by also running in cold water. She was in the bath an hour. In about twenty-five minutes, her body temperature having fallen to 103°, she became conscious, and ten minutes before being taken out made some rational observation and drank a little brandy-and-water—the first drink or nourishment of any kind that had been taken for twenty hours. When removed from the bath her temperature was 99·6°, and fifteen minutes afterwards 98·4°. She then took some warm beef-tea, and during the afternoon plenty of warm milk. The pulse for the first time since her admission fell to below 100. After this there was no difficulty. She slept well on the night of the bath; had slight pneumonia of the right base on the 22nd, which ran a very mild course and disappeared in a few days, to be followed by a moderate return of her rheumatic symptoms. These in turn were easily subdued, apparently by the use of smaller doses of the salicylate, and after a few weeks' residence she was dismissed quite well, no cardiac complications having been developed.

There can be no question that but for the bathing at midday on the 21st this patient would never have rallied from the state of coma, with hyperpyrexia, into which she had then passed.

STOCKTON HOSPITAL.

AMPUTATION BELOW THE KNEE IN WHICH NO LIGATURES WERE REQUIRED; RECOVERY.

(Under the care of Dr. FOSS.)

FOR the notes of the following cases we are indebted to Mr. John Hassall, M.B., house-surgeon.

J. H——, aged ten years, a school-girl, was admitted Sept. 18th, 1880. The girl was crossing the railway, when an engine struck her on the right side of the forehead and knocked her down. She rolled over to save her body, but was unable to get her left leg away in time to prevent the whole train passing over it. She was first removed home, and subsequently taken to the hospital. During this time a considerable amount of blood had been lost.

On admission severe shock was present. The face was pale and the extremities cold. The pulse was feeble. On the inner side of the left limb there was a deep wound commencing about the junction of the middle and lower thirds of the leg which ran along the posterior border of the tibia round the external malleolus and across the ankle to the outer side of the foot. The ankle-joint was opened into; the tarsal bones were comminuted; the vessels were torn across, and the tendons dragged out of their sheaths.

The patient having been placed under chloroform, Dr. Foss amputated through the upper third of the leg. The posterior flap was made by transfixion, and the anterior by cutting from without inwards, and consisted chiefly of skin. The limb having been removed, it was noticed that there was no bleeding from the flaps. The pulse could not be felt either in the femoral or radial artery. The breathing was regular. The surface of the body was cold. In a little time the pulse returned at the wrist, and a few seconds later could be felt in the groin. But still there was no hæmorrhage from the stump, so the flaps were brought together with silver sutures and the patient removed to bed.

She made a steady recovery, somewhat delayed by two granulating patches, which refused to heal until skin grafts were placed on them.

AMPUTATION THROUGH THE LOWER THIRD OF THE THIGH; DEATH FROM SECONDARY HÆMORRHAGE FIVE DAYS AFTERWARDS.

(Under the care of Dr. Foss.)

J. T——, aged forty-six years, was admitted to the hospital on March 24th, 1881, at 3 A.M. The patient's right leg had been caught in some machinery and severely crushed. The tibia and fibula were comminuted from the upper third downwards. The vessels were torn across, and these, together with the skin, were torn and contused. Chloroform having been administered, Dr. Foss amputated the thigh at a little above the condyles. The flaps being formed according to Teale's method, only the femoral artery required a ligature. The flaps were brought together by silver wire sutures. Not much blood was lost during the operation, but apparently before being brought in he had lost some, and at this time was suffering from this and a good amount of shock. The same morning, at nine o'clock, the temperature was 98·2°. In the evening the temperature was the same; the pulse was 116. A sedative draught was prescribed. He slept during the night and next morning. Pulse 120; temperature 100·4°. The dressings were stained with blood. Complained of pain in the stump, also in the other leg.

On the 27th the wound was dressed for the first time. The wound looked well; there was no tension or sloughing of flaps; no hæmorrhage.

About 10 A.M. next day the nurse noticed that he had fainted, and it was discovered that there was bleeding from the stump. Notwithstanding stimulants, he went into a state of collapse, and died in about half an hour. The quantity of blood lost was not large, but considering his condition, it was sufficient to cause death. A hurried examination of the stump was made after death, but no point from which the hæmorrhage could have come was observed. The ligature was firmly fixed in the femoral artery, and there was an organised clot inside it.

The Levee.—The following members of the medical profession were present at the levée held at St. James's Palace on Monday last:—Surgeon R. F. Adams, Surgeon T. Archer, Surgeon J. Battersby, Surgeon E. Butt, Surgeon L. H. Carter, Surgeon G. J. Coates, Surgeon S. A. Crick, Surgeon-Major J. S. Comyn, M.B., Surgeon-Major A. F. Churchill, Surgeon J. G. Crofts, Surgeon G. W. H. Cook, Surgeon A. B. Cottell, Surgeon F. A. B. Daly, Surgeon J. R. Dodd, Dr. Peter Eade (Sheriff of Norwich), Surgeon-Major B. Franklin, Surgeon-General S. H. Fasson, Surgeon R. W. Ford, Surgeon W. Deane-Freeman, Surgeon S. G. Hamilton, Surgeon-Major H. F. Hensman, Surgeon-Major E. Hoile, Deputy Surgeon-General F. Holton, Surgeon A. G. Kay, Surgeon R. C. K. Laffan, Surgeon G. S. Lewis, Surgeon C. A. P. Mittchell, Surgeon R. E. R. Morse, Surgeon H. J. R. Moberly, Surgeon-Major S. Moore, Surgeon-Major E. M'Crystal, Surgeon T. Mayne, Surgeon T. C. Nugent, Dr. Ord, Surgeon George Turner Phillips, Surgeon-Major William H. Pickford, M.B, Surgeon A. S. Rose, Surgeon S. Salaman, Surgeon A. T. Sloggett, Surgeon G. E. Twiss, Surgeon T. B. A. Tuckey, and Surgeon T. P. Woodhouse.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Hepatotomy.—Removal of the Uterine Appendages.

The ordinary meeting of the Medical and Chirurgical Society was held on Tuesday, May 24th, Dr. Barclay, President, in the chair. Two papers, by Mr. Lawson Tait, on subjects of considerable interest in connexion with abdominal surgery, were read. Mr. Morrant Baker exhibited a case of bromide of potassium rash.

"On Three Cases of Hepatotomy," by Mr. Lawson Tait (Birmingham). This paper contains the narration of three cases in which the author performed operations on the liver similar to those in two cases already received by the Society. Abdominal section was performed in all three. The liver was found not to be adherent to the parietes in any of them; the contents of the tumours were removed, and the edges of the wounds in the liver were stitched by continuous suture to the edges of the wounds in the abdominal wall, and drainage-tubes were fastened in. Two of the cases were operated upon for hydatids of the liver, and the other for a large cystic abscess enclosing a loose piece of liver tissue, weighing about an ounce, and which had apparently been a slough. All three patients made good recoveries.—Mr. H. Morris was surprised to hear that Mr. Lawson Tait preferred abdominal section to aspiration for unilocular hydatid cyst. During the last few months he had had two cases in which two aspirations had been successful. In one case eighteen and twenty ounces respectively were drawn off; in the other, under Dr. Powell's care, three or four ounces were drawn off by him on the second occasion, and both were, up to the present, cured. He should certainly hesitate to resort to abdominal section at first in such cases. There are no doubt other cases in which aspiration is quite hopeless.—Dr. Heywood Smith asked if there was any troublesome hæmorrhage from the incision through the liver, and whether pressure was sufficient to control it, or whether the vessels could be taken up. He wished to know if sinuses followed the use of drainage-tubes in such cases.—Mr. Hulke thought the great risk was the escape of the contents of the cyst into the peritoneal cavity, and he asked how Mr. Tait quite prevented this. He thought all surgeons must at times have regretted not making freer incisions into hydatids of the liver, especially when suppurating.—Mr. Lawson Tait replied that the hæmorrhage was stopped by pressure. He had had no trouble in now six cases of operation on the liver. He would never again aspirate liver hydatids; he had no fear of abdominal section, but he had fear of aspiration, and he had heard that aspiration rarely cured hydatid cysts. Styrian surgeons especially had this experience. The tapping does not affect the cyst at all, which may at any time refill. In his monocystic case he believed the patient was cured. His assistant seized the cyst with forceps on each side, and placed a sponge on each side, and so prevented any escape into the peritoneum.

"On Removal of Uterine Appendages for the Arrest of Uterine Hæmorrhages," by Mr. Lawson Tait. The author commenced his paper by referring to the use of the statistical method in testing the real value of operations, and especially instanced ovariotomy as one which would not have obtained the complete acceptance it has received had not the careful statistical method of Mr. Spencer Wells shown that its results could be favourably compared with those of every other major operation in surgery. Mr. Lawson Tait wished to lay his experience in another portion of the department of abdominal surgery before the Society, in order to obtain its decision as a guide for the future for himself and others. After protracted trials of drugs for the arrest of uterine hæmorrhage, he had come to the conclusion that all were absolutely without effect, save ergot and two salts of potash, the chlorate and the bromide, and these were by no means uniformly successful in giving permanent relief. In all the cases he had to relate these drugs had been fully tried before the question of operating was discussed. He had entitled his paper "The Removal of the Uterine Appendages," because his experience seemed to show that the removal of the ovaries was not a certain method of arresting menstruation, while removal of the tubes as well seemed to be so. The author then related thirty-one cases, of which four were fatal, twenty-seven recovering from the operation. A summary table was appended to the paper, which was a complete list of the operations and results. The author summed up with the following conclusions, which he considered might be legitimately drawn from them. 1. That, so far as its primary results are concerned, removal of the uterine appendages for the arrest of intractable uterine hæmorrhage is an operation which is quite as easily justified as any of the major operations of surgery. 2. That so far as its secondary results are yet known it is an operation which yields abundant encouragement for its further trial; as conclusions which are indicated but not wholly proved, he thought he might formulate a statement that removal of the ovaries alone is not sufficient to arrest menstruation, but that removal of both tubes and ovaries does at once arrest it. So far as some of these cases have gone the arrest would seem to be permanent. This conclusion is quite in harmony with what is known of removal of both ovaries for large cystomata, for in such cases the tubes are almost uniformly included in the clamp or ligature. Three at least of the cases, and probably two others, show that the arrest of menstruation by this means leads or may lead to the atrophy of uterine myoma. Finally, there is some close connexion, here pointed out, he believed, for the first time, and worthy of very close study, between uterine myoma and its accompanying hæmorrhages and cystic disease of the ovaries. In two of the cases cystic disease seemed to be the cause of the hæmorrhage without any myoma intervening. One other conclusion, he thought, was justified, that the whole subject is worthy of careful study, and should not be made the subject of premature and hostile conclusions. Dr. GRAILY HEWITT remarked that the subject was worthy of the closest possible study. He did not consider that Mr. Tait was in the habit of allowing due importance to conditions, often observed by him to be of moment in these cases, especially the causation of the hæmorrhages. Mr. Tait appeared not to assign any importance to the uterus in cases of hæmorrhage, but takes for granted that when any difficulties arise in the treatment of uterine disease, flexions, &c., the ovaries should be removed.—Mr. TAIT protested that his paper did not give any sanction to such a statement.—Dr. HEWITT said he gathered that from the paper; cases were regarded as incurable except by removal of the ovary, but his own experience was that hæmorrhage is very frequent in cases of uterine displacement, and is curable without removal of the ovary. Two classes of cases are grouped together in the paper: those in which there are tumours of the uterus, and those in which there are not uterine tumours, and in many of which there are displacements and cystic disease of ovary. In the cases of uterine myoma there are some in which this operation is justifiable, although he had seen cure by other means in cases as bad as any quoted. He had seen the other class of cases treated with success without this operation, by dealing with the uterus itself. One of Mr. Tait's cases was under his own care at one time; the patient came to him in a state of intense prostration, great vomiting, emaciation, and was threatened with phthisis; locomotion was impossible; the uterus was decidedly anteflexed. She was three times under his care, and was much better when she left his care, and he hoped to get her quite well; it was anteflexion of uterus with a very soft, relaxed condition of the organ. He could conceive of cases in which this operation was justifiable, but giving Mr. Tait full credit for his skill and for his record, he was sure there were many cases where correction of displacement of the uterus cured the symptoms.—Mr. TAIT said only two cases had flexion, both of which had been under Dr. Hewitt's own care.—Dr. HEWITT thought he heard four or five such cases read out.—Mr. TAIT said in only two cases was the uterus found flexed and replaced and stitched to the wound.—Dr. BARCLAY asked if Mr. Tait wished to recommend the operation where the ovaries were healthy, or only where they were diseased.—Dr. HEYWOOD SMITH said it was very important to recognise the condition of the ovary before the operation. In about sixteen of the cases the ovaries were cystic; the question arose as to whether there was not more tendency to hæmorrhage with commencing cysts in both ovaries than in advanced cystoma. He asked if the hæmorrhage was slight or great in separating the pelvic adhesions of diseased ovaries. He thought very slight alterations in the size, shape, and texture of the ovaries could be recognised before operation, and he thought normal ovaries were very rarely removed in this operation. The cure of flexions no doubt relieved the symptoms directly due to the uterus, but did not affect the ovarian trouble.—Dr. HICKINBOTHAM had seen many of Mr. Tait's cases. He thought sufficient stress had not been laid upon the previous treatment these patients had undergone before the operation. At first he had great doubt about the operation, and shrank from countenancing it; but he felt there were cases, in which hæmorrhage persists and threatens life after all other means have been tried, in which this operation promises a certain and tolerably safe cure. This operation, of course, ought to be hedged about with many precautions.—Mr. LAWSON TAIT replied that he had been told that the operation was liable to abuse, which meant that it would be performed simply for the sake of the fee, or that it would be done to protect women from the possibility of getting children. He thought no surgeon would be found thus to abuse it. This argument, too, was very dangerous. He would like to know how many unnecessary pessaries were applied; and it could be applied in the same manner to many other forms of treatment. The operation will always remain a hospital operation, and it has been quite the most unremunerative of all in his practice. Again, it has been said that it unsexes a woman; but the ovaries removed show that they are so diseased as to prevent bearing children, and the majority of the patients had either been quite barren, or had not had any children for many years, while it does not unfit women for marriage. The patient alluded to by Dr. Hewitt came to him suffering from a severe retroflexion. There could be no real division between ovariotomy and oöphorectomy, as none can say where one ends and the other begins. In one case only had he severe hæmorrhage, which was, however, controlled by pressure of sponges; no adhesions add to the danger of the operation. He never used drainage-tubes in the pelvis.

The meeting then adjourned.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on April 21st, Mr. Henry Power, President, in the chair, Mr. HENRY MORRIS read a paper on Naso-pharyngeal Polypi. He selected six cases which had come under his care within the last few years to illustrate—1. The different kinds of naso-pharyngeal or suffocating polypi. 2. The effects of these growths at different periods of their progress. 3. The various operations which are suitable to the different cases. Of these cases three have occurred in females and three in males. In four of the patients the affection commenced either before or just about the period of puberty. In three of these the polypus was of the firm fibrous variety, two of the patients being boys and one a girl. In the fourth the polypus was of the fibro-cellular kind, being somewhat firmer and tougher than the nasal gelatinous variety. The other two cases (4 and 5) were cancerous in character and occurred in adults. In Case 4 the patient was a man in whom the disease began about the fortieth year, and though of a cancerous nature, and persistently recurring after removal, he continued alive for more than five years; the operations, if they did not cure him, nevertheless kept off death from time to time and restored him, for lengthened periods, to a condition of comfort. Case 5 was also cancerous, and the disease affected a woman when in her fifty-eighth year. It was very rapid in its progress, and ended fatally within a year, the operation having had but little effect in prolonging life, but much in relieving her of very great suffering during the last months of her existence. Four of these cases support the view that the fibrous varieties attack generally young adults, though they do not give colour to the opinion that they are peculiar to the male sex, or that they always exist singly. Case 1, for instance, is opposed to both these views, the patient being a young girl and the tumours being multiple. Nor does this case give any support to the idea, that if these polypi have been persistently removed up to the age at which one no longer finds them commencing, they may be permanently exterminated, unless, indeed, this age is much beyond puberty. For this patient, in whom the disease began when fifteen years and a half old, has now, in her twenty-second year, a recurrence severe enough to prevent her lying down to sleep, and which before the last operation (Feb. 1880) occasionally threatened to choke her. Although we have to wait for adult life before we can expect to find the nature of these growths distinctly cancerous, it still may be considered far from inappropriate to apply the term malignant to some of these fibrous polypi in young boys and girls. Whether we consider the persistent recurrences, the destruction of tissues, the interference with the most important functions of organic life, the frequent hæmorrhages and the disgusting odour, and the decomposition of blood-clot and sloughing parts of the tumour, and finally the general typhoid condition which these several circumstances bring about—these polypi, though slower in effecting their fatal purpose, are as surely malignant in their results as cancer itself.—Mr. **POWER** asked if chloride of zinc, as suggested by the late Mr. De Morgan, had been applied in any of these cases.—Mr. **PYE** thought the fifth case could hardly be termed a naso-pharyngeal polypus.—Mr. **FIELD** asked Mr. Morris if he could recommend any plan of after-treatment to prevent a recurrence of the growth.—Mr. **MORRIS**, in answer to the President, said he preferred the application of the perchloride of iron to chloride of zinc. For after-treatment he occasionally used tannic acid in the form of a snuff.

Mr. **TEEVAN** read a paper on Interference with Micturition, the result of Prostatic Disease. It might be caused by — 1, acute inflammation; 2, chronic inflammation; 3, various alterations in bulk of the lobes of the organ; 4, stone descending into, or originating in the prostate; 5, malignant disease. All the above might in some way or other modify the act of micturition. Acute inflammation might be caused by the extension of gonorrhœal trouble, powerful injections, or tubercular and pyæmic deposits. If the patient could not micturate, an india-rubber catheter ought to be at once introduced, as it was the instrument which caused the least irritation, but it was not always possible to pass it in such cases, and if it failed a soft olivary catheter was indicated. By clearing out the rectum, filling it with ice, and placing half a dozen leeches on the perineum, the inflammation could usually be reduced, and the further employment of the catheter rendered unnecessary. If abscess formed it generally burst into the urethra, but if fluctuation could be detected in the rectum or perineum the knife ought to be at once applied. Chronic inflammation might follow gonorrhœa, or be caused by rectal trouble. The dull aching pain in the perineum and anus, associated with increased frequency of urination, was very wearying to a patient. The application of a few drops of a solution of sulphate of copper (five to ten grains to the ounce) to the prostatic urethra twice a week would usually relieve the symptoms. If it failed repeated blisterings of the perineum would generally effect a cure.—Alterations in size of the different lobes of the prostate: It was of the utmost importance to detect prostatic obstruction early, for if it were not attended to the bladder would become hypertrophied and fasciculated, and the patient condemned to a life of misery. The earliest symptoms of commencing trouble were nocturnal frequency of micturition and the tendency of the urine to fall vertically between the patient's legs instead of being ejected in the arc of a circle. The sufferer might be taught to relieve his bladder night and morning with a soft olivary catheter. It could not be too strongly borne in mind that dribbling of urine in middle-aged and old men meant retention, not incontinence. If the practitioner were armed with a bougie-catheter it was not necessary in cases of retention from prostatic obstruction to diagnose which particular lobe of the organ was enlarged, for the bougie would mount the hypertrophied median lobe, or pass round the projecting lateral lobe. The catheter could then be screwed on to the bougie, and made to follow the latter into the bladder, and so relieve the patient. A stone descending from the bladder might be arrested in the prostate, or have originated there. It was very important to make an accurate diagnosis, for cases had come under his notice which had been treated for retention from stricture where the obstruction was a stone in the prostate. If a metal instrument were not used the mistake might easily occur, for the sensation transmitted by the passage of a soft catheter through a urethra, narrowed by a calculus in it, was almost similar to that conveyed by the instrument when introduced through a tight stricture. When a man, who up to the time of the stoppage had always been able to pass a full stream of urine, was seized with retention, without any premonitory symptoms, the impaction of a stone in the prostatic urethra ought to be suspected. When a calculus was arrested in the deeper portion of the urethra it ought to be pushed back into the bladder with a wax bougie, and then crushed. Malignant disease of the prostate was fortunately very rare. It might not be attended by any pain, and could usually be detected by rectal examination disclosing the existence of a hard nodule in one side of the prostate, and not on the other. This want of symmetry was a most valuable diagnostic sign. The few cases which had come under his notice were all of the scirrhous kind.

The meeting then adjourned.

Reviews and Notices of Books.

A Treatise on the Materia Medica and Therapeutics of the Skin. By HENRY F. PIFFARD, A.M., M.D., Professor of Dermatology, Medical Department of the University of the City of New York, Surgeon to the Charity Hospital, &c. New York: Wm. Wood and Co. 1881. London: Sampson Low and Co.

IN this work Dr. Piffard, who is well known in America as a writer on diseases of the skin with somewhat peculiar views, has made a catalogue of all those drugs which have been described as having a direct or indirect effect upon the skin, and of their observed effects. For the purpose of his digest, which was made originally for his own personal requirements, he has searched widely in dermatological and general medical literature, and subjected himself to much labour, but we confess we are somewhat at a loss to understand for what class of readers the book is intended. Dr. Piffard has of course given prominent expression to his own views of treatment, but beyond that we do not think the work sufficiently exhaustive to be of great value as a book of reference to the specialist, and the general practitioner can find the indications for the treatment of diseases of the skin much more conveniently and completely given in many of the excellent existing handbooks. Without doubt, however, references to the writings of others will be of service.

The book is divided into two parts, and the first part, consisting of 117 pages, is devoted to a description of those drugs, arranged in alphabetical order, which exert an influence on the skin, and of the ways in which they act; the second part, consisting of 200 pages, is taken up with indications when and how to use such drugs, but for this latter purpose Dr. Piffard has written quite a treatise on skin diseases, and prefaced the treatment of each individual disease with its definition, description, diagnosis, etiology, and to some extent its pathology. The description of the ways in which drugs act are grouped under four headings—viz., A, "effects on the healthy skin that follow the ingestion of the drug"; B, "effects produced on the healthy skin by the local application of the drug"; C, "the cutaneous affections in which the drug has been found curative or useful when administered internally"; D, "the cutaneous affections in which the drug has been proven useful when locally applied." Dr. Piffard has made a catalogue of drugs old and new, including both those which have from various causes fallen into disuse, and many indigenous American drugs which are little known in this country. He by no means confines himself to the drugs favoured by so-called "allopaths," but gives us also those in use by other schools, and indeed for many remedies recommended by homœopathists he has a strong predilection, such as for viola tricolor, iris versicolor, hydrastis canadensis, rhus toxicodendron, and as a further instance we may mention that a favourite remedy with him for early syphilis is the hydrargyrum oxidum nigrum Hahnemanni in a state of trituration, in doses of from $\frac{1}{5}$ to $\frac{1}{25}$ grain. And this leads us to say that Dr. Piffard strongly advocates this special mode of administration for many drugs, which has been adopted in our Pharmacopœia in the case of hydrargyrum cum cretâ, such as for arsenious acid, black sulphuret of antimony, calomel, cyanide of mercury, corrosive sublimate, &c., on the contention that minute subdivision facilitates absorption. We cannot help regarding with some suspicion also in this connexion the marked manner in which he goes out of his way to mention the adoption of aconite and belladonna by Liston and sulphide of calcium by Ringer from the homœopathists. Extended as the list is, we may point out as examples of the incompleteness of the catalogue the absence of any mention of the usefulness of benzoic acid in urticaria beyond an incidental reference to a lotion in another part of the work; whilst of boracic acid he says nothing of its healing and soothing action in the form of an ointment. Under delphinium he simply gives a reference to its powers of destroying pediculi, and says nothing about its virtues lying in the oil extracted from the seeds. The account of arsenic is unsatisfactory, and we were much disappointed in finding simply a *résumé* of Hunt's rules for its administration, and of a paper of Dr. Farquharson, where we expected to find a thorough analysis of all that is known of the action of this important drug. And we would remark here that the physiological action of drugs is not fully set forth in this book, and that the latter would have been of much greater service if Dr. Piffard could have seen his way to add to our information as to a more elegant and effective combination of remedies for external application. Thus, under camphor, beyond the statement that it is useful in pruritus (and about this affection we can find no details in the book) combined with chloral, we find no account of its valuable solvent action. Amongst remedies newly suggested or little known in this country, we notice bromide of arsenic for pustular acne (two drops night and morning in an alcoholic solution of one grain in the ounce), and for dusting powders, photographers' graphite, and the officinal phosphate of calcium. Of the value of that old remedy, the *wild and uncultivated viola tricolor*, in acute and chronic eczema, especially in children of a lymphatic habit, Dr. Piffard speaks enthusiastically after twelve years' experience, for he states that, if employed in a proper manner and in suitable cases, its influence is as marked as that of cinchona in malaria or mercury in syphilis; and he is further satisfied by abundant personal evidence that rhus toxicodendron will cut short an acute case of eczema if given at the very beginning, and that "the 100th of a drop of a good tincture, or even a less amount, is not too small a dose to commence with." In treatment generally Dr. Piffard is a keen opponent of Hebra and his disciples, in so far as they hold that skin diseases with few exceptions are purely local; but he guards himself by pointing out to what an opposite extreme the French school has gone. At the end of the work is a formulary, with some new suggestions.

Recueil des Travaux Chimiques du Dr. Domingos Freire, suivi des Recherches sur la Cause, la Nature, et le Traitement de la Fièvre Jaune, par le même Auteur. Rio de Janeiro: Imprimerie de Molarinho et Mont', Alverne.

THE writer of this volume is Professor of Organic Chemistry at the Medical Faculty of Rio de Janeiro, and a Physician to the Hospital of N.D. de la Santé of that city. In his latter capacity he has had the opportunity of observing a large number of cases of yellow fever, and the results of these observations, as recorded by him, are of a very remarkable and interesting character. In the vomit (black, brown, and coffee coloured) of patients suffering from yellow fever, Dr. Freire discovered a great number of bacteria and of round cellular organisms, to which he gives the name of "Cryptococcus xanthogenicus." Studying the life history of the cryptococcus, he found that it presented two distinct phases. In the first it grew from the condition of a small granule, without perceptible structure, into a large cell with a distinct nucleus; this process took from four to five days, and was followed by a stationary period of from a few hours to three or four days. In the second phase conjugation of cells took place, with reproduction of fresh cryptococci, accompanied by the formation of a large quantity of pigment. At the same time bacteria throve and multiplied in the fluids experimented on. Next, comparing the history of the development of the cryptococcus as observed in the vomit, in blood, milk, &c., with the clinical history of yellow fever, Dr. Freire points out that the first stage of the disease, including the period of invasion, lasts from three to four days, which is just the time necessary for the cryptococcus to arrive at the adult state. Further, he has found in the blood of patients during this stage corpuscles with vibriones attached, "adhering to them like leeches," besides others in various stages of deformity or degradation. At the end of this period the blood is profoundly altered, the breaking up of the cryptococci lets loose a large quantity of yellow pigment, which colours the skin, and the fluidity of the blood favours pulmonary and mucous hæmorrhage. The temperature and pulse become normal, or nearly so, and an interval of apparent calm, accompanied by much depression, comes on. This second stage of the disease, like the stationary period in the history of the germ, lasts for two or three days. It is then followed by the third phase of the fever, in which all the symptoms become exacerbated: profuse and uncontrollable hæmorrhages, a weak thready pulse, delirium, and a general ataxic condition with this stage, which is generally fatal. Microscopic examination of the blood of patients in the third period shows, according to Dr. Freire, that "it can hardly be said to be blood which is circulating in the vessels; it is an unformed mass of cryptococcus, bacteria, vibriones, and detritus of all sorts."

Assuming the connexion between the fever and the organisms found in the blood and feeding on it, Dr. Freire fixed upon salicylate of soda, an antiseptic fatal to the growth of germs outside the body, as an agent likely to be useful in treating yellow fever. Viewing the rapid march of the disease he determined to administer the salt hypodermically, and did so with the most successful results. It is impossible to reproduce here the carefully prepared tables given by Dr. Friere, but out of a total of eighty-eight cases treated during the first period (in the first two days of the disease) eighty-three recovered, giving a mortality of about 7 per cent., while of the total number of cases treated the mortality was correspondingly low. The quantity of salt used varied, but injections of from three to eight grains were found effectual, and in some cases from sixteen to twenty grains were used without any inconvenience.

Naturally Dr. Friere writes with some enthusiasm of the results of his researches, which have however only extended through one epidemic; but if future experience should confirm these results there can be no question as to the great value of his addition to curative and pathological medicine. The book is carefully and clearly written, and the work is evidently that of a trained experimenter and observer. Accompanying the text are given plates representing the different organisms described, and their stages of development. We have passed over the first and larger part of the volume, which consists of a detailed account of various chemical researches and speculations, representing a year's laboratory work. These include careful studies of many of the alkaloids, of the processes of fermentation and rancification occurring in oils, &c., and an account of a series of experiments made by Dr. Freire to decide the part played by different gases in the urine. In the last-named paper it is shown that carbonic acid gas and nitrogen naturally present in urine are tolerably active in retarding fermentative changes in that fluid, while the presence of oxygen on the other hand gives a powerful impulse to the process of decomposition.

In his preface the author says that he intends to publish annually, under the form of archives, the complete results of his researches for the year. We trust he may do so, and that his succeeding works may be as valuable as the present, and as honourable to himself and the faculty which he represents.

A Guide to the Examinations at the Royal College of Surgeons of England for the Diplomas of Member and Fellow. By FREDERICK JAS. GANT, F.R.C.S. Fourth Edition. London: Baillière, Tindall, and Cox. 1881.

THIS edition is brought up to date, the latest examination papers are printed, and the several alterations in the regulations are noted; and those who find such information as is contained here of service will be grateful to the author for this revised edition. We are reminded, however, by its appearance that the truly successful guides to these examinations are the dissecting-room, physiological laboratory, and the wards and post-mortem room of a hospital.

New Inventions.

McKESSON & ROBBINS' CAPSULE PILLS.

WHEN we compare the small and silvered pill or the pleasant Pharmacopœial lozenge of this period with the bolus of thirty years since, we have a distinct sense of progress. But there is still a large field for invention in this department. We have before us a case of capsule pills—the work of Messrs. McKesson and Robbins, manufacturing chemists of New York, which show that our druggists will have in their brethren of the United States no mean competitors. These preparations are so full of taste and neatness as to give the medicines an inviting appearance instead of a repelling one. The case can be carried in the pocket or in the carriage, and a dose of any much-needed medicine administered without delay. The pills are of various sizes, some a little too large; but all are smooth and bead-like, and can be easily received by either the mouth or the œsophagus. The preparations are well worthy of trial. Those before us include capsule pills of sulphate of quinine, 1 gr. or 2 gr.; sulphide of calcium, ¼ gr.; podophyllin, ¼ gr.; pepsin, 1 gr.; pil. colocynth. co. (B.P.), 5 gr.; muriate of morphia, ⅓ gr.; ergotine, 3 gr.; &c. The agents of Messrs. McKesson and Robbins in London and for Europe are Messrs. Burroughs, Wellcome, and Co., Snow-hill.

A VACCINATION POCKET-CASE.

THE time is opportune for noticing a neat little case by Messrs. Salt and Son, of Birmingham, with compartments for holding tubes of lymph from any given child, and a corresponding ivory space outside it, on which the name and date can be written. The case contains also an instrument for vaccinating. In the instance before us the instrument is slightly too long for the case, and has been injured in the point. This should be made an impossibility. The case, too, it seems to us, might be constructed of lighter material. With these qualifications, it is one of the most useful little articles which a practitioner can have.

A NEW POCKET OBSTETRIC CASE.

MESSRS. ARNOLD & SONS have arranged a pocket obstetric case for Dr. Murphy of Sunderland. It is made of leather in steel frames, like an ordinary cigar case. It contains a hypodermic syringe, bottles for ether, ergot, ergotine, and morphia, together with a pair of scissors and a pocket for ligatures, &c. The case is a very convenient one, and an improvement upon the one ordinarily used.

CLINICAL TEACHING AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—There is a statement contained in the letter of "A Cambridge Undergraduate" in your issue of May 14th which requires some explanation. He states "that the majority of Cambridge students know no more of practical medicine and surgery after four years' attendance on the practice of Addenbrooke's Hospital, than an average London student knows after the first six months of his attendance in the wards of his hospital." Now, anyone of experience in such matters will agree with me in saying that the knowledge of medicine and surgery of the average student after his first six months in the ward is not very deep. He has, perhaps, learnt to diagnose a fracture or a simple tumour, is familiar with the ordinary surgical appliances and their practical use. Of the treatment of surgical cases he probably knows but little, while his knowledge of medicine is certain to be quite as limited. Now, "A Cambridge Undergraduate" asks us to believe that a large number of students after four years' attendance at a hospital of no inconsiderable size, abounding with cases of great interest, both medical and surgical, acquire no more knowledge than this.

As a matter of fact few Cambridge students of medicine occupy four years in attending the practice of their hospital; the majority, I think, spend about two, after which they proceed to the larger London hospitals, where they obtain a more extensive field for observation and study. It must also be borne in mind that during these two years they are placed in much the same position as the first and second year's students in London hospitals, their mind and reading being mainly occupied in preliminary scientific work, while they attend the practice of the hospital in accordance with the regulations of the examining bodies. Any student, however, who feels an interest in his work, and attends the medical and surgical wards of a general hospital, cannot fail, even in two years, to acquire a good deal of general knowledge, if he have not the advantage of systematic teaching.

At Addenbrooke's Hospital not only is there ample opportunity for observation, but also a regular amount of clinical teaching well suited to the knowledge of medicine and surgery which the students possess, delivered by men well able to perform the task they take in hand, in some instances by those whose names, as household words in the annals of the profession, are more than sufficient guarantee for the excellence and thoroughness of their clinical instruction. As a practical fact the students who come from Cambridge to the London hospitals are generally quite as advanced in their professional work as London students at the same period of their career. This is evidenced by the large number of Cambridge students who are at once advanced to the posts of dressers and clinical clerks on their arrival at the London hospitals, and who afterwards obtain the more valuable house appointments at those institutions. It is, of course, quite obvious that no amount of opportunities for observation, no clinical teaching, however excellent, can make a student possess a knowledge of medicine or surgery when he neither knows how to observe facts or to argue from them. An hour's lounge round the wards of a hospital three days a week will by itself no more teach a man surgery than the same time spent in a picture gallery would teach him to become an artist. I hope to have shown that want of practical professional knowledge is not a fault of the majority of Cambridge students when they go up to the London hospitals. The minority, with whom "An Undergraduate" seems more personally interested than myself, must not blame the clinical teaching of an excellent provincial hospital for what is really the result of their own idleness and neglect of opportunity. I am, Sir, yours, &c.,

May 23rd, 1881. MEDICUS.

COLLEGIATE LECTURES.—Professor Gerald Yeo, F.R.C.S., will commence his course of three lectures, "On the Contractile Tissues," in the theatre of the Royal College of Surgeons, on Monday, June 6th. Professor Jonathan Hutchinson, F.R.C.S., will commence his course of six lectures, "On the Laws of Inheritance in Relation to Disease," on Monday, June 13th.

THE LANCET.

LONDON: SATURDAY, MAY 28, 1881.

THE artificial attenuation of the virulence of the morbid agents which give rise to acute diseases is a problem of profound practical importance, opened up by the pathological investigations which have recently been undertaken in France. These researches, to which we have from time to time called the attention of our readers, and which have added new lustre to the somewhat faded reputation of French medical science, are due to the personal labours and inspiring example of M. PASTEUR. The special subject of the artificial weakening of the virulence of these poisons is the subject of an article by him and MM. CHAMBERLAND and ROUX in a recent number of the *Gazette Médicale de Paris*. The facts, very ably discussed by them, are of such importance as to deserve detailed description. Recent experiments have shown that the attenuation of a morbid virus is possible. Consisting as it does of a special organism of extreme minuteness, it is susceptible of artificial culture, by which, even though all external contamination is precluded, more or less considerable modifications in virulence take place, apparently under the influence of the oxygen of the air. The inference from these experiments is that the rational means of prophylaxis against these acute diseases is to endeavour to prepare from an active virus a vaccine virus of restrained development, capable of preventing the fatal effects of the former. Hence the great object of their researches has been to ascertain as fully as possible the conditions under which the oxygen of the air can exercise this effect.

The virus of anthrax, which has been so carefully studied, was the first object of investigation. The experiments on chicken-cholera are well known. But between the virus of the two diseases there exists a difference which prevents the vigorous application of the results obtained with one to the other. The organism of the chicken cholera does not appear to be resolvable, by culture, into definite germs. Only cellular elements, multiplying by fissure, are discoverable, and the conditions under which true germs are formed are unknown. Ordinary yeast is a striking example of such cell forms, multiplying indefinitely without any appearance of their spores of origin. The mycelia of many fungi in certain conditions give rise to the collections of cells called conidia, which, detached from their sources, seem to reproduce the organism under the forms of cells without any spore structures being discoverable. They are comparable to the plants which are reproduced by buds, and the seeds of which are not commonly employed for their multiplication. The bacteria of anthrax, however, behave differently in artificial cultivation. The filamentous mycelia have hardly continued to grow for twenty-four or forty-eight hours when they are found to be transformed (especially those in the freest contact with the air) into refracting ovoid corpuscles, which gradually become isolated, and constitute veritable germs of the minute organism. Observation shows that the vitality of these germs, so quickly formed under cultivation, is not rendered less by the influence of the atmosphere, nor are they rendered less virulent. M. PASTEUR possesses a tube of the bacteria of anthrax, preserved since March 21st, 1877. Each year he has tested the germinal power of the minute corpuscles, and each time germination took place with the same facility and the same rapidity as at first. Each year the virulence of the new cultures was tested, and it was found on every occasion to be undiminished. This fact seems opposed to the theory that the oxygen of the air can lessen the activity of the virus of anthrax, but M. PASTEUR suggests that the solution of the difficulty is to be found in the very rapid multiplication of the germs of the bacteria. Is not the organism in its filamentous form and its fissiparous multiplication the same as that of chicken cholera? It is readily intelligible that a germ should undergo no modification under the influence of the oxygen of the air, and that any change in vitality, of which bacteria are susceptible under this influence, they undergo while in the stage of mycelium. A bud left on the ground in contact with the air would soon lose all its vitality, while a seed under the same conditions would preserve all its power of reproducing a plant. Hence for the oxygen of the air to produce its effect it is essential that the organism should be exposed to it in the state of mycelium under conditions in which germs shall not be formed. How can this condition be secured? By several artifices the appearance of spores in the artificial cultures of the bacteria of anthrax can be prevented. By keeping the temperature at the lowest point at which the cultivation will go on—that is, about 16° Centigrade—the bacteria do not form germs, at least for a very long time. The organisms at this temperature assume irregular shapes, but do not form spores. The same is true when the culture is made at as high a temperature as is compatible with the process, the exact degree varying according to the medium. In neutral decoction of fowl the culture does not go on above 45° Centigrade. It takes place freely at 42° or 43°, but without the formation of spores. Cultivated at this temperature, with free contact of pure air, there is an abundant production of mycelium, but no spores are formed, and after a month of such culture the organism seems to be dead. Sown in fresh decoction of fowl, it appears to be completely sterile. The vitality of the organism is lost suddenly. The day before it is found to be completely sterile it is capable of reproducing itself with the greatest facility. The facts as to its condition of virulence are equally remarkable. After eight days of such culture at 42° or 43°, the virulence is lost, at least the inoculation is ineffective in the case of the guinea-pig, rabbit, and sheep, three animals which contract anthrax with the greatest readiness. It thus seems that by simple culture we are in possession of the means not only of weakening the virulence of the poison, but even of completely arresting it.

What happens during the first eight days of culture thus to remove all the disease-producing power of the organism? It may be remembered that the organism of chicken-cholera also perishes in successive culture under exposure to the oxygen of the air. The time is, it is true, long, but in the intervals a progressive attenuation of virulence is manifest. This fact suggests that in the case of the bacteria of anthrax a similar diminution of virulence occurs before it becomes extinct, and such is found on experiment to be the case. Before the extinction of its virulence, a progressive attenuation may be demonstrated, just as in the case of the organism of chicken-cholera. Moreover, it has been found that one attack of anthrax confers immunity against subsequent attacks, and each example of the weakened virus seems to confer the same immunity. By the inoculation of the cultivated organism, M. Pasteur has succeeded on a large scale in conferring immunity upon sheep, and has thus verified in a different and most important manner the results obtained by M. Toussaint.

There is another problem of great importance connected with this subject, and that is the possible return of virulence in the organisms rendered feeble by successive cultivation. The bacteria of anthrax is rendered inoffensive for the guinea-pig, the rabbit, and the sheep. Can it regain its activity? It is found that the cultivated virus is not equally inoffensive to guinea-pigs at different ages. That which may be inoculated without the least risk in a guinea-pig more than six days old, will kill with certainty one that is only a day old. If, from a newly born guinea-pig, another is inoculated, and from this a third, and so on, the virulence of the bacteria is progressively reinforced, and soon it is found to be capable of killing a guinea-pig three or four days old, then one a week old, until animals several months and even years old succumb; and, lastly, it is capable of causing the death of sheep. The organism has reacquired its original virulence, and it preserves this renewed virulence indefinitely unless means are taken again artificially to attenuate it. Similarly, the organism of chicken-cholera, when it has lost its virulence for fowls, will still kill small birds, such as canaries, and by successive inoculation of these the original virulence may be restored, so that it has the same action as at first upon adult fowls.

These facts with regard to the return of the morbid influence are of extreme interest as regards the etiology of contagious diseases. M. Pasteur suggests that the attenuation of the contagium under the influence of the air may be one of the factors in the cessation of epidemics. The facts just related may perhaps explain the apparently spontaneous recurrence of such diseases, the virus undergoing intensification under certain conditions. He instances the outbreak of plague in Benghazi in 1856–8, the commencement of which could not be traced to contagion. In the habitat of plague the attenuated virus may always exist, ready to resume its active form when the conditions of climate, famine, &c., recur. So, too, with camp typhus and other diseases which appear spontaneously in all countries. The germs of the organisms which cause these diseases are no doubt widely spread, and are innocuous unless their virulence is augmented by special conditions of development. Organisms may be inoffensive to man, or to this or that animal; but it is quite possible that, in some of the thousands and thousands of species of animal beings, the same organism may produce disease. Their virulence, reinforced by passing successively through many individuals of this species, may become capable of affecting other animals, and even man. Thus a new virus and a new contagium may arise. It is possible that such has been the origin of many contagious diseases, as small-pox, syphilis, plague, yellow fever, and we may add especially of diphtheria.

The facts observed when inoculation of small-pox was practised introduced into science an opinion the opposite to this—namely, the possible diminution of the virulence by the passage of the poison through certain subjects. Ther is nothing inconsistent in the two views, and the latter, which was held by Jenner, is not improbable. Hitherto, however, no other examples of this have been met with, although carefully sought for.

Few natural laws are more widely known or more generally abused than that expressed in the aphorism, "every part of the animal body grows by exercise." The brain is part of the body—*ergo*, it grows by exercise, and, by a facile fallacy of inference, the more it is exercised the more it will grow. Whereas, although it is of course true that the organ of the mind forms no exception to the law of "development by use," it is only in a very limited sense the fact that brain-work promotes brain-growth, and it is of the utmost importance that the precise conditions under which it so acts should be generally understood.

The brain does not grow in bulk or weight after a comparatively early age. Before the period of physical growth is completed mental-straining would be like racing a two-year-old colt, and almost inevitably issue in a break-down; and subsequently to that period there can be no question of increase in the quantity of brain-cells or molecules; the limits of development as to mass, though perhaps not as to weight, are then finally determined. The only physiological opportunity for development which remains after the age of childhood relates to the development of special qualities, capacities, or properties in the cerebral elements. Any rough application of the principle that growth is stimulated or in any way promoted by exercise, must therefore be inadmissible in brain-culture during youth. Growth is not the end to be attained in this stage. The object to be gained is the internal arrangement of brain-molecules, under the reflex influence of special processes of activity. The means to this end is training as distinguished from mere exercise. This is an important discrimination. It is not work for mere work's sake that is wanted to cultivate the brain of a youth, but a skilful eliciting of cerebral function by education tending to formulate the energy of brain-tissue by leading or constraining it to useful lines of action. Brain-tissue is, so to say, a more costly part of the organism than any other; it is less easily repaired than other tissues, and needless waste by consumption in purposeless use is to be deprecated. Brain-work is only of use so far as it *trains;* it cannot promote growth, for the simple reason that growth after the earlier years of life is physiologically impossible. The measure of brain-growth is practically fixed by hereditary force, and this force operates more powerfully in regard to brain-tissue than to any other element of the body, so that mischief is peculiarly likely to result from abuse of the known laws of "development" in respect to this particular organ.

It follows from these general considerations that those who have the care of youth, and persons in authority who by their official regulations determine the nature and course of the educational process to which the young are subjected, should so limit the exercises they impose or enjoin, as to minimise the expenditure of energy; while securing that, when put forth, it shall be so controlled as to *lead out* the faculties of the mind in healthy and useful directions. A well-developed brain implies a well-ordered mind; without order the intellectual powers can never be strong in action, and are always likely to break down, or prove self-destructive. The method of education which seems to find increasing favour with the preceptors of youth, and which is distinctly encouraged by the mischievous system of competitive examinations now ruthlessly forced on the population by enthusiastic but short-sighted legislators, is most disastrous; it disregards the main purpose of mental culture—namely, training—and treats the brain as it would treat a muscle, seeking to force its growth by exercise. The popular notion would appear to be that any fairly intelligent youth must benefit by *work;* whereas every exercise he performs involves an expenditure of cerebral tissue which cannot be replaced. Muscle may be replaced because it is, so to say, all of a piece. It is not permanently stamped with the impress of any act which it has performed. The cells or molecules of brain-tissue are permanently impressed by the use made of them. Every fact "committed to the memory" is impressed on some molecule, or set of molecules, and these afterwards form the physical basis of the record retained. Doubtless there is a wondrous power of adaptation in the brain, which enables it to perform the most complex acts of mental function, and the impressable particles of a healthy cerebrum are abundantly sufficient for a long life of intellectual activity; but the supply is not unlimited, and by excessive or disorderly "work" in youth, the mental capacity may be so squandered that when adolescence or full manhood is reached there will be no power to make new acquisitions of knowledge, and barely any opportunity for improvement in regard to the stock of information possessed.

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Before the age of seven nothing ought to be attempted in the shape of "teaching" except what may be taught indirectly by example, or, almost unconsciously, in the ordinary communication of impressions. The sole aim of the educator should be to develop by habit the faculties of observation, and mind-storing, with the closely connected power of recalling mental impressions at will, which we call "memory." The simplest processes of inductive reasoning may be developed *practically*, by suggesting lines of thought to the child-mind, but there should be no teaching, properly so called. Subsequent to this stage—*i.e.*, the stage of brain-growth—economy of mental energy is not less important than the guidance of such force as may be liberated, or exercised, on lines calculated to develop and train the faculties for useful work. There are exercises which are needful for what seem to be purely educational purposes—that is to say, for the effects they produce on the mind or brain, reflexly. For example, the dead languages, the higher mathematics, and perhaps logic, are chiefly valuable for the influence they exert in eliciting and training certain faculties or forms of thought. Such exercises are, in a practical sense, among the most important to the future integrity and efficiency of the brain which the educator can employ. The mere accumulation of what is called knowledge is not brain-training, but brain-burdening, and may easily be pushed to the extreme of brain-straining, with the result of a complete and ruinous break-down. This is especially likely to arise when, as often happens, there has been little or no wise training in early boyhood, and the mind or memory is severely taxed for examination purposes later in youth.

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A multitude of cases might be instanced in which boys who have not been trained for intellectual exercises at the outset of life have been urged or lured to make a great effort, and have been mentally ruined in consequence. No care bestowed on the *manner* of work can suffice to compensate for an original lack of power, or obviate the effects of a disorderly constitution, of the intellectual apparatus and functions. It is no more possible to make an intellectual giant of a mental dwarf than it would be to develop a Hercules out of a mannikin. By the artifice of mind-forcing and "cramming," the *memory*—a low-class faculty often prominently developed in the case of idiots—may be made to retain for a time the necessary material for exhibition at some examination-table; but if the undeveloped mind is incited to *intellectual* action in the process, the result must be untoward. The untrained boys who survive the process of forcing and cramming, and retain their mental health, are for the most part those of somewhat obtuse and insensitive cerebral capacity, who take in their knowledge as beasts of burden carry a load—without either interest or worry. A sensitive boy, who has been untrained, will feel his inefficiency so acutely while his memory is being loaded with unappropriated information, that he will fret and worry until he falls ill, either before or after the requisite quantity of "learning" has been deposited in his memory. There can be no such thing as *real* brain-work without power, and such power implies mental training following upon healthy growth. It is in practice a grave error to suppose that any brain may be developed by mere exercise. The result of an attempt to develop it by this agency—especially in advanced youth—is more likely to ruin than to improve it.

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AT the last meeting of the Royal Society, Dr. MACEWEN presented a paper on a case in which he had successfully transplanted bone. The patient was a child four years of age, who had lost two-thirds of the shaft of the humerus by necrosis fifteen months previously, and in whom no osseous repair had occurred. The limb was of course useless. Dr. MACEWEN proceeded first to make a groove in the soft tissues in the position of the bone, relying for this on his anatomical knowledge, and then placed in this groove small fragments of wedges of bone removed from other patients for curved tibiæ. The result has been that a good new bone has been formed, the new portion has united firmly to the upper epiphysis and lower part of the original shaft, and the bone is only half an inch shorter than its fellow. Proper care was taken throughout to have the parts perfectly aseptic. Great interest attaches to this case, which is the first of the kind recorded, and Dr. MACEWEN is entitled to warm praise for devising and carrying to such a successful issue the many details necessarily involved in its management. Happily Nature is usually so skilful in the repair of lost parts of bones, that it is not often the surgeon is called upon to make good the loss; but much as there is to marvel at the way in which Nature thus generally plays her part, cases now and then occur in which she fails to supply the lacking portion. Many interesting problems arise in reviewing the facts of this case. The first is, What was the original condition of the limb? There was evidently a local inability to produce a new bone, and we may presume that in the primary inflammation the periosteum, or at least the deeper active portion of it around the sequestrum, had been destroyed, and the lymph poured out from the surrounding tissues lacked any "ossific stimulus." This the bone-grafts supplied. But how are we to explain the formation of new bone of the proper length and form? We cannot, of course, attribute this power to the transplanted tissue; it might have seemed probable if Dr. MACEWEN had used pieces of the opposite humerus, or even any humerus, for his purpose, but we find that pieces of tibia were successful. If not the transplanted bone, are we to say that the ends of the original bone exerted a moulding influence on the ossifying material, or was it the effect of the surrounding tissues? A question naturally arises whether transplantation of bone is essentially better than transplantation of periosteum alone. It is easy to see that when whole pieces of bone are used, the periosteum over them will be probably more active than when stripped off and used alone, as in stripping off it is liable to injury. It would also be exceedingly interesting to know what actually became of the transplanted bone. Did the medullary cells and soft parts live, and the fragments become actually incorporated with the new bone; or was lymph effused around and into the bone, which was then gradually softened down and absorbed, or cast away in secretion? The problem is the same as has been raised about organising blood-clot. A case published in our columns in 1878 by Dr. MACEWEN may be taken as throwing some light on the question; there, in a case of compound fracture of the leg, a fragment two inches and a half long was completely detached, except by a very few slender bridges of periosteum, but being replaced and carefully treated, it was seen after four weeks to become injected with blood, and granulations rose from its surface. Here the whole process was closely watched from day to day, and the large fragment was seen to become firmly incorporated again with the rest of the bone. Other cases, individually perhaps less conclusive, point to the same conclusion; we may refer to one contributed to our columns in 1877 by Mr. PORTEOUS. As so frequently happens in such cases, while Dr. MACEWEN has been carrying his case to a successful issue in Glasgow, a similar proceeding had been determined upon by Mr. C. MACNAMARA of the Westminster Hospital. On Wednesday last we saw him plant several small fragments of bone taken from an amputated metatarsus in a groove prepared in the leg of a little child from whom several months ago he had removed the greater part of the shaft of the tibia. This operation was determined upon and discussed before the class of students more than a month ago, before Dr. MACEWEN'S case was made public, but it was postponed until the patient had had a few weeks' change of air in the country. Mr. MACNAMARA remarked, in reference to it, that he had been greatly struck with what he had seen in the practice of Mr. THOMPSON, who has removed teeth and replaced them several hours later, and they have adhered firmly in a few days; this, with other facts, had encouraged him in his endeavour to make a new bone in the case in point.

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THE Royal Commission on the Medical Acts has the power to sit with open doors or with closed ones. It has preferred the latter alternative, and refuses to admit even the Medical press, which has certainly some claim to be kept *au courant* with the proceedings of the Commission. We are not prepared to deny that this action of the Commission is in accord with the practice of Royal Commissions. We are not the more enamoured with their decision on this account. The inquiry is one of great interest to the public and to the medical profession, and the day has gone by for close inquiries. The Royal Commission is not compelled to exclude the press. That there are precedents for doing so is not a sufficient justification. The sooner mere precedent is disregarded in favour of considerations of reason and common sense the better for this mode of inquiry, which has no more claim to be conducted secretly than any other inquiry into public matters affecting nobody's personal character. We can only urge our respectful protest against this step on the part of the Commission, accompanied, as it is, by the withholding of all information to outsiders.

It will be very interesting to see how the Commission proceeds in respect of taking evidence. Much most important evidence has been given already before a Select Committee, which the Commission will have the power of regarding as evidence taken by itself. But it is impossible that evidence so taken can have the effect of oral and living testimony, and those witnesses who have been already examined will be at a considerable disadvantage as compared with those to be examined by the Commission; for we believe it is intended to examine some further witnesses. It is most unfortunate that the proceedings and plan of the Commission are to be kept secret. We can only acquiesce with as much grace as we can command, and not without some hope that the Commission even now, before commencing serious business, will reconsider its decision and admit the press—a step which may have some inconvenience, but has far more advantage even to the Commissioners themselves.

Annotations.

"Ne quid nimis."

THE DUKE OF ALBANY ON HOSPITALS.

THE speech which Prince Leopold delivered at the University College Festival on the 20th inst. showed, as do all his public utterances, how deeply and thoroughly his Royal Highness is accustomed to consider questions of genera interest. The claims which the hospital has upon the wealthy dwellers in Bloomsbury, Marylebone, and St. Pancras were clearly shown. During the past year 2789 in-patients were relieved, and over 22,000 out-patients paid some 65,000 visits. This means, as his Royal Highness put it, that about 400 different sick persons daily receive relief. Notwithstanding these figures, it was shown that the staff was sufficient for the accomplishment of the work, and thus the excuse for non-contribution, which is so often put forward, that the patients are necessarily "scamped," was not left as a refuge for those whose discretion is greater than their generosity. The touching allusions to the fact that the Prince himself had in his lifetime learnt how to appreciate the medical art, and his grateful acknowledgment of the labours of Sir William Jenner which were personal to himself, are not likely to be forgotten by those members of the profession who were present, or who read the speech in the newspapers. The Duke of Connaught also, who had graciously volunteered to support his brother upon the occasion, made, in replying to the toast of "The Royal Family," a generous acknowledgment of the services rendered to them by more than one member of the staff of University College Hospital. The dinner was a great success, although we could have wished that the total of the subscriptions had reached a figure more worthy of the occasion.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

THE last list of candidates to be balloted for, or petitioning for admission to the Fellowship, numbers fifteen. Six of these are licentiates of Edinburgh, and nine have surgical diplomas from other corporations. It is to be hoped that this branch of trade in the Scotch Corporations will receive attention, as Mr. Mundella promised it should, from the Royal Commission now beginning its work. Not the least unsatisfactory part of this system lies in the names by which the applications are backed, including some of the very highest in Scotland and England.

TIGHT-LACING.

LAST week a verdict was returned by a coroner's jury which is quite as applicable to not a few cases of premature death which do not happen to be made the subject of medico-legal inquiry. It is difficult to speak with moderation of the folly of tight-lacing in view of such facts as this, especially as no attention seems ever to be paid to the warnings repeated *ad nauseam* against irrational and unhealthy modes of dress. Physiology does not enter into the sphere of the "fashions," the follies of which are productive of more suffering and ill-health than people are willing to concede. In spite of satire on one side and admonition on the other, there seems to be but little diminution in the degree to which these vagaries are carried, as may be proved by anyone who walks abroad during the height of a London season. Why is it that in this matter of "tight-lacing" there should be such tenacity, for there is hardly any subject that has been so unmercifully and yet so necessarily criticised as this? There are only two possible reasons for its maintenance—the one that it is indispensable to the present form of female attire, and the other that it is believed to lend grace to the wearer. Neither of these contentions can seriously be maintained in the face of the known evils which follow the practice, but they are at present ideas so firmly rooted in the female mind that their dislodgment is not easily effected. Now and then, indeed, there seems to be an attempt to introduce a more rational style of dress, but such attempts are rarely successful, owing in great measure to the disposition to ridicule new departures which do not harmonise with the "mode." The medical profession has never ceased to express its opinion upon the evils of tight-lacing, being well aware of the derangements for which the practice is responsible. To be effectual, however, such remonstrances must be given not only to those who follow the practice, but to those who either tacitly or openly encourage it. We are treading, we know, on delicate ground, but it is time there should be plain speaking, even at the risk of giving offence, for it must be confessed—and it is no disparagement to the fair sex to admit it—that so long as men persist in regarding an unnatural deformity as a beautiful object, so long will many women do their utmost to become "beautiful," no matter how painful the ordeal to which they will have to submit. A well-known writer upon female dress not very long since admitted that it was the object of women so to dress as to render themselves attractive to the opposite sex, thereby following out a law which obtains throughout animal creation, and of which there is no denying the truth. But the same author spoke out boldly against the practice of tight-lacing, showing that in her opinion, at any rate, the practice was not essential for the purpose above stated. In all seriousness, it is a pitiful thing that in these days, when all our youth can obtain an insight into the principles of physiology, there should still prevail a practice so unphysiological as that of which we speak. It stands to reason that long-continued, firm compression of the lower ribs cannot be indulged in with impunity. The dorsal, thoracic, and abdominal muscles are rendered feeble from enforced inactivity, respiration is impeded, circulation is carried on under greater strain, and the viscera are displaced to a remarkable degree. In the case which forms the text of these remarks, not only was the liver deeply indented and displaced, but the stomach was constricted into two portions, and both of these effects have often been observed before. The affections attributed to tight-lacing are many and various—some perhaps without sufficient ground; but most certainly respiratory, circulatory, and digestive derangements, not to mention difficulties and dangers in parturition, are directly traceable to tight-lacing. Such derangements lead the way to other and graver changes; they may cause many ailments which render life a misery, or may eventually lead to the premature extinction of life—not perhaps directly, but by rendering the organism unable to cope with disease, however arising. Once more, then, we urge the female members of the community to abandon this fatal article of attire; its utilitarian purpose could no doubt be supplied by means at once more simple and less injurious; and its æsthetic function exists only in the imagination, being grounded on the false and perverted notion that the natural contour of the body is ungraceful, whilst the deformed, contracted "waist" is considered beautiful in proportion as its constriction is extreme.

EARTHWORMS AND ANTHRAX.

AN important report was presented to the Académie de Médecine, at its meeting on the 17th inst., by M. Villemin, in the name of a commission appointed to investigate the statements of M. Pasteur as to the presence of the germs of anthrax-bacteria in the soil, and their transportation by earthworms, statements which had been contradicted by M. Colin of Alfort. In the investigations of the commission they first inoculated five guinea-pigs with earth taken from the soil over a trench in which animals dead of anthrax had been buried twelve years previously. All the guinea-pigs died, the first four from septicæmia, the fifth from well-marked anthrax, and the latter presented numerous bacteria in the blood of the heart and the spleen, which organ was considerably enlarged. A second similar series of guinea-pigs were inoculated with earth from above a pit in which animals dead of the disease had been buried for three years. The first four of these also died of septicæmia, and the fifth of anthrax, with characteristic bacteria. A third series were inoculated with "virgin soil"—i.e., earth from a spot in which, "within living memory," no animal dead of anthrax had been buried. All of these continued well, presenting only at the point of the inoculation a small nodosity the size of a nut, and consisting of an abscess enclosed in a pyogenic membrane. The first two of these experiments with the suspected earth were repeated, six guinea-pigs in all being inoculated. Of these all died, five of septicæmia, the sixth of anthrax. Two other guinea-pigs were inoculated with blood from the animals to which anthrax had been communicated in the first two series of experiments, and both died of the same disease. A drop of blood taken from the ear of one, and "sown" in some decoction of fowl, reproduced pure and abundant anthrax-bacteridia. Some worms were also taken from the earth over the pits in which the animals had been buried three and twelve years before, and their excrement (the worms being still alive) was diluted with a little distilled water, and with it three guinea-pigs were inoculated. Of these two died from septicæmia, and the third from anthrax. Other three guinea-pigs were inoculated with the excrement of worms taken from soil beneath which, during the Commune, human bodies had been interred. One of the guinea-pigs died from septicæmia, the other two continued well. Lastly, the excrement of worms collected over the trench in which the animals had been buried for twelve years, and treated by "cultivation," gave rise to a rapid production of bacteridia, which, inoculated into two guinea-pigs, caused the death of both by anthrax. The experiments and report thus give a triumphant corroboration to the assertions of M. Pasteur.

LICENSED LODGINGS AT CAMBRIDGE.

WE are pleased to find the question of providing suitable and wholesome accommodation for the increasing number of undergraduates at the University of Cambridge has become a subject of discussion in the columns of the Cambridge press. For some time past the lodging-house accommodation of the town has failed to keep pace with the natural growth of the University, and consequently houses never intended, and utterly unsuited, for the purpose, have been brought into requisition. There can be no doubt many of the smaller lodgings, especially in the outskirts of the town, are unwholesome, if not actually dangerous. The drainage at Cambridge, as is well-known, is extremely defective; indeed, its sewers have been described as "elongated cesspools," and therefore, unless effective measures are taken, sewer-gas finds a ready access to the houses. Have we any assurance that these measures are taken? The medical officer of the town has, we know, done much to secure a more efficient ventilation of the sewers of the town, and thereby has considerably lessened their dangerous tendency, but his powers stop short at the houses. Here, however, the University assumes the responsibility. No lodgings are to be let to undergraduates unless they receive a licence as to their sanitary character from their inspector—a clergyman! From what we have ourselves seen, and from reports we have received, we do not think this gentleman is very exigeant with regard to the sanitary arrangements. No doubt, under existing circumstances, it is impossible to be so; if he were, a considerable number of freshmen would have to stay down every October term till suitable rooms became vacant. As a fact, however, they do not; they are all lodged somewhere and somehow. How defective some of these smaller lodgings are will be shown by quoting some suggestions recently made in the *Cambridge Review* for their improvement. The walls, the writer says, should be of sufficient thickness to resist the attacks of all weathers. The waterclosets should be appointed on the most approved plan, well ventilated, and amply supplied with water. A receptacle for dust and ashes and other refuse should be placed as far as possible from the house, and emptied as frequently as possible. Every licensed lodging-house should be compelled to have a larder built accessible to plenty of air, for the preservation of the students' food. These are simple but necessary requirements, but we venture to say we could point out many licensed lodgings where none of them are fulfilled. The writer in the *Cambridge Review* proceeds to urge that all cesspools should be abolished, and that all wells and pumps on the premises should be closed. Certainly, and this ought to be attended to at once; it would be most reprehensible on the part of the University authorities if they afford an opportunity for this suggestion being made again, and we hope the instances where such conditions exist are not at present numerous. Knowing the vigilance exercised by the medical officer of health, and this comes under his department, we should think this cannot be. We are not sanguine, however, under the present system of University sanitary inspection, that any great improvement can be effected even in less important details. We therefore earnestly advise parents whose sons have to live in lodgings to see for themselves that these are both habitable and wholesome, and not trust too implicitly to the sanitary acumen of the reverend licenser.

TUBERCULOUS PERICARDITIS.

TUBERCULAR inflammation of the pericardium is a very rare lesion. Laennec only met with two instances of it, and Louis but one. Although cases have been from time to time recorded in medical literature, their total number is not large. Grey granulations in the pericardium have been met with in cases of general tuberculosis in children, unaccompanied by actual inflammation, but the condition of tuberculous pericarditis is most uncommon. An instance of the affection in a girl of nineteen has been lately recorded by Dr. Vaillard in the *Journal de Médecine de Bordeaux*. The patient died from tubercular meningitis, with extensive enlargement and caseation of the lymphatic glands. The parietal and visceral layers of the pericardium were connected by soft adhesions, and each was covered by false membrane; the visceral layer was studded with granulations and small nodules of caseous tubercle. At a distance from these nodules the microscopical examination showed the proper tissue of the membrane to be somewhat thickened and continuous with a new membrane on the surface, which was almost perfectly organised. Sections through the yellow tubercles showed, even in the thickness of the visceral layer, a small oblong caseous mass, permeated by the remains of tracts of fibrous tissue in process of destruction. No giant-cells were seen in it. Around this caseous centre was a layer of embryonal cells, most marked in the deep layer of the serous membrane. Over the nodule extended the false membrane already described. The subjacent muscular fibres of the heart were fattily degenerated.

From the comparison of a considerable number of cases of tuberculous pericarditis, Vaillard concludes that it is much less common to meet with effusion than with the dry form, the latter having been met with twenty-seven times out of thirty-seven cases; in only ten was there effusion, of a citrine yellow or sanguinolent aspect. In all the cases of dry pericarditis, with one exception, there was complete adhesion of the two layers of the pericardium. Hence it would seem that adhesion is the habitual termination of this variety. The surfaces are covered by false membranes, in which the tubercles are scattered, as well as in the serous membrane proper. Tubercular granulations may, however, develop in the proper connective tissue of the myocardium, and Fauvel has even traced them through the whole thickness of the wall of the heart up to the endocardium. In the less frequent cases in which there is effusion, this is usually abundant, and may vary from 700 to 1600 grammes (Proust), and even 2800 grammes (Richard). This large effusion is so characteristic of the variety that, given a case of chronic pericarditis, the tubercular nature of the inflammation may be suspected from this characteristic. The layers of the pericardium present changes similar to those met with in the dry form, but the false membranes may undergo degeneration and ulceration, so that ulcers form similar in appearance to the specific ulcers of the intestine. The question has been discussed whether the formation of tubercles is primary and the inflammation secondary, or whether the opposite is the order of events. Cruveilhier, Empis, and Niemeyer have expressed doubts as to the occurrence of tubercles in uninflamed pericardium; and, according to them, the formation only occurs in the depth of the newly formed false membranes. The facts of the question have often been difficult to ascertain, in consequence of the close adhesion of the false membrane and serous layer, so that it is not always easy to say where one ends and the other begins. But many cases have been observed in which tubercles were seated in the thickness of the serous membrane without any trace of inflammation, as in a case in which, the patient having died from acute tuberculosis, miliary granulations were found on the parietal layer, and three similar nodules on the surface of the visceral layer. This renders it probable that, in some cases at least, the formation of tubercles is primary and the inflammation secondary. But it does not follow that this is the invariable order of events; a simple pericarditis may be the occasion of the growth of tubercles in the inflammatory products.

The dry adhesive form of pericarditis is often overlooked during life. Its course is latent, and pericarditis not being expected in the course of phthisis, it is often discovered only at the autopsy. Any dyspnœa which it causes is obscured in the greater dyspnœa due to the condition of the lungs, and when adhesions form friction disappears. The occurrence of effusion renders the symptoms more obtrusive, so that this form is usually recognised during life. If there are no lung symptoms it may be difficult even to suspect the nature of the pericarditis, but a correct diagnosis is, in these cases, of great importance, since the pericarditis is occasionally the first local manifestation of tuberculosis, as in cases which have been recorded by Virchow, Proust, and Richard.

HABITUAL DRUNKARDS.

THE Lord Mayor has placed his influence and the Mansion House at the disposal of those who try to work the Habitual Drunkards Act of 1879, which, as our readers know, is a permissive Act. It sanctions the detention of those drunkards who are willing to place themselves under the restraint of Retreats. The special object of the late public meeting at the Mansion House was to inaugurate on a popular basis and a self-supporting principle a model licensing home for the cure of habitual drunkards. Dr. Cameron divided habitual drunkards into three classes: first, those willing to go into Retreats, which, in America, he says, is the case with 90 per cent. of the habitual drunkards; those whom it is most desirable to put into such cases but who are unwilling to go, and, thirdly, criminal drunkards. It is thought that if a model home were established it might give rise to similar institutions in other parts of the country, and that it would, at any rate, constitute an experiment that would be valuable and interesting in view of the temporary character of the present Act, which is to expire at the end of ten years. We should be very much surprised to see it proved that English habitual drunkards were amenable to reason in the proportion of ninety per cent., as in America. Besides, as Dr. Cameron pointed out, the time, ten years, is far too short to induce persons to expend capital in such an adventure. We confess to having no respect for such legislation. It is in the highest degree discreditable, and we are not sure but that the best way of getting legislation worthy of the name, and proportionate to the gravity of the subject, is to ignore the Act of 1879 altogether.

GALLANT CONDUCT OF SURGEON E. A. H. ROE.

THE annals of the Army Medical Department teem with incidents illustrative of the valour, coolness, intrepidity, and self-sacrifice shown by the members of this branch of our profession under circumstances of emergency and danger—acts the more heroic because for the most part they were performed in cold blood, and not under the stimulus which animates those engaged in actual combat with the enemy. Among the many brave deeds we have recorded, the gallant conduct of Surgeon E. A. H. Roe at the battle of Maiwand deserves prominent mention, the more so since the military authorities, who ought to have brought this act of valour forward for public recognition, have, as is so often the case when medical officers are concerned, been silent on the subject. The facts are briefly as follows:—At the battle of Maiwand, just at the time the troops broke and the retreat began, and when shot and shell were falling into the field hospital tent, Surgeon Roe, who was attending a British soldier whose leg had been shattered by a shell, on looking up from his work found that he was alone with his charge, at the same time he saw the Afghans were in the midst of our men, and were masters of the field. With true heroism, he determined to save the wounded man if possible, and, lifting him in his arms, he carried him to the open. Some camels and baggage animals were close by, and for these Dr. Roe made, hoping to place the man on a spare camel. The Afghan cavalry were, however, too close, and were quickly in the midst of the animals, cutting down the drivers and looting the baggage. Dr. Roe dragged the soldier along, and by keeping in the thick of the press saved himself from the Afghans, who were too busy looting to follow in pursuit. Eventually they came upon the chaplain, whose name unfortunately is not given, and with his aid the wounded man was carried still further away from the enemy. The man died in their arms, and they were forced to leave his body in order to provide for their own safety. Dr. Roe subsequently had the good fortune to overtake the brigade, then in full retreat. Should not some official recognition of the gallant deed be made? It is but little encouragement for good men to enter the Army Medical Department when such services as those described above are allowed to pass not only without reward, but without official notice.

THE CASE OF ARTHUR WATSON.

ARTHUR WATSON, who was lately tried at the Liverpool Assizes before Mr. Justice Mathew, is a telegraph clerk, aged twenty-seven, and on April 29th, 1881, he killed his infant child aged thirteen months. Watson and his wife lived apart, in consequence, it is said, of his intemperate habits. On March 5th, and again on March 22nd, he besought his wife to return to him, but in vain. On April 29th, being the worse for liquor, he visited her again and renewed his entreaties, but with the same result. The child was in the room in its cradle, and, besides the wife, a Mr. and Mrs. Gee (the former a joiner by trade) were present. Watson took the child in his arms and nursed it, but it cried, and Mrs. Gee took it from him. Shortly afterwards he rose from his seat, took a chisel which was lying on the table, and with it he killed the child as it lay in the cradle. The prisoner made no effort to escape, and when arrested said, "I really don't know what I am doing." On searching him a letter addressed to his wife was found in his pocket, the wording of which implied that he was meditating suicide The defence was that the prisoner was insane. Dr. Barron Smith stated that the prisoner was admitted to the Manchester Infirmary in 1876 for an injury to the left side of the skull. Dr. Winterbottom stated that about a fortnight before the occurrence he had attended Watson for right hemiplegia. It was admitted by all the medical witnesses on both sides that the right pupil was larger than the left. Dr. Mann testified to the fact of the right hemiplegia as far back as May, 1879. Dr. Morgan gave similar evidence. The judge put the usual stock questions to the jury. Did the prisoner know the nature of the act he was committing? Did he know right from wrong? The jury returned a verdict of "Guilty" in twenty minutes, and Watson was condemned to death, but has since been respited. This case differs from many others of a similar kind in this: that there is not the slightest doubt that Watson has organic disease of the brain. That he doted on his child is certain, and that the act was unpremeditated there is also no doubt. There is, again, no question that after his accident in 1876 he became "an altered man." He fell off mentally and morally, became liable to attacks of excitement, and took to drink. There is further evidence that his grandmother and a maternal aunt were liable to fits. To every properly instructed and unprejudiced man there can be no doubt that Watson's act was the insane outcome of a diseased brain.

THE TREATMENT OF SPLENIC TUMOURS.

THE inutility of internal remedies in advanced cases of splenic leucocythæmia led Kussmaul to try whether the spleen could not be made to shrink up by numerous punctures in different directions. The results are detailed in an inaugural dissertation by his pupil, J. Jäger. A hollow needle, at first a millimetre and afterwards a millimetre and a half in diameter, was thrust into the spleen of a patient aged thirty-eight, suffering from splenic leucocythæmia. The depth of the punctures was eleven centimetres. The hope was entertained that the hæmorrhages into the substance of the spleen would lead to cicatricial contraction at the spot. The punctures caused the patient scarcely any suffering, but unfortunately the result on the spleen was also *nil*. There was a slight improvement in the course of some weeks, but this seemed attributable to the patient's rest. The spleen did not lessen in size, and the proportion of white to red corpuscles remained much as before the treatment—one white to seven or ten red. But an unexpected effect resulted from the deeper punctures—a considerable increase in the quantity of the urine, lasting for about a day, associated with strangury. The latter commenced an hour after the operation, and continued until the following morning. The specific gravity of the urine was lowered, but it was free from albumen and sugar. Senator has informed Kussmaul that he has also observed polyuria to follow puncture of the spleen. The explanation of the phenomenon is obscure. Kussmaul has also tried galvano-puncture of the spleen, but with no better results. After seven minutes' application the spleen was considerably swollen and painful, but subsequently again lessened in size. On the third application, four weeks after the first, the patient for the first time experienced severe pain in the sternum beneath the spot on which the positive pole had been placed; the patient attributed the pain to the electrode. So far, however, the treatment, if it did no good, did little harm. The same statement cannot be said of the next measure employed, which is unfortunately a contribution to toxicology rather than to therapeutics. A gramme of a 10 per cent. solution of recently prepared sclerotic acid was injected into the spleen. Ten minutes later there was a severe rigor; the legs became rigid and intensely painful, the abdomen retracted, the extremities cold, the face cyanotic, the veins of the neck swollen, the breathing quick and purely costal, and the pupils dilated. Consciousness was unimpaired. The tetanoid attack lasted forty minutes. The temperature rose to 104° F. Abundant sweating followed, with vomiting and watery diarrhœa. The patient died a few hours later. The post-mortem showed that, besides the enlargement of the spleen, the medulla of the bones was affected, but there was no disease of the glands. No trace could be found in the spleen of any effect of the punctures, and there were no adhesions of the organ to the abdominal wall. Death was apparently due to the rapid passage of the sclerotic acid into the blood, but Kussmaul is inclined to ascribe it rather to the rapid passage of the water containing the acid into the blood than to the acid itself! This was found by subsequent examination to be free from other toxic ingredients.

Mosler has tried the effect of injections of dilute carbolic acid and of Fowler's solution into a chronic splenic tumour. The result in Kussmaul's case led to careful precautions to avoid an untoward occurrence. Considerable benefit is said to have resulted from the treatment, although previous measures had been ineffectual.

THE PROPOSED UNHEALTHY AND UNSUITABLE SITE FOR ST. PETER'S HOSPITAL.

LAST week we called attention to the inexpediency of the proposal to erect a building to be used as a hospital for "stone" cases in the vicinage of Covent-garden. Since the publication of our remarks, founded on a rumour which reached us casually, we have been furnished with a copy of the prospectus, to which is appended a view of the projected edifice. It is inexplicable to us that the site chosen should have been selected. The noise and offensive emanations from the market render the locality singularly unsuitable for any institution which is to be used as a house of refuge for the sick. What makes the incongruity of the present proposal conspicuously great is the fact that "stone" cases involve operative processes of especial danger, exposing the patient to peculiar risks of blood-poisoning, and requiring a plentiful supply of fresh air with perfect quiet! Is it too late to reconsider the scheme? There must surely be more fitting sites to be procured elsewhere; and if it be a fact that the purchase of this ill-chosen plot of ground has been hastily concluded, it had better be sold than improperly utilised. We waive nothing of our antagonism to special hospitals in making this suggestion in the interests of humanity. It is a misfortune that hospitals for "stone" or for other special classes of maladies exist; but if they must be, in deference to personal whim or public caprice, the profession and the public have, at least, a right to require that they shall be so placed and so conducted as to secure for those who trust their lives to the keeping of their promoters a fair chance of cure. This will be denied the patients of St. Peter's Hospital if it is located among the pestilent emanations of the offal accumulated in the purlieus of Covent-garden, with the accompaniment of sleep-destroying noises by night and the depressing spectacle of a city burial-ground for the outlook of convalescents by day.

ALLEGED MANSLAUGHTER AT CARDIFF.

A LABOURER and his wife, named Beer, were tried a few days ago at the Swansea assizes for neglecting to provide proper food for their infant, supplying food of an improper character, and failing to get it proper medical treatment. It transpired that the child had been taken to Mr. Morgan Williams for vaccination, who recommended the postponement of the operation on account of the child's emaciation, and that medical treatment should be procured. He advised, in the meantime, Parrish's chemical food. The advice of Mr. Williams was neglected, and the child died about two months after. He refused to give a certificate, an inquest followed, and thereafter the charges upon which the prisoners were tried. The judge said that no doubt the food given—biscuits and bread—was improper, but the jury must be satisfied that the mother had been guilty of neglect of so gross a kind that she should be made responsible for it. The prisoners were acquitted. The judge reflected, we think, much too severely on the medical man for not attending to the case at once without an order. If a parish medical officer were bound to attend every needy case he sees without an order he would indeed of all men be the least to be envied. Besides, the obtrusion of his services without an order would lead to their being despised by the poor and repudiated by the guardians. The child lived two months after Mr. Williams's advice, which was long enough to show what ample time there was for application in a formal way to the parish.

SUPERANNUATION OF MEDICAL OFFICERS.

IT is to be hoped that Mr. Dodson spoke more than merely formal words when he promised attention to the arguments of the Medical Officers' Association for making superannuation compulsory. Dr. Rogers's statement that of 122 suitable applications to boards of guardians for superannuation fifty were refused is very serious. The inadequacy of the mere recommendation of the Central Board in favour of particular applications was well shown in the cases of Mr. Terry and Dr. Downes, who had both served forty years in their respective unions and yet failed, though in one case a Local Government Inspector was sent down to urge the application. Those boards which give the worst salaries are the most unwilling to grant superannuation. This question really touches the efficiency of the whole Poor-law service; and, whether viewed in its bearing on the poor or on the medical officers, should be favourably considered by the Local Government Board. It is vain to expect that the best men can be got for the work, or that any man will give his best services to a duty for which he is so ill paid, and in which he may labour till he is incapable of work, or contract serious or fatal illness, and then be left helpless. Some of the best Poor-law medical officers injure their prospects in general practice by faithfully discharging Poor-law work which has never yet been rewarded in a proper way.

MECHANICAL STIMULATION OF THE BRAIN.

DR. BROWN-SÉQUARD recently announced to the Société de Biologie that he has found, in rare cases, a simple puncture or section of the "motor zone" of the brain of the dog, rabbit, or guinea-pig, gives rise to signs of pain, and this when the dura mater has been entirely removed from the region. The sensibility is that of the brain, not of the pia mater, for the surfaces of an incision into the brain substance were found to possess the same sensitiveness. He ascribes it to the congestion induced by the operation, and concludes from it that the congestion may render parts of the brain acutely sensitive, which normally are destitute of sensibility. It has been especially met with when the brain has been exposed for a little time. These observations agree with some made by Dr. Brown-Séquard thirty years ago, showing that the insensitive spinal cord becomes sensitive when it is inflamed. He believes that the movements observed by some experimenters on mechanical stimulation of this part of the brain are simply reflex, and are not due to the excitation of any motor elements.

THE Royal Commission on the Medical Acts held their first meetings on the 20th and 21st inst., at 2, Victoria-street, S.W. There were present on both occasions the Earl of Camperdown, chairman; the Bishop of Peterborough; the Right Hon. W. H. F. Cogan; the Master of the Rolls; the Right Hon. George Sclater-Booth, M.P.; Sir William Jenner; Mr. Simon, C.B.; Dr. McDonnell; Professor Turner; Mr. Bryce, M.P.; and Mr. John White, Secretary.

THE QUEEN has been pleased to order the following appointments to be made:—Deputy Surgeon-General of Hospitals and Fleets Daniel John Duigan, M.D., Deputy Surgeon-General John O'Nial, A.M.D., and Surgeon-Major Samuel Black Roe, M.B., A.M.D., to be Ordinary Members of the Military Division of the Third Class, or Companions of the Most Honourable Order of the Bath; John Forsyth, Esq., C.B., Inspector-General of Hospitals (Retired), Bengal Medical Service, to be a Knight Commander of the Star of India; William Macgregor, Esq., M.D., Chief Medical Officer and Receiver-General, Fiji, to be an Ordinary Member of the Third Class, or Companion of the Most Distinguished Order of St. Michael and St. George.

A CONFERENCE of delegates and collectors of the Hospital Saturday Fund, together with friends and supporters of the Metropolitan Provident Medical Association, met this week at the Holborn Town Hall, to deliberate on a scheme for the promotion of the provident principle in hospital relief, and for the better treatment of the industrial classes in sickness. It was explained that by the plan proposed 1*s.* per month would be charged for membership, the patient paying for medicine.

THE death is announced of Dr. Barnard Davis, in his eightieth year, at Hanley, where he lived all his life. Dr. Davis was joint author with Thurnam of "Crania Britannica," and was, perhaps, the largest private collector of skulls in Europe. His museum recently passed into the possession of the Royal College of Surgeons. He held the degrees of M.D., F.R.S., and F.S.A., and was a member of numerous foreign scientific societies.

MR. GLADSTONE has been made a Fellow of the Royal Society, and this, too, in a somewhat royal style. He was elected and received, not as an ordinary Fellow, but in such a way as is open to the Society in the case of Royal or distinguished persons. No political bias will prevent a feeling of satisfaction at this action on the part of the Royal Society.

IT appears that there is a dearth of medical men in Shetland. Outside of Lerwick there are but six practitioners to a population of more than 37,000. An appeal has been issued for funds to assist in the establishment of dispensaries in various parts of the island, and to pay medical men for periodical attendance at these institutions.

A LIST of seventy-two names of Irish union hospital physicians has been sent us in support of the memorial to the Senate of the Royal University, praying for the recognition of one year's clinical attendance at such hospitals. Many more signatures are expected.

DR. C. B. MOSSE, C.B., Superintending Medical Officer of Jamaica, has been appointed an Official Member of the Legislative Council of that island.

DR. PEACOCK has resigned his position as Physician to the National Provident Institution, Gracechurch-street.

AT a meeting at Woolwich on Wednesday, in connexion with the movement for instructing soldiers' wives in nursing, Lord Chelmsford, Sir Frederick Roberts, and others testified to the usefulness of the scheme. Certificates of competency were presented by Viscountess Strangford to the successful candidates.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham.—Dr. Alfred Hill reports for this borough in 1880 an estimated population of 394,738, and a death-rate of 20·5 per 1000 inhabitants. This death-rate is much lower than the average of the previous decade (24·04), and lower by more than one per 1000 than in any previous year which the medical officer's records embrace, and 3·86 lower than the average death-rate of the previous fifteen years. Dr. Hill attributes this satisfactory reduction of the death-rate of 1880 to the non-occurrence of any serious epidemic of small-pox, scarlet fever, measles, or whooping-cough; the absence of marked distress, on the one hand, or a too flourishing state of trade leading to intemperance or excess, on the other; the cheapness of the necessaries of life; the mild weather at the end of the year; and the sanitary measures taken by the Corporation. The infantile mortality during the year was greater than had occurred in any year since 1875. In that year the mortality was equal to the rate of 19·6 per cent. of the births registered; in 1880 it was 17·8, and was due to an epidemic of diarrhœa, which prevailed with great severity during August and September. "The death-rate of infants," says Dr. Hill, "is always high in Birmingham, and indicates either gross neglect or lamentable ignorance, probably both; but the main cause of the increased fatality in 1880 was the great prevalence of diarrhœa in the summer quarter." It is of interest to note that while the death-rate from diarrhœa was very high in Birmingham during the year, the general death-rate was the lowest on record. On the relation of atmospheric temperature to the prevalence of diarrhœa, Dr. Hill observes: "Whenever the temperature exceeds 59°, the infantile diarrhœa invariably becomes prevalent. This temperature was maintained every week uninterruptedly from the second week in July until the third week in September, or over nine weeks out of the quarter. No doubt high temperature is the general and principal cause of the appearance of the disease, but as neighbouring towns having similar temperatures are affected differently, there must be some other contributory causes or conditions in operation. High temperature, in addition to acting directly on the system, has the effect of setting up putrefaction in food and other organic matters, thus leading to the ingestion and inhalation of hurtful solids, liquids, and gases. Hence with cleanly and pure surroundings ill effects may be avoided, which, under opposite circumstances, would be experienced in great severity. Whether heat be the sole or principal cause of summer diarrhœa, which is especially a disease of infancy and childhood, or not, it is certainly inseparably connected with the cause, as the disease is almost limited to the hot period in every year. The disease is further observed to be more common in towns than in the country, and in large than in small towns. Communities which are characterised by a high birth-rate naturally exhibit a high infantile diarrhœa death-rate owing to the abundance of subjects of attack." Dr. Hill, commenting on the remarkable diminution of the mortality from the continued fevers in the borough, unhesitatingly attributes the decline to the sanitary work done by the Corporation in the form of better drainage, ventilation, privy accommodation, and improved water-supply. But there is obviously much sanitary work still to be done before Birmingham is placed in a health condition such as it appears possible to compass. The privy nuisance is still serious in the borough, the house-drainage is largely imperfect, houses built upon refuse containing much organic matter are numerous and necessarily unhealthy, and animal keeping in and about houses is a serious source of unhealthiness in some localities. It is gratifying to learn, however, both in the interests of the school children and the borough at large, that the School Board and its officers are giving most willing assistance to the sanitary authority in the promotion of their work. Birmingham must look largely to the more developed notions of the rising generation in sanitary matters for the completion of much of the hygienic work it is now engaged upon. The summary of nuisances dealt with in the course of 1880, and which is given by Dr. Hill towards the close of his report, presents an instructive insight into the sanitary requirements of the borough and the difficulties the local authority and its officers have to contend with.

Watford, Urban (Herts).—Dr. Alfred T. Brett reports for 1880, among a population estimated at 10,400, a birth-rate of 31·05 per 1000 inhabitants, and a death-rate of 20·9. He reminds the sanitary authority that the district needs to obtain more land for sewage-irrigation purposes; more ventilators to the public sewers; baths at the public library; to improve the recreation ground; to prevent the pollution of the river Colne; to have better gas-lamps in the market-place; to adopt the constant water-supply system; and to build a home (hospital) for the treatment of infectious cases.

Ulverston, Urban (Lancashire).—Dr. A. Thompson reports for this district in 1880, among a population estimated at 11,000, a birth-rate of 35·09 per 1000 inhabitants, and a death-rate of 16·55, as compared with 19·27 for 1879. The average death-rate for the district during the five years 1880 was 20·65, and for the five years preceding 1864, 26·15. Dr. Thompson notes that the deaths among infants only included one from diarrhœa, a remarkable exemption from the fatal form of this disease, considering its great prevalence in the kingdom, in the summer quarter.

Taunton, Urban and Rural (Somerset).—Dr. Henry J. Alford's report for this combined sanitary district in 1880 is, perhaps, of chiefest interest from the information it gives of the great value to sanitary authorities of the possession of a well-appointed infectious disease hospital in checking the spread of infectious disease when properly used. *Taunton, Urban*, with an estimated population of 16,227, had a birth-rate of 31·0 per 1000 inhabitants and a death-rate of 19·0. Improvements both in the water-supply and sewerage seem to have constituted the more marked sanitary work in the year, investigations in search of a better water-supply having been crowned with success, and the sewerage of the town considerably extended. Still Dr. Alford confesses to having failed in convincing the sanitary authority as to the necessity of efficient ventilation and flushing as parts of a system of sewerage—a curious but not uncommon instance of perversity among local authorities, who will not hesitate to spend large sums in the construction of sewers, but will hesitate to lay out the money requisite to give them their full efficiency, and will economise pennies at the risk of frustrating the results of the expenditure of pounds. Taunton would appear to have instituted a regular system of scavenging, and as a consequence nuisance arising from gigantic ash-pits is gradually disappearing. The infectious disease hospital, lately erected by the combined urban and rural authorities, seems to have been an unqualified good to the district, both as concerns the patients treated in it and the opportunity it has afforded of checking the spread of infectious disease by isolation. But Dr. Alford longs for the compulsory notification of infectious diseases, without which he finds that he cannot use the hospital so fully and usefully as he wishes. *Taunton, Rural.*—Dr. Alford reports a birth-rate of 31·4 per 1000 population, and a death-rate of 14·0. The total mortality was forty-one below the average of the seven preceding years, and this is attributed not merely to the improved sanitary condition of the district, "but to a great extent to the existence of the sanitary hospital, by which many severe and dangerous outbreaks of infectious diseases were stopped."

Barnsley, Urban (Yorkshire).—Dr. Michael Thos. Sadler reports for this district in 1880, among a population estimated at 29,230, a death-rate of 23·57 per 1000 persons living. The chief features in the health-history of the year were the large increase in the mortality from zymotic diseases, and particularly the great number of deaths from diarrhœa, especially among infants and young children. Dr. Sadler's observations on fatal epidemic diarrhœa deserve careful consideration. "It seems," he says, "as far as one can judge from the experience of the last twelve years in Barnsley, that hot weather in the early part of the summer, say in June, does not produce an epidemic, but if it goes on into July and August, then we have diarrhœa, and if it is prolonged into September then the epidemic is a severe one. Now, last year we had nine hot days in June and five in July which produced little or no effect, then came twelve in August and seven in September, and a violent epidemic spread all through the town, whilst the hot weather in 1872 came especially in June and July. This almost invariable prevalence of epidemic diarrhœa at the time of the year when the simpler forms of animal and vegetable life are at their greatest activity, as shown by the multiplication of insects, animalculæ, fungi, moulds, &c., its aggravation by those conditions of warmth &c. which are favourable to these lower forms of life, and its discouragement by those that check them, strengthen the belief that epidemic diarrhœa, like many other diseases, has for its cause the admission into the human frame of minute organisms which have the power of rapidly multiplying when placed in favourable conditions; and there cannot be much doubt but that these seeds are to a large extent found in the secretions thrown off during the attack. Water contaminated with these matters has been again and again shown to be one of the most potent agents in spreading epidemics of diarrhœa, and the allied but still more serious disease Asiatic cholera; but it is obvious that the infection must be conveyed by some other means in places where the water-supply, as at Barnsley, is derived from a reservoir placed beyond the reach of such contaminations, nor can there be any doubt but that the air is as capable of conveying the germs of diarrhœa as those of small-pox or scarlet fever. It is a matter of common experience that if one person in a house becomes affected with autumnal diarrhœa many others under the same roof will also take it, and that sometimes so quickly that suspicions of poisoning arise, and there probably may be a special liability to infection of this kind in a town like ours, where waterclosets are the exception and not the rule, and where the excreta are kept stored up often for weeks together in conditions more or less favourable to their diffusion through the air. As a matter of fact, the great majority of the deaths from the epidemic of last autumn were in those parts of the town where the houses are most crowded together, and where more than one family have to make use of the same convenience." Dr. Sadler then proceeds to urge the necessity of strict cleanliness being maintained at the time the annual visitation may be expected, and that it is incumbent upon the sanitary department at this time to prevent large accumulations of filth in the vicinity of houses, and to be more free in their use of disinfectants to ashpits and drains. Barnsley would still seem to retain the open, foul midden-privy which is the source of so much unhealthiness among the communities where it is still found.

Tottenham, Urban (*Middlesex*).—Dr. Watson's report for 1880 shows a death-rate of 16·5 per 1000 persons living among a population estimated at 43,968. The death-rate of 1879 was 17·6, and of 1878 17·3. The rapid increase of houses in this district is indicated by the fact that the sanitary authority approved of plans for no less than 3000 new houses during the year. Assuming that this approval is not merely a form, new Tottenham ought to furnish a different and far more satisfactory health-history than old Tottenham. Here, as in many places elsewhere in the kingdom, the prevalence of fatal diarrhœa during the summer was the most notable pathological event of the year. The beginning of the epidemic seems to have set in at a somewhat later period than it did in London. Dr. Watson remarks on this disease, as observed in Tottenham, "In the first place, with scarcely any exception, we must remark that the deaths were all amongst the lower classes, whose dwellings as a rule are damp and unhealthy, and whose habits are dirty and thriftless. Add to this the most deplorable ignorance of the proper manner of feeding children and in nursing them when ill, and we can account for the greater number of cases; but why these deaths occurred when they did, and under the rather peculiar atmospheric conditions then prevailing, I cannot attempt to say." The sanitary authority, we learn, have *at length* decided upon a plan of effectually ventilating and flushing the sewers of the district. The complaint of inefficient ventilation is of old standing against the Local Board, and we are glad to learn that it is about to be removed, for it is not without good reason that the want of ventilation of the sewers is said to have had much to do with the prevalence of diarrhœa, enteric fever, and diphtheria which have from time to time disturbed the minds of residents of Tottenham and of outsiders also.

Whitby, Urban (*Yorkshire*).—Mr. Taylerson reports for the March quarter of the present year, among a population estimated at 14,000, a birth-rate of 32 per 1000 persons living, and a death-rate of 20. Generally the district was remarkably free from fevers and infectious diseases throughout the quarter.

THE SMALL-POX AND ITS LESSONS.

This subject was discussed at the last meeting for the season of the Islington Medical Society on Tuesday last. The chairman, Dr. Glover, remarked on the fact that the most preventable of all diseases was creating such extensive scare and mortality, and on the discreditable appearance of all sanitary and public authorities. It was agreed that there never had been such a demand for vaccination, and that this operation was likely to come into proper reputation only through public experience of the consequences of neglecting it. Mr. Dukes noticed the fact that Germans are vaccinated in eight or ten places, and that they show great resistance to either revaccination or small-pox. Mr. Blackman, public vaccinator in the East-end of London, attributed the greater dimensions of small-pox epidemics to the practice of vaccinating in fewer places than used to be the practice. One member thought that there was too much carelessness in the practice of revaccination, the operation being of no value unless followed by its proper phenomena of irritation, vesiculation, &c. It is undoubtedly true that if it is attempted to vaccinate a large number of persons with a small amount of lymph a large proportion of them will show no result, and yet are apt to be left under false impressions of security from the simple fact of the operation having been done. It cannot be too strongly impressed on the public that they are saved from small-pox, not by being revaccinated, but by being successfully and thoroughly revaccinated.

TILLING THE GROUND FOR FUTURE SMALL-POX.

At a recent meeting, the Lambeth guardians declined to act upon a suggestion of Dr. Stevens, of the Local Government Board, to institute a house-to-house visitation for the discovery of unvaccinated person or persons who had not been revaccinated. The result of such visitation, as carried out in other parts of the metropolis, has been, we understand, most excellent; but the guardians of Lambeth have such tender regard for the feelings of their parishioners that they decline to follow the course recommended lest it should alarm them. This is another illustration of the evil arising from the want of uniformity of action among the boards of guardians in the metropolis, largely frustrating the beneficent operations of the Vaccination Acts. Lambeth, by refusing to carry out to the fullest extent practicable the administration of these Acts, simply stores up in her midst material for the persistency of small-pox, and, in fact, cultivates the ground for further extension of the disease.

At the recent meeting of the Metropolitan Asylums Board, a member, speaking of the difficulties they had to contend with in dealing with the epidemic of small-pox, said, "Every day we read of persons recovering from small-pox being seen in the streets, public houses, and elsewhere, but the Local Government Board seemed unmoved. Why did it not rise to the occasion? But that is precisely the question that the Local Government Board is asking of the Asylums Board, while the metropolis generally is called upon to admire this new version of the old game, 'It's you, Sir,' 'No, it's you, Sir.'"

The Commissioners of the Sewers of the City of London have passed a resolution supporting the Metropolitan Asylums Board in their appeal to the Local Government Board for an amendment of the legislation with regard to that Board, and in view of the removal of the difficulties they have been recently exposed to in carrying out their functions. But here, again, we learn from a statement of Mr. Dodson in the House of Commons that the Central Board is waiting for suggestions from the Asylums Board as to what matters it would like to be amended!

The Camberwell guardians have under consideration a very proper motion for giving pecuniary compensation to one of their relieving officers, small-pox having been introduced into his family, contracted in the pursuit of the duties attaching to the office. It was mentioned in the course of the discussion that in 1877 a relieving officer had had £25 allowed under similar circumstances.

At the meeting of the District Board of Works on the 17th inst., the medical officer of health (Dr. Vinen) was enabled to state that the district was at that time entirely free from small-pox.

The scattering of cases of small-pox from the metropolis has been, we understand, much more marked during the past three weeks. The importation into Warrington and other distant towns is now recorded.

The question of the vestry of Rotherhithe undertaking its own "dusting" has, we are glad to say, been raised.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed but a slight further increase last week upon recent low rates. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 4998 births and 3036 deaths were registered last week. The births were 188 and the deaths 221 below the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 19·5 and 20·3 in the two preceding weeks, further rose last week to 20·8. The lowest rates in the twenty towns last week were 13·3 in Hull, 14·8 in Brighton, 16·3 in Leeds, and 17·2 both in Portsmouth and Plymouth. The rates in the other towns ranged upwards to 23·8 in Wolverhampton, 24·9 in Manchester, 25·5 in Liverpool, and 25·7 in Oldham. During the first seven weeks of the current quarter the death-rate in the twenty towns averaged 21·2 per 1000, against 23·8, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 410 and 396 in the two previous weeks, rose to 424 last week; these included 104 from small-pox, 94 from whooping-cough, 88 from measles, 57 from scarlet fever, 33 from fever (principally enteric), 28 from diarrhœa, and 20 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 2·9 per 1000 in the twenty towns, and ranged from 0·0 and 0·5 in Norwich and Brighton, to 3·1 in Portsmouth, Bristol, and Oldham, and 3·3 in Liverpool. Measles showed the largest proportional fatality in Bristol and Sheffield, and scarlet fever in Wolverhampton, Sunderland, Oldham, and Bradford. The 20 deaths referred to diphtheria in the twenty towns included 9 in London, 7 in Portsmouth, and 2 in Bristol. Small-pox caused 114 more deaths in London and its outer ring of suburban districts, and 1 in Salford, whereas no fatal case of this disease was recorded in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 942, 1093, and 1225 at the end of the three preceding weeks, further rose to 1390 on Saturday last; of these 368 were convalescents temporarily accommodated in tents at Darenth. The new cases admitted to these hospitals during last week were 346, against 363 and 379 in the two previous weeks. The Highgate Small-pox Hospital contained 92 patients on Saturday last, and 20 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had steadily declined in the five preceding weeks from 395 to 254, were 256 last week, and were 16 below the corrected average number in the corresponding weeks of the last ten years; they included 140 from bronchitis and 86 from pneumonia. The annual death rate from lung diseases, exclusive of phthisis, was equal to 3·6 per 1000 in London last week; while the rate from the same diseases was 5·8 in Liverpool and 4·1 in Salford.

The causes of 77, or 2·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·3 per cent. in London, whereas it averaged 3·7 in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth or Plymouth; whereas the proportions of such deaths were largest in Norwich, Leeds, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week was equal to 19·9 per 1000, against 21·4 and 20·6 in the two preceding weeks; this rate was 0·9 below that which prevailed in the aggregate of the twenty large English towns. The rates in these eight Scotch towns ranged from 16·0 to 17·8 in Dundee and Aberdeen, to 24·4 and 27·8 in Paisley and Leith. It is noted in the Scotch weekly return that the rate in Paisley is probably over-stated by an under-estimate of its present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 64 and 82 in the two preceding weeks, declined to 61 last week; they included 16 from whooping-cough, 14 from diarrhœa, 10 from diphtheria, 8 from "fever," 8 from measles, 5 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·4 per 1000 in the eight towns, and was 0·5 below the average rate from the same diseases in the twenty large English towns. This zymotic rate in the eight Scotch towns ranged from 0·5 and 0·7 in Aberdeen and Dundee, to 3·9 and 5·2 in Perth and Leith. The 16 fatal cases of whooping-cough showed a decline of 8 from the number returned in the previous week, and included 11 in Glasgow and 3 in Edinburgh. The 14 deaths from diarrhœa also showed a decline from the number in the previous week, but were again proportionally more numerous than those referred to this disease in the English towns. Of the 10 deaths attributed to diphtheria 6 were returned in Glasgow, as were all the 8 fatal cases of measles. The 8 deaths referred to "fever" (including typhus, enteric, and simple continued) were 4 fewer than those in the previous week, and included 4 in Leith and 3 in Glasgow. The annual death-rate from this cause was equal to 0·31 per 1000, and again considerably exceeded the average fever death-rate in the twenty English towns. The 5 fatal cases of scarlet fever, of which 3 occurred in Edinburgh, were 7 less than the number in the previous week. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 140 and 111 in the two preceding weeks, further declined to 96 last week, and were equal to an annual rate of 3·8 per 1000, while the rate from the same diseases in London did not exceed 3·2.

HEALTH OF DUBLIN.

The rate of mortality showed a considerable decline in Dublin last week. The annual death-rate in the city, which had been equal to 27·5 and 29·9 per 1000 in the two preceding weeks, declined to 25·2 last week; this rate was lower than that recorded in any previous week of the year. During the first seven weeks of the current quarter the death-rate in the city averaged, however, 29·4 per 1000, against 21·5 in London and 20·7 in Edinburgh. The 161 deaths in Dublin last week showed a decline of 30 from the number returned in the previous week, and included 14, or nearly 9 per cent., which were referred to the principal zymotic diseases, against 8 and 14 in the two previous weeks. The 14 deaths from zymotic diseases included 7 from fever (typhus, enteric, or simple), 5 from diarrhœa, 2 from whooping-cough, and not one either from small-pox, measles, scarlet fever, or diphtheria. The annual death-rate from these zymotic diseases was equal to 2·2 per 1000, while the rate from the same causes was 2·9 in London and 1·6 in Edinburgh. The deaths referred to fever in Dublin, which had been 14, 3, and 8 in the three preceding weeks, were 7 last week, and were equal to an annual rate nearly five times as high as the average rate from the same cause in the twenty large English towns. The 5 deaths attributed to diarrhœa showed a considerable increase upon the number returned in recent weeks; while the 2 deaths from whooping-cough were within one of the number in the previous week. The deaths both of infants and of elderly persons were fewer than in any recent week. Four deaths resulted from violence, but only two inquest cases were recorded during the week.

SICKNESS RETURNS IN SALFORD.

Dr. Tatham, the medical officer of health for Salford, has just presented to his local sanitary authority a quarterly return, which in one essential particular should serve as an example for periodical returns intended to supply a health bulletin of the population to which they relate. It appears that the Health Committee of the Town Council recently decided, at the suggestion of the Local Government Board, to procure for the information of the Health Department a weekly return of the cases of sickness treated by the Poor-law medical officers of the union. Dr. Tatham has been enabled, by the courtesy of the medical officers and the governing bodies of the various medical charities, also to obtain returns of the whole of the cases of sickness coming under the notice of the various hospitals and dispensaries of the district. Thus the sickness statistics which are published in the return before us include all the cases occurring in public practice within the borough, whether coming under the notice of the various hospitals or of the parochial authorities. The value of such a return cannot very well be over-estimated, and it may be hoped that what has been effected by the Town

Council and medical officer of health for Salford may encourage the sanitary authorities and the medical officers of health of other large towns to attempt the preparation and publication of similar returns, combining sickness and mortality statistics. Experience will best show how this combined information may be best turned to account, and to this end it will be interesting to note the varying relations of mortality to sickness in different seasons and in different parts of the borough. It may prove desirable to separate the cases of pauper sickness from those occurring in hospital practice. It must, moreover, not be lost sight of that the relation of mortality to pauper sickness will, to a great extent, be governed by the proportions of the population in different parts of the borough in receipt of poor-law relief. In order to facilitate a comparison of the weekly mortality and sickness returns we should be glad to see the deaths from all causes inserted in Table I. of the Return, just above the line for sickness from all causes. In calculating the rates of mortality for his return, Dr. Tatham has used the recently enumerated population number, which, being 18,000 less than the estimate used by the Registrar-General, gives a death-rate more than two per thousand in excess of the rate given in the last official quarterly return. We are glad to learn that Dr. Tatham calls attention to the excess of uncertified causes of death, and to the small percentage of inquests held in Salford, compared with the proportions prevailing in the neighbouring municipality of Manchester. The power of the coroner to obviate the dangerous neglect of human life indicated by a high percentage of uncertified deaths in town districts is beyond all question; and by neglecting to exercise this power coroners and county magistrates incur a grave responsibility.

AMERICAN DEATH-RATE.

We have frequently called attention to the general untrustworthiness of American mortality statistics, arising partly from incomplete registration of deaths, and partly from exaggerated estimates of population. We are glad to find that the full import of these defects is beginning to be recognised in the United States. In a recent number of the *Boston Medical and Surgical Journal* we note a leading article on the "computation of death-rate as illustrated by Baltimore," which should effectually call public attention to the way in which American vital statistics are discredited by what our transatlantic contemporary describes as "the outrageous inflations of estimated population for the purposes of local self-glorification." We not long ago noted the conspicuous case of St. Louis, which claimed a population of 500,000, and used this figure as the basis of its vital statistics, whereas the census enumerators could not count more than 350,522 inhabitants. Philadelphia, in a similar manner, claimed an excess of 53,000, Baltimore 60,000, and Cincinnati 24,000. Even since the census these towns insist that their inflated estimates are more trustworthy than the census numbers. In Baltimore, the wildest bases of estimate are urged in support of the assertion that the population of the city must be 400,000, instead of 332,190, as shown by the State census. The ingenious secretary of the Baltimore Board of Health urges in support of his estimate, and to disprove the census number, that the city has 80,000 registered legal voters, and five inhabitants to a legal voter being a fair and reasonable allowance, the population must be 400,000. Further, that as the census taken by the police for school board purposes gave 86,961 children aged between six and twenty-one years, assuming that this represents one-fifth of the population, it follows that the population must be 434,805. Again, we are told that Wood's City Directory gives, after deducting all firms, companies, and institutions, 84,596 white, and 13,853 coloured, names—and that it being perfectly fair and reasonable to assume four inhabitants to each—it follows that the population of the city must be 393,796. This latter estimate is the one which the Board of Health still persists in using as the basis of its vital statistics, instead of the census number. A rough calculation based upon the number of houses in the city, and upon the assumption that the 80,000 inhabited houses contain on an average five persons, gives by this method a total population of 400,000. There is something amusing in the persistence with which the Board of Health clings to its random estimate, based upon a supposed proportion of names in a directory, in preference to the census number. The secretary to the Board still asserts that the "census of Baltimore, if correctly taken, would give her a population of fully 400,000." It is quite evident that so long as each civic sanitary official is free to estimate the population of his city by such loose methods as those which have found favour in Baltimore the computation of death-rates must remain an utter farce, and only serve further to discredit American vital statistics. Between censuses some form of estimate is indispensable, but there is, at any rate, novelty in the persistent use of such estimates after the declaration of the census numbers, on the ground that these latter are not trustworthy. It is needless to point out that the addition of this 60,000 to the enumerated population of Baltimore entirely destroys the value of the calculated mortality statistics issued by the Health Department.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DR. B. W. RICHARDSON, F.R.S., ON THE MANAGEMENT OF SMALL-POX IN THE METROPOLIS, ETC.

The discussion of Dr. Richardson's suggestions on the management of cases of small-pox and other infectious diseases in the metropolis and large towns, before the Sanitary Institute, was brought to a close on the 18th inst. Dr. Richardson, in reply to the various observations which had been made in the course of the discussion, remarked that all appeared to be agreed upon the propriety of obtaining a complete registration of communicable diseases, the mapping out of the special centres of infection in each parish, and the formation of a definite notion of the actual hospital accommodation the parish would require from time to time, also the desirability that every parish should bear its own burden. Opinion was less uniform upon the question of large or small hospitals for the reception of infectious diseases, but nothing had been said which called upon him to reconsider the opinion he had formed of the greater advantages to be derived from the use of small hospitals, and he reiterated his views on this subject. On his special plan for dealing with small-pox cases in hospital, he said:—"Objection is taken to my plan of dealing with those small-pox patients in a district who have no home. The plan is said not to be practical, but it exists in practice already. In private houses we send the small-pox sufferer to the top room of the house; we isolate there, and we treat, notwithstanding the existing faulty arrangements, with success. London at this moment is, in fact, a badly managed upper floor hospital, even now, to a considerable extent. I say carry that plan out on a better scale for the poor who suffer by making a sufficient number of small efficient upper floors. There are thirty-nine vestries concerned; for argument's sake, divide equally. Let each vestry, on its boundaries, set up four hospitals of light construction on the upper floors of existing or of new buildings. Let each hospital take in twelve patients. There then would be accommodation for 1872; and if by a mutual accommodation between parishes one would receive for another in emergency, the whole question of dealing with the out-of-home infectious cases in London would be solved. Such small hospitals would not even be noticed after a time, and their management would be so easy, that they could not be sources of danger if any efficiency deserving the name of efficiency were bestowed upon them." Dr. Richardson, in support of the practicability of his suggestions, illustrated his observations by exhibiting a model of a small iron hospital arranged for destroying organic emanations by fire. Dr. Richardson's comparison of the upper-floor hospital he would erect with the treatment of infectious diseases on the upper floors of private houses is, we fear, more figurative than practical. The purchase or erection of buildings as sites for hospitals has not, we think, received from him such consideration from an economic point of view as would have seemed advisable before its proposition as a practical measure was formulated. Moreover, we should like to have heard something more definite how the parochial principle of dealing with small-pox and other infectious diseases was to be brought about. There appear to us both legal and economic objections standing in the way of Dr. Richardson's proposals, for the avoidance of which we see no present means. Further, so far as metropolitan parishes are concerned, the parishioners of Fulham, Kensington, and Paddington, at least, repudiate as earnestly parochial hospitals as hospitals for combined parishes.

WOOLSORTERS' DISEASE.

The local papers continue to report cases of woolsorters' disease from Bradford and its vicinity, and that in spite of precautions being taken to render the wool innocuous. One of these, an alpaca sorter, forty-six years of age, died after a few days' illness, and bacilli were found in the blood during life. Two other alpaca sorters, seriously ill about the same time recovered; but in one of these the blood was found to contain bacilli. A second and third fatal case came from another factory, one being a carder of Cape mohair, who died after forty-one hours' illness, and the other a wool-washer of Van mohair, who was seventy-two years of age, and had enjoyed perfect health until the time of his fatal seizure, which was followed by death in about forty-seven hours. In neither of these latter cases, it will be seen, was the deceased a woolsorter, and in the one who had to do with Van mohair, it is said that the material before reaching his department had been washed at a temperature of 130°, dried, sorted, washed again, prepared and combed. The details of the cases at present to hand are not full enough to enable us to say with certainty that they were cases of anthrax; but the rapidity with which death followed, with all the symptoms of blood-poisoning, hardly leave room for doubt; and the discovery of the bacillus in the first case places that case undoubtedly in the category.

TYPHOID FEVER IN RUSSIA.

The mortality statistics for St. Petersburg, published from time to time in the Registrar-General's weekly returns, afford the strongest evidence of the insanitary condition of that city in the remarkable fatality of typhus and enteric fever which prevails. There is, moreover, every reason to believe that even this excessive death-rate from fever is exceeded in many of the other large Russian towns. Moscow, the ancient capital of Russia, from reports furnished by the United States Consul to the National Board of Health at Washington, appears, at any rate, to be suffering from a greater fever fatality than St. Petersburg. The population of Moscow is stated to be 601,969, among which 2214 deaths were recorded during January last; of these 265 were attributed to typhoid fever, 25 to small-pox, 26 to scarlet fever, and 90 to other contagious diseases. The deaths from typhoid fever were equal to an annual rate exceeding 5 per 1000 of the population; this exceeds by more than twenty times the average death-rate from the same cause in the twenty large English towns during the first quarter of this year. It is also important to note that no less than 215 deaths are also referred to diarrhœal diseases; as intense frost prevailed during the greater part of January, it is probable that a large proportion of this fatal diarrhœa was of typhoid origin. The annual death-rate from all causes during the month is reported to have been equal to 43·3 per 1000.

We learn that petechial typhus is prevalent in Kars and in the districts of Persia recently overrun by the Kurds. The report, moreover, is contradicted that the plague on the Lower Euphrates has extended to Divanieh; and news from Bagdad reports that the disease is now confined to Nedjef, and that it still prevails seriously there.

The lecture delivered before the Victoria Institution on the 16th inst. by Sir Joseph Fayrer, M.D., F.R.S., on "Rainfall and Climate in India," has been printed and issued as a pamphlet.

The water-supply of Aberdeen, especially of the northern parts of the city, having been found unsatisfactory, the city surveyor has formulated a scheme to remedy the defect, at a cost of some £11,000.

THE SERVICES.

War Office.—The Secretary of State for War has appointed John Dunbar Baskerville, Esq., L.R.C.S. Irel., L.R.C.P. Edin., and L.A.C. Lond., to be Assistant Visiting Surgeon for Chatham, under the Contagious Diseases Acts, 1866 to 1869, vice J. B. Jardine, M.D., appointed Visiting Surgeon.

Surgeon-Majors A. F. Bradshaw, F. W. L. Hodder, and G. G. Gibson are on passage home from India in H.M.'s troopship *Jumna*.

Surgeon-Majors H. C. Guinness, M. Cogan, and Surgeon P. H. Johnstone are on duty with troops proceeding from Bombay to Portsmouth in H.M.'s troopship *Serapis*.

Surgeon-Major R. Tate and Surgeon J. A. M'Cracken have been granted leave of absence from India for six months, on private affairs.

Surgeon-Major C. Innes, A.M.D., has been granted leave of absence from Bengal for six months, on urgent private affairs.

PHARMACOLOGY AND THERAPEUTICS.

CANTHARIDINE.

An interesting observation on the effect of cantharidine was recently published by M. Cornil. If this substance is given to a rabbit, either by the mouth, or through the skin, as by the application of a blister, the symptoms of poisoning are produced, cystitis, nephritis, and inflammatory lesions in the liver and the lung. Twenty minutes after the ingestion of the cantharidine, the following lesions were found in the glomeruli of the kidney. A large number of white corpuscles lay between the capsule and the tuft of blood-vessels composing the glomerulus. The uriniferous tubes were filled by a granular exudation obliterating their cavity. An hour after the dose there was an abundant proliferation of cells, round or angular from compression, the signs of a true catarrh of the tubules. In the bladder the changes were of the same character, but superficial, apparently in consequence of the irritation being due only to the character of the urine. In the lung, the minute bronchi were filled with pale corpuscles or pus-cells, and a similar change was found in all the bronchial tubes, and even in the mucous membrane of the trachea and larynx. Similar lesions were found when a blister had been for some time in contact with the skin.

ASPIDOSPERMINE.

The physiological and therapeutical action of aspidospermine, the alkaloid of quebracho bark, has been investigated by Penzoldt; it consists of white prismatic crystals readily soluble in alcohol and ether, but only slightly soluble in water. The solution has a yellowish colour and an intensely bitter taste. In frogs ten milligrammes caused complete motor paralysis similar to that caused by a cubic centimetre of solution of the bark. The heart's action was reduced in frequency, and the thoracic respiratory movements were at first shallower, and afterwards less frequent. Six centigrammes injected beneath the skin of a small rabbit caused, in eight minutes, distinct motor weakness and dyspnœa. In two others, fifteen minutes after the same dose, dyspnœa came on without obvious narcosis or diminution of sensibility, and death occurred with symptoms of muscular paralysis, accompanied by intermitting spasm. The respiratory curves showed first a slight increase in frequency, which afterwards became greater, with increased depth of inspiration. In dogs also considerable dyspnœa was produced, with increased frequency of pulse. Administering it in ten cases of dyspnœa in doses of from one to eight centigrammes in phthisis and emphysema, no marked effect on the dyspnœa was observed; nor could he trace, in febrile conditions, any distinct influence upon the temperature. On the other hand, a one per cent. solution delayed putrid decomposition of urine, but did not prevent the growth of bacteria and fungi. The effect on forms of dyspnœa was so much less than that of the quebracho bark, that Penzoldt believes this must contain, besides aspidospermine, another active substance. This more active principle has been lately separated by Hesse, who finds that the bark contains even larger quantities of it than of aspidospermine. He has termed it *quebrachine* and assigns to it the formula $C_{21}H_{26}N_2O_3$. It is a strong vegetable base, and in alcoholic solution blues litmus. The sulphate and hydrochlorate are crystalline.

KURCHICINE.

An Indian chemist, Babu Ram Chundra Dutta, has obtained an alkaloid from the bark of Holarrhena antidysenterica, to which he has given this name from a native word for the plant. The bark (Conessi bark) is a well-known Indian remedy for dysentery; and the alkaloid, according to the *Pharmaceutical Journal*, is the same as that which has been twice discovered before—in 1858 by Haines and in 1865 by Stenhouse; each time, however, attracting little attention. There seems to be more probability now that it will be utilised in medicine. It is white, non-crystalline, and very bitter to the taste, readily soluble in alcohol, ether, and dilute acids, less soluble in chloroform and benzol. Crystalline acetate and tartrate have been obtained. The bark yields about three per cent. of the alkaloid, and it is present also in the seed. The dose is two to five grains, and it may be given as a powder, or dissolved in water by means of a little acetic acid. It has been found to be in no way inferior to the cinchona alkaloids as an antiperiodic, and not to produce nausea, vomiting, or headache.

THE INFLUENCE OF PHOSPHORUS ON METABOLISM.

Phosphorus in toxic doses, has been found by Fränkel and Röhmann to cause in fowls a great increase of metabolism. The phosphorus was given in bread pills, by the stomach, fasting, and the excrements were carefully collected and analysed. In each of three investigations a considerable increase in the amount of material excreted was found to occur. The amount of nitrogen was nearly trebled, and that of uric acid was doubled, and the uric acid was increased not only absolutely, but also in proportion to the other constituents. In this relative increase of uric acid the experimenters see an analogy to the formation of leucin and tyrosin in the mammalia. The phosphorus caused also an extreme diminution in the number of red corpuscles in the blood, which fell, in one case, to a sixth of the original number.

MORPHIA.

Landesberg, employing the method of Uslar and Erdmann for the discovery of morphia in the urine, could not find a trace of it in the urine of dogs which had been poisoned with the hydrochlorate or the sulphate of morphia. The brain, the medulla oblongata, the blood, and the liver were also analysed and found free from morphia, in the case of large dogs. Only in a small terrier was a trace of morphia found in the urine the day after the injection of twelve grains of morphia into the jugular vein. In the blood of the same animal, three hours after the injection, no morphia could be found. The conclusion which this investigator draws from his experiments is that when morphia is injected subcutaneously, it passes gradually into the blood current, and, by the alkalinity of the blood, it is quickly changed and decomposed, being secreted through the kidneys chiefly as decomposition products. These conclusions are, however, difficult to reconcile with the prolonged influence of morphia on the nervous system, unless this effect is really exerted by some of the decomposition-products.

A NEW SOURCE OF THYMOL.

Thymol is found to be contained in considerable quantities in the ajowan seeds (Ptychotis ajowan), which have long been used in India as a remedy for colic, atonic dyspepsia, and diarrhœa. It is suggested by Mr. Christy that should the demand for thymol increase, a supply might readily be obtained by the cultivation of this plant.

NEW ANTISEPTICS.

Styrone, or cinnyl alcohol, has been tried with success in America, and is said to have an antiseptic power greater even than thymol. It is obtained from the styracine of balsam of Peru, or liquid storax, by treating it with it an alkali which separates the cinnamic acid from the cinnyl alcohol. According to the *Pharmaceutical Journal* it is in the form of silky crystals, has a sweet taste, and an odour of hyacinths. It is soluble in twelve parts of water, in alcohol, and in ether. A saturated aqueous solution was found to be a perfect deodoriser of a foul ulcerated surface, and to cause no irritation. This explains, to a certain extent, the healing properties long attributed to tincture of benzoin, of which liquid storax is an ingredient.

Another antiseptic is the oil of eucalyptus. To it Mr. Lister has lately called attention. It is said to cause no irritation, even to very sensitive skins. Three parts of the oil may be dissolved in fifteen parts of alcohol, and then 150 parts of water added. Gauze wetted with the solution is to be covered with gutta-percha tissue and kept in place in the ordinary manner by gauze bandages.

The use of a combination of salicylic acid and camphor as a surgical dressing has been suggested by Dr. Lajoux, with the idea that the salicylic acid would act on the albumenoid ferments and the camphor on the organisms of wounds. The compound has been employed by Dr. Henral, it is said, with satisfactory results. It was far more efficacious than any other application in a case of ulcerated lupus in a syphilitic patient, the sores immediately assuming a more healthy aspect and soon healing. A phagedænic ulcer of the fourchette, which had lasted for six months, was healed in a fortnight.

PICRIC ACID.

Subcutaneous injections of carbolic acid have been extensively used in Germany for the local treatment of erysipelas. The affected region is enclosed by a series of injections of a one per cent. solution, and these are repeated daily, morning and evening, until the fever has subsided. They appear to produce no local irritation. M. Flaminio Tassi has lately recommended picric acid for the same purpose. He was led to employ it by the consideration that this acid, penetrating into the deeper layers of the skin, exercises an astringent action on the vessels, and also acts as an antiseptic. The astringent action may be expected to lessen the migration of leucocytes, which, as Wolmann and Steudner have shown, attends the erysipelatous dermatitis. In four cases in which he has employed this method of treatment the extension of the inflammation was effectually arrested, while the patients have complained of no inconvenience. In addition, compresses wetted with a saturated solution of this acid were applied over the inflamed area.

Chéron has pointed out that picric acid is a very powerful antiseptic. It has been employed at Saint Lazare for the disinfection of latrines, and it was found that the fæcal odour was readily removed by it. It also prevents the putrefaction of urine, and is said to be a useful application to wounds. The potash salt has been given as a febrifuge with good effect by Braconnot. Dr. Wainwright of New Jersey has treated malarial fevers with success by picrate of ammonium. He has given it as a pill in doses of a grain or a grain and a half, increasing it to two grains. Few cases, it is said, had to be treated longer than a week, and if given at the commencement of the disease, it was quickly cut short. It does not affect the ears as does quinine. The urine is rendered yellow, and the skin and conjunctiva are similarly stained, but the colour disappears at the end of a week.

RHINACANTHIN, A NEW REMEDY FOR RINGWORM.

Dr. Liborius having observed in China that the tincture of an unknown fibrous root was used successfully as a remedy for ringworm, obtained some of the plant, which turned out to be the Rhinacanthus communis, the plant of which the leaves, bruised and mixed with lime-juice, are used in India as an application for the same complaint. According to the *Pharm. Zeit. f. Russland* and the *Pharmaceutical Journal*, Dr. Liborius has since obtained from the root a quinone-like body, supposed to be the active constituent. It resembles chrysophanic acid in being antiseptic and antiparasitic. He proposes to call it rhinacanthin, and represents it by the formula $C_{14}H_{18}O_4$. It occurs only in intercellular spaces within the bark, which contain an intensely red substance, supposed to be a compound of rhinacanthin with an alkali. It forms with bases beautiful red compounds, easily decomposed by certain neutral solvents, such as petroleum spirit, which dissolve the rhinacanthin and assume a yellow colour.

OIL OF ANDA ACU.

This oil, obtained from the Anda Brasiliensis, has been recommended as an aperient in place of castor oil. A smaller dose is said to be required, and its action is free from intestinal irritation. The seed is ten times as large as that of the castor oil plant. It is necessary to remove the embryo and episperm before the oil is expressed, since these contain a principle which produces colic.

THE THERAPEUTIC ACTION OF OXYGEN.

M. G. Hayem has communicated to the Académie des Sciences a fresh series of researches on the influence of inhalations of oxygen. When forty to ninety litres a day are inhaled in two doses, mixed with an indefinite quantity of ordinary air, the functions of nutrition are energetically stimulated, the appetite is quickened, the temperature is slightly raised, the circulation accelerated, and the weight of the body is increased. The formation of hæmatoblasts and of red corpuscles is greatly increased, and the amount of hæmoglobin contained in the latter is augmented 5 or 10 per cent. These effects are, however, transient; when the inhalation is suspended the blood resumes its previous com position. In chlorosis this influence is very useful. Appetite returns, vomiting ceases, and the weight of the body is increased, and the amount of urea excreted is also larger. The number of red corpuscles becomes greater, but their value is unchanged, and may even be lessened. At the end of two or three months, in spite of the improvement in the general state, the condition of the blood presents little alteration, and the beneficial results are soon lost when the treatment is discontinued. Neverthelsss, the inhalations of oxygen are regarded as a useful adjunct to treatment. Vomiting, from whatever cause, is influenced in a remarkable manner, being usually suspended by one or two inhalations. This result has been obtained in dyspepsia, in pregnancy, and anæmia. In cancer of the stomach and in phthisis the vomiting was merely rendered less frequent.

MEDICAL NOTES IN PARLIAMENT.

In the House of Commons, on Friday, May 20th, Dr. Cameron gave notice that on that day four weeks he would call attention to the lack of capacity and resource shown by the Local Government Board in dealing with the small-pox epidemic at present raging in London and move a resolution.

Importation of Drugs into Japan.

Mr. Alderman Fowler asked the Under-Secretary for Foreign Affairs whether Her Majesty's Government had made any communication to the Government of Japan in regard to the introduction of drugs and chemicals into that country.—Sir C. Dilke said Her Majesty's Chargé d'Affaires in Japan was instructed in July last to take such steps as might be necessary for the protection of British importers of drugs in case there should be proper grounds for the intervention of Her Majesty's Government. No complaint had been received since that date. Two complaints had been received previously.

Compulsory Vaccination.

On Monday, Mr. H. Lee asked the Secretary of State for the Home Department if the Lord Chancellor, after submitting to the Town Council of the borough of Southampton the name of James Seward Pearce, the sheriff of the town and county of Southampton, now declined to add his name to the roll of borough magistrates; and whether the ground of objection was the opinion Mr. Pearce held in relation to compulsory vaccination, and the fact of his having been fined for non-compliance with an order under the Act; and whether the Government proposed to make this a disqualification in the case of all justices of the peace who held similar views.—Sir W. Harcourt said he had communicated with the Lord Chancellor on the subject, and he stated that the ground of his objection to that gentleman did not relate to any opinions entertained by Mr. Pearce, but to the fact that he had been twice convicted before the borough magistrates, the last time as recently as 1879, for offences against the Vaccination Act, and fined. The Lord Chancellor was not informed of those facts when he mentioned that Mr. Pearce had been recommended to him as a fit and proper person for a borough magistrate. They were afterwards brought to his notice by a memorial, and the Lord Chancellor felt obliged to concur in the opinion that a gentleman who had not recognised the duty of obeying the law which magistrates were bound to administer was not likely to be a good example to those brought before him, and was not himself, therefore, suitable to be appointed as a magistrate.

The Small-pox Epidemic.

Mr. Dodson, in reply to Mr. W. H. Smith, said he had received a representation from the managers of the Metropolitan Asylums District as to the alleged necessity for legislation to define and enlarge the powers of the managers and local authorities. Independently of, and prior to this, the subject had much engaged the attention of the Local Government Board, who were now in communication with the managers for the purpose of ascertaining the nature of the amendments of the law which appeared to them to be required. When the Board had received their reply they would be in a better position to determine what steps it might be expedient to take, but at present it would be premature to express an opinion.

Petitions were presented as follows:—From the King and Queen's College of Physicians in Ireland, for alteration of the Coroners (Ireland) Bill; from Charles Hatchell, for inquiry into the East India Medical Department; and from St. Giles's, Camberwell, against a loan to the Metropolitan Asylums District to carry on litigation in the Hampstead Hospital case. The Registrar General's annual report of births, marriages, and deaths in England (abstracts of 1879) was presented, as also was a return of deaths from small-pox in the metropolitan district from Jan. 1st to April 30th, 1881.

On Wednesday, petitions against the Rivers Conservancy and Floods Prevention Bills were presented from Leicester and other places, and for alteration of the Bill from the Liverpool Land and House Owners' Association. Mr. Dillwyn's Lunacy Law Amendment Bill was read a second time, after a debate in which Mr. Courtney, Dr. Cameron, Sir Henry Holland, Sir R. Cross, and Sir W. Harcourt took part.

Variolous Vaccination.

Mr. Hopwood gave notice on the following questions for Monday next:—To ask the President of the Local Government Board, whether it is the fact that the matron and one or more nurses at the hospital at Halifax have recently taken small-pox a few days after revaccination; whether there is any reason to believe the vaccination was of variolous matter; and, whether it is the fact that there is in use in the country a large quantity of vaccine which is in fact variolous matter, or small-pox communicated from the human subject to cattle, and from them extracted and used in inoculation under the Vaccination Acts.

Vaccine Lymph.

On Thursday, Mr P. A. Taylor asked the President of the Local Government Board whether his attention had been directed to the fact that an absolute diversity of opinion existed at this moment amongst our highest medical authorities in regard to certain lymph still used, Sir Thomas Watson declaring that the lymph which had been largely used at Brighton and elsewhere for the last forty years was variolous, and such as "must have spread about a vast amount of mitigated small-pox;" while Dr. Carpenter asserts that "no vaccinator could be charged with propagating small-pox, even though it were put beyond doubt that his vaccine lymph had been remotely derived from a small-pox pustule;" and whether he did not think it would be safer to discontinue the practice of vaccination altogether until at least our highest medical authorities could agree upon the not unimportant point as to whether the lymph employed was a protection against small-pox, or whether it might not be simply an agent for the diffusion of small-pox.—Mr. Dodson said he believed Sir T. Watson did use the words quoted in a letter to a medical journal on January 17th, 1880, but in a subsequent letter he said, referring to an important paper by Mr. Ceely, of which he had no previous knowledge, "A careful study of it convinced me that I was in error in respect to the statement with regard to small-pox and cow-pox, I am in duty bound to acknowledge this and to apologise for it." He (Mr. Dodson) could not admit that there was any substantial difference amongst the highest medical authorities on the point as to whether the lymph employed was a protection against small-pox, or whether it might not simply be an agent for its diffusion. As far as he was aware, the great bulk of the authorities were of opinion that to those employed in vaccination it was a protection against small-pox, and not a means of its diffusion. If all measures for preventing or curing diseases in regard to which some difference of opinion amongst doctors might be found were to be postponed until they all agreed, not only vaccination, but all medical treatment, would have to be suspended for probably an indefinite number of centuries.—Mr. Dawson asked if there was any provision in London in the case of an epidemic, such as was now raging, to supply vaccine from animals as was the case in foreign countries.—Mr. Dodson said that notice must be given of the question.

Contagious Diseases Acts.

Mr. Hopwood asked the Secretary of State for the Home Department whether it was the fact that one or more surgeons employed in the compulsory examination of prostitutes under the Contagious Diseases Acts had been made justices of the peace, in order that they might carry out the Acts in a twofold capacity, administering and executing the law; whether he would state by what Minister such gentlemen were recommended to her Majesty for appointment; whether he approved of such a confusion of duties; and whether the individuals in question should not be called upon to make their choice once for all to act either as magistrates or surgeons.—Sir W. Harcourt said he had made inquiries and could not discover that any such appointment had been made.—Mr. Hopwood asked whether a Mr. Parsons had not been appointed and was now acting.—Sir W. Harcourt asked when and by whom that gentleman was appointed.—Mr. Hopwood said he was appointed by the ex-Lord Chancellor.

Contagious Disease in Dublin.

Mr. Cavendish Bentinck asked the Secretary of State for War whether the general commanding her Majesty's forces in Ireland had not recently forwarded a report showing the lamentable state of the garrison in Dublin in connexion with contagious disease, and whether he would have any objection to lay the report on the table of the House? Mr. Childers: "Yes, sir, there is such a report; and although I deprecate its appearing in print, I have no objection to lay it on the table."

The Case of Captain Chatterton.

In answer to a question by Mr. Grantham with reference to this case, the gist of which appeared in our "notes" last week, Lord Hartington said he only noticed the question in the paper this morning, and he must confess he had not had time to investigate fully the various matters it contained. He did not think the military department of India had had time to make their examination. The General Brigade and Divisional Orders to which the hon. gentleman referred had never been received in the India Office, for it was not the practice to send them home from India. He would, however, have the question further examined into with the view of seeing whether it contained anything which did require further reference and inquiry in India, but he could not hold out any hope to the hon. member, considering the number of times this case had been brought before different Secretaries of State, that it would be possible to take further action.

Correspondence.

"Audi alteram partem."

VACCINATION AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—I think that in the present state of the vaccination discussion, the following facts may be of interest to your readers.

It was in the year 1836, or thereabouts, that my former master, Mr. J. B. Estlin, of Bristol (who had always taken a lively interest in the spread of vaccination, and was impressed with the inferior potency of the "vaccine" then in use), hearing of a fresh outbreak of cow-pox at Berkeley went down thither and brought with him supplies of fresh lymph from three sources. 1. The teats and udder of the cow. 2. The hand of one of the milkers infected from No. 1. 3. The arm of a child vaccinated from No. 2. Mr. Estlin and his friends (myself among the number) having got together a number of children, vaccinated them with each of these lymphs, and I very distinctly remember the following to have been the general results. 1. Of those vaccinated direct from the cow only a small proportion "took" the vaccine. 2. Of those vaccinated from the milker a larger proportion "took." 3. Of those vaccinated from the child's arm nearly as many "took" as in an ordinary vaccination of the same number. Again, in those vaccinated either direct from the cow or from the milker the disease produced was much more severe than I had ever seen it. The vesicles had pus (or what looked like it) mingled with the lymph; the areola was very large and angry-looking; and the febrile disturbance considerable. In several instances there was inflammation of the lymphatics, and in one case axillary abscess. After a few "removes," however, the virus seemed to have been toned down, vaccination with this new lymph producing what our elders pronounced to be the original Jennerian cow-pock, which they considered to have greatly deteriorated.

Now, putting aside altogether the question of the fundamental identity of cow-pox and small-pox, I think these facts of interest as clearly showing that a modification takes place in the cow-pox virus by its "cultivation" in the human subject, and that this modification, very marked in its early stages, may tend to render it *too* mild, and thus impair its protective potency. Hence I should suggest to country practitioners to keep their ears open as to any recurrence of genuine cow-pox among cows, and to have recourse to any fresh "stock" that may come in their way, without allowing themselves to be baffled by the difficulties attending its first propagation, or alarmed at its unusual results.

An old friend, Mr. G. T. Clark, who, like myself, began life as a medical man, but early quitted practice for other pursuits, and who has been for twenty-two years chairman of the Merthyr Board of Guardians, has communicated to me the following as *his* experience in that large and populous union:—"Since the Compulsory Vaccination Act has been put into force the reports of our vaccine inspectors are returned weekly and read to the Board, and the division of the union has enabled the vaccinators to reach and keep in view the case of every child vaccinated. The result of these arrangements has surpassed our utmost expectations. Cases of small-pox were wont to be frequent. It is now some years since a case has occurred in the union."

I am, Sir, yours truly,

May, 1881. WILLIAM B. CARPENTER.

EXCISION OF THE HIP-JOINT IN CHILDHOOD.

To the Editor of THE LANCET.

SIR,—In your last issue, at page 826, is an abstract of the Report of the Committee of the Clinical Society on Excision of the Hip-joint in Childhood, and in reference to an important point connected with the operation, the following remarks are made, "Only the diseased bone should be removed, and the great trochanter only when diseased, or when there is extensive disease of the pelvis."

About thirty years ago, whilst the fierce controversy regarding this operation was being carried on, the late Sir William (then Mr.) Fergusson and I had the good fortune to be able to trace to her lodging a young patient who had undergone this operation in King's College Hospital some months before. We heard of her death, and fortunately were able to make an examination of the parts. At that time Mr. Fergusson did not always remove the trochanter, but contented himself with excising the diseased head of the bone, and he had adopted the plan in the case in question. The wound had never healed up; there had been a continued discharge, and on denuding the parts after death we found that the section of the femur was quite healthy, but that there was a loose and necrosed bit of bone about the size of a nut in the acetabulum. The escape of this piece of bone had been entirely prevented by the trochanter, which formed a complete covering for the acetabulum. Mr. Fergusson was much impressed by this fact, and from that time he always insisted upon the propriety of removing the trochanter as well as the diseased head of the bone, even in instances where that process was healthy, and where there was not any disease in the acetabulum. Bearing in mind this interesting and instructive examination, and the lesson taught by it and impressed upon me by my late master, I have invariably adopted the plan of removing the trochanter, whether diseased or healthy.

I am, Sir, yours obedient,

Wimpole-street, W., May 24th, 1881. HENRY SMITH.

INTESTINAL OBSTRUCTION.

To the Editor of THE LANCET.

SIR,—At the meeting of the Pathological Society held on May 17th, my friend and colleague Dr. Charlewood Turner showed a specimen taken from a case of acute intestinal obstruction, on which I had operated at the London Hospital when the patient was in a very critical condition. During the operation, which was performed under the carbolic spray, and at which I had the advantage of the assistance of my friend and colleague Mr. Reeves, I found that the cause of the obstruction was of a twofold character. Some coils of intestine had passed through a loop formed by the attachment of a diverticulum to the anterior abdominal wall, and in that position the intestine had become twisted on itself. In the report of Dr. Turner's remarks the twist is not mentioned. I disengaged the intestine by drawing it back through the loop, and then untwisted it; but I deemed it better to leave the diverticulum, the length and attachment of which I could not clearly ascertain, as division of it would have considerably complicated a comparatively simple and brief operation. This is my reply to the clinical inquiry of the President of the Pathological Society, who asked if at the time of operation it was evident what the nature of the band was, and whether the surgeon was prepared to cut through it if necessary. Had I been aware that Dr. Turner intended showing the specimen at the Pathological Society on the 17th inst., I should have endeavoured to be present to furnish more conveniently the supplementary information required for the full elucidation of an instructive case, which was satisfactory at least in the coincidence of the results of the post-mortem examination with our interpretation of the cause of obstruction at the time of operation.

I am, Sir, yours &c.,
Finsbury-square, May 20th, 1881. WALTER RIVINGTON.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS AND THE OFFICE OF CORONER.

To the Editor of THE LANCET.

SIR,—As I have felt myself compelled to take the very unusual course of declining to present a petition to Parliament, I will feel much obliged if you will publish the enclosed correspondence. My sole desire is that the profession may have the opportunity of forming their own opinion on the action I have taken, prompted as it has been by a lifelong desire to place the claims of the well-educated physician in the very forefront of intellectual public life in all departments of the State in which his services may be called in requisition. It has ever been my motto, *Ιατρος γαρ ανηρ πολλων ανταξιος αλλων.*

Faithfully yours,
ROBERT D. LYONS.
House of Commons' Library, May 24th, 1881.

King and Queen's College of Physicians in Ireland,
Dublin, May 12th, 1881.

DEAR DR. LYONS,—I am directed by the College to request that you will kindly take charge of the petition of the College relating to the law of coroners in Ireland (which I forward to you by this post), and present it to the House at the earliest opportunity.

I have the honour to be, dear Dr. Lyons,
Yours very faithfully,
J. MAGEE FINNY, M.D., Registrar.
Robert D. Lyons, Esq., M.B., M.P.

House of Commons, May, 1881.

MY DEAR DR. FINNY,—I have received the petition of the College on the Coroner's Bill, and I beg leave to say that with the fullest sense of my duty to the College, and my most anxious desire to comply with its behests in all things, I feel very great difficulty in presenting a petition to the House of Commons which seeks to impose a disability on members of the medical profession in regard to a public office. I fear that this opens up a question of great gravity, and may be but the initiation of further disabilities, which many would be but too ready to impose on a profession not naturally strong in its powers of public protestation. I find that there is a large feeling in the metropolis in favour of medical men as coroners, a recent election having been successful in placing Dr. Thomas as the fourth in succession to Dr. Wakley in the office of coroner for Middlesex. On the committee to secure his election were—Dr. Farquharson, M.P., Chairman, Sir W. Jenner, and other men of note. Dr. Thomas was elected by 2500 to a little over 300, strikingly showing the feeling of the electors. The University of Oxford appoints a medical man as university coroner, and other examples may be readily found. I am myself of opinion that a well educated medical man, such as we hope the licentiate of the future shall always be, is fitted for any station in life, and from ancient times to the present day medical men have filled the highest official stations with great public advantage. The peerage and the great orders of honour have been largely illustrated from the ranks of medicine, and in both the administrative and combatant branches of the services. Names occur at once to my mind of men whom the State has delighted to honour. I would ask you to put my humble duty and most profound respects to the President and Fellows, and may beg them to reconsider the petition with a view to striking out Clause 2, or to relieve me from the deep embarrassment in which I should find myself placed, by asking another member of the House to present the petition if they deem it right to adhere to its present form.

Believe me, dear Dr. Finny, faithfully yours,
R. D. LYONS, F.K.Q.C.P.I.

To the Knights, Burgesses, and Commoners, in Parliament assembled, of the United Kingdom of Great Britain and Ireland, the humble petition of the President and Fellows of the King and Queen's College of Physicians in Ireland, sheweth,—

That a Bill has been introduced into your honourable House, intituled "A Bill to Amend the Law relating to Coroners in Ireland"—ordered to be printed 20th January, 1881. Your petitioners have observed with regret that the Bill proposes to continue the most objectionable features of the existing Coroners' Law in Ireland. Your petitioners are of opinion that the system of appointing coroners by vote of the ratepayers is not calculated to secure men with the requisite judicial qualities and technical knowledge for the efficient discharge of their highly responsible duties; and, as these duties are essentially of a judicial character, your petitioners consider coroners should be appointed on the same grounds, and in a similar manner, as other judicial functionaries. Your petitioners observe that while medical evidence is essential for the efficient conduct of a coroner's inquiry into the cause of death, it by no means follows that there should be a medical judge to try cases where medical evidence may form an essential portion of the case. On the contrary, the medical evidence should be provided by a skilled medical expert, who should be a medical jurist and pathologist; and, in the opinion of your petitioners, every Coroner should have such an officer attached to his Court. To the present system of employing "any legally qualified medical practitioner at or near the place," as provided by Act of Parliament (Vict. 9 & 10 c. 37, s. xxxii.), your petitioners take exception. Medical men engaged in general practice are seldom skilled pathologists or medical jurists, and therefore their evidence on special points is of comparatively little value. Your petitioners are of opinion that a Bill which does not contemplate the removal of the above-mentioned abuses in the existing Coroners' Law must prove unsatisfactory, and they therefore suggest that any measure for the reform of Coroners' Law which may receive the support of Her Majesty's Government should contain the following essential provisions:—1. That all Coroners should be appointed and paid by the Crown, as other judicial functionaries are at present. 2. *That every Coroner should be either a barrister-at-law or on the roll of solicitors.* 3. That every Coroner should have at least two deputies to take his place in case of absence or overwork, and that these deputies should be qualified in like manner as the Coroner. 4. That every Coroner should have a skilled medical expert attached to his court. Such expert should be appointed by the Crown, and should determine in all cases whether a post-mortem examination is or is not necessary, and should act as assessor to the Coroner. 5. That in all cases where a medical practitioner has been in attendance shortly before, at, or immediately after death, he should be examined as a witness, except in cases where he is charged with causing the death. 6. That all other matters of detail as to salary and retiring allowance of Coroners should be regulated on the usual principles followed in paying judicial officials. 7. That the medical expert should be paid partly by salary and partly by fees for each inquest. 8. That all other medical witnesses should be paid fees for attending and giving evidence, in addition to expenses incurred; and that such fees should be not less than three guineas a day. 9. That a proper place should be provided, where practicable, for the performance of post-mortem examinations in connexion with coroners' inquests. Your petitioners humbly pray your honourable House to amend the Bill in conformity with the foregoing suggestions; and your petitioners will ever pray.

Signed and sealed on behalf of the College,
GEORGE JOHNSTON, M.D. Edin., President.
May 12th, 1881. J. MAGEE FINNY, M.D. Dub., Registrar.

PHTHISIS AND HYDROPATHIC ESTABLISHMENTS: A CONTRIBUTION ON THE CAUSATION OF PHTHISIS.

To the Editor of THE LANCET.

SIR,—It is not at all uncommon to find consumption in association with caseous, slowly progressing suppuration of bone. Moreover, this well-observed fact appears to be in accordance with the well-known experiments of Villemin and others, illustrating the production of acute tuberculosis by the inoculation of caseous and non-caseous inflammatory products. But why do we find in practice that such results happen in some cases and not in others? This it is not always easy to explain, but many reasons have been given, such as the varying susceptibility of different constitutions, the accidental proximity of the infective material to the vascular or lymph systems, and the influence of the atmosphere and minute organisms. Those practitioners who are eager to steer their cases of caries of bone away from the shoals of phthisis are apt to look out for tangible assistance; and, believing that the following failure will show very clearly one of the ways how not to do it, I offer it as a contribution on the subject.

In November, 1880, a gentleman, aged twenty-five, consulted me and made the following complaints: a cough for the past ten months; hoarseness for four months; relaxation of bowels—two or three times a day—for six months; and loss of flesh—two stones in eighteen months. He handed me in writing his previous history and treatment, which it will be well to quote: "In January, 1879, I fell on the ice and bruised my face, my right knee and right breast. A month afterwards a swelling formed on the breast, getting larger up to June, when I went to ——— Hydropathic Establishment. There the doctor gave me the following orders. In diet strictly to be sparing in the use of flesh meats, taking such once a day only, and fish or fowl in preference twice or thrice a week; no soup or beef-tea, and eggs sparingly; to be sparing in the use of fat of all kinds, butter, milk, and foods made with milk; milk at supper to be especially avoided, and cornflour moulds preferable to milk puddings. Three meals allowed a day, and half a tumblerful of water to be taken before every meal. No luncheon or supper. Then as to baths. Every morning a rain bath, hot gradually reduced to cold, finishing with a canful of cold water dashed over the head and shoulders. Three times a week I had the ascending douche; this is like sitting on an ordinary W.C. seat, with the seat uncovered, and through a very small pipe, about a foot and a half below, water was projected against the anus. It was like a mild enema and brings on a desire for a motion very quickly. Every afternoon I had a spinal sitz bath—cold, deep—for ten minutes. On the three alternate days I took a Turkish bath, followed by a rain bath and descending douche. In addition certain body bandages worn to produce a 'crisis' created a sore on the abdomen, which discharged for over three weeks. Three days after admission the swelling was lanced, matter and blood escaping freely. With two days' intermission this treatment went on for ten weeks, and when I left on August 24th, 1879, the instructions were to carry out the same as far as possible."

My patient's story now runs on to the cough in Jan. 1880, and the development of laryngeal and intestinal complications. In Nov. 1880, there was softening of the upper part of the left lung, and early mischief in the right apex; there was ulceration of both vocal cords, and of the left margin of the epiglottis; and the signs were present which stamp diarrhœa as of tubercular origin. Over the fifth right rib, three inches from the sternum, was a sinus, almost healed over, communicating with carious disease of the rib. The patient grew steadily worse and died in February, 1881. His general health before the accident was good, he had a good family history, and he denied syphilis. Here, then, are certain clinical facts. A man of average health has a centre of infection accidentally set up. For ten weeks, and while the risks of infection were probably at their height, he was reduced by baths, exhausting both in character and in frequency. Lastly, he was restricted in his use of fats, milk, and nutrient foods, and advised so to continue. The deduction is that the infective material was first accidentally produced, the constitution was then as closely adapted to the bad influence as man could make it, the result being successful inoculation, phthisis, and death. The moral needs no telling.

I am, Sir, your obedient servant,

Ventnor, May, 1881. JAMES M. WILLIAMSON.

DR. KIDD ON THE CASE OF THE EARL OF BEACONSFIELD.

To the Editor of THE LANCET.

SIR,—In accordance with the love of large and liberal views, and the desire "to bring the catholic spirit into medicine, gathering all knowledge to the aid of suffering humanity," expressed by Dr. Kidd in his letter in last Saturday's LANCET, I have no doubt he will kindly favour your readers with a short clinical sketch of Lord Beaconsfield's case while under his care, including the treatment which enabled him to afford "*prompt and perfect relief*" after the two leading physicians of the day had "*failed to relieve the patient.*" The absence, hitherto, in the published reports of anything like a definite opinion of the pathology of his Lordship's case, would, I am sure, render such a sketch as I have suggested of much interest and value to your professional readers.

I am, Sir, very truly yours,

W. UNDERWOOD WHITNEY.

Great College-st., Westminster Abbey, May 23rd, 1881.

MEDICAL INDICES.

To the Editor of THE LANCET.

SIR,—With the growth of scientific periodical literature the question of the formation of indices becomes year by year more important.

You are aware that while the various Jahrbücher, Revues, and Records publish collected abstracts of many important papers, they are necessarily very imperfect, and that the only attempt to deal fully with the subject has been by the publishers of the Index Medicus, edited by Dr. Billings, of the Army Medical Department Library, Washington; but from what I hear there seems to be financial difficulties in the way of carrying on this meritorious publication.

The object of my letter is to ask whether the whole subject of indices is not one for international co-operation, for the promotion of which the assistance of Government may fairly be asked. Such a scheme would not limit itself to medical science, but would embrace all.

It has also occurred to me that our medical weekly papers would greatly facilitate research if they would publish complete indices to their whole series up to date.

I am, Sir, yours truly,

Birmingham, May 16th, 1881. ROBERT SAUNDBY, M.D.

IRELAND.

(*From our own Correspondent.*)

THE annual meeting of the Fellows to receive the report of the Council of the Royal College of Surgeons has been fixed for Saturday, the 4th June, a date more satisfactory to the provincial Fellows than that usually arranged. By holding it on the 4th proximo a large number of the Fellows who come to town to be present at the annual election of President, Vice-President, and Council, which will take place on Monday, the 6th June, will be able to attend without much inconvenience, to receive and discuss the annual report. To the names of Messrs. Bennett, Baker, and Meldon, mentioned last week as candidates for a seat in the Council, may now be added that of Dr. William Roe, lecturer on midwifery in the College of Surgeons. Canvassing for candidates for Council has of late years been exercised so openly, more especially within the walls of the College, that a strong expression of opinion against its continuance was adopted by the Council of the College last year; and it is probable that at the ensuing election arrangements will be made to enable Fellows to fill up their voting papers without being overlooked.

No date for the first matriculation examination has been fixed in the scheme adopted by the Senate of the Royal University of Ireland, and as far as can be learned, it is very improbable that it will take place this year. Before granting the necessary funds the scheme must be discussed in Parliament, and, considering the state of public business, it appears doubtful if much progress will be made this session in the matter. Further efforts are being used to secure the Queen's University in Ireland from being dissolved, as contemplated by the University Education (Ireland) Act of 1879, a result which it is considered by a large number would be an infraction of the vested rights of the graduates of that University, and injurious to the interests of academical education in Ireland. Besides this, Mr. Gladstone would seem, from his recent utterances, not to regard the formation of the new University with very much favour.

The College of Physicians have adopted certain recommendations of a committee appointed to consider the Coroners (Ireland) Bill, now before a committee of the House of Commons, and have requested Dr. Lyons, M.P. for Dublin, to present them to the House. They consider that coroners should be appointed in the same way as other judicial functionaries, their duties being essentially of a judicial character, and that they should be selected and paid by the Crown; that every coroner should have two deputies and also a skilled medical expert attached to his court, the latter official to be paid partly by salary and partly by fees. Further, that the practitioner in attendance shortly before, at, or immediately after death, should be examined as a witness, and receive not less than three guineas a day for his evidence. With most of these suggestions there will probably be little disagreement in the profession, but the recommendation that the coroner should be either a barrister-at-law or on the roll of solicitors is most startling as coming from a College of Physicians. This recommendation of the College has created considerable dissatisfaction, and must be regarded as a very unwise one.

The fifty-third annual meeting of the supporters of the Coombe Lying-in Hospital was held last Tuesday, presided over by the Right Hon. the Lord Mayor of Dublin. During the past year the expenditure exceeded the income by a sum of £252 16*s.*, and the bank account has been overdrawn by £1000. Last year 502 patients were admitted to the wards of the hospital, and 2165 labour cases were attended at their own homes. There were also 117 patients under treatment for diseases peculiar to women, and 6585 patients obtained advice and medicine at the dispensary. The hospital is situated in the midst of a poor, densely populated district, and the charity is one which has strong claims on the public. During the meeting, a letter was received from Dr. G. H. Kidd, enclosing a cheque for £100.

A new preparation, the iodate of quinine, has recently been introduced in Dublin by Dr. Cameron, city analyst; and many practitioners who have prescribed it speak highly of its efficacy in various affections, including neuralgia, chronic rheumatism, secondary syphilis, and some forms of pulmonary congestion. It is a granulated effervescing preparation, each drachm, the ordinary dose, containing two grains of the iodate.

The first of a series of lectures on Health, under the auspices of the Ladies' Sanitary Association, was given this week in the theatre of the Royal Dublin Society. The lecturer was the Registrar-General for Ireland, and the subject selected "The Causes of Disease and Death in Dublin."

Several cases of small-pox have recently been admitted into Queenstown Intercepting Hospital. Of these one has died, and the rest are progressing favourably.

The Lords of the Treasury have sanctioned a loan of £28,000 for the construction of waterworks for Sligo.

The thirty-ninth annual meeting of the Royal Medical Benevolent Fund Society of Ireland will be held at the Royal College of Surgeons on the 6th June, when the chair will be occupied by Mr. Alfred H. McClintock, President of the College.

PARIS.

(*From our own Correspondent.*)

THE Ministerial proposal to create six new chairs for so many Government *protégés* has not been received with favour at the Faculty of Medicine, and four of the would-be professors will be disappointed, at any rate for the present, in their hopes. A new clinical lectureship on Nervous Diseases will be instituted for Professor Charcot, and the second chair of Midwifery has also been accepted, but the four others on Dermatology, Public Sanitation, International Hygiene, and Medical Toxicology were negatived by the Faculty as of more than doubtful utility. This decision will be cordially ratified by the majority of the profession; for setting aside all sentimental interest in the prestige of the Paris school, it cannot but be felt that any public money at the disposal of the Ministry would be better employed in reducing the vexatious tax levied as *patente*, than in the creation of useless chairs, to satisfy the personal aspirations of certain influential practitioners.

Some statistics have already been issued by the new Municipal Laboratory, concerning the extent to which food adulteration is practised in this country. Of twenty samples of milk, seven were good, six passable, and seven bad; of three samples of beer, one only was good; of jams, eight samples out of nine were bad. Three samples of cider were all bad. Of one hundred and twenty-three specimens of wine examined, three were good, eighty-four bad, and the rest passable. The only article examined which was constantly of good quality was pork, four hams which had been sent for inspection being all declared free from trichinæ.

Apropos the ptomaines, M. Armand Gautier gives a new list of vegetable bases which can be distinguished from the cadaveric alkaloids by their chemical reaction to ferricyanide of potassium and a salt of iron. These are, anemonine, cryptopine, hellenine, quinidine, and sabadilline. In the cases of hyoscyamine, emetine, igosurine, veratrine, colchicine, nicotine, and apomorphine, the result of the test is doubtful. Experiments made with a number of toxic substances show that many artificial alkaloids and other bodies have the same behaviour in the presence of these chemicals, as the ptomaines; such, for instance, as naphthylamine, certain phenylic bases, and the pyrridic, hydropyrridic, allylic, and acetonic alkaloids; so that this test, although still of great value, loses much of its certainty.

At the Société Médicale des Hôpitaux, M. Lereboullet related a case of malignant diphtheria, treated successfully by hypodermic injections of pilocarpine. When the treatment was commenced, the little patient (a girl of eleven) was unable to swallow, and the urine, which was passed in very small quantity, was albuminous. Besides the injections, a spray of carbolic acid solution was constantly applied to the fauces, and ice was worn round the neck. Enemata of peptones were administered twice a day, and of carbolic acid once. Frictions of the surface with ether and spirit lotions were also employed. Pilocarpine also deserves a trial for the relief of the pains of locomotor ataxia and other spinal affections giving rise to severe paroxysmal suffering. Several observers are now using it in such cases, and the results, as far as they go, are satisfactory.

Obituary.

JAMES SHERLOCK, M.D., M.R.C.P.

ANOTHER valuable life has been prematurely taken from amongst us. Dr. Sherlock, who for twenty-seven years held the post of Physician to, and Medical Superintendent of, the Worcester City and County Asylum, died on Friday, the 13th inst., at the early age of fifty-three, after an illness of only three days.

For some time past Dr. Sherlock's health had given anxiety to his friends. A tendency to ill-developed gout, accompanied by a somewhat weak circulation, had lately shown itself, a condition generated doubtless by the incessant demands upon his strength, which nearly thirty years of conscientious discharge of the laborious and trying duties of a large asylum had made upon his constitution. Dr. Sherlock was seized with acute congestion of the liver on Tuesday, the 10th. On Thursday the base of the right lung became affected, the congestion extending during the night to the whole of both lungs, which overloaded the weakened heart, and death took place at half-past eleven on the following morning.

Dr. Sherlock was one of several excellent asylum superintendents who had the advantage of a training for the special work under the late Dr. Skae, of the Royal Edinburgh Asylum. After taking his degree at the University there, he became assistant to Dr. Skae, and as soon as he had made himself master of the details of asylum practice he was appointed superintendent of James Murray's Asylum at Perth. When still only twenty-six years of age, through the recommendation of Dr. Skae, supported by that of the then chairman, Mr. Curtler, he was appointed to the more responsible post at Worcester. At that time the inmates of the latter asylum numbered only about 250, whereas now they amount to nearly 800. The development by frequent enlargements to its present size, and the character, second to none in the kingdom, to which the asylum at Powick has attained, are mainly due to the unwearied efforts of Dr. Sherlock to attain for his asylum the highest point of efficiency. But he never suffered the laudable desire to keep down expenses to interfere with the efficiency as to means of cure, or with the comfort of unfortunate patients under his care. Consequently the loss of so valuable an officer is most keenly felt by the committee of management, who at all times have placed the utmost confidence in their superintendent; for whilst maintaining, as it is right they should do, a vigilant supervision of the work at the asylum, they have always most generously supported their chief medical officer throughout an unbroken connexion of twenty-seven years.

Dr. Sherlock leaves a widow (a connexion of Dr. Skae's) and six children to mourn his premature departure.

The funeral, which took place on Tuesday, the 17th, was attended by crowds of friends, amongst whom were several members of his committee and many of his professional brethren in Worcester and Malvern, by whom he was loved as a brother.

HUGH JAMESON, F.R.C.S. ENG.

DEPUTY INSPECTOR-GENERAL JAMESON was a distinguished member of the Naval Medical Service, who had seen in his youth much active service on the West Coast of Africa in the suppression of the slave trade, and was in 1840 surgeon of H.M.S. *Castor* at the battle of St. Jean d'Acre, where that ship suffered more than any other in the engagement. He afterwards served in the flag-ships on the Cape of Good Hope and Portsmouth stations, and subsequently was attached to the Naval hospital at Chatham and to Woolwich Dockyard. He retired from the service in 1864, and had since resided at Upper Norwood, where he died on the 16th inst. from paralysis and cardiac weakness. Highly educated and well informed, skilful in his profession, to which he had been trained at St. George's and Middlesex Hospitals by some of the most eminent surgeons of their day, Mr. Jameson enjoyed the respect and esteem of all who knew him. As for many years he held prominent naval appointments, his friends in the service are very numerous, who will regret in him the loss of an honourable, amiable, and accomplished gentleman. Mr. Jameson had three war service medals, and was elected an honorary Fellow of the Royal College of Surgeons in 1844 in compliment to his high character and professional reputation. His membership dates as far back as 1825, and we believe he was in his seventy-seventh year at the time of his decease.

THOS. BIRKHEAD OLDFIELD, M.R.C.S. ENG., L.S.A.

THE death of this much-esteemed and talented medical man took place at Heckmondwike on April 29th, at the age of sixty-two, from pyelitis. He had been a great sufferer for some seven years, and was only occasionally able to attend to practice. For five months previous to his decease he had been confined to bed. Born at Dewsbury Moor in 1818, he, after leaving school, was apprenticed to Mr. Senior, surgeon in Batley. He studied his profession at Leeds and Westminster Hospital, and with great assiduity and success. After a short term of practice at Wilsden, near Bradford, he settled at Heckmondwike, and for thirty-three years pursued his profession—to him a field in which his active mind took delight. He was a writer of no mean powers, on both professional and other subjects. In THE LANCET papers have appeared from his pen on "Placenta Prævia," "Hypertrophy of the Kidney," &c. The Yorkshire newspapers have been stored with articles from his pen on local antiquities, naturalist rambles, &c. Among these, "Heckmondwike, Past and Present," and "Heckmondwike Seventy Years Ago," are the chief. The deceased was buried on May 2nd, a large public funeral being organised by the Local Board to manifest their respect for their late officer of health. Mr. Oldfield was a widower, and leaves a family of four—one son and three daughters.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 18th inst.:—

Alexander, Frederick William, Hatton-garden.
Chard, R. A. Selway, Upton Lovell, Wilts.
Coutts, John Alfred, Aldridge-road.
Currie, Oswald James, Blackheath.
Dixon, George Frederick, Market Harborough.
Jones, William Wansborough, Macclesfield.
Owen, John Morgan, Fishguard, Pembrokeshire.
Rigby, John, L.S.A., Preston.
Rowley, Charles, Barnsley.
Shore, Herbert George, Stoke, Staffordshire.
Tripp, Charles L. H., Tiverton, Devon.
Wood, Louis Edmund, Marlborough, Wilts.

The following gentlemen were admitted Members of the College on the 19th inst.:—

Anderton, James Edwin, Blackheath.
Boswell, John Irvine, Guildford-place.
Buxton, Joseph Wilmot, Harrington-street.
Cranstone, William Lefevre, L.S.A., Hemel Hempstead.
Evans, Thomas G. C., Seaton, Devon.
Heyman, Frank Gibbins, L.R.C.P. Ed., Bristol.
Laurent, O. A. Eugene, Mauritius.
Mudge, Thomas, Hayle, Cornwall.
Medley, Harold T. D., Kensington-gardens-square.
Slater, William, Taunton, Somerset.
Tew, James Scott, L.S.A., Stourbridge, Worcestershire.
Udale, Joseph James, Finsbury-park.

Of the 95 candidates who were examined during last week, 42 passed to the satisfaction of the Court and obtained their diplomas; 7 passed in Surgery, and when qualified in Medicine will be admitted Members; the other 46, having failed to reach the required standard, were referred for six months' further professional study. Four candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical qualification recognised by the College, were also admitted Members.

The following gentlemen passed the First Part of the Professional Examination for the Fellowship at meetings of the Board of Examiners on the 21st, 23rd, 24th, and 25th inst.:—

W. S. A. Griffith, A. Dingley, Alfred J. Anderson, E. R. Williams, Edmund W. Roughton, and Frederick J. Paley, St. Bartholomew's Hospital; G. S. Watson and M. H. Bulteel, St. George's Hospital; W. Willis, Glasgow, Edinburgh, and Middlesex Hospital; Joseph Collier and Alexander Wilson, Owens College, Manchester; A. Q. Silcock, University College; Ernest E. Maddox, Edinburgh; Walter E. Wynter, Middlesex Hospital; Sidney Worthington and Wheelton Hind, Guy's Hospital; Charles A. Ballance, St. Thomas's Hospital, Henry W. Pigeon, Cambridge and Guy's Hospital; John C. Davies, London Hospital; John Y. Bostock, Cambridge; Herbert H. Ashdown, Edinburgh; D'Arcy A. Power, Oxon and St. Bartholomew's Hospital; William H. Horrocks, Liverpool and University College; Charles A. Morris, Cambridge; J. Donald, Charing-cross Hospital; Ernest Hudson, University College; Charles H. Wise, Queen's College, Galway, and Westminster Hospital; Walter T. Brooks, King's College; Edward Harrison, Cambridge; Louis A. Dunn, Guy's Hospital; David L. Jones, Charing-cross Hospital; and Joseph L. Hewer, St. Bartholomew's Hospital.

UNIVERSITY OF CAMBRIDGE.—The following have passed the Second Part of the Third Examination for the M.B. Degree:—

FIRST CLASS.

Coxwell, B.A., Christ's.
Lapage, M.A., Magdalen.
Mason, B.A., Pembroke.
Tooth, M.A., St. John's.

SECOND CLASS.

Birdwood, B.A., St. Peter's.
Standert, M.A., Corpus.
Wedmore, B.A., St. John's.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their Final Examination during the recent sittings of the Examiners, and were admitted Licentiates in Dental Surgery:—

Thos. Gaddes, Carlisle; Edw. Innes Ayton, Edinburgh; Maximilian Frank Simson, Lee, Kent; Hugh Fraser, Largs, Ayrshire; Henry Wyles, Leeds; Ernest Burt, Weymouth.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their Final Examination during the April sittings of the Examiners, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

James Booth Clarkson, Lancaster; James Daniel Ross, Co. Cork; William John Chichele Nourse, Isle of Wight; Robert Webster, Australia; William Boulter Broadribb Perrin, Somersetshire; James Johnstone, Dumfriesshire; Charles Swanston, Australia; David Carruthers, Dumfriesshire; James Arnott Hunter, Newcastle, Ontario; John Paulin, Peel, Isle of Man; Frank Fraser, Portsmouth; Robert Roberts, Chester; George Daunt, Co. Cork; Thomas Henry, Co. Tyrone; John Philip Sullivan, Dublin; James Hilditch Bradshaw, Lancaster; John Dugdale Astley, East Langden, Dover; George William Macartney, Colombo, Ceylon; Francis James Power, Maidstone; Francis Harper Treherne, London; David William Johnston, Whitehaven; Richard Clegg, Burnley; John Gainfort, Wexford; George Latham, Derby; William Abraham Dartwell, Rochester; Titus Holden Harwood, Burnley; Henry Dobson Osborne, Londonderry; David Duncan Main, Kirkmichael; James Murdoch Cameron, Edinburgh; George Henry Ainley, Todmorden; Charles Edward Watson, Hertfordshire; Edwin Brownlow, Ravendale, Lincoln; John Henry Dean, Sunderland; Frederick Francis German, Staffordshire; Thomas Hanson Smith, Keighley; William Huey, Adelaide, South Australia; Edmund James Armstrong Rogers, Grafton, Ontario, Canada; David William Noble, Co. Leitrim; James Satterthwaite, Lancashire; Charles Edward Lay, Suffolk; Isaac Kiddle, Surrey; Owen Frederick Seymour Evans, New South Wales; Eugene Joseph Geary, Cork; Isaac Holmes, Liverpool; Alexander Salvador Sabina Fernandes, India; Charles De Wolfe Heard, Prince Edward Island; Richard Æneas Delaney, Co. Mayo; Geoffrey M'Carthy, Co. Kerry; George Thomas Webbe, Poona; René Tubin Clément, Cape of Good Hope; Cornelius Maloney, Co. Limerick; John Murray, Alyth.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 19th:—

Butler, Thomas Edward, Cape of Good Hope.
Cockell, Edward Seaton, Amhurst-road, Hackney.
Craddock, Sidney Ernest, Upper Woburn-place.

The following gentleman also on the same day passed the Primary Professional Examination:—

Brewster, William, St. Bartholomew's Hospital.

HER MAJESTY has directed that 100lb. of cast-off linen be forwarded for the use of the Victoria Hospital for Children, Queen's-road, Chelsea.

AT the next general meeting of the Society of Public Analysts, to be held at Burlington House on June 1st, Mr. Wigner will introduce the subject of the Scale for the Valuation of Impurities in Drinking Waters, which has been in use by some of the members of the Society.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual meeting of this Society was held in the rooms of the Royal Medical and Chirurgical Society on May 18th. The President, Sir George Burrows, took the chair punctually at 5 P.M. After the election of officers for 1881-2, the report of the Court of Directors of the proceedings of the Society during 1880 was read by the secretary, from which it appeared that a sum of £2942 had been distributed during the past year among 60 widows, 15 orphans, and 3 recipients from the Copeland Fund. The expenses of the year were £177 11*s.* 3*d.* The total receipts available for payments of grants and expenses had been £3132 17*s.* 5*d.*; the grants and expenses had been £3119 12*s.* 3*d.* During the year one widow had died and two had become entitled to grants, two orphans had become ineligible for further grants, and three had been elected. Eight members had died and six had resigned, and only three new members had been elected, leaving a total of 375 members in the books at the end of the year. Dr. Semple, Dr. Self, and Dr. Augustus Brown, Dr. Cumberbatch, Mr. Spencer Watson, and Mr. Vasey were elected directors in the place of the six senior who retired. The customary votes of thanks having been passed, it was resolved that the Court of Directors should be requested to consider the desirability of sending a circular to all medical men residing within the area included within the former and present limits of the Society.

UNWHOLESOME FEEDING-BOTTLES.—Some feeding-bottles having a fetid odour were lately brought by Dr. du Mesnil from a *crèche* to the Paris Municipal Laboratory for examination. M. Fauvel found that the milk remaining in all smelt badly, was acid and half-coagulated; the globules were deformed, and numerous very lively bacteria, along with some vibriones, were present. On cutting open the caoutchouc tube throughout its length, coagulated milk with small organisms was met with; but a still more important fact was the presence in the nipple of a mass of vegetation of cryptogamic nature. Sown in whey, this developed considerably in a few days. A visitation of all the *crèches* was arranged by the police and medical authorities, and the following was the result:—Of 31 feeding-bottles examined in 10 *crèches*, 28 contained, in the nipple, the caoutchouc tube, and in some cases in the glass bottle, vegetations of the kind indicated, as well as bacteria, &c. Several that had been washed carefully, and were considered ready for use, still contained these cryptogams. Two feeding-bottles in a very bad state were found to contain pus and blood corpuscles; the children who had used them had injuries in the cavity of the mouth. It is thus probable that saliva enters the feeding-bottle, and its ferments are added to those of the milk. The acidity of the milk is attributed by M. Fauvel to the bacteria present. The influence of this condition of things in the development of intestinal affections, of which so many infants become the victims, seems to call for serious investigation.—*The Times.*

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the lates*

ADAMS, M. A., F.C.S., has been reappointed Public Analyst for the Borough of Hythe.

BENHAM, F. L., M.R.C.S.E., M.B., B.S., has been appointed Assistant Medical Officer to the New Infirmary, St. Marylebone, at a salary of £130 per annum, with furnished apartments, rations, and washing.

CARTER, R. B., F.R.C.S.E., has been appointed Ophthalmic Surgeon to the Bolingbroke House Hospital for Paying Patients, Wandsworth-common.

CLARK, T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Dunster District of the Williton Union.

FAIRLEY, Mr. T., has been reappointed Public Analyst for the Liberty of Ripon.

GUNN, R. M., M.A., M.B., C.M., M.R.C.S.E., has been appointed Ophthalmic Surgeon to the North-West London Free Dispensary for Children.

HADDEN, W. B., M.D., M.R.C.S.E., has been appointed Physician to the St. George's and St. James's Dispensary, vice M. H. Lackersteen, M.D., resigned.

HALL, S., M.B., M.R.C.P., has been appointed Assistant-Physician to the Metropolitan Free Hospital.

LUNN, J. R., M.R.C.S.E., L.R.C.P., has been appointed Medical Officer to the New Infirmary, St. Marylebone, at a salary of £450 per annum, with unfurnished house, coals, gas, and washing.

MICKLE, D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Peckhill District of the Thirsk Union.

MORGAN, W. L., M.A., M.R.C.S.E., has been appointed Surgeon to the Radcliffe Infirmary, Oxford.

NANCE, Mr. H. C., has been appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary and Fever Hospital, vice Hoyle, resigned.

OLIVER, J., M.B., C.M., has been appointed House-Surgeon to the Durham County Hospital.

RICHARDSON, R. T., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Leeds Union Infirmary, vice Mr. H. C. Oakley, resigned.

RICHARDSON, T. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Fourth District of the Norwich Union.

SUTTON, Mr. T., has been reappointed Public Analyst for the County of Norfolk.

WALMESLEY, F. H., M.D., has been appointed Senior Assistant Medical Officer to the Metropolitan Asylum, Leavesden, vice C. A. Mercier, M.B., F.R.C.S., resigned.

WHITEHEAD, H. R., F.R.C.S.E., has been appointed Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital.

Births, Marriages, and Deaths.

BIRTHS.

CUNNINGHAM.—On the 17th inst., at Blacket-place, Newington, Edinburgh, the wife of Deputy Surgeon-General Cunningham, of a son.

EDMUNDS.—On the 21st inst., at Cwmbran House, near Newport, Mon., the wife of Richard Edmunds, M.R.C.S.E., L.R.C.P., of a daughter.

FENN.—On the 19th inst., at Richmond, Surrey, the wife of Edward L. Fenn, Esq., M.D., of a son.

GALLOWAY.—On the 10th inst., at Epping, the wife of Arthur Wilton Galloway, M.R.C.S.E., L.R.C.P., of a son.

HARDWICK.—On the 19th inst., at Pillar House, Needham Market, Suffolk, the wife of Fredk. S. Hardwick, M.D., of a son.

JENKINS.—On the 12th inst., at Liskeard, the wife of J. H. Jenkins, M.R.C.S.E., L.R.C.P.Ed., of a son.

VIVIAN.—On the 22nd inst., at Chase Side, Southgate, N., the wife of R. T. Vivian, M.R.C.S.E., L.R.C.P.E., of a son.

MARRIAGES.

ALLEN—TURNER.—On the 19th inst., at the Parish Church of St. James, Grimsby, by the Rev. J. P. Young, M.A., Vicar, Thos. W. J. Allen, L.R.C.P.L., M.R.C.S.E., to Jennie, youngest daughter of the late George Byron Turner, Esq. No cards.

BLANEY—LAFONE.—On the 17th inst., at SS. Mary and George Church, Cockington, Torquay, by the Rev. W. Law, M.A., assisted by the Rev. Henry Fairley, M.A., of All Saints, Daventry, and the Rev. H. L. Bellhouse, M.A. (cousin of the bride), James Blaney, M.R.C.S.E., of Penryn, Cornwall, to Mercy Annie Constance, daughter of the late S. F. Lafone, of Monte Video.

FARNELL—COLGATE.—On the 24th inst., at St. Saviour's, Eastbourne, by the Rev. J. H. Cheadle, M.A., Minor Canon of Westminster, assisted by the Rev. T. W. Mylne, Curate of St. Saviour's, Henry Dawson Farnell, M.R.C.S.E., of The Goffs, Eastbourne, to Mary, daughter of Robert Colgate, F.R.C.S., of Hempstead House, Eastbourne.

FISHER—POLLARD.—On the 21st inst., at the Pro-Cathedral, Demerara, Frank Charles Fisher, of the Government Medical Service, to Mary Eliza Rosalie, youngest daughter of the late W. B. Pollard, Esq., Auditor-General of British Guiana.

WYATT—SHEPHERD.—On the 18th inst., at St. Augustine's, Highbury, William Thomas Wyatt, M.A., M.B., of Stamford-hill (son of Sir William Henry Wyatt), to Edith Anne, fourth daughter of the late Edw. Shepherd, Esq., of Aberdeen-park, Highbury, Magistrate for the County of Middlesex.

DEATHS.

BROWNE.—On the 22nd ult., at Ebor Lodge, Albion-road, Stoke Newington, Henry Browne, L.R.C.P. & L.S.A.L., aged 36.

CHARLETON.—At Gloucester, of heart disease, G. W. Charleton, M.D., F.R.C.S.E.

FRASER.—On the 3rd ult., at Brockville, Ontario, Allan Hugh Fraser, M.D., aged 52.

LYLE.—On the 24th inst., at 102, Rye-hill, Newcastle-on-Tyne, Robert Lyle, M.D.

PEILE.—On the 7th inst., on board the s.s. *Agamemnon*, in the Suez Canal, off Ismailia, Bransby Cooper Peile, M.R.C.S.E., L.S.A.L., of Shepherd's-bush (son of the late Thomas Hanson Peile, Esq., and grandson of the late William Babington, M.D., F.R.S.), in his 55th year.

ROPER.—On the 23rd inst., at Exeter, Charles H. Roper, M.R.C.S.E., L.S.A.L., aged 53.

WHITAKER.—On the 19th inst., at North Walsham, James Sealy Whitaker, L.S.A.L., M.R.C.S.E., eldest son of the late James Samms Whitaker, M.R.C.S.E., F.L.S., aged 29.

WHITLEY.—On the 20th inst., at Bedlington Vicarage, George Whitley, M.D., aged 65.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 26th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 20	29·90	W.	56	50	98	64	46	..	Cloudy
„ 21	30·23	W.	55	50	99	70	42	..	Bright
„ 22	30·42	E.	69	59	107	73	47	..	Bright
„ 23	30·24	E.	64	56	106	73	49	..	Fine
„ 24	30·06	E.	63	59	104	70	51	..	Fine
„ 25	29·80	S.E.	59	55	107	76	49	..	Fine
„ 26	29·73	N.E.	60	58	81	65	55	·06	Overcast

Medical Diary for the ensuing Week.

Monday, May 30.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Society for the Encouragement of Arts, Manufactures, and Commerce. — Cantor Lectures: Mr. R. Brudenell Carter, "On Colour Blindness and its Influence upon various Industries."

Tuesday, May 31.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Royal Institution.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

Wednesday, June 1.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital. — Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital. — Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations 2½ P.M.

Epidemiological Society.—8 P.M. Annual General Meeting:—Election of Office-Bearers. Annual Report of the Council.—Mr. George Fleming, "On the Transmissibility of Diphtheria from Animals to Mankind."

Obstetrical Society of London.—8 P.M. Specimens will be shown by Dr. Wiltshire, Dr. Brunton, Dr. Godson, and others.—Dr. J. Hickinbotham, "On Notes on a Case of Placenta Prævia complicated by a large Myoma."—Dr. Mansell Moullin, "On a Case of General Œdema without Anasarca."—Dr. Barnes, "On a Note on the so-called Lithopædion."

Thursday, June 2.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital. — Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Royal Institution.—3 P.M. Professor Tyndall, "On Magnetism."

Friday, June 3.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Royal Institution.—8 P.M. Professor W. G. Adams, "On Magnetic Disturbance, Auroræ, and Earth Currents."

Saturday, June 4.

Royal Free Hospital.—Operations, 2 P.M.

Royal Institution.—3 P.M. Professor C. E. Turner, "On Russian Literature: Gogol."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE half-yearly Primary or Anatomical and Physiological Examination for the Fellowship of the College was commenced on the 20th instant, when the following questions on Physiology were submitted to the ninety-eight candidates—viz., seven seniors, twelve juniors, and four who had not passed any examination. The candidates were required to answer at least three of the four questions in the time allowed—viz., from 11 A.M. to 2 P.M.:—

1. Describe the minute structure of the two outer layers of the retina. What are their functions? Describe the effects of light upon them in the living eye.
2. Contrast the tension of the oxygen and carbon dioxide contained in venous and arterial blood respectively with the partial pressure of those gases in the pulmonary alveoli. Compare the gas-interchange which takes place normally with that which occurs in suffocation.
3. Enumerate the different kinds of proteid substances found in the human body. State where they are found, and give their distinctive characters.
4. Describe the formation of a blood-clot. Upon what does it depend? Mention the circumstances under which the blood may clot within the vessels, and describe the stages of the process. How may the coagulation of shed blood be prevented?

The following were the questions on Anatomy, from 3 to 6 P.M., and three out of the four to be answered in that time:—

1. Describe the arches of the foot, and the ligaments and muscles by which they are maintained.
2. Describe the dissection necessary to expose the left vertebral artery from its origin to its entrance into the skull.
3. Describe the spinal column as a whole:—First, in reference to its curves, and the manner in which the several vertebræ are modified in shape in association with these curves; secondly, in reference to the movements which take place in its different parts, and the means by which these movements are effected and regulated.
4. The subject being in the supine position, describe the dissection by which you would expose the whole of the obturator externus muscle and its tendon.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—Will you allow me to ask the influence of any of your readers who may be in a position to assist on behalf of Ethel Breeze, a twin daughter of the late R. Goodwin Breeze, M.R.C.S., who is a candidate for election on June 10th into the Royal Asylum of St. Anne's Society. Mr. Breeze was a former student of University College, London, and practised for some years at East Finchley, where he died after a short illness in September, 1880, leaving a widow and ten children in very reduced circumstances. The case is one which has been investigated not only by the committee of the St. Anne's Society, but also by the committee of the Medical Benevolent College, who had recently a presentation to St. Anne's to bestow, but unfortunately had a more urgent case before them. The urgency of the case of Ethel Breeze has since that time been increased by the fact that the mother has lost an imbecile inmate from whom a large proportion of her income was derived, and I venture, therefore, to ask my medical brethren for any influence they may be able to exert on her behalf.

I am, Sir, yours obediently,

Cavendish-square, May 23rd, 1881. CHRISTOPHER HEATH.

P.S.—Since the above letter was written a friend of the family has undertaken to purchase the admission of the other twin provided Ethel be elected.

ROYAL MEDICAL BENEVOLENT COLLEGE.

AN old correspondent who annually draws attention in our pages to the facts so well described in the last number of THE LANCET by Dr. Timothy Richardson, in confirming all he has there stated, adds that out of the fourteen candidates for the pensionerships in the above institution, only four had been subscribers; and out of the forty candidates for foundation scholarships, the parents of only five had been subscribers. Like many of his friends, he always gives his votes to those who have been subscribers. On the present occasion he certainly would not support the house-list.

DESQUAMATION AFTER DRUGS AND AFTER SCARLATINA.

To the Editor of THE LANCET.

SIR,—In your number of April 23rd I noticed a letter signed "Vigilans," which has reference to desquamation of the skin resulting from diseased conditions other than measles, scarlet fever, &c. I have a case under my care at present which may perhaps be thought interesting as bearing upon this question. A lady aged seventy-three, whilst nursing her brother (a medical man), fell ill with what I considered to be rheumatic fever. Several joints were affected, profuse acid perspiration, and long-continued high pyrexia accompanied the malady. The temperature was for a long time unaffected by the remedies—salicine, quinine, &c.—which were used, and remained even after the swelling in the joints had subsided as high as 101° at noon for some days. After convalescence was established, and the fever had abated, I was surprised to find that my patient was "peeling," as she termed it, "from head to foot." The desquamation was in most places branny, and from the soles of the feet and palms of the hand larger portions, some the size of a shilling, came away. She had had scarlet fever when a child, and during the present illness had no throat symptoms, nor was there any rash. Her tongue throughout the whole time was like raw beef. I need hardly say that no drugs of the nature of turpentine were used, so that that theory of desquamation was of no value here.

I may mention that after an acute attack of croupous pneumonia, which I had about ten years ago, I scaled all over, and can well remember the large desquamatory patches coming off my hands and feet. It behoves all members of the profession to examine more closely into the nature of this process, so that in future its clinical importance may be justly estimated.—I remain, Sir, yours faithfully,

Canonbury-lane, N., May 18th, 1881. A. GEORGE BATEMAN.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Vigilans," quarantined his patient on very slight grounds. With, as "Vigilans" says, a slow pulse, normal temperature, and no other history of scarlatina beyond desquamation of the hands, it was unnecessary. "Vigilans" does not tell us whether the desquamation was palmar or dorsal, or whether he noticed the feet and other parts of the body. I quite fail to see that "marked desquamation in large flakes of the skin of the hands so strongly suggests a scarlatinous poison."

There are many border cases in which there is a doubtful rash, which may or may not be followed by it. In a household of four children, three had well-marked rötheln, and no desquamation; the fourth child had the same general symptoms as the others, but the rash was confined to the legs, and showed itself in immense purpuric patches, which alone desquamated. Again, of three children in another house, the first had well marked diphtheria, no desquamation; the second, ten days after the first, had true scarlatina and desquamation; the third, four days after the second, had simple tonsillitis, no rash or desquamation. I have observed them carefully for seven weeks since the first one was attacked, and am certain that the first and third were entirely free from it.

I find that desquamation is a frequent sequela of disease. It occurs in many cases of continued pyrexia from whatever cause, but frequently after acute pneumonia and continued fevers. Locally it takes place after gout, erysipelas, some forms of erythema, and after the application of cataplasms. The hands of a patient compelled to take rest desquamate, and it is a common thing in newly-born children. Given other symptoms it may confirm a diagnosis of scarlatina, but alone it most assuredly is not diagnostic.

I infer from observations that desquamation is due to continued pyrexia, and that any disease, local or general, septic or otherwise, which is accompanied by superficial capillary congestion, may, if not quickly relieved by diaphoresis, be followed by desquamation.

I am, Sir, yours faithfully,

A. M. ROBERTS, L.K. & Q.C.P.I.

Buckhurst-hill, April 26th, 1881.

To the Editor of THE LANCET.

SIR,—The interest in the discussion on desquamation after scarlet fever in your columns does not appear to have yet ceased, as evidenced by the interesting letter of "Vigilans" and your own leading article in the same week. "Vigilans" asks for the experience of others as to the occurrence of desquamation after the administration of certain drugs.

A few weeks ago I saw a young man suffering from a profuse erythematous eruption from taking copaiba, and this was followed by the most copious desquamation from head to foot. In the late discussion have not two points been lost sight of?—first, that the desquamation is the result of the erythematous eruption; and, secondly, that we have no sufficient reason for concluding that the desquamating epidermis continues to be the bearer of infective particles, however long the proces may continue, or that it may not be disinfected before it separates?

That the desquamation is the consequence of the erythema irrespective of the cause of the latter appears from its following erythema resulting from other causes, and also from the desquamation being proportionate (*cœteris paribus*) to the intensity of the erythema, and not to that of the other results of the scarlet fever. I have heard and read of desquamation following scarlet fever when there has been no eruption but in a large experience have never seen such a thing to my knowledge and its occurrence under those circumstances is not in accordance with the notably direct proportion they bear to each other when an eruption has existed. A very considerable eruption I have often found escape the notice of the parents of the patient.

With regard to the second point, I may observe that I have so often seen children whose cuticles were still desquamating playing freely with others that I have learned not to forbid it, provided three weeks have elapsed from the onset of the fever, that all other symptoms of it have wholly disappeared, and that methodical inunction with oil and carbolic acid and bathing have been practised.—Your obedient servant,

Hackney, April 23rd, 1881. EDWARD G. GILBERT.

Mr. Loftus Lambert need not be prematurely alarmed on the subject.

A Newsroom Reader.—THE LANCET of July 17th, 1880, contains an article on the subject by the author named. Refer also to a paper read at the Clinical Society, and reported in THE LANCET, Dec. 4th, 1880.

FOREIGN PRACTITIONERS IN FRANCE.

F.R.C.S. would have to submit his diplomas to the Minister of Public Instruction, together with the certificates of course of study. If satisfied, the minister would then authorise his being admitted to five final examinations. See "Hardwicke on Medical Education and Practice in all parts of the World" (Churchills).

SIMPLE METHOD FOR REDUCTION OF DISLOCATION OF SHOULDER-JOINT.

To the Editor of THE LANCET.

SIR,—In recent numbers of THE LANCET I have observed descriptions of numerous mechanical contrivances for the treatment of dislocation of the shoulder-joint, and am thus led to give my own experience in treating such cases.

While admitting the theoretical as well as the mechanical grounds on which the various writers base the merits of their individual contrivances, I cannot help thinking that for the most part they are superfluous and unnecessary in all but very exceptional cases. In a considerable experience in this department of minor surgery, both in hospital and private practice, I have never known the following method of treatment to fail—a method so simple as almost to demand an apology for publishing its details, but one to which I have never seen any reference in the ordinary text-books. It may be called the method of reduction by unaided manipulation, and in no important respects does it differ from the similar means taken for the treatment of dislocation of the hip-joint, while the results are equally gratifying, and the triumph of skill and science over main force is equally apparent. Supposing the left limb to be dislocated, the surgeon standing on the affected side of the patient grasps the limb at the elbow-joint with his right hand, and places the thumb of his left hand on the misplaced head of the humerus. Abducting the limb from the side, and making a fair amount of extension, he now calls away the patient's attention from himself so as to relax the muscular system in some measure, and, taking advantage of this relaxation, he rotates the limb externally, aiding the reduction by, at the same time, pressing with his left thumb on the misplaced head of the bone. The only difference when the right is the affected side is that the operator's hands have to be transposed.

In the last ten cases of dislocation of the shoulder-joint that have come under my care the condition was rectified at the first attempt under the manipulation I have indicated; in eight of the cases without the use of any anæsthetic. In the remaining two, one was in the person of a very muscular man, while in the other the condition had existed for fifteen days, and in neither of these cases could I accomplish the reduction until the patients' muscular systems had been relaxed by chloroform, though I have never found it necessary to push the anæsthetic past this stage; but even in the case in which the dislocation had been neglected for a fortnight I found that manipulation was quite sufficient.

I do not claim any originality in commending this simple method to the profession, but I would say that its simplicity ought to commend itself to everyone, while as to its practical utility in the great majority of cases I think I have a right to speak positively. It is a mistake to suppose that a large amount of muscular energy requires to be expended by the operator in accomplishing the reduction of the dislocation in this way, for, as I said before, it is skill, not force, that will accomplish the desired end; and personally I cannot claim to be possessed of herculean muscularity. The time-honoured procedure of making traction on the limb with the foot in the axilla forming the fulcrum, will no doubt, from its very orthodoxy, always have plenty of supporters, but at best the position which the operator has to adopt is anything but a dignified one, while the method I now indicate and invariably adopt is not nearly so trying or painful to the unfortunate patient, either mentally or physically. I may also add that I have reduced a dislocation of the shoulder by the manipulation method, without any anæsthetic, on the second day, after the foot-in-axilla method had been vainly tried on two occasions under chloroform.—I am, Sir, yours, &c.,

Liverpool, April, 1881. S. RUTHERFORD MACPHAIL, M.B. Ed.

"UNQUALIFIED ASSISTANTS."

WE have received a large number of letters on this subject, raised by "Veritas" in our issue of May 14th. We cannot print a tithe of these communications, but give extracts from some of them.

Mr. Charles F. Rideal, of Thetford, writes:—"It cannot be denied that spirit and self-respect are much wanted in the medical profession, as, indeed, it is in all professions and occupations of the present day, but at the same time such a letter as the one 'Veritas' has contributed to your columns does not in the slightest degree tend to modify the existent evil, but rather aggravates it by the attack upon a class which does not merit his insinuations. I fully agree with him that medical reform has a wide range, but I ask him if he thinks the denunciation of 'unqualified assistants' assists him in any way to narrow its limits or to demonstrate its inner life. In all deference to him, I will undertake to say that out of the twenty medical men who grieve 'Veritas' by employing the ten 'unqualified assistants,' not one of them has granted a certificate of death without having seen the patient; no, the medical practitioner of the day is too careful for that. If this is not so, and it is within the cognisance of 'Veritas,' why does he not, in justice to himself and the profession at large, have the Act of 'law's defiance' sifted through to light, and thereby 'practically' carry out that which he professes to desire—i.e., medical reform? Where will 'Veritas' draw the line as to the term unqualified? This term varies from the 'green youth' leaving school to the man reading for his Final; the latter may be an individual who has obtained 'degrees;' he may have distinguished himself in literature, chemistry, pharmacy, or many other subjects; but purely for the love of the profession he is following may have cast all his previous distinctions aside. 'Veritas' must not forget that all these are included under the heading of 'unqualified.' Owing to the stringent examination required by the Pharmaceutical Society for the qualification of chemists, there is every reason to hope that those who are 'promoted' are in point of 'practical' experience far more advanced in medicine than are the many who literally cannot mix their own physic, but who hold the diplomas of our medical licensing bodies, and are just the very men who are suitable to be drafted into the rank and file of the medical profession, if only for their experience. Let 'Veritas' take the trouble of inquiring from them their experiences of 'unqualified assistants,' and I feel assured that he will hear to the effect that the unqualified man is generally a hard-working, intelligent fellow, who is desirous of advancing himself in every way, and that he is steady, and satisfies his employer's patients."

M.B. Univ. Dub., L.R.C.S.I., writes:—"In your issue of last Saturday 'Veritas' wisely remarks, we need medical reform on the above subject, and nothing short of the total abolition of unqualified assistants ought to satisfy the public and the profession. If you will allow me space to relate my experience, which is the experience of hundreds of thoroughly qualified men, you will, I think, admit I have given a clear proof of the fact that the profession is overcrowded by *unqualified assistants*. Notwithstanding the high degrees I possess (degrees which cost nearly £450 and five years' hard study to obtain), I was two months before I got an assistancy, and then I had to be content with £100 a year and furnished rooms. After remaining two years with my principal, who was invalided, he recovered sufficiently to be enabled to dispense with my services, employing some kind of a dispenser, &c., giving me, however, a most excellent testimonial. For three months, through the medium of THE LANCET and agents, I endeavoured to obtain another assistancy, but failed, except indeed I consider the offer of £80 yearly, out-door a fair remuneration for my qualifications and attainments. I think this matter of unqualified assistants is one requiring the strenuous efforts of the eminent men in the profession to put down; and I maintain they ought to use those efforts on behalf of their poorer and younger professional brethren."

O. U. I. remarks:—"In any legislation for the total abolition of the calling of the unqualified assistant, much consideration and discrimination must be needed, inasmuch as any sudden and arbitrary measure with that object would have the effect of depriving a great many men of their only means of subsistence, and of throwing a large number of families helpless upon the world. 'Veritas' ought to suggest some scheme for meeting such cases of exigence when he propounds as his notion of reform 'that the abolition of unqualified assistants is imperatively demanded in the interests of the public and the profession.' There are scores of young men at the present time pursuing their studies at the various hospitals, who would hardly be able to do so could they not employ a portion of their time as unqualified assistants, in return for board and lodging; and there are hundreds of medical men, now in high repute in the profession, and good position in society, who have raised themselves from the unqualified ranks solely by their own indomitable industry, steadiness, and perseverance. Is it entirely desirable indiscriminately to exclude all such meritorious persons, and to admit to the profession only those who may happen to have a few hundreds of pounds to spare? The second subject touched upon by 'Veritas' is one not in any way affecting assistants of any class, but principals; and I freely admit that the recovery of professional fees by instalments through the medium of a collector must seem a somewhat undignified mode of procedure to those unaccustomed to it. I speak from considerable personal experience when I assert that in many, if not most of the large manufacturing districts, a medical man practising among the operative and labouring classes must either consent to have his outstanding accounts 'collected' or go without three-fourths of the income derivable from such sources. The statement that 'there is no trade conducted on such principles,' does not hold good everywhere. I have seen the same person collecting for a medical man and for tradesmen on the same Saturday afternoon, and receive money for each from the same 'client.'"

PUPILAGE.

An Old Pupil, in a letter too long for insertion, argues strongly against the system of even a short pupilage, either before the commencement of his medical studies, or in the middle of them. He thinks any work the pupil might be called to would be of the nature of unprofitable drudgery, and that he would learn, not the science of medicine, but the art of pleasing and ready prescribing. Even pupilage at the end of the curriculum he thinks would not be more beneficial. "When we consider that a practitioner who has been engaged in professional work away from educational centres for ten years is old in the profession, it is hardly likely that a young man fresh from the latest scientific training can learn much or have much in common with such a practitioner." Our correspondent does scant justice here to the experienced practitioner. He is not likely to be so foolish as to undervalue the knowledge acquired through recent methods by a pupil at the hospital, and from a succession of such pupils as a system of pupilage would imply would be kept *au courant* with advancing science, besides having a clinical experience different altogether from that which a student has gone through in hospital work. Our correspondent admits that the dispensaries in educational centres afford ample opportunities for instructing young men in the practice of their profession. The subject of pupilage is coming up again, and though there will never be a reversion to pupilage in its old form, there is an extensive consensus of opinion in favour of a short pupilage at a more or less advanced period of medical study.

MEDICAL LEGISLATION IN NEW BRUNSWICK.

THE medical profession in New Brunswick is (says the *Canada Lancet*) to be congratulated on having succeeded in getting a Medical Bill through the Legislature this session, which will stop for the future the free trade in medicine which has heretofore existed in this province. A matriculation examination and a four years' course are among the requirements for future registration.

W. T. P. should consult the article on Books in the Students' Number of THE LANCET, published in September last.

Mr. T. H. Moorhead.—Probably any instrument-maker would undertake to supply the respirator.

Lieut.-Colonel Walker should consult the Medical Directory. We cannot recommend particular physicians or surgeons.

Odd Fellow.—We cannot assist our correspondent.

Tricked.—We regret that the tone of our correspondent's letter is so objectionable and some of the statements and references so far from correct that we cannot give it a place in our columns.

"THE BLOOD OF SAINT JANUARIUS."

To the Editor of THE LANCET.

SIR,—Since the marvellous oxygenation and liquefaction of the hermetically sealed blood of Saint Januarius are again reported to have recently taken place at Naples before the Cardinal Archbishop and an august assemblage of the Roman Catholic faithful, I should like to know if any of your readers can inform me whether or not this reported bi-annual miracle has ever been submitted to the ordeal of unbiased scientific inquiry and rational physiological examination.

I am, Sir, yours obediently,
Park-place, Leeds, May 16th, 1881. A. CLARENCE FOSTER.

A NEW TITLE FOR UNQUALIFIED PRACTITIONERS IN THE COUNTY OF DURHAM.

A correspondent, *M.B.*, states that in some of the colliery districts in Durham several men are practising and signing death certificates, using the title M.S., which would at first sight imply master in surgery, but in the case of these gentlemen means simply medical student! This appears incredible. It should be enough to direct public attention to such a proceeding to stop it.

AMERICAN WOMEN DOCTORS.

FROM a pecuniary point of view the choice of a medical career by certain ladies in America would appear not to have been a happy one. The results of an inquiry by the Dean of the Woman's Medical College in Pennsylvania show that three-fourths of the number (189) of graduates of that college who responded to appeals for information on the point are not earning more than three thousand dollars a year each, while three only have gained an independence by their practice.

Mr. Henry Bingham.—We believe it is customary for the bodies examining for diplomas in sanitary science to recommend the works to be studied. Write to the proper officer in Cambridge, and obtain the suggestions as to the studies for the certificate of that university, or to the registrar of the body selected.

Mr. W. Barr.—There is nothing special about the operation, which is one that is performed by ophthalmic surgeons in suitable cases.

THE TREATMENT OF PSORIASIS BY TURPENTINE.

To the Editor of THE LANCET.

SIR,—The treatment of psoriasis by turpentine, as stated by Dr. Crocker in this week's LANCET, is a valuable addition to our therapeutics in this often obstinate cutaneous disease, but requires more extensive trial. Your correspondent seems to think that its odour is its chief objection, but this can be easily remedied by the use of an equal part of the essential oil of lemons, which in itself is chemically identical with that of turpentine. The essential oil has the effect of destroying the terebinthinate odour without impairing its efficacy.

I am, Sir, yours truly,
Mildmay-park, N., May 10th, 1881. JAMES WILLIAMSON, M.D.

THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH.

To the Editor of THE LANCET.

SIR,—After reading the correspondence in THE LANCET of May 21st about the bad quality of the lymph obtained from the National Vaccine Establishment, I find, on looking over my register, the following note opposite some unsuccessful cases, which cases I had relied on for future supply—viz., on March 26th, 1880:—"Unsuccessful; lymph obtained from National Vaccine Establishment; bad as usual." This note in the register went before the guardians of our union and the Government inspector. I may add I have not since applied for lymph from the National Vaccine Establishment.—I am, Sir, yours faithfully,
Bloxham, Oxon, May 23rd, 1881. J. COLEGRAVE.

To the Editor of THE LANCET.

SIR,—During the past fourteen years I have at different times had both points and tubes of vaccine lymph from the National Vaccine Establishment, and, in justice to this institution, think it only fair to state I have never yet failed with the lymph supplied by them. Roughly speaking, I should say I have been furnished with lymph from this establishment at least twenty times.

I am, Sir, yours faithfully,
Cheetham, Manchester, May 23rd, 1881. J. WESTMORLAND.

To the Editor of THE LANCET.

SIR,—I am sorry to say I can fully endorse the complaint made by "A Public Vaccinator" with regard to the lymph from the National Vaccine Establishment. I have recently had two supplies, neither of which had the slightest effect.—I am, Sir, yours, &c.,
April 18th, 1881. ANOTHER PUBLIC VACCINATOR OF 40 YEARS' STANDING.

To the Editor of THE LANCET.

SIR,—In reply to the question of your correspondent, "A Public Vaccinator," I can say that I have generally found the lymph supplied by the National Vaccine Establishment useless—that is to say, I much more frequently fail than succeed in obtaining vesicles from it, however freely it may be used. I cannot help thinking that this lymph is largely diluted, and thus the National Vaccine Establishment becomes but another sham.

I am, Sir, yours faithfully,
May 17th, 1881. A GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—In answer to the query of "A Public Vaccinator," I may say that twelve cases of primary vaccination in the East Hertford district entirely failed when I used the lymph supplied by the National Vaccine Establishment. When I used the lymph supplied me by a friend, and taken from his own cases, success followed at once.

I am, Sir, yours, &c.,
May, 1881. QUALIFIED ASSISTANT CERTIFIED TO VACCINATE.

UNQUALIFIED ASSISTANTS.

A Country G.P. justifies the employment of unqualified practitioners under strict supervision, by qualified men, and thinks them preferable often to young men who have just passed their examinations.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Berry, Edinburgh; Dr. R. Foss, Stockton; Mr. Christopher Heath, London; Mr. J. R. Wallace, Bengal; Mr. Barr, Ontario; Dr. Gilbart Smith, London; Mr. Whitney, London; Mr. Cullimore, London; Mr. Rowlandson, Durham; Mr. Jas. Allen, Bollington; Messrs. Lambert and Morrison; Mr. Pridham, London; Dr. Walter Dickson, London; Mr. G. Brown, London; Dr. Moorhead, Cootehill; Mr. R. H. Clarke, London; Dr. Bingham, Belfast; Mr. White, London; Dr. Wallace, Greenock; Dr. Laffan, Cashel; Mr. Gill, Welshpool; Mr. Rivington, London; Mr. Wallis, London; Dr. Fussell, Brighton; Mr. Rendle, London; Mr. Hehner; Dr. Paggi, London; Mr. Campbell, London; Mr. Clarkson, Birkenhead; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. Crane, London; Mr. Charles Mercier, London; Mr. Godrich, London; Mr. Linnington Ash, Holdsworthy; Mr. Sangster, Burra; Dr. Morris, Kabul; Mr. Lambert, London; Mr. Grant; Dr. Dyce Brown, London; Mr. Westmorland, Cheetham; Dr. Hooper, London; Mr. Büscher, Teignmouth; Dr. Nankivell, Penmellyn; Dr. Dudgeon, London; Dr. James, London; Mr. Colegrave, Bloxham; Dr. J. Bolton; Dr. Bindley, Birmingham; Lieut.-Col. Larkin; Mr. Clouting, Thetford; Dr. Banning, Dunblane; Dr. Lyons, M.P.; Mr. Kabath; Dr. W. B. Carpenter, London; Mr. Bedford, London; Dr. Savage, London; Mr. J. H. Parker, London; Mr. Elliott, Carlisle; Dr. Ellis, Newcastle; Dr. Colmer, Yeovil; Dr. Chicken, Nottingham; Dr. Ward, Oxford; Mr. Stuart, Boden; Mr. M'Kenzie, Fort William; Mr. Keay, Eastbourne; Mr. Musson; Mr. Jordan; Mr. Grant, Maidstone; Mr. Clark, London; Dr. Brittan; Mr. Robinson, Burton-on-Trent; Messrs. Cartler and Davis; Dr. M'Nicoll; Messrs. Griffith and Co., London; Mr. Pratt, Newtown; Mr. Roper, Exeter; Dr. M'Munn, London; Mr. Blackett; Mr. Shattock; Mr. Smith; L.R.C.P.E., &c.; Beta; Public Vaccinator; Bona Fides; T. H. M., Great Yarmouth; W. T. P.; In Perplexity; S. L. D.; Surgeon, Barnsley; Odd Fellow; Barts; Tricked; A Disinterested Onlooker; The Secretary of the National Dental Hospital; Fiat Justitia; J.; Student; Enquirer; P. Z.; A Newsroom Reader; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Evans, Llandovery; Dr. Long; Mr. Bedford, Sheffield; Mr. James, Pentre; Mr. Richardson, Burton-on-Trent; Mrs. Bedingfield; Mr. Vivian, Southgate; Messrs. Christy and Co., London; P. Grove, St. Ives; Mr. Swinson, Leamington; Mr. Lawson, London; Mr. Edmunds; The Rev. D. Hughes, Sudbury; Mr. Wilson, Eccleshall; Mr. Taylor, Teignmouth; Dr. Stephenson, Bradninch; Mr. Jesse, Henbury; Mr. Pound, Odiham; Mr. Davidson, Dundee; Messrs. Macniven and Cameron, Edinburgh; Mr. Roberts, Coninsby; Mr. Mickle, Bow; Dr. Millington, Wolverhampton; Dr. Gibbes, London; Messrs. Grace, Bristol; Messrs. Farwig and Co., London; Mr. Mason, Sudbury; Broughton, Walham-green; Medicus, Manchester; M.A., London; A. C.; L.R.C.P., Wigan; Negotium; A. P. S., Eastbourne; W. J., Carmarthen; F. M., London; K. E. A. Y., Eastbourne; Surgeon, York; C. M.; Medicus; Y. Z., London; X. Y. Z.; Science; Medicus, Weymouth; Alpha, Burnley; E. S. F.; L. M., Leeds; L. D. S., Liverpool; Beta, Burton-on-Trent; K. T. A.; M.R.C.S., Norwich; M.B., New-cross; X. Y. Z., Hay; Medicus, Burlingham; Beta, Greenhithe; W. H. J.; Assistant, Kentish-town; M. R., Fulham; &c., &c.

Nottingham Journal, Church of England Temperance Chronicle, Italian Times, Colonist, Hampshire Advertiser, Hampshire Independent, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Clinical Lecture
ON
CASES OF ANOMALOUS RHEUMATIC FEVER.

BY C. HANDFIELD JONES, M.B. CANTAB., F.R.S.,
PHYSICIAN TO ST. MARY'S HOSPITAL.

(Concluded from p. 857.)

CASE 2. *Articular rheumatism, probably pericarditis; anasarca; heart's sounds very weak; pulse for a time very irregular; much tremor of hands, delirium, grave bronchitis; recurrence of rheumatism in hands; heart's sounds again distinct; recovery.*—E. C——, aged thirty-five, labourer, married; admitted Dec. 29th, 1880. He had been unwell about seven weeks; up to that time always had good general health. Works from 8 A.M. to 1 P.M. at a public house. For the first two weeks he felt very much out of sorts, then had violent pains in all his joints for about a week, "which made him nearly raving mad." About a month ago his feet, legs, and belly began to swell, and about the same time his breathing began to get bad, but he does not seem to have had great dyspnœa; he was always able to talk fairly well. No cough, no expectoration. At present has no pain anywhere, but a feeling ot general oppression; his "heart beats like two hammers." Has been in bed at home about five weeks; was unable to lie on either side; could only lie on his back. The lips are pallid, and the face especially. Legs pit slightly at the ankles and a little above. Urine acid, thick with lithates, contains no albumen; quantity less than it was two months ago. Resonance in both fronts not quite satisfactory; air, however, enters well in right front; in the third left space the breath sound is defective, but without any distinct râle. Back tolerably but not fully resonant; breathing defective in left lung, especially at lower two-thirds, the inspiration being short and harsh. In right back the air enters tolerably well in upper half; but in the lower the entry of air is defective, and muco-crepitant râles are heard at the base. Skin of præcordia has been severely blistered. Heart's impulse weak, diffused, distinctly perceptible to the finger at the epigastrium; faintly seen at right nipple-line, but not felt. Dulness area extends up to about level of third space, as far as the right edge of sternum, and to left for half an inch beyond right nipple-line. Heart's sounds at mid-sternum are weak and distant, and very much so at vertical nipple-line in left fifth space; no murmurs. Pulse about 108, and very weak, intermission of its beats cannot well be ascertained, as the tendons twitch very much. Lower belly dull on both sides, but not at hypogastrium. Liver dulness extends from fourth space to a little below level of navel. Broth diet, beef-tea, milk. Bicarbonate of soda, one drachm; water, two ounces; effervescing citric acid, half a drachm, to be taken three times a day.—31st: Says he did not sleep for more than half an hour, is restless, something "bewilders him"; no cough at all; heart does not hammer as it did; appetite fair; tongue moist, but thickly coated, brownish-yellow in middle; bowels open four times in night after medicine, and twice this morning; both hands are excessively tremulous. Pulse irregular—96 to 112. Right radial described by clerk as wriggling with an undulatory movement, assuming an S-shape. One observer detected a high pitched systolic musical murmur at left of mid-sternum. Ordered bromide of potassium, ten grains; chloral, ten grains; tincture of opium, ten minims; water, one ounce, at bedtime. Tincture of digitalis, ten minims; carbonate of ammonia, four grains; infusion of cascarilla, one ounce; three times a day.

Jan. 1st, 1881: Slept fairly well; complains most of his ribs being sore. Bowels opened each time he had a dose of the effervescing mixture; stools very loose. It has not been given more than once or twice a day since the 31st, and is now omitted altogether. Takes food well. Tongue moist, with some yellow dryish fur. Belly measures over navel thirty-five inches and three-quarters. Both pulses very irregular as to rhythm and size of beat. Respiration 32, even, quiet; rhythm of heart irregular; dulness area as before. Tracing unequal; secondary rises very high; hyperdicrotism marked in some beats, absent in others. Heart sounds are markedly weak, but less distant; much sonorous râle in both fronts and backs; air enters very imperfectly, especially at lower backs; no dulness. He sits up well in bed. To take six ounces of port wine.—3rd: Last two nights has had: camphor, one grain; extract of hyoscyamus, five grains, in two pills. Has slept a good deal, but has been and still is now rambling and talking loudly. Pulse 120, fairly regular. Breath short; has to lie high; expectorates more mucus, a little red in one part, blackish in another. Respiration 46; lower ribs collapse during inspiration; very weak entry of air in all left back and in all right. To take decoction of senega, one ounce; oxymel of squills, one drachm; ipecacuanha wine, ten minims, every three hours.—4th: Is now and has been the whole night through constantly talking; once got out of bed; is often quite delirious; yet he is evidently now half rational, or soon becomes so. He shows me himself his expectoration; says that he has not had a wink of sleep all night, and that he has been talking about home and business matters. Says also that his back aches, and his side aches, and that he aches all over. Hands and forearms so tremulous I could not take a tracing. Pulse 120, regular, weak; face pale; takes food well. Entry of air in both backs weak, and crepitations are heard everywhere.—5th: Says he feels much better to-day. Slept a good deal in night with one grain of opium twice. Pulse 110, of fair force; expectoration very scanty; right back dull at lower fourth; left not so much; air enters left lung pretty freely, except at lower third, where a good deal of crepitation is heard; in right back air does not enter so well, and crepitations are heard everywhere; respiration 36; tongue coated and dry; bowels not open; enjoys food; pupils of good size; still talks and rambles a great deal.—7th: Bowels freely open; has had two good nights; is much more quiet; talks much less; sputa of deep orange tint; air enters lungs better, but still defectively, especially at right posterior base, where there is dulness; crepitations heard extensively in both backs. Pulse 110, weak; lies down well. Has one grain of opium every night; one grain of calomel to-night; bacon, egg.—8th: A little rambling in sleep, but nothing like what it was; legs still anasarcous, but less so. Pulse 130; heart's sounds still very weak; tongue cleaner; backs resonant except lower right; air is heard at upper backs entering tolerably well, but the lower one goes the worse the entry gets; much râle is heard at lower thirds in both, most in right; inspiratory and expiratory dry râle in both fronts; third left space rather dull; second resonant; hands steadier; his fingers appear distorted, much as in chronic rheumatism, but he says this has only come on since he has been ill; urine in good quantity, red, clear; no cardiac murmur. Iodine liniment to præcordia; half a grain of calomel and half a grain of opium three times a day; omit mixture.—11th: Yesterday had pretty copious vomiting twice, none since; last night good; feels very weak; gums at edges getting red and tumid. Pulse 108, of good volume, compressible, regular; heart's sounds weak, but distinct, second especially; urine deposits lithates copiously; is in good quantity. Takes food very well, enjoyed roast meat to-day. Lungs in much the same state; right radial curves and elongates at each beat; tongue moist, cleaner.—13th: Seems better; no dyspnœa; lies down well. Pulse 113, regular. Scarce any expectoration. Respiration 30. Heart sounds more distinct. Legs much less œdematous. Breathing much freer in upper backs, numerous crepitations in lower. Urine clear, of medium colour, alkaline. Calomel omitted. Tincture of squills, twenty minims; tincture of digitalis, ten minims; acetate of ammonia mixture, one ounce; three times a day.—15th: Pulse 110, regular, sharp, of fair force. Sleeps and eats well; wants to get up. No expectoration. Weak entry of air, with half moist crepitations in both backs; a deep inspiration does not improve breathing much; respiration 25. Ordinary diet.—20th: Yesterday weather severe, pulse excited, 117; apex beat felt at vertical nipple-line, fifth space. Saccharated carbonate of iron, one scruple daily.—22nd: At xiphoid and apex sounds are of a cantering rhythm, no murmur, no apex beat or impulse felt anywhere.—26th: Pulse very irregular two days ago; a beat was frequently too weak to reach radial. Pulse still very unequal and irregular. Anasarca gone from lower limbs some time ago. Tracing not so irregular as pulse appears. Sounds of heart pretty distinct at vertical nipple-line, fifth space; first rather weak. Ordered four grains of carbonate of ammonia, and one ounce of infusion of cascarilla, three times a day.

Feb. 2nd: Rheumatism recurred in both hands and left shoulder yesterday, but nowhere else. Pulse regular, jerky, 110. Wrists and shoulder blistered; ordered three doses of salicylate.—7th: Pulse quite regular; temperature nearly normal. Is doing well. A whining sound of cardiac rhythm is heard at left edge of the sternum during all the respiratory period, except about end of expiration. Sounds of heart more distinct, first of a murmurish quality at the apex, but not in the left side.—10th: Tracing tall, sharp-peaked; dicrotism late. He is up and dressed, and seems going on well, but his temperature is not yet normal. Good resonance in all left back; rather weak breathing at lower part; scarce any râles. Right lung in nearly the same state.—17th: Sounds of heart much more distinct; has had a small blister at horizontal nipple-line, on account of some uneasiness in that situation. Repeat it. The whining bruit continues, but is not constant; does not accompany the natural sounds. —21st: Pulse 100, standing; respiration 20. He then went down a long flight of stairs and up again; pulse immediately after 120; respiration 18. He feels very well, except a little soreness at the left chest.—24th: Going out. Heart sounds very plainly heard through all his clothes. Taking citrate of iron and quinine, ten grains.

March 3rd: Came to hospital looking pale and not so well. Heart sounds were well heard, but not quite pure; there was no murmur with them, but some of the whining sound. Dulness area extended from left edge of sternum to about vertical nipple-line. Third left space resonant. Complains of soreness in the left chest.

April 11th: Came to the hospital; was much better; taking strychnia and pernitrate of iron.

TEMPERATURE TABLE. (CASE 2.)

Date.	T. A.M.	T. P.M.	Date.	T. A.M.	T. P.M.
Dec. 29 ...	— ...	102·4°	Jan. 18 ...	100° ...	102°
,, 30 ...	102° ...	101·2	,, 19 ...	99·4 ...	99·6
,, 31 ...	101 ...	101·4	,, 20 ...	100 ...	100·2
Jan. 1 ...	101·4 ...	102	,, 21 ...	99·4 ...	99·4
,, 2 ...	100·2 ...	100·6	,, 22 ...	99 ...	99
,, 3 ...	99·4 ...	101·5	,, 23 ...	98·6 ...	99
,, 4 ...	101·9 ...	100·6	,, 24 ...	99 ...	99·4
,, 5 ...	99·4 ...	100	,, 25 ...	100 ...	100·6
,, 6 ...	99 ...	100	,, 26 ...	99·8 ...	99·8
,, 7 ...	100·8 ...	102·6	,, 27 ...	99·7 ...	100·8
,, 8 ...	104·4 ...	103	,, 28 ...	98·6 ...	100·6
,, 9 ...	102 ...	103	,, 29 ...	100 ...	99·6
,, 10 ...	101·2 ...	100·8	,, 30 ...	99·6 ...	100
,, 11 ...	99 ...	100·9	,, 31 ...	100 ...	100
,, 12 ...	99 ...	101	Feb. 1 ...	99 ...	100·4
,, 13 ...	100 ...	100	,, 2 ...	100·4 ...	100
,, 14 ...	99·8 ...	101·2	,, 3 ...	99·4 ...	100·2
,, 15 ...	98 ...	101·2	,, 4 ...	99 ...	99·8
,, 16 ...	100·2 ...	102	,, 6 ...	99 ...	98·3
,, 17 ...	100 ...	99·6	,, 7 ...	99·6 ...	98·8

CASE 3. *Rheumatic fever (second attack); failure of salicylate; mitral systolic murmur; morbilloid eruption; epistaxis; hyperpyrexia; cool packs; iced baths; delirium; death.*—A D——, aged nineteen, porter, admitted Sept. 30th, 1878. He had rheumatic fever eight years previously, was laid up all the winter. Three weeks ago he had symptoms threatening another attack, shiverings, and much perspiration; these passed off. On Sept. 29th he was seized in the afternoon with pains in limbs and stiffness. In the morning he was so much worse that he could not dress, and was admitted to hospital in the afternoon. He cannot assign any cause for the attack. An uncle is the only relative subject to rheumatism. One ounce of salicylate of soda mixture every hour for six times.

Oct. 1st: Is a fair, robust-looking youth; skin hot and moist; has sweated profusely all night; tongue rather furred; great pain in both knees and wrists, which are swollen and very tender; heart's apex beats in fifth space in vertical nipple-line; a systolic bruit heard at apex and in carotids; vessels of neck pulsate much. Pulse 120, jerky, soft, empty between beats, especially when hand is raised; urine clear, sp. gr. 1018, no albumen. Salicylate mixture repeated, but temperature rose at night to 103·5°.—2nd: Symptoms not improved; skin very hot and moist. Pulse 106; systolic bruit at base of heart and in carotids followed by sharp second sound. Salicylate repeated.—3rd: Night very restless; he could not sleep; had no delirium; great pain in left knee and right hip, and in both shoulders; heart's apex beats outside vertical nipple-line; loud blowing systolic murmur at apex, also at base and in neck, where there is great impulse; epistaxis occurred at noon to about two drachms.—4th: Sweating very profusely; reaction of sweat neutral; urine is markedly acid; pain is very much less; had not much sleep in night; kept waking up in a fright and feeling giddy; tracing sharp-peaked, with a small shoulder in fall; dicrotic notch on basal line; extensive morbilloid rash on chest and abdomen; began early this morning to take thirty grains of acetate of potassium, twenty grains of bicarbonate of potash, and one drachm of tincture of oranges, in an ounce of water, every three hours.—5th: Says he is much worse; seems very weak and distressed; has had epistaxis to some ounces this morning; is subject to epistaxis; pulse very soft, 120; rash more developed on trunk; it consists chiefly of dull red patches, with little points of commencing sudamina. To have six ounces of port and two ounces of brandy.—7th: Was very ill all yesterday; five grains of quinine were given every two hours after 10 A.M. until evening; had about three hours sleep after a large mustard and linseed-meal poultice to chest; to-day is very restless; tongue coated in middle; pulse of good force, 112; perspiring much less; urine on 6th very acid, sweat neutral; at present skin pungently hot; third left space rather dull, second resonant; sounds of heart very weak, hardly any first sound at mid-sternum; bowels open three times this morning; is very restless now (4 P.M.), face pale, and aspect distressed. Temperature 105·4°. Has just been sick after a dose of quinine; respiration this morning 56; takes food fairly; not much articular affection. A cool pack was administered about 6 P.M. for an hour.—8th: Looks better to-day; had some sleep after first pack; a second to-day about 10 A.M. for two hours; legs and feet feel stiff and numb, has noise in his ears and deafness; is taking nourishment well; no delirium; pulse 115, large and of good force. An iced bath was given at 6.30 P.M. The temperature before was over 105° (probably); the water was at 80°; it was found difficult to reduce its temperature, though a large amount of ice was put in. At 6.45 P.M. the patient's temperature was 104·8°; at 7 P.M., 103·4°; at 7.15 P.M., 101·4°; he was then removed to bed, and at 7.25 P.M. the temperature was 98·6°. It rose again, however, quickly; at 9.45 P.M. it was 103°, and later 104·6°.—9th: He was quiet during the night, but somewhat delirious; had not much sleep; appearance better; less pallid than it was; expectorates some muco-pus; pain in joints less; can raise a cup to his mouth; seems to want sleep; tongue cleaner, moist; bowels open three times in twenty-four hours; takes nourishment well; pulse 108, of good force and volume. Between 4 and 5 P.M. he had another iced bath. The temperature fell very rapidly; in twenty minutes it fell from 104·2° to 97·4°. He was then taken out; his extremities were cold. Fifteen grains of Dover's powder and an ounce of acetate of ammonia mixture were given after the bath. He was very restless and delirious during the night. The quinine mixture was resumed.—10th: Is very much worse, extremities are cold and bluish, lips and face leaden; is very restless, continually changing his position; respiration deep and sighing, 46 per minute; pulse weak, 132; skin generally of a dusky hue; died at 12.30 in the afternoon.

Date.	T. A.M.	T. P.M.	Date.	T. A.M.	T. P.M.
Sept. 30 ...	— ...	101·8°	Oct. 5 ...	102·8° ...	105°
Oct. 1 ...	102·4° ...	103·8	,, 6 ...	103·8 ...	106
,, 2 ...	103 ...	103·8	,, 7 ...	105·2 ...	105·4
,, 3 ...	101·5 ...	103·8	,, 8 ...	104·8 ...	104·6
,, 4 ...	101·5 ...	102·6	,, 9 ...	104·2 ...	104·6

Date.		Temp.	Date.		Temp.
Oct. 7 ...	6 P.M. ...	105·4°	Oct. 8 ...	9 A.M. ...	104·8°
,, ...	6.20 ,, ...	104·6	,, ...	10.30 ,, ...	104·8
,, ...	6.30 ,, ...	103·2	,, ...	11 ,, ...	104
,, ...	6.45 ,, ...	103	,, ...	12 merid. ...	101
,, ...	7·20 ,, ...	101·4	,, ...	12.15 P.M. ...	102
,, ...	10 ,, ...	103	,, ...	3.30 ,, ...	104·4
,, ...	12 ,, ...	105	,, ...	4.20 ,, ...	104

All in rectum. Pack at 5.45 P.M.

Post-mortem.—Rigor mortis and hypostasis well marked. A small abscess over the sternal end of the left clavicle. About three ounces of blood-stained serum in each pleura. Right lung congested posteriorly; areas of collapse scattered through the same part, disappearing on inflation. The posterior parts present the early stage of brown induration. Weight of right lung 26 oz., of left 21 oz. Left lung in same condition as right, but in a much less degree. Bronchi filled with frothy mucus; their mucous membrane congested. Pulmonary artery full of dark blood. Pleuræ free from adhesions. The pericardium contained about an ounce of turbid serum. Some flakes of lymph over auricle and roots of great vessels. The heart weighed 22 oz., and contained 16 oz. of clot.; it was a well-marked "cor bovinum." Cardiac veins distended; arteries normal. Muscular substance on left side ¾ in. thick, pale and soft; right side ⅜ in. thick. Left auricle filled with soft, black coagulum; cavity dilated. Mitral valve showed old thickening, and subendocardial capillary hæmorrhages at attached border; orifice 5¾ in.; ventricle extremely dilated (left), filled with pale and dark clot, the former recent; aortic valves thickened at lines of contact and free borders, incompetent; orifice 3¼ in. Right auricle gorged with mixed coagulum and dilated; valves healthy. Tricuspid orifice 5 in.; insufficiency less marked than mitral. Pulmonary artery normal; orifice 3½ in. Vena cava superior full of dark blood. A patch of atheroma at commencement of aorta. Liver weighed 65 oz.; soft, fatty; centres of lobules congested; old infarcts in middle of right lobe. Spleen weighed 7 oz., soft. Kidneys 7½ oz. each; capsules peel off readily; pyramids pale and very firm.

Remarks.—All these cases were undoubtedly instances of rheumatic fever, though the phenomena they exhibited were by no means identical. This is a first point to note. "Varium et mutabile semper fœmina," says the poet. The physician may apply the epithet to disease. Not that we are to overstrain the statement, and think of disease merely as the individual sufferer presents it to us, overlooking or unheeding all that there may be common to numberless instances. But we must be prepared to meet with great variations, especially if we ply our craft under widely differing circumstances. In the first two cases the disorder receded and quitted the joints for a considerable time, during which internal organs were severely affected, and then returned for a short time to its original site as the malady declined. In Case 3 there was also marked recession of the articular symptoms when the general condition became worse, but the fatal close prevented their recurrence. Look, therefore, suspiciously on the disappearance of articular affection in rheumatic fever, unless it be attended with improvement in other respects. Pericarditis with effusion occurred in Cases 1 and 2, but the effusion was not copious. In Case 2 weakness of the heart's sounds and irregularity of the pulse were marked features. Had the physical signs indicated very large effusion, the pressure thus made on the walls of the heart would have been a sufficient cause for these phenomena, but as this was not the case it seems to me most probable that myocarditis existed. This may have either directly impaired the contractility of the heart's muscular tissue, or, as Dr. Walshe suggests (p. 260), might have enfeebled the action of the organ by influencing (inhibitorily) its nerves. In Case 1 the cardiac dulness was at one time more extensive than it ever was in Case 2, but the heart's sounds were never so weakened, nor the pulse so irregular. The anasarca of the lower limbs in Case 2, according to the evidence, was certainly of cardiac origin, and so affords additional proof of the enfeebled state of the heart. In Cases 1 and 2 delirium was a rather prominent phenomenon, especially during the earlier part of their stay in the hospital. It was tolerably acute, but not violent, and not much trouble was experienced in keeping the patients in bed. If you refer to some cases recorded in my work at pp. 169-171 you will see how very much the quality of delirium in retrocedent rheumatic fever may differ in different instances, and how much the treatment may have to be modified in consequence. The fits of restlessness and thirst which occurred in Case 1 may be regarded as of the nature of delirium. I take much the same view of the tremor of the hands and arms in Case 2, which for some time was so remarkable. The same disordered action of the cells of the intellectual centre which conditionated delirium might well in the motor centres give rise to an analogous derangement. In one familiar instance the two disorders coincide, and we have delirium tremens. Both Cases 1 and 2 had pulmonary catarrh to a serious extent, which for some time enhanced the peril considerably, especially in the latter, as the weather at the time was severely cold. The minute bronchi, if not the alveoli, were involved, and the patients might easily have succumbed from œdema of the lung. This catarrh was associated in Case 1 with an analogous intestinal disorder producing diarrhœa, and in both sites I believe resulted from the operation of the rheumatic virus, or influence, whatever that may be. Another interesting phenomenon, perhaps allied to the preceding, was the morbilloid eruption which was so marked in Cases 1 and 2. Trousseau designates such eruptions as "exanthèmes sudoraux," and thinks that they are chiefly produced by heat external or internal. Sometimes they resemble scarlatinal eruption more than that of measles, and may even be mistaken for the rash of typhus. They may occur in influenzal catarrh as well as in rheumatism, and may be very evident when pulse and temperature are normal. I have known the rashes create great and quite unnecessary alarm.

Hyperpyrexia was a prominent symptom in Cases 1 and 3, while in Case 2 it was contrastingly absent, the temperature only reaching 104°, and the average of the first fifteen days at night being only 101·4°, whereas in Case 1 the average of the first ten days (P.M.) was 103·3° and in Case 3 104·1°. We must admit, if we believe that there is a heat-regulating centre—as I assuredly do,—that this ganglion was very much more affected in the two latter cases than in the former. Just as the intellectual centres or the motor centres suffered from the morbid cause, so I conceive did the temperature-ruling centre. In many conditions of this kind the weakest part, that which has least stability, or power, or resistance, which is most vulnerable, suffers most, and the symptoms, the evident phenomena, are shaped accordingly. To check the hyperpyrexia cold baths were employed, ten of which were administered in Case 1 from Dec. 28th, 10 P.M., to Jan. 1st, 12 P.M. Their general effect was decidedly beneficial, though it often was very brief, the temperature quickly regaining its former height. Several of the later baths, especially the last, were of short duration, as they were not well borne; the last was followed by too much prostration to make a repetition desirable, and sponging was substituted. The subjoined table exhibits pretty clearly the effects of the baths on the temperature.

After the tenth bath the temperature was only once above 103° for twenty-four hours. On January 3rd (twenty-six hours after the last bath) it reached 104·8° at 2 A.M., and was only two-tenths lower at 4 A.M.; it then fell, and did not reach 104° again for twenty-four hours. After 4 A.M. Jan. 4th it sank, and remained below 104° and mostly below 103° for 116 hours; then marked 104° at 2, 4, and 6 A.M. of the 9th, again fell and remained at or but little above the normal for eighteen hours. At midnight of the 9th it ran up to 105°, and in spite of sponging did not fall materially for ten hours, marking 104·8°, 102·6°, 105°, 104°, and 104·6° at two-hour intervals. This, however, was the last gust of the storm, if we except one reading of 104° on Jan. 18th at 4 P.M., and one of 103·2° on Feb. 6th at 2 A.M. These brief recurrences of fever during an apyretic period appear to me very interesting, and can scarcely be accounted for except on the view that the heat-regulating centre at these times suffered a transitory paresis. Similar occurrences are met with in various morbid states. After Jan. 20th the bihoral observations were discontinued, and only five, four, or three taken in each twenty-four hours. During all this period, extending to March 17th, the temperature was normal, or nearly so. In Case 3 the baths were employed too late; they should have been commenced on the evening of the 5th, when the temperature reached 105°, and should have been repeated whenever it rose above 103°. The packs were insufficient for the wants of the patient.

The other remedies which we employed with the view of reducing fever—viz., salicylate and quinine—had no good result. The former produced much diarrhœa, and the latter on the last occasion when it was given in pretty full dose caused a rigor, with vomiting and purging. It is true that the doses of quinine were much less than those recommended by some high authorities—Jurgensen for instance; but such experience as I have had of the antipyretic action of quinine in acute non-malarious disease has not been favourable. It has lowered the temperature for a short time, but has otherwise seemed rather injurious. Dr. G. Smith, however, has seen much better results.[1]

Besides controlling pyrexia our efforts were mainly directed to maintain the force of the heart, to support the general strength, and to procure sleep. In carrying out these aims digitalis and opium were of real efficacy. Perhaps, however, the favourable issue of the malady was determined chiefly by the good behaviour of the stomach, which stood its ground bravely when most other organs were more or less disordered. I am often tempted to modify the apophthegm, *Φυσεως αντιπραττουσης κενεα παντα*, by substituting *Γαστερος* for the first word. You will surely find it a part of wisdom to make much of the stomach, and sedulously to avoid giving it offence. In Case 2 digitalis and opium and the expectorants served us well, and so, also, I think, did small doses of calomel three times a day. In Case 3 I am much disposed to think opium should have been used more freely. Judiciously employed, it certainly sustains failing nerve-power. The bedsore in Case 1, which threatened at one time to perforate the spinal canal, was dealt with successfully by keeping the lad lying on his face, and by applying carbolic lotion under tenax.

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[1] Vide Practitioner, 1878.

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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GENERAL INTRODUCTION.

SINCE the institutions devoted to the relief of suffering from disease and accidents have ceased to possess an exclusively ecclesiastical character, and become what they now are, and long have been, part and parcel of the general practice of charity and benevolence, in their purest forms, hospitals, with special reference to the successful treatment of those admitted within their walls, have scarcely kept pace in their construction and management, with the advance of civilisation in other branches of social economy. The present conditions of life in all civilised communities impose a strain upon mind and body by day and by night which is extremely difficult to bear, without serious risk of premature decay and death. The ever-increasing dangers to life and limb from the continuous and progressive multiplication of mechanical contrivances to supplement and supplant manual labour, and to annihilate time and space, have imported into Surgery fresh forms of accidents and injuries, and new pathological states resulting therefrom, which tax the highest resources of the science and art of the surgeon, to contend with and counteract. The gravitation of rural populations to urban centres, the result of new conditions of society, has caused the aggregation of human beings upon areas insufficient to maintain them in health and strength, without the aid of complex artificial contrivances. These conditions, with the insanitary surroundings inseparable from them, especially among the poor and improvident, coupled with the vices which are largely the outcome of undue pressure of population upon space and the means of subsistence, have become important factors in changing the form and character of many diseases, more especially those of the inflammatory and zymotic classes. This state again demands the employment of the most advanced means which scientific progress has placed at the command of the physician, to deal with successfully. All the above conditions, with a multitude of collateral circumstances intimately connected with them, invest hospitals with even greater interest and importance now, than they have ever previously possessed. Not only are they "Nature's schools where pupils are taught her ways in diseases and casualties, and the effects of the application of the means of relief," but they are emphatically the only places in which all the phases and varieties of sickness, whether of new or of old types, can be studied in a strictly scientific manner. The administration of the active principles of curative substances when separated from the inert or injurious matters with which they are combined in their natural state; the proper employment of anæsthetic and antiseptic agents; the skilled use of all new physical and mechanical contrivances for the detection, treatment, and removal of disease and its consequences, in circumstances where they can be subjected to the strictest observation and control; and, above all, the pursuit of pathological inquiry in the manner absolutely necessary for the advancement of science, are among the most important uses of hospitals.

The present, again, is an exceptionally appropriate time for the consideration of the question in all its bearings. An International Congress will shortly be held in this great metropolis, and probably collect a larger assemblage of medical men than has ever before been gathered together in London, from all parts of the world. Those to whom our institutions are at present unknown, and many to whom they are familiar, will doubtless visit them and contrast our methods of managing matters, with the prevailing practice in their own countries. It is much, therefore, to be regretted that in the questionable multiplication of sections and embarrassing accumulation of questions for discussion, most of them having no international bearings, room has not been found for that of the construction and management of hospitals, and a uniform general system of record of sickness and mortality for the hospitals of all countries. Great doubts, apparently on good grounds, exist among ourselves as to the advantages and disadvantages of large hospitals as compared with small; as to the real causes of the persistent unhealthiness of many of those institutions, both new and old, whether dependent on structural or other conditions; and as to the best means of securing all the conditions necessary to minimise the risk to life, of those who seek admission or are taken to them. There is by no means universal consensus on this and many similar questions, connected with hospitals. It would, therefore, have been invaluable to obtain upon them the views of the eminent practical workers in kindred institutions in every part of the world, after personal examination of all that we have to show them. Some nations have advanced beyond us in the matter, as I shall endeavour to show anon; and I still hope, in spite of the regrettable omission which I hold to have been committed, that their representatives will, on their return to their several homes, place their impressions on record in a form that will be valuable to us as warnings or examples.

The primary function of hospitals is the successful treatment of diseases and accidents, in the strictest relation to the interests and advantages of the sick and stricken individually. To this all other relations, scientific and administrative, must be absolutely subordinated, in spite of the widespread popular belief to the contrary, particularly as respects clinical hospitals, or hospitals forming part of medical schools. What, then, are the cardinal conditions to be observed in the construction, management, and distribution of hospitals to fit them for their special purposes in all the important relations in which they stand to the public, and to the profession most immediately concerned in their efficiency? It was truly said by one of our most eminent surgeons, Sir William Blizard, nearly a century since, that "the value of medical science in every walk of life, independently of its application in preventing and curing disease, should be seriously considered. All men are indebted to the discoverers and cultivators of natural truths for some share of their useful knowledge, and of the felicity they enjoy. Many, therefore, are the objects, interesting to society, that present themselves in contemplating the professional concerns of a hospital, and, as in commercial and other affairs of life, they will be best understood by men who have most devoted their time and attention to the subject. Everything liberal may be expected where charity is the governing principle of action, and where the good done bears proportion to the degree of knowledge exercised. Purity of motive, sincerity of attention in the surgeons, will not then be doubted. It may not, however, be improper to observe that their credit and interest are involved in all the proceedings of a hospital; for its prosperity is their elevation, its depression their loss and regret."

To consider, then, this important question correctly it seems to me to be desirable to group hospitals roughly into certain classes, and then to discuss in as much detail as may be necessary to their right understanding, the general attributes which are common to all, and those which are more or less restricted to the special purposes of each group, the successful treatment of disease being the cardinal condition, or *raison d'être*, of every such institution.

The simplest arrangement of all hospitals actually in existence is the following:—

1. Clinical hospitals, or hospitals attached to or forming parts of medical schools.
2. General hospitals, or those in which all classes of cases,

medical and surgical, are treated, with or without detached wards for infectious diseases, and parturition. In this group, I think, should be placed the great separate workhouse infirmaries, for reasons which will be mentioned when they come under review.

3. Special hospitals, such as fever and small-pox hospitals, lying-in hospitals, ophthalmic, skin, orthopædic, and other institutions devoted to specific purposes, usually indicated by their names.
4. Cottage hospitals.
5. Convalescent hospitals.

Each of the above groups, again, needs to be considered with reference both to institutions now in existence, and to the hospitals of the future. From them I have excluded dispensaries, free or provident, and all institutions which have no beds for taking in patients. These, with the out-patient departments of all hospitals, which might, I think, with advantage in many cases be separated from them, are most important complements of our hospital system, and, with the home treatment of such cases as are adapted for it, render it complete in organisation. But the latter scarcely fall within the scope or purpose of my contention.

The first step in the whole inquiry is to determine as far as possible what constitutes a healthy hospital, for this is universal in its application. In one of his classical reports, Mr. Simon has defined a healthy hospital to be "a hospital which does not *by any fault of its own* aggravate ever so little the recovery of persons who are properly its inmates, and this, the only right sense of the absolute word, governs the words comparative applications; so that when we compare them together with regard to their 'healthiness,' and call one of them the 'unhealthier' hospital, our meaning is that in this hospital, by means of some faults of its own, disease cannot be treated as successfully as in the other hospital; and the fault of its own, through which an 'unhealthy' hospital fails to attain the best results for its medical and surgical treatment, is of two kinds—either it is an *inherent fault*, as of site and construction; or else it is a *fault of keeping*, as dirtiness, or overcrowding, or neglect of ventilation."[1] Various attempts have been made to solve the question of the healthiness of hospitals as compared with each other, by contrasting the results chiefly of surgical practice, by an appeal to statistics. This doubtless is the true means of forming a correct judgment on all such questions as can be solved by the application of the numerical method. When figures are really exponents of facts, and are collected with mathematical accuracy, they "formulate the past, render the present fruitful, and prepare the future." But the terms of all comparisons, to be exact, must be identical, as dissimilar things cannot be compared in the strict sense of the word. Vital phenomena are so complex in their nature, whether in health or disease, and are influenced by so many collateral conditions, all of which require to be stated with minute care and accuracy, that the basis of a correct statistical comparison of the results of the practice of different hospitals, does not at present exist. Nowhere are the records of hospitals so kept as to afford more than a rough approximation to the truth, which has no pretension to scientific accuracy. In each and all of them some important factors are omitted, and in none that I am acquainted with, are any statistics of therapeutics or particular plans of treatment properly kept. That these latter exert an important influence in determining the results of medical and surgical treatment in hospitals, independent of all internal faults of their own, who can doubt who has watched and noted the changes in doctrine and practice of the present century, from the heroic bloodletting and *nimia cura medici* of its early part to the medicine expectante, homœopathy, hydropathy, and the important antiseptic surgery of our own times?

It is sufficient for my present purpose to state that, although we have no sound comparative data to guide us to a strictly logical conclusion, we have an abundance of testimony from figures which are of considerable value in themselves, in relation to many medical and surgical questions of great importance. Taken by themselves, they show that when varying proportions of mortality occur from the same classes of surgical procedure in similar cases, in the same or different localities, or where the death-rates from fever, inflammation, the process of parturition, and other general causes range to an extent indicative of greatly increased risks to life in some circumstances as contrasted with others, they point to the existence of something wrong. This *something wrong* demands the strictest investigation, and this is the real position in which the question now is. What, then, are the different factors which require to be taken into account in estimating the general conditions of healthiness in the sense used by Mr. Simon, or the reverse, of every hospital intended for the reception of the sick or disabled? As usual in all human affairs, the agencies to be considered are moral and material. The former refer to those employed in the control, direction, and management of hospitals; the latter relate to structural and other conditions which we know, or believe, to contribute to placing such institutions in the best possible state to fulfil their special purposes. It is manifest, and to this general rule hospitals form no exception, that the best and most perfect instruments may fail in careless or incompetent hands, whilst good work may be done with imperfect instruments by the more skilled and careful.

The question of the government and staff of hospitals is thus scarcely second in importance, to the principles which should be observed in their construction and arrangements.

For convenience of treatment I shall consider the whole subject under the following heads:—

1. The control and management of hospitals.
2. The construction and arrangements of hospitals, with descriptions of the most typical examples of recent hospitals.
3. The consideration of the several groups of hospitals.
4. The organisation of medical relief in the metropolis. In connexion with this will be published, on the 16th of July, a Map of Medical London, showing the exact position of every hospital of every class in it at the present time.

Lastly, the general conclusions to be deduced from the above.

(To be continued.)

ETIOLOGY AND CLINICAL BEARINGS OF THE GERM THEORY OF DISEASE.

BY DR. GEORGE HARLEY, F.R.S.

The Editor calls attention to the following:—

Note by the Author.—"Reformed speling: This paper is printed without encumbering its words with redundant, and consequently useles, duplicated consonants."

It must be understood that THE LANCET does not adopt the method, but simply complies with the request of Dr. Harley.

SINCE one may now venture to say, without much dread of contradiction, that science is begining rapidly to become the director of the general practitioner, as wel as the handmaiden of the consultant, and that in exact proportion as she apears in the sick-room does routine practice and empirical rule-of-thumb prescribing vanish, no apology need be ofered for my bringing under the notice of the profesion a few new facts which tend to elucidate the germ theory of disease. For it seems as if we were already hovering on the very brink of at least finding a truly philosophical explanation to what has hitherto been considered the totaly unacountable apearance of sporadic cases of contagious and infectious diseases, as wel as an equaly philosophic solution to the cause of the waves of epidemic afections which ever and anon sweep over and diseminate, in diferent forms, and at diferent times, diferent portions of the earth's surface during varying and hitherto inscrutable periods of time, and, after completely disapearing from a locality, reapearing in it again after longer or shorter intervals, and that, too, generaly in the same form, and oftentimes even under almost identicaly similar circumstances.

Moreover, I believe when the germ theory is properly and completely worked out, that it wil not only yield a philosophic clue to the suden outbreaks and equaly rapid cesation of epidemics, and the ocasional apearance of fatal sporadic examples of disease, but explain the *rationale* of the longer or shorter periods of incubation which folow upon the heels of infection and contagion, the causes of periodicity in the malarial group of afections, and lastly, the inexplicable phenomenon of the long intervals of quiescence in particular localities between the termination of one epidemic and the outbreak of another, which is so characteristic of virulent plague and Asiatic cholera, without necesitating the adoption of either the untenable theory of spontaneous generation or the equaly unsatisfactory one of the redevelopment of germs *de novo et ab initio.* Since the days of Spallanzani the spontaneous generation theory has been resuscitated on an average once in every twenty-five years. Twice within my own medical day have I seen the spontaneous generation theory revived, and on each ocasion it has found a suficient number of enthusiastic suporters to obtain for it an evanescent notoriety; but ultimately it has gradualy withered, decayed, and disapeared; again, no doubt, to be resuscitated—in some slightly modified form—by enthusiasts in suxeeding generations. If the germ theory of disease is to hold its ground at al it must sufice for the solution of the four folowing distinct pathological problems:—

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[1] Sixth Report of the Medical Officer of the Privy Council, 1864. Pp. 39, 40.

(*a*) The cause of a distinct period of incubation folowing upon contagion and infection.

(*b*) The cause of paroxysmal and periodic malarial derangements.

(*c*) The cause of the suden outbreaks, and sometimes equaly suden cesation of epidemics.

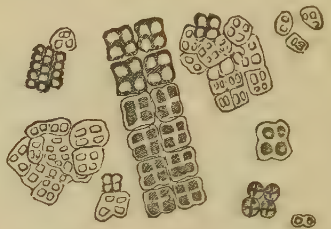
(*d*) The cause of long intervals of quiescence being noticeable between the termination of one virulent epidemic and the outbreak of another, equal in character and in virulence.

Such being the problems requiring to be satisfactorily solved by the suporters of the germ theory, I shal now ad my quota to the general stock of our as yet but very imperfect knowledge of the pathological action of germs in the animal economy, and do the best in my power in the short space I have here at my comand to aid their solution. Even should I suxeed in doing nothing more than giving my readers some new ideas for thought, I shal consider that I have not wasted their valuable time; for it may perchance hapen that the new ideas here sugested may lead to the unraveling of some of the knoty points abundantly scatered about in this as yet unworked-out field of pathological observation and speculation. In fact, I say this the more confidently from my believing that the main lode of the mine has not yet been struck upon; that merely pioneer shafts have been sunk, which, however, having already yielded rich samples of valuable ore, make one feel sanguine of raising profitable returns when once the main lode of the mine has been actualy reached.

Those who have taken suficient interest in the germ theory of disease to read al that has been recently writen upon the subject must be perfectly conscious that it has already not only aduced facts which have given an entirely new complexion to our ideas regarding the etiology of epidemics of both temperate and tropical zones, but even of the pathology of boils, absceses, erysipelas, gonorhœa, and chancre. So that it may safely be prophesied that as our knowledge of the life-history of epizootic and miasmatic poison germs becomes more extended our ideas of the nature of al diseases, without exception, wil materialy change. This I am sanguine enough to believe must of necesity be the case, for even within the last five years a clue has been aparently found in the writings of Pasteur, Lister, Billroth, Ewart, Buchner, Watson Cheyne, Ogston, Koch, Wolff, Klebs, Neisser, Obermeier, Recklinghausen, Bastian, Tyndall, Rindfleisch, Stromeyer, Letzerich, Birch-Hirschfeld, Waldeyer, Carter, Bell, Ballard, Greenfield, Sanderson, Taylor, Riess, Coze, Feltz, Frisch, Vogt, and Israel, to some of what have heretofore been considered the most obscure parts in the history of contagious and infectious diseases. These writers have in different ways shown, from direct observations made on the human subject, how typhoid fever can be distributed by contaminated water; how scarlet fever can be propagated by the milkman's can; how woolsorters' disease can be comunicated from a sack of horsehair, brought al the way, it may be, from the stepes of Russia. Nay, more, Obermeier has shown that a germ named "spirilum" is invariably present in the blood of patients sufering from relapsing fever (*Centralblt. Med. Wissensch.*, 1873, p. 145). Manson has shown that elephantiasis is due to the presence of a filaria in the bloodvesels. Lewis and Bancroft have stated that chyluria and lymph-scrotum depend on the existence of the same parasite in the lymphatics, and it has been long known that the eating of bread made of spured rye (a disease of the plant produced by a fungus) gives rise to fever and local inflamations ending in mortification of the parts so afected, be they the toes, the fingers, or the point of the nose.

It has equaly for at least more than a quarter of a century been known that a chronic form of gastritis, acompanied by frothy vomiting, is entirely due to the presence of a microscopic organism caled the sarcina ventriculi, which exerts its pathological powers by producing violent fermentation in the contents of the stomach, in which it multiplies to a suficient extent to give to the ejected maters a green apearance. One of the most careful experimenters of the present day again—Mons. Pasteur[1]—has clearly shown that he can give anthrax, Siberian catle-plague, to sheep by watering their food with disease germs. He has also equaly clearly demonstrated that "chicken-cholera" can be propagated by inoculating fowls with bacteroid disease germs. Again, the experiments of Dr. Vandyke Carter on the artificial introduction of the spirilum parasite into the subcutaneous tisues of animals, monkeys, &c., show that not only are marked febrile symptoms—after a period of incubation—the result; but anatomical lesions in some respects resembling those met with in contagious jaundice—namely, "congestion of the mucous membrane of the stomach with minute petechiæ about the midle of the viscus, while both the liver and the spleen are congested" (Medical and Chirurgical Society's Transactions, vol. lxiii., p. 140). Here from spirili we have not only, as Dr. Carter remarks, a congested liver, but blood extravasation, exactly analogous to what ocurs in the preliminary stage of the black vomit and tary ejections, not alone met with in contagious jaundice, but in acute atrophy of the liver, as wel as in the malarial jaundice of the tropics;[2] while splenic fever has equaly been shown, by experiments on animals, to be the product of a germ caled bacilus anthracis. Talamon says (in a comunication he made to the Société Anatomique de Paris, 1880-1) that by inoculating a specific bacilic form of organism into the mucous membrane of the mouth of animals (rabits, guinea-pigs, &c.) he obtained the formation of a false membrane, and an œdematous condition of the submucous conective tisue exactly analogous to what ocurs in diphtheria in the human being, and that the false membrane thus artificialy produced contained similar bacilar organisms to what ocur in true diphtheria. Aded to this the folowing paragraph in the *British Medical Journal* of Nov. 6th, 1880, also tends to throw light on the etiology of malarial as wel as of contagious jaundice.

FIG. 1.



"Dr. Lauchlan Aitken of Rome writes to us:—'The proof of the existence of a specific malarial germ has just received important confirmation. At the Italian Medical Congres held in September at Genoa, Dr. Marchiafava, asistant to the Profesor of Pathological Anatomy at Rome, anounced that he had found the bacilus malariæ in the blood of three patients during the cold stage of the malarial fever from which they sufered. Since that time twenty-four cases have been examined, with the result, in every instance, of showing the presence of the bacilus in the blood during the period of invasion, while the spores alone could be seen when the fever was at its height. The same careful observer, as long ago as last autumn, had found the rods and spores of the bacilus in the lymph, blood, spleen, and medulary cavities of bones at the post-mortem examinations of three persons who had died from pernicious fever, but no one had hitherto suxeeded in demonstrating the presence of the bacilus in the blood of living patients, owing to the specimens examined having been always taken during the hot stage of the fever. Profesor Perroncito of Turin (one of the leading mycologists of Italy) has repeated Dr. Marchiafava's observations in the Hospital of Vercelli, in Piedmont, which anualy receives about four thousand cases of malarial fever, though not of a pernicious type, from the surounding district, which is covered with ricefields. The result is that he, too, has found the bacilus, ocasionaly in large quantity, in the blood, during the cold stage of al the cases examined, and sometimes also in the last hours of the intermitent period. I saw, to-day, at the Santo Spirito Hospital, a specimen of blood within five minutes from the time when it had been taken, with al due precautions, from a patient just entering on the cold stage, which contained two or three bacili in al respects identical with those exhibited at Cambridge, got, it may be recolected, by the cultivation of some mud from near Selinunte, a very malarial port in Sicily. Observations are now to be made, both at Rome and Vercelli, acording to a comon programe drawn up by Profesor Tommasi Crudeli, of the blood of the spleen drawn of by aspiration through a hypodermic syringe during the last hours of the intermitent period, and also of the perspiration and urine during the stage of resolution. Profesor Tommasi Crudeli hopes that British practitioners, who have many oportunities, both in India and the Colonies, wil make similar researches, but cautions them that a good ilumination is esential, and that it is useles to work with les than a one-eighth-inch object-glas.' "

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[1] Vide Compt. Rend., and Chemical News, 1880, 1881.

[2] The reason why, here and elsewhere, special reference is made in this paper to hepatic afections arises from the fact that it was originaly writen in the form of a chapter on the Etiology of Epidemic Jaundice in a new work entitled, Liver Diseases with and without Jaundice, which I purpose isuing in a few months, and it is only on acount of its containing much original mater, throwing considerable light on the germ theory of disease in general, that it is now being laid before the profesion in the pages of THE LANCET

With these preliminary remarks I shal now proceed to give a brief sumary of my views regarding this stil imperfectly understood question. In 1858-9, when the germ theory was begining to ocupy the atention of pathologists, and it was said that diphtheria was due to the fungus caled oidium albicans, growing in and upon the mucous membrane of the fauces, it ocured to me to test the mater experimentaly (see THE LANCET for Jan. and Feb. 1859) and while doing so I was led to make a series of physiological experiments with the expres view of ascertaining the folowing points :—

(*a*) If healthy vegetable microscopic fungi and their spores when introduced directly into the circulation of healthy living animals produce deleterious pathological results.

(*b*) If they do, to try to ascertain whether or no their pathological results were due to the mere mechanical presence of the fungi and their spores in the tisues and circulation, or to their posesing a special toxic action upon the animal system—acting, in fact, like true poisons; a poison being, as I define it, a substance which in minute quantity poseses the power of producing artificial disease, either alone, or artificial disease and death, by its action upon the nerves and other tisues of an otherwise healthy animal; poisons being either mineral, vegetable, or animal, and acting in one of two ways, either as dead chemical substances, or as living organisms—so-caled germ-parasites—which produce artificial disease in, and the death of, the animal they infest by virtue of their development and multiplication in its bloodvesels, lymphatics, and tisues.

(*c*) If, again, it were ascertained that living germs produce disease and death by specific toxic action, aparently in the same way as dead poisons do, to try to discover whether or no each individual species of germ posesed a deleterious specific something proper to its own organisation, or had merely axidentaly acquired poisonous properties from the soil in which it grew, and the materials upon which it chanced to have fed.

(*d*) If the severity of the pathological results folowing upon the introduction of living animal and vegetable organisms is in proportion to the abnormality of their source more than to their organisation.

(*e*) If animal germs are as deleterious to animal life as vegetable ones are.

(*f*) If the introduction of germ-spawn would be suficient to induce the same chain of pathological results as the introduction into the body of mature germs themselves.

(*g*) If physiological animal poisons, such as snake venom, act in the same way as pathological animal germs do.

These being the questions I set before myself for solution, and being already aware, from results I had previously obtained from the injection of putrid fluids, such as blood and milk, into the circulation of healthy animals, that the deleterious efects of decomposing animal mater are like those produced by mineral poisons as materialy influenced by quantity as by quality, before atempting to draw any conclusions, I determined to regulate as corectly as posible the quantity of materials employed in each experiment, as wel as the extent of surface with which they were brought in contact. This was al the more necesary for me to do from my entertaining the belief that al the manifestations of healthy animal and vegetable life observable by us are, as I said in the debate which folowed the reading of Dr. Marcet's paper on Respiration at High Altitudes, at the Royal Society in February, 1881, nothing else than the chemico-physical results of the active progresive oxygenation of organic compounds; while I am further of opinion that al the varying forms of decomposition and putrefaction of animal and vegetable mater, though the result of a retrograde proces of oxygenation of organic mater, is acompanied by, and indispensably conected with, the development and multiplication of living organic and organised germs.

Moreover, believing as I do that there are both animal and vegetable disease micro-organisms—colectively named germs,—and perhaps even a third species ocupying the debatable land between the animal and vegetable kingdoms, al of which live and breathe[3] just as big animals and plants do, I selected for my experiments the folowing materials :—

a. Vegetable ferment germs, from German yeast. *b.* Vegetable fungi and fungi spores, from the surface of decomposing wheaten flour paste. *c.* Vegetable oidium albicans, from decomposing healthy gastric juice. *d.* Vegetable fungi and spores of fungi cultivated in an aqueous solution of decomposing muscle. *e.* Vegetable green fungi and spores of fungi grown on the scum of putrefying snake's intestines.—*f.* Animal ferment germs, Brownian granules, vibriones, &c., from putrid normal gastric juice. *g.* Animal ferment germs, Brownian granules, vibriones, &c., from macerating diseased bones. *h.* Animal heterogeneous micro-organisms, from foul-smeling disecting-room macerating-trough. *i.* Animal germ-spawn, obtained separated from mature organisms by filtration through thick white filter-paper. *j*, and lastly. Physiological animal poisons from cobras and puf-aders.

The experiments were conducted in the folowing wise, and, in order to enhance the comparative value of their results as near as posible, under precisely the same conditions. The animals used were adult healthy dogs and rats, and always operated upon at the same period of digestion. The materials employed were always suspended in distiled water, and slowly injected into either the jugular or femoral veins, or under the skin of the animal's back. The fungi taken from putrid solutions were carefuly washed with distiled water on a filter before being used. Some trifling variations made in the mode of experimenting wil be specialy aluded to in each report of the special experiment.

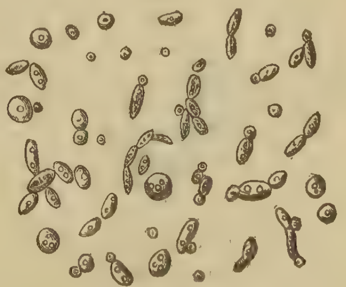
The order in which the experiments were conducted—both as regards the vegetable and animal micro-organisms—was first to take the normal, then the abnormal, begining with those suposed to be the most benign, ending with what was regarded as the most virulent.

Every experiment was repeated twice, and if the results obtained were not in both cases identical, it was repeated until I was satisfied that the result was trustworthy. I shal now give examples of each experiment, the results of which, if carefully read, speak for themselves.

Efects of Vegetable Germs Artificialy Introduced into the Bodies of Healthy Animals.

(A) Mixed with an ounce of distiled water a quantity of friable German yeast paste, Sacharomyces cerevisiæ, which, under the microscope, showed large spores of an average diameter of $\frac{1}{400}$ m.m., besides numerous Brownian granules in active movement, together with a few elongated cels,

FIG. 2.



Yeast plant.

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[3] Hatton (Chemical Society's Journal, p. 247, May, 1881) found that bacteria absorb oxygen from the atmosphere, and give back carbonic acid just as large animals do, and the hoter the weather and the sunier the day the more active are their respiratory proceses.

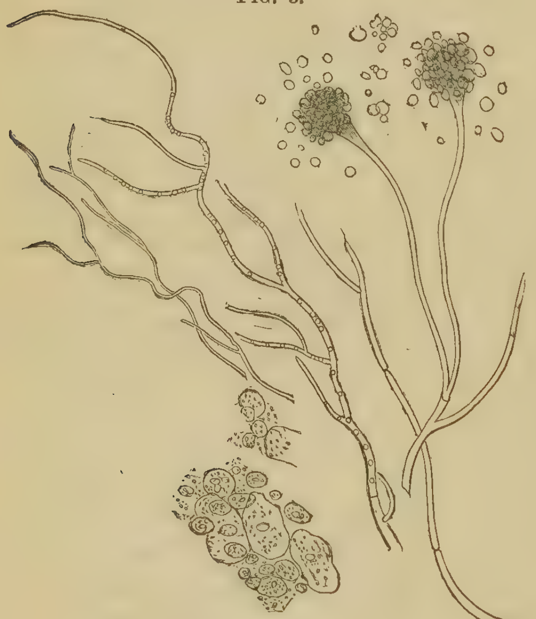
partly with granular contents, partly with one, two, and sometimes three distinct nuclei in them. Many of the spherical spores posesed also one and sometimes two nuclei. After brisk agitation, on standing for a minute or two, the distiled water stil retained in suspension enough of the yeast to give to it an opalescent milky apearance. This mixture was then slowly injected into the left jugular vein of a healthy dog. The result was absolutely *nil.* For neither imediately after the injection nor for seven days subsequently did the animal manifest one single pathological sign or symptom. As the animal refused either to die or become il on the eighth day it was kiled, and a careful post-mortem examination made.

The tisues when examined after death al apeared healthy. Its blood ran into beautiful normal rols, and looked in every respect perfectly normal. Not a fungus filament nor a fungus spore was to be seen in it, which proved that they had been destroyed in, and eliminated from, the circulation. But what destroyed them, or whether their elimination took place by the kidneys, lungs, or skin, there was no evidence to show.

(B) The next point was to ascertain if other kinds of fungi and fungi spores were equaly harmles as yeast ferment when introduced into the circulation of a healthy animal; and with the view of ascertaining this point the folowing experiment was made. A quantity of the green flowering fungus which grows so luxuriantly on old wheaten flour paste was colected, and wel washed with distiled water; after which as much of it was aded to a fresh quantity of distiled water as it could suspend for a few minutes, after brisk agitation with a glas rod, and an ounce of the mixture slowly injected into the right femoral vein of a healthy, ful-sized English terier dog. No imediate efects were observed; but on the folowing morning it looked drowsy and listles. This efect soon, however, pased of, for it was, to al apearance, perfectly wel the next morning, and so remained.

(C) Being satisfied that these kinds of microscopic fungi, grown in decomposing vegetable soil, produced no deleterious efects on healthy animals, I proceeded a step further, and tried to ascertain if the same kinds of fungi grown in decomposing animal soil were equaly inocuous to animal life.

Fig. 3.



Oidium albicans.

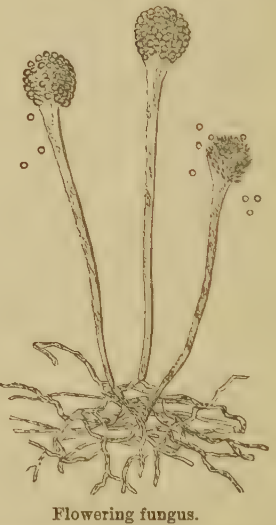
A quantity of oidium albicans, which I had artificialy reared in normal gastric juice, obtained from a dog's stomach through a fistulous opening, after being washed was aded to, and suspended in distiled water in the maner already described; but as it was rather lumpy it was strained through a muslin cloth before being injected, and to make sure that both filaments and spores went through the cloth a drop of it was examined under the microscope. Finding that the strained water was loaded both with spores and filaments, an ounce of it was slowly injected into the jugular vein of a healthy, nearly ful-grown, mongrel pointer dog. It produced no imediate efect, but on the folowing day the animal semed out of sorts. It began to get beter on the next, and three days after the injection was made it had perfectly recovered.

Having now, as I thought, learned suficient of the efects of injecting into the circulation of healthy animals what might be caled non-deleterious vegetable fungi and fungi spores, it was deemed advisable to advance at once a step further, from the simple to the complex, and consequently I

(D) proceeded to inject into the right femoral vein of a healthy dog the same quantity (as near as could be guesed) of the filaments and spores of an oidium albicans fungus, after having wel washed it with distiled water, artificialy cultivated in a putrid solution of human diseased muscle. Next day the animal apeared out of sorts, and continued so for several days, but by the end of a fortnight it was perfectly wel. Here be it observed more decided toxic efects were produced than in the preceding case. This I believe was due to the fungus employed having been grown in a more deleterious kind of putrid animal fluid, and its probably having imbibed some of the liquid's putrescent ingredients. On pushing this mode of experimenting a stage further, the folowing stil more marked toxic symptoms were obtained:

(E) I took a quantity of microscopic green fungi in ful bloom from the scum on the surface of water in a dish containing the putrefying intestines of a cobra (the animal that kiled his keeper at the Zoological Gardens), and to make sure, as far as was posible, that none of the animal germs in the scum were left adhering to the external surface of the fungi, washed them in seven diferent quantities of pure distiled water; then aded them to a fresh quantity of distiled water, which on brisk agitation became of quite a green color, and a puf-bal-like odor. An ounce of this saturated water was now injected into the right jugular vein of the same terier dog as was employed in experiment (B), which apeared to be in buoyant health. This was done on a Saturday, and when the dog's kenel was next visited on Monday morning, which was not for forty-four hours, it was found not only dead, but quite stif, with rigor mortis, and its tongue hanging out of its mouth. The left side of the heart was contracted upon a smal, but not firm blood-clot, in which there was no separation of red from white coagulum visible. The thoracic organs apeared to be more than usualy ful of blood, and the thymus gland was decidedly congested. The trachea and the epiglotis also had their vesels congested, and in half a dozen diferent places there were smal mustard-seed-sized extravasations of blood in their mucous membranes. In the duodenum, again, there were equaly signs of extravasation, and about five inches from the pylorus four ulcerations,

Fig. 4.



Flowering fungus.

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[4] These figures of fungi are taken from the 2nd Edition of my "Histological Demonstrations" (Longman and Co.), in the Morbid Anatomy part of which wil be found figured several other kinds of the fungi and algæ which attack the human body.

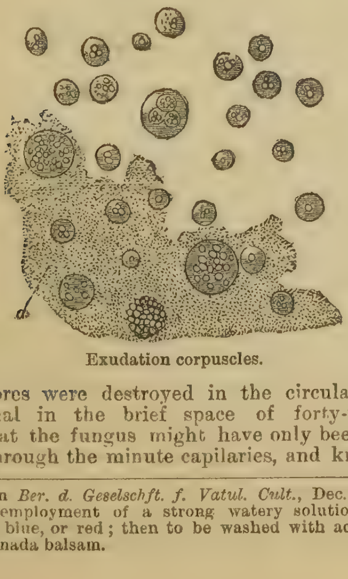
in a row, of the size of threepenny and fourpenny pieces, looking in some respects like abrasions. Blood extravasations are, as is wel known, comon in al putrid fevers. Dr. Greenfield, in a lecture on Anthrax published in THE LANCET in the early part of 1881, states that he noticed similar echymotic or hæmorhagic conditions in the carcases of catle which had become infected with anthrax from drinking infected water, and that the echymoses were invariably found to be due to thrombosis of the vesels by means of the germs caled "bacili," the bacili being frequently also found in the capilaries of the lungs and spleen. While in the internal anthrax known as woolsorters' disease Dr. Greenfield noticed a similar state of maters as I discovered to exist in some of my dogs operated upon—namely, that there were echymoses and hæmorhages along the course of the trachea. He even in some cases found extensive hæmorhages in the bronchial glands, and in al bacili were detected. The thymus gland in my experiment was decidedly inflamed.

The blood of this dog was found coagulated both in the heart and large vesels, and when examined with the microscope nothing was noticed abnormal about it, except that the wals of the red corpuscles on the adition of water broke down with unusual speed, and alowed the escape of their contents. Bacteria and bacili, being unknown organisms in those days, were of course unlooked for, but had any germs been visible without special preparation, it is probable they would not have escaped detection. However, the fact of none having been seen by me does not prove that none were present; for germs may be present in abundance in blood, and yet escape observation even when looked for, unles a special means is adopted to render them visible. Thus Koch tels us that in the blood of a mouse which he poisoned by injecting under its skin putrefying blood, he could detect no organisms by the ordinary means of microscopic investigation; whereas after using aniline dye[5] with a good ilumination he found lots of bacili, even within the white corpuscles.

With regard to the condition of the blood in this dog, it may be mentioned that in the first place, before the injection was made, half an ounce of blood was withdrawn from the jugular vein, and to it was aded some of the same fungi and sporules as were injected. After being wel mixed together, the mixture of blood and fungi was put on one side, in order to observe what would ocur in it, and to compare the result with blood which had been impregnated with the fungi and sporules in the living circulation of the animal.

On the blood that had the fungus aded to it after its removal from the body being examined, abundance of both fungus filaments and fungus spores was found in it, whereas, strange to say, not a single fungus filament, and only a very few fungus spores, could be detected in the blood taken from the dog after death; which proved not only that the spores did not develop, but even that the fungus filaments and the spores were destroyed in the circulation of the living animal in the brief space of forty-four hours. Thinking that the fungus might have only been arested in its pasage through the minute capilaries, and knowing that if so the easiest plan to detect fungi filaments and spores in the capilaries would be in those of the lungs, diferent portions of the lung-tisue were carefuly examined under the microscope by myself and several of my pupils, but not a vestige of fungus filament or fungus spore was anywhere to be met with. Nevertheles, the blood had been very materialy afected by the introduction of the fungus into the living circulation, for it was found by a carefuly-conducted experiment in my gas laboratory at University Colege that it had lost its power of becoming scarlet on being oxygenated by exposure to atmospheric air. It even only slowly oxygenated when put into a receiver with pure oxygen. In the second place, it contained an imense number of white blood-corpuscles. In the third place, it contained a number of large, pale, *nucleated* cels, identical in morphological character with what are known to morbid anatomists as exudation corpuscles, which showed beautiful nuclei on the adition of acetic acid.

FIG. 5.



Exudation corpuscles.

This experiment, on being repeated, did not yield such striking results. Yet, as it was in every other respect identical, I came to the conclusion that the soil the fungus grows in, and the food it lives upon, has a material influence on its constitution and properties, for I consider that the gentle and repeated washings to which the fungi had been subjected were suficient to remove from their surface al the toxic animal micro-organisms of the fluid in which they grew; certainly, at least, not to leave behind adhering to the filaments and spores suficient of them to have produced death in a healthy animal within forty hours after their introduction into the body,—the adoption of which idea, the belief in the later theory would, of course, necesitate.

From the results of these experiments on vegetable organisms the folowing conclusions were drawn:—

(*a*) That certain kinds of vegetable germs are not deleterious — even when introduced into the circulation — to animal life.

(*b*) That certain kinds of vegetable spores can neither develop nor survive in the circulating blood of a healthy animal.

(*c*) A fungus which may have no toxic properties when grown in one soil, may acquire toxic properties suficient to be deleterious to animal life when grown in another.

(*d*) Certain kinds of fungus spores and filaments, when they produce pathological changes in the animal body, do so by virtue of their inducing chemical changes in the blood, and not merely by mechanicaly interfering with the vital proceses.

(*e*) That the healthy animal organism poseses the power of destroying and eliminating certain kinds of living microscopic spores and filaments of fungi from the circulation.

Some of these conclusions have in a measure been curiously borne out by the results of subsequent experiments made by Continental observers on the inoculation of animals with tubercle. Tuberculous inoculation produced tuberculous deposits, but the inoculation of calves' brains, and other equaly benign animal substances, produced nothing but trivial temporary local iritation, the foreign materials introduced being rapidly eliminated from the healthy organism. While my opinion regarding the fungi receiving poisonous properties from the soil in which they grow is confirmed by Dr. George Thin having found (Royal Society's Proceedings, March 3rd, 1881) that bacteria germs take up from the maters among which they grow even the minute solid particles through their wals.

Having finished, for the time being, with vegetable organisms, I next turned my atention to the discovery of the efects that might arise from the injecting of minute animal organisms into the circulation of healthy animals, which subject shal be considered in the next chapter.

BRISTOL ROYAL INFIRMARY.—A most successful appeal has recently been made in Bristol in aid of an old debt on the Bristol Royal Infirmary, of £10,200. The movement was commenced by a promise of £1000 by Mr. Dod of that city, on condition that the remaining £9200 was raised within three months. Mr. Charles D. Cave, the president, immediately set to work, and a public meeting was convened at the Guildhall, Bristol, on April 29th, presided over by the Mayor. Grave doubts were entertained as to the possibility of raising so large a sum within the specified time; but, by the energy and influence of Mr. Cave, in less than one month from the day of the meeting £9437 was obtained, thus securing Mr. Dod's offer with upwards of £200 to spare.

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[5] Weigert, in *Ber. d. Geselschft. f. Vatul. Cult.*, Dec. 10th, 1878, recomends the employment of a strong watery solution of aniline-methyl, violet, blue, or red; then to be washed with acetic acid, and mounted in Canada balsam.

VACCINATION AND COW-POX INOCULATION.

By THOMAS NEWHAM, M.D.

THERE cannot be a fitter time for writing on the above subject than the present. Our old enemy, small-pox, is gaining ground in London, and occasionally spreading his arms so as to embrace our retired country districts. To us, who look to the statistics of the disease in our great towns with unfailing interest, the subject creates food for much thought. Is the spread of the disorder due to want of vaccination, imperfect vaccination, or imperfect isolation? The want of vaccination, or rather absence of vaccination, must necessarily prevail most in crowded cities. The opportunities for evasion of the law are much greater, and are resorted to by a class very much under the pernicious influence of the anti-vaccinationists. People migrate from street to street, and even into the country, with children utterly unprotected by vaccination. The increased facilities for migration, and the almost impossible task of perfect supervision, are thus great factors in absence of vaccination. It is easy to see that as these unprotected persons grow up they are simply so many firebrands for the spread of disease.

Of imperfect vaccination as a cause of the increase of small-pox I wish to speak with diffidence, and only from my own observation. To assert that this is a fertile source of the spread of small-pox is only to propound a truism. There are many reasons for such imperfection: obstinacy of parents, abstraction of lymph from the punctures by suction or other means, mistakes as to the age of lymph inserted, weakening the lymph by over-straining the source of supply, and the acceptance of vesicles which are neither true nor sufficient in their protective character. Every vaccinator must have seen instances of the crass stupidity of parents in endeavouring to remove the lymph from the arm. Suction by the mouth, poulticing with smashed turnips or carrots, and other devices, have been openly advised by anti-vaccinationists. The effect has been to seriously interfere with the formation and development of the vesicles, and to render them inoperative. The other causes of the non-efficiency of vaccination are dependent on the operator, arising from no wilful carelessness on his part, but very often by stress of circumstances. Take, for instance, the mistakes in the age of lymph. Children are inspected on the eighth day. There may be very fine vesicles full of lymph. The child may be healthy and strong. Other children are waiting to be vaccinated and the parents desirous to have this particular matter. The operator consents to their wishes with the result of a production of a crop of equally fine vesicles the next week. But there is "the little rift within the lute" denoted by too much areola, and too much lymph. Apparently effective, the vaccination is extremely limited in its protectiveness. The over-straining the source of supply may be due to over-demand and stress of circumstances. It cannot be too clearly understood that a great deal of the lymph standing in beads upon the vesicle is totally useless, and that the best cases must not be drawn upon to excess. That all these causes are at work, if not actually assisting in the spread of small-pox, yet forming only a weak barrier against its ravages, is amply proved by inspection in after years. During a long series of years I have had frequent opportunities of studying the effects of primary vaccination. It has occurred to me on several occasions of threatened spread of small-pox to be called upon for an opinion as to the advisability of revaccination. I have seen many instances where the marks showed very imperfect primary results. Very recently I have had unusual facilities for inspecting such results. The marks have been most varied in character. Some arms have presented only one mark—others, two and three. In some there have been only slight indication of puncture; while in others there have been large cicatrices—smooth, white, non-foveolated, unprotective. The whole of the inspections were of persons of adult age. I revaccinated the majority of the inspected persons with the result of producing in all the true Jennerian vesicle. In all the cases there was the usual malaise, the feverishness and the gradual and true rising of the pock indicative of perfect vaccination. I look upon this instance as fully supporting my theory, that one of the great aids to the diffusion of small-pox is imperfect vaccination. Whatever may be said by the opponents of the operation, one indubitable fact remains—that vaccination engenders confidence in the public mind, and great security is felt in its beneficent influence. It is our duty, therefore, to see that such confidence is not misplaced; and it is also our duty to insist upon revaccination whenever there is a chance or a fear of infection from small-pox. The readers of THE LANCET are quite conversant with the imperfections of all kinds of isolation. Communications of every sort are kept up with the outer world. If you attempt separation on a small scale, and impose stringent regulations, they are recklessly broken. Are we, then, to make no attempt in this direction? We are bound to do our best, but we shall never succeed in our efforts without revaccination. I have on several occasions stopped an epidemic of small-pox by establishing a cordon of vaccinated persons round the infected patient. However wise our precautions may be, revaccination is the only one absolutely reliable.

The remarks I shall have to make upon cow-pox inoculation are called forth by the letter of Dr. Battye in THE LANCET of April 9th. Dr. Battye says: "I hitherto understood that one who had had natural cow-pox was insusceptible to vaccine lymph from the human subject." The data upon which we have to form our opinion of the protective powers of natural cow-pox are extremely limited. In conjunction with, and separately from the late Mr. Ceely, I have examined numerous cases of so-called cow-pox in the cow and in the human subject. The investigations and writings of my late friend will always remain a monument of patient labour and scientific research, and, while I could never hope to imitate him, I did, at least, catch some of his enthusiasm. Mr. Ceely often declared to me that cases of natural cow-pox were extremely rare. He had often been sent for to see cases of supposed cow-pox, but had been disappointed at finding them spurious. My limited experience confirms his. Out of fifty or sixty investigations, I have only seen one true case, from which I vaccinated two children with perfect results. This was proved by their complete insusceptibility to subsequent vaccination from the human subject. So far, then, Dr. Battye's ideas are correct. Cows, however, are subject to eruptions upon the teats possessing many similar points to natural cow-pox. There is a supposed vesicle which is a bulla. This dries up and leaves a crust. The contained fluid is contagious. It affects the hands and arms of the milkers. The eruption and the attendant symptoms are violently inflammatory, with frequent axillary abscess. But it is not cow-pox, and used to be a frequent cause of over-confidence in the persons affected. I have vaccinated one or two cases of this sort from a child's arm, immediately after the eruption from the cow had declined, with the result of producing perfect vaccine vesicles. These facts go to prove that all accounts of natural cow-pox must be received with caution, and the more so as even the eruption which I have attempted to describe, not to mention the real disease, is rapidly dying out altogether in the vale of Aylesbury as well as in my own milk-producing district.

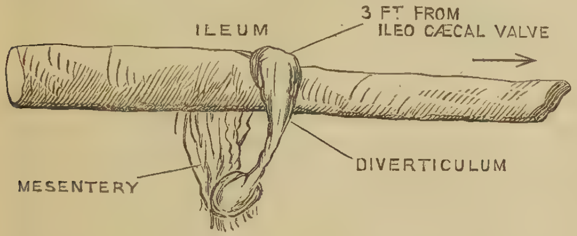
Winslow.

FATAL CASE OF INTESTINAL OBSTRUCTION FROM A DIVERTICULUM.

By J. SINCLAIR HOLDEN, M.D.

J. B——, aged thirty, a groom, had all his life suffered from irregularity of bowels, but was otherwise healthy. Lately he had an attack of diarrhœa, which stopped suddenly, and was immediately followed by vomiting and sharp colicky pains. In spite of treatment this continued, and in a few days the vomited matter was stercoraceous. On the fifth day I saw him in consultation with his medical attendant, Mr. Jones of Long Melford. There was scarcely any tympanites. In the region of the ileo-cæcal valve there was dulness, with gurgling and pain on pressure; the colon and lower bowel were empty, the temperature was normal, and the pulse 84. The vomiting continued, but was chiefly drink or food that was taken. The obstruction was evidently either at the valve or just above it, but as there were no inflammatory symptoms, we gave him five grains of calomel. This acted freely, and removed the pain and dulness from the right inguinal region, so that we had some hope that the obstruction had yielded; however the vomiting persisted, and the man died rather suddenly on the ninth day.

At a post-mortem examination made the following day, on tracing the ileum from the valve upwards, at a distance of about three feet, there was found a diverticulum about four inches long, extending from the upper surface of the ileum to the mesentery below, to which its end was attached.



Under the bridge thus formed there had passed a loop of ileum, a foot and a half long, almost black from intense congestion. The strangulation was incomplete, but as the congestion extended some distance higher, probably more gut had been involved during the man's illness.

The diverticulum was evidently congenital. The tube, where it sprang from the ileum, had an aperture of an inch; it then got narrow, and dilated into a cul-de-sac as large as a cherry. This was the only part adhering to the mesentery, to which it seemed naturally and firmly attached. The ileum abruptly narrowed from where the diverticulum branched off.[1]

I observe that a specimen of a similar diverticulum arising from exactly the same part of the ileum was shown at the Glasgow Pathological Society in May, 1875. Is this a coincidence, or do diverticula occur oftenest in this locality? If so, perhaps comparative anatomy could throw some light on the subject.

I shall be pleased to send the specimen to anyone who is specially interested in these peculiar appendages.

Sudbury, Suffolk.

INTERESTING SURGICAL CASES.

By J. D. T. RECKITT, L.R.C.P., L.R.C.S. EDIN., &c.,

LATELY HOUSE-SURGEON TO THE NEWARK HOSPITAL.

FRACTURE OF SKULL; EFFUSION OF CEREBRO-SPINAL FLUID BENEATH THE SCALP; ASPIRATION; RECOVERY.

ON Sept. 6th, 1880, J. W——, aged two years and a half, was knocked down by a passing cart, the wheel striking against his head. The child was insensible for several hours. Mr. Greenwood saw it at home, and ordered cold lotions and quiet. Two or three days after the mother noticed some squinting, and a swelling of the scalp as large as a hen's egg over the right parietal and temporal bones. Child partially conscious, but unable to walk or speak. The following week Mr. Greenwood let me see the case with him, and we could then make out a fracture of the parietal at its junction with the squamous portion of the temporal bone. It was decided to aspirate the tumour, which I accordingly did with the smallest needle, and drew off an ounce and a half of a light-yellow clear fluid. A pad of lint was applied, and firm pressure by a bandage, and this pressure kept up for a week, at the end of which time the swelling had disappeared and the squint too, but the loss of power over the legs remained. After the fluid had been drawn off the fractured part could be distinctly felt, and there was a hole at the squamo-parietal suture large enough to admit the tip of the index-finger.

Remarks.—From the existence of the squint prior to tapping the tumour, it might be inferred that we had to deal with a case of traumatic meningocele, the protrusion of the meninges through the separated bones and effusion of cerebro-spinal fluid within causing pressure upon the whole encephalon, and so producing the squint; at any rate, the fact remains that the squint disappeared with the fluid, which on careful testing was found to contain only a very slight amount of albumen. Two months after the accident paraplegia remained, and it is therefore certain the spine was run over or otherwise injured.

LITHOTOMY IN A CHILD AGED TWO YEARS AND EIGHT MONTHS.

William W——, aged two years and eight months, came under the care of my brother, Mr. Edward B. Reckitt, of Boston, Lincolnshire, on Feb. 4th, 1881, and through whose kindness I operated. The patient had shown the symptoms of calculus vesicæ for about sixteen months. He had lately emaciated very much, and the calls to micturate were very frequent and the suffering great. No blood ever voided with urine, but the prepuce was much elongated and reddened; no family history of stone.

Feb. 5th.—Under chloroform the bladder was sounded and stone detected.

6th.—Again under chloroform the left lateral operation was performed, and owing to the escape of urine on introducing the staff there was some little difficulty in getting a hold of the stone with the forceps, but with the scoop it was easily removed, and found as large as a chestnut and to be composed of lithic acid with an outer coating of phosphates. The child did well without any bad symptom, the wound at the end of a fortnight being healed.

Remarks.—That so large a stone should be found in the bladder of one so young surprised us. It is likely to have been formed congenitally.

Skegness.

CASE OF CÆSAREAN SECTION.

By JOHN H. GALTON, M.D. LOND.

M. L——, aged thirty-four, has had six children, all healthy labours. In 1873 was in Soho-square Hospital with misplacement of womb; was a widow for four years; married again in 1876; no pain or uterine discharge except leucorrhœa till after her second marriage. Soon after this, discharge, occasionally offensive and sometimes tinged with blood, came on, and for the last year she has had dull heavy pain, chiefly in the left side and back, sometimes darting down the thighs. She last menstruated on March 13th. On coition lately she has had bleeding. Labour-pains came on at 6 P.M. on Sept. 27th.

I saw her for the first time at 9 P.M. on that day. On examination I found the vaginal portion of the cervix absent, and the os surrounded by a hard nodulated mass of tissue with ulcerated surface, and bleeding slightly on pressure. There was no uterine pain during my stay, and, thinking that real labour had not commenced, I gave a dose of opium, hoping to defer interference till full term. At 11 A.M. on Sept. 28th I found that labour-pains had gone on regularly during the night, and were now at intervals of five minutes, with firm prolonged uterine contraction during the pain. The os was quite unchanged, and would not admit the tip of the finger. The uterus was enlarged to midway between the umbilicus and the ensiform cartilage, and the placental souffle was audible on the left side.

On consultation with my partner, Mr. Sidney Turner, it was decided to perform Cæsarean section, which was done at 11 A.M. with his assistance and that of Mr. Plimmer. The patient having been placed under the influence of chloroform an incision four inches long was made in the abdominal wall, in the linea alba, commencing half an inch below the umbilicus. The wall being very thin, the first puncture penetrated it and the uterine wall, and was followed by a gush of bloody fluid from the uterus, which spurted out strongly in a stream the size of a goosequill. This was stopped by finger pressure, and the rest of the incision continued down to the subperitoneal fat. The peritoneum was then divided throughout the length of the incision, on the fingers, and the uterus exposed. On enlarging the puncture already made it was found that the portion of the placenta lay immediately beneath the incision. The placenta was stripped off the uterus by the fingers, and the incision in the uterine wall prolonged downwards on a director. The head of the fœtus was first extracted, and the body and placenta easily followed. The fœtus was female, aged about six months and a half, born alive, but soon died. A portion of omentum and one coil of bowel at the upper part of the wound gave some trouble, but were kept back by moist warm flannel, and escape of liquor amnii and blood into the abdominal cavity prevented by firm pressure with the hand upon each side of the abdominal wall. About the average hæmorrhage of an ordinary confinement followed the extraction, and the uterus was cleared of clots three times by the hand. When the blood had ceased to well up from the uterine incision the edges of it appeared well in apposition, and the uterus was firmly contracted. It was decided to place no sutures in the uterine wall. Four silver-wire sutures were applied at intervals of an inch throughout the entire thickness of the abdominal wall, including the peritoneum, strips of strapping encircling the abdomen were placed between them, and a double pad of lint with a firm flannel bandage placed over the whole. One grain of opium was given, to be continued every four hours. At 11.30 P.M. the pulse was 130, feeble. Ordered milk in teaspoonful quantity, and ice to suck. At 4 30 P.M. pulse 108; temperature 101·6°; coughs occasionally with a little scream of pain. Exudation from wound slight. There is discharge of blood per vaginam. At 9.30 P.M. pulse 94; temperature 101·2°. Drew off a pint of urine with flexible catheter. Urine quite clear; no pain followed the emptying of the bladder. Abdomen very tympanitic, and distended above the bandage.

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[1] During the treatment of the case the operation of gastrotomy was considered, but deferred, owing to the relief of the bowels. The probabilities are that if performed the narrow part of the diverticulum would have been mistaken for an adhesive band, which it resembled, and at once divided, so releasing the strangulated bowels; but instead of the result being a successful operation, fatal peritonitis would have been the sequence, from having opened a communication into the bowel through the severed diverticulum tube.

Sept. 29th: Has not slept. At 5 A.M. very restless, moaning; after that could take nothing. At 11 A.M. vomited curdled milk; asking for water; urine thick, about half a pint drawn off. Pulse 140; temperature 101°. Discontinued milk and took a teaspoonful of Brand's essence of beef every hour, with ice at 5 P.M. Pulse 120; temperature 101°. Still vomiting. At 10 P.M. pulse 110; temperature 101°. Urine not so thick as in the morning. Ordered one drachm of brandy every three hours, milk, and lime-water.—Sept. 30th: Vomited all night till 5 A.M., then vomiting ceased; at 5.30 A.M. had severe shivering. At 12.30 A.M. had profuse diarrhœa; at 11 A.M. pulse 118; temperature 98·4°; very little urine, thick and offensive. At 4 P.M. pulse 116; temperature 98·4°. At 10 P.M. pulse 121; temperature 100·4°; pulse feeble, but regular; vomiting continues, only kept down by brandy-and-water. Ordered one drachm of brandy every two hours; asks eagerly for ale; allowed to take a wineglassful.—Oct. 1st: At 9 A.M. pulseless; temperature 101°; says that she is suffering no pain. Died shortly afterwards.

Necropsy twenty-six hours after death.—The abdomen was much distended at the upper part; decomposition had commenced. The edges of the abdominal wound were adherent, except at the skin edge, and this was united at only one of the sutures. The intestines were largely distended and universally injected with greasy surface; no adhesions. One part of the omentum especially was in a sloughy state. A large quantity of bloody serum occupied the pelvis and abdominal cavity. The uterus was completely down in the pelvic cavity. There was not any attempt at adhesion of the edges of the wound. Its internal surface was ragged in the front, fundus, and left side, and through part of the ragged surface the line of incision passed. There were no clots or other contents. The os presented a nodulated, broken-down mass, through which the finger passed easily, and the cervix was thickened and infiltrated. Decomposition was too far advanced to admit of microscopical examination of the mass.

Remarks.—I have thought this case worthy of publication as from unsuccessful cases we may learn more than from more fortunate ones. By performing the operation we could only hope to save a few months of painful life, but we avoided the reproach of undelivered labour with a chance of prolonged life, and even in the unfortunate event gave a less painful mode of death. As to the use of antiseptics, we could have gained little by them in this case, as we had already a fetid ulcerating surface at the os, which we were bound to keep open, and could not treat by injection for fear of causing uterine distension and disturbing the healing of the uterine wound. The important question of uterine sutures is, so far as this case goes, answered decidedly in their favour. In a case in which the uterus acted as this did sutures of carbolised gut would certainly be useful, but the plan recommended by Dr. Barnes of applying the sutures through the uterine and abdominal walls is certainly contra-indicated.

Anerley-road, S.E.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

ST. GEORGE'S HOSPITAL.

TWO CASES OF CATARACT.

(Under the care of Mr. BRUDENELL CARTER.)

FOR the following notes we are indebted to Mr. W. Adams Frost, F.R.C.S., assistant ophthalmic surgeon.

The following cases of cataract occurring in young adults present some unusual and interesting points.

CASE 1.—Caroline A——, aged seventeen, stated that she had good sight until fourteen days before admission.

On admission there was a uniform milky white opacity of the right lens, no reflex from fundus. The pupil was active, and there was good perception of light. In the left eye the opacity was less dense, and not uniform, the opaque portions being scattered throughout the lens, and having a woolly appearance, and being separated by comparatively clear lens substance. There was good reflex from fundus, but no details were visible. The right lens was removed by suction, no irritation followed the operation, and the pupil was quite clear. Three weeks after the first operation the left lens had become completely opaque, and was also removed by suction. Result, with correction, $V. = \frac{20}{50}$, and 1 Jaeger at 8 inches puzzled out in each eye. This patient had been attending the gynæcological department for some months for amenorrhœa. There was no history of any other illness.

CASE 2.—Clara K——, aged twenty-three, a Frenchwoman who had quite recently come to England and entered a religious institution. She was in an extremely depressed condition, and was said to suffer from headaches, but no history of any definite illness was obtained. The patient spoke no English, and a detailed history was therefore difficult to obtain, but both the patient and her friends stated positively that her sight was perfectly good three weeks previously.

When admitted there was general haziness of both lenses, with striæ of greater density. $V. = \frac{20}{70}$. The patient was anæmic, of sallow complexion, and complained of headache and nausea. Both capsules were freely lacerated, and the lenses broken up with two needles. The pupils were kept well dilated with atropine, and a week later there was no irritation. The patient's general condition, however, had not improved, and her depression had increased. The soft matter was now removed by suction in both eyes; a very small quantity, however, remained behind in the right eye. A good deal of irritation followed the operation, and in the right eye there was much pain and ciliary congestion; the pupil became blocked with lymph and soft lens matter. On the sixth day after the suction operation, Mr. Carter being unable to attend the hospital for a few days, Mr. Frost attempted an iridectomy, but, owing to the rotten condition of the iris, which was pushed forwards, no definite portion could be removed. Some of the contents of the anterior chamber were removed by suction, but the greater part was too thick to flow through the cannula. The congestion remained undiminished, the cornea became infiltrated with pus, and the globe shrank. In the left eye a considerable amount of irritation followed the suction operation; this subsided, leaving a pupil closed by lymph. The annual cleaning of the hospital necessitated the patient's removal from ward to ward, and as it was, under these circumstances, impossible to obtain nurses who could understand her, and her mental depression was very great, she was discharged, and further measures on the left eye were postponed. She was afterwards admitted into another hospital for an iridectomy with division of the layer of lymph in the left eye.

Remarks by MR. FROST.—These two cases are remarkable for the rapidity with which the cataracts progressed. In a matter of this kind, of course a patient's statement must be accepted with caution, but in the first case the consistent manner in which the patient and her friends gave the date of the onset leads me to believe in its accuracy, and in the second the good vision of the patient three weeks before her admission was proved. Lately I have seen several cases in young adults—females—in which flocculent-looking opacities in the lens have come on rapidly without any apparent changes in the choroid and vitreous; in most of them there was some disordered menstruation, but the number of cases is insufficient to determine whether this is accidental or not. I have, however, never seen a case in which the whole lens became opaque in so short a time. The second case is important as showing what disastrous results may follow a suction operation. Mr. Carter tells me that many years ago he lost an eye after this operation, and believing that he had discovered the cause in septic infection by the suction curette, he has since always disinfected the instrument immediately before use. This precaution was taken in this case, and the untoward result is probably to be attributed to the general condition of the patient. Unable to see and surrounded by strangers, with whom she was unable to exchange ideas, she sank into a moping and despondent condition, from which she could with difficulty be roused to take nourishment. The rapid onset of the cataracts points, no doubt, to malnutrition and low reparative power; but the happy result of the preceding case shows that this alone is insufficient to account for the course the case took. Possibly, if it had been possible to converse freely with the patient, some cause would have been discovered for her extremely depressed condition, which was at the time attributed to her loss of sight. The removal of lens matter by suction is an operation which is very frequently performed, but the above and the two cases recorded by Mr. Carter ("Diseases of the Eye," 1875, p. 365) are the only ones in which I am aware of any untoward results having followed when the operation has been properly performed.

NORTH STAFFORDSHIRE INFIRMARY.

THREE CASES OF EXCISION OF THE TONGUE, WITH REMARKS ON THE VARIOUS MODES OF REMOVING THE TONGUE.

(Under the care of Mr. WILLIAM DUNNETT SPANTON.)

THE best method of removing the tongue is still an open question, and appears a fair subject for discussion.

CASE 1.—Betsy D——, married, aged forty, residing in the country, was admitted in December, 1875. She was in a delicate state of health, had never been very strong, having had a family of eleven children quickly; the last child born ten months previously, and she had suckled the child most of the time. She was also suffering from more or less menorrhagia. She stated that about two months before she had first noticed a spot on the left side of the tongue like a blister. It was hard, and for many months gave no pain or trouble. At the end of a year an ulcer formed, which soon began to spread and cause pain. On examining the tongue the left side was found to be involved by a large excavated ulcer the size of a date, with hardened edges and bleeding on the slightest touch. In the right half was a nodule the size of a horse-bean, hard and tender. No enlargement of glands, speech much impaired, and there was a copious flow of muddy offensive saliva. No history of syphilis. She was under treatment for some time before admission, and was advised six months before to have the tongue removed, but some domestic circumstances caused the operation to be postponed until Dec. 23rd. Chloroform was then administered, and the patient was placed in the semi-recumbent posture, the mouth was kept open by a screw gag, a stout ligature passed through the tip of the tongue. The mucous membrane of the floor of the mouth was freely divided round the lower jaw with scissors, the genio-hyoglossus and hyoglossal muscles cut through, and separated more completely by the finger. A needle having previously been placed through the base of the tongue, the chain of an écraseur was passed round the base of the tongue as low down as possible, and behind the needle. The chain was made to cut through slowly, and apart from the bleeding caused by the division of the muscles there was no hæmorrhage. The surrounding tissues, after removal, were found soft and healthy feeling. The patient bore the operation well, after which she was enjoined not to attempt to speak. A very simple milk diet was ordered, and the mouth to be frequently washed out with a lotion of iodate of calcium (one grain to one ounce). On the following day she could swallow comfortably. There had been no hæmorrhage, and she had slept well. Pulse 80; temperature 98·6° F. On the 27th she was progressing well; the surface of the root of the tongue was beginning to suppurate; deglutition was easy and painless. Temperature 98° F. On Jan. 1st, 1876, four days after the operation, the wound looked healthy, but granulating with slight suppuration; profuse flow of saliva; no fetor. General health much improved, and the patient anxious to be up. From that time improvement was steadily progressive; she gained flesh, and when she returned home a month afterwards was in better health and far more comfortable than she had been for eighteen months before. She could speak rather more plainly than before the operation; the copious flow of saliva continued, but was free from any peculiar offensiveness. She attended from time to time, and kept very well until she had the misfortune to become pregnant again. This was the signal for a fresh inroad of disease in the submaxillary and cervical glands, from which, soon after she had given birth to her twelfth child, she died, about eighteen months after the operation.

CASE 2.—George W——, aged fifty, living at Hanley, was admitted in December, 1878. The family history was good. He had been a smoker, but not for some years. A brownish spot on the tongue was first observed nine months previously. This gradually increased and began to ulcerate three months afterwards. On admission the right half of the tongue was covered with a foul ulcer, surrounded by infiltrated tissue, which extended towards the left side beyond the middle line. It was hard and very painful, so much so that the patient had eaten no solid food for more than three months. The submaxillary glands were slightly enlarged and tender. There was profuse offensive salivary discharge. On December 12th, at the patient's urgent request, the tongue was removed under the influence of chloroform, in the same manner as in the case above described. There was no hæmorrhage except the bleeding caused by division of the floor of the mouth, which was very trifling.

On the 14th he was free from pain, and was able to sleep naturally for the first time for many weeks. On the 22nd the slough had separated and solid food was taken, and next day he left the infirmary, the surface of the wound looking healthy; glands still enlarged but not painful.

This patient was seen from time to time at his own home, and he continued comfortable until March, 1879, when the disease extended to the fauces, and the glands of the neck became extensively implicated, and at the end of May he died, about five months after operation. Although in this case the respite was not a long one, the patient repeatedly stated that he was thankful for the operation, so great was the relief he obtained. It was infinitely more tolerable even at the last to have a swollen neck and throat rather than a loathsome mass filling up his mouth.

CASE 3.—Edward H——, aged thirty-four, living at Mow Cop, was admitted on September 12th, 1879. The family history was good. He had been a smoker many years. There was no distinct history of syphilis, though he had thirteen years before had a slight sore, which healed quickly and was never followed by any secondary symptoms. He first noticed a hard nodule in the right side of the tongue three months before admission. This soon ulcerated and caused great pain. The tongue on admission was found ulcerated over the right side for the greater part of its extent, with a hardened base; and there was a hardened nodule on the left side of the tongue. The discharge was profuse and offensive. The glands of the neck were slightly enlarged and painful. A decayed tooth was removed, and a mixture was ordered to be taken three times a day containing fifteen grains of iodide of potassium with a drachm of the solution of perchloride of mercury in decoction of yellow bark. The mouth to be washed out frequently with a lotion of chlorate of potash.

On September 27th, this treatment having produced no beneficial effect, the tongue was removed. The operation was commenced by an incision made to the extent of about two inches and a half from the right angle of the mouth across the cheek, reaching to the edge of the masseter muscle. This procedure facilitated the subsequent steps of the operation, which were the same as in the two previous cases. The cheek wound was secured by two harelip pins and a figure-of-eight suture. There was no hæmorrhage beyond the usual small amount from the mucous membrane of the mouth at the time, but about four hours afterwards active hæmorrhage set in, causing the patient to lose about ten ounces of blood before it could be controlled. By reopening the cheek-wound the bleeding vessel was readily secured and ligatured, and there was no recurrence. The great use of the cheek-opening was then appreciated, for it would have been almost impossible to have secured the vessel without it.

On the 28th he had slept well and felt comfortable. The wound in the cheek which had been left open was reunited. The mouth was syringed out frequently with chlorate of potash lotion.

On Oct. 3rd the cheek wound was quite healed. The slough in mouth was separating. He had no pain, and took beef-tea and milk food freely.

On the 9th he spoke without pain; the slough had separated. The glands were smaller and painless.

On the 17th he returned home with the surface healed; glands were still slightly enlarged, and there was free discharge of saliva, but quite inoffensive.

On Nov. 23rd he was quite well; all swelling and pain gone.

Remarks by Mr. SPANTON.—These cases afford a fair illustration of the mode of treatment which I desire to advocate. But before entering into that question, a few remarks on the desirability of any operation at all in cases of this description may not be out of place. I have found among many surgeons a prejudice against any surgical interference. They will tell you that your patient is sure to die before long if you do operate, and under such painful conditions life is hardly worth prolonging. But what are the facts? Take an ordinary instance of cancer of the tongue, allowed to run its natural course uninfluenced by operation, and you will find in the decisive words of Mr. Erichsen ("Science and Art of Surgery," vol. ii., p. 427) that "nothing can exceed the misery of the patient's death, brought about as it is by pain, hæmorrhage, and starvation." And how long does such a frightful condition of misery last? It has been found, from a large number of statistics quoted in Mr. Clarke's work ("Diseases of the Tongue," p. 140), that the average duration of the disease, operated on or not, is fifty-seven weeks; the shortest, recorded at the Middlesex Hospital, being fourteen weeks, the longest extending over six years. With this distinction, however, that of those cases not operated on the average duration is only forty-two weeks, while that in which an operation has been resorted to is eighty-six weeks, the longest of these reaching to six years. Sir James Paget mentions an instance of longer immunity after operation.

In the first case I have related it is interesting to observe how pregnancy and suckling seemed to hasten the inroad of the disease, as is almost invariably the case; although theoretically one would have imagined that on the principle of starving the diseased parts, such conditions ought to have an opposite effect. It is, however, a matter of everyday observation to find pregnancy and its sequences especially powerful for evil in any devitalising disease. Having digressed so far, I come back to the question of treatment. If statistics prove anything, they assuredly go to show that in this affection a patient left alone has to look forward to possibly forty-two weeks of the most abject misery and suffering, which only those who have seen it can fairly appreciate; while on the other hand, if a complete operation be performed, our patient may fairly count on obtaining for some months at least immunity from suffering, and a life of comparative comfort. If recurrence of the disease should occur, it is usually in the glands or internal organs, and death takes place under infinitely less distressing conditions than would otherwise have been the case.

The gratitude expressed by those persons who have been relieved of the painful affection is a sufficient testimony, I think, to the desirability of removal. And inasmuch as we have to deal with a malignant, albeit localised disease, the obvious course is to remove it as speedily as possible; or, in the words of the late Mr. De Morgan, "to operate early" and "to operate thoroughly." Partial operations on the tongue, like imperfect operations for cancer elsewhere, have been almost uniformly unsatisfactory. Having decided on the removal of the organ, various methods offer themselves. My own conviction is that in this, as in most surgical procedures, the simplest measures are the best; and I cannot yet understand why it should be necessary to perform a complicated operation such as I will presently describe, when a far simpler one will answer the purpose equally well.

It would be interesting, if it were possible, to compare the results of the various procedures which have been adopted. That some are attended with a high rate of mortality I am quite convinced, and to this circumstance, in great measure, we may, I think, attribute the reluctance which many surgeons entertain in advising their patients to submit to excision.

The chief plans may be divided into four groups—

1. Removal through the mouth.
2. By an opening below the chin.
3. By dividing the lower jaw.
4. By combining tracheotomy with the third method.

We will take the last of these first. It was first practised in Germany, and has been advocated recently by Mr. Arthur Barker in a paper in THE LANCET, August 16th and 23rd, 1879. Mr. Barker there states that he has been struck by the number of deaths occurring after operations on the tongue from "septic pneumonia, with, in some instances, gangrene and abscess of the lung." This he attributes to the inhalation by the patient of the "*acrid fumes given off from a quantity of putrid material in the mouth, day after day, and night after night.*" (The italics are mine.) "Irritated at first," he says, "they become, under a continuance of the supply of the poison, intensely inflamed, and rapidly run through the several stages of pneumonia and gangrene." This opinion is supported by statistics quoted from Dr. Schläpfer, who has collected fifty cases recorded in various journals, with an entire mortality of 22 per cent., of which 12 per cent. were ascribed to various forms of septic lung mischief; also by some statistics of University College Hospital, which show that of twenty-one cases operated on for epithelioma of the tongue eight died, of whom five succumbed from lung complications, a rate of mortality of 23·8 per cent. from that cause alone.

Upon premisses such as these Mr. Barker has come to the conclusion that to obviate this very high (and I should hope unusual) death-rate, the rational method is to arrange the operative procedures in such a way that all chances of septic poisoning shall be excluded. And this is how he accomplishes it, as described in his own words:—"A Trendelenburg's cannula was inserted and inflated, and subsequently the tongue was removed, after division of the lip, jaw, and soft parts, down nearly to the hyoid bone. It was removed in two transverse sweeps of the knife, cutting half of the organ at a time, to allow of each lingual artery being ligatured separately. The next day the nostrils were plugged with cotton-wool, and the mouth closed and covered with a well-fitting pad. A silver drainage-tube was also adjusted in the floor of the mouth, over the end of which a rubber tube was fitted to carry off all discharge from the mouth into a basin of Condy's fluid at the bedside. He was then obliged to breathe by the tracheal opening, and by it alone. This was kept up for several days, until the stump of the tongue, &c., was comparatively clean. Later he was allowed to breathe by the nose alone (the mouth being kept still strictly closed and padded), and the tracheal wound was allowed to close. Finally, the pad was removed from the mouth." There was on two occasions some oozing, requiring the application of perchloride of iron, and there was a rise of temperature to 103°. This was considered to depend on an alveolar abscess, and relieved by extraction of some loose teeth. Convalescence was rendered tedious by exfoliation of two pieces of bone. In one case the drainage-tube was retained thirteen days.

Now, I should like to ask why at the time the patient had in his mouth a putrefying malignant sore, with poisonous breath and discharge, no pneumonic or septic symptoms occurred? And, further, why such symptoms should be looked for from a granulating surface, such as we usually have after removal of the tongue? Can anyone for a moment suppose that a fresh cut surface, and presumably a healthy one, could "exhale" such "irritating" or "acrid fumes" as would provoke pneumonia? I venture to assert that such a proposition is absurd. If "septic pneumonia" occurred, surely it would be in the way in which it usually arises after operation—i.e. from direct absorption of some morbid material into the blood. But why should such a condition be possible? Suppose the air of the ward to be in a proper condition, and you disinfect the wound in the mouth as it ought to be disinfected, and as in the cases I have recorded it was, what possibility can there be of any "acrid fumes," or even of any putrid material which could by any means lead to blood-poisoning, or lung-poisoning either?

It seems to me that in the operation Mr. Barker has proposed he has adopted, to begin with, a practice which has, I think, been properly designated "a relic of a barbarous state of surgery" ("On a Painless Method of Excising the whole Tongue," by Richard Barwell, F.R.C.S., THE LANCET, 1879, p. 549), and he has in addition to this further complicated it by opening the trachea, so that the patient incurs great risks, altogether foreign to the operation (in the shape of acute pneumonia, &c.); and also by adding to these an unnecessary meddling and paingiving method of carrying out the daily details of treatment. What better drainage-tube can you have than the open mouth? Drainage-tubes are not always models of perfection, according to Mr. Savory; and suppose an obstructed one in such a case as this, and what will happen? The patient will of course have to retain the very material which most of us are anxious to get away, and become very certainly poisoned. There is some truth in the assertion with regard to the offensive discharge no doubt; but this is, I believe, to be attributed not to the cut surface of the tongue, but to the needless compound fracture of jaw. There I think lies the secret. Let the bone alone, and adopting Mr. Barker's theory, you will need no such cumbrous and dangerous complications as tracheotomy and its multifarious accompaniments.

This brings me to consider the next method, No. 3. The plan of dividing the lower lip and symphysis menti devised by Sédillot, and improved upon by Syme, has been almost exclusively followed by the Scotch surgeons, and to this day a large number of operators adhere to it. The words of Mr. Barwell already quoted sufficiently express its character, though there may no doubt be some cases in which it may be required. In the majority of instances, however, it would appear as unwise as it is unnecessary to divide bone with all its attendant risks, when the object can be attained equally well without. The rate of mortality attending it is high, as we might expect, and the wound of bone must be held accountable I think, for many of the cases of septic lung mischief which are reported.

In Group 2, which I need not describe, we find many advocates, notably the late Mr. Nunneley, who was content with a small opening, through which he passed the écraseur, chain or wire; and although I cannot discover any statistics of his cases, they are said to have been mostly successful. Other surgeons have followed the same method in a more or less modified fashion. Mr. Barwell claims for his modification of it (*loc. cit.*) that it is painless, as he takes care in the earlier stages of it to divide the lingual-gustatory nerves. But I fail to perceive how the preliminary incision under the chin, and the passing through of threads and wire of the écraseur into the back of the mouth, can be effected without pain, and for the rest the same claim will apply to other methods in which the lingual-gustatory nerves are divided, be the preliminary proceedings what they may.

Now, we come to the first method I named, that of excising through the mouth with or without a buccal incision. Various ways of effecting this have been practised. The knife is, as Mr. Fairlie Clarke says, "the surest and the most expeditious," but he wisely refrains from adding, the safest. It necessitates abstention from an anæsthetic, and under any circumstances is liable to be attended with dangerous hæmorrhage. (It is, of course, understood that I am not now referring to partial operations on the tongue, in which probably the knife is the most useful.) Of the galvano-cautery I have had no experience. It is said to be very good and safe, although I have lately heard of a case operated on by this method which was followed by sharp hæmorrhage, necessitating ligature of the vessels. The old plan of ligature is now almost discarded, except for disease of the anterior portion; and it seems to me the sooner it is wholly discarded the better. It is painful, it is particularly disagreeable to the patient, and almost tempts septic mischief. Then there is the écraseur, for which we are indebted to Chassaignac. With this useful instrument the organ may be safely removed with little risk of hæmorrhage, and without difficulty. In the cases recorded I have described the manner in which I used it, and it need not be repeated here. I cannot conceive anything more simple or more satisfactory. There are, however, one or two points to which I desire to call attention. In my second case I experienced some difficulty owing to the large size of the patient's tongue. It seemed, when grasped by the écraseur, to fill the mouth, and interfere with breathing. At the same time it rendered difficult any attempt to feel or to see how the chain was working. As the result shows, this did not interfere with the success of the operation, but it led me to determine in my next case to lay open the cheek. We all know how very readily any cheek wound heals, so that there was nothing to deter one on that score. I found, as I had anticipated, that laying open the cheek enabled me to see the working of the chain during the whole time, gave room for passing in the fixing pins quite easily, and for the escape of any bleeding, &c.; and more than that, allowed free room for the patient to breathe. The operation was rendered very much easier for the operator, and I think safer for the patient. The proceeding is one I strongly recommend. The principal points are to divide the structures of the floor of the mouth freely, so as to be able to draw the tongue well forward without force; to work the écraseur chain from the front so as to divide the base as evenly as possible; to work the instrument slowly, and to administer an anæsthetic. With regard to after-treatment, it was very simple in the cases recorded. Frequent syringing or washing of the mouth with some antiseptic or disinfectant; frequent administration of milk and beef-tea, and keeping the mouth open as much as possible, but not permitting the patient to attempt to speak for a few days. In no case was there any symptom of irritation (the highest temperature was 99° F.), or the slightest approach to septic mischief, and the patients were in each instance up and about in a very few days. Would any of the other methods of treatment have yielded equally good results?

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Ununited Fracture of the Olecranon treated by Suture of the Bones.—Chromidrosis.—Stretching of Facial Nerve for Spasmodic Tic.—Excision of Breast in Intractable Eczema of the Nipple.

THE last meeting of this Society for the session was held on May 27th, J. Lister, Esq., F.R.S., President, in the chair.

Mr. MACCORMAC read notes of a case of Ununited Fracture of the Olecranon Process, in which Bony Union was obtained by Sutures of the Bones. The patient (who was exhibited) was a piano-tuner, twenty-six years of age, who four months before coming to St. Thomas's Hospital had fallen upon the right elbow, and sustained a fracture of the olecranon. When admitted the limb was wasted, especially the triceps; there was no power of active extension; the line of fracture ran across the base of the olecranon, the detached portion being separated by two inches, and fixed to the back of the humerus, the condyles of which could be felt in the gap, no uniting medium being perceptible. On Jan. 6th Mr. MacCormac made a vertical incision three inches long, exposing the fractured bone and the articulation. There was no trace of uniting material, the fractured surfaces were covered with smooth fibrous tissue, and adhesions existed between the detached process and the condyles, and also between the end of the humerus and ulna. These adhesions were dissected out, and the periosteum being reflected, a thin layer of bone was cut off with a chisel, and by means of two wire sutures through holes drilled in the bone the surfaces were brought into close apposition. The wires were twisted and cut off so as to project at the centre of the wound, which was afterwards closed with catgut sutures. The operation was performed antiseptically, the joint being washed out with carbolic solution (1 in 30) before closing the wound. The first dressing was made on the fifth day, when the wound was found to be united, except where the bone-sutures emerged, and these were removed in twenty-one days. In forty days the patient left the hospital with very good active movement at the elbow-joint, and apparently firm bony union at the seat of fracture. From first to last he had no pain or inconvenience. The wound healed without a drop of pus; the temperature occasionally rose to 99·8°; it was otherwise normal throughout. He has now perfect power of active extension. The arm cannot be made absolutely straight, but he is able to follow his trade as well as before.—Mr. LISTER believed he was the first to perform an operation of a similar nature many years ago in Edinburgh. The patient was an engineer in the prime of life, who had sustained a fracture of the olecranon. Mr. Lister exposed the ends of the fragments by a longitudinal incision; and after paring away the surfaces, drilled the fragments and tied them together by strong silver wire, using a single suture, which was more convenient than a double suture, for it remained in the line of incision. The result was, as in Mr. MacCormac's case, there was no inflammatory or constitutional disturbance. The man left with bony union and resumed his occupation. Since then, at King's College Hospital, he had similarly treated another case with like result. In neither was the upper fragment fixed to the humerus, as in Mr. MacCormac's case; nor was the separation between the fragments so wide. It was refreshing to hear antiseptic dressings spoken of as a matter of course; but he supposed few members of the Society would perform such an operation as the free opening of a joint without such antiseptic precautions as we possess, which afforded such security against complications.

Dr. T. COLCOTT FOX then read a paper founded on two cases of Chromidrosis, in which a deep blue-black pigment exuded upon the skin of the circumorbital region. The paper was illustrated by several beautiful drawings kindly lent the author by Dr. Foot, the President of the Pathological Society of Dublin. One case occurred in a girl aged eighteen years, a partial deaf-mute, but otherwise intelligent and of good physique, who presented herself amongst Dr. Donkin's out-patients at the Westminster Hospital, for the relief of a conspicuous and symmetrical black pigmentation of the eyelids and considerable portion of the adjoining cheeks, which caused great concern to the girl and her friends. The catamenia appeared first at the age of fifteen, and had never since been regular in time or quantity, and since that age the girl had suffered from general malaise, severe headache, and very marked habitual constipation. She was not an hysterical subject. The pigmentation was first noticed in September, 1880, on the lower lids, whence it gradually spread over the adjoining portions of the cheeks. Through the kindness of Drs. Sturges and Donkin she was placed under observation in the Westminster Hospital on three occasions, and it was found that the pigmentation varied considerably in amount and intensity, though present in some degree almost continuously. It was always less at the catamenial periods, but seemed to bear a direct relation to the very obstinate constipation, and was more intense and extended the longer the interval between the relief of the bowels. It was found on many occasions that whenever the latter became regular the pigmentation disappeared. As a proof of its genuine character Dr. Fox described the precautions taken to watch the case on one occasion for thirty-six hours, after the face had been thoroughly cleansed, but the pigmentation steadily returned. The urine was examined on several occasions for indican, which was found always to increase markedly in amount *pari passu* with the constipation and the exudation of pigment on the face. This fact, and the relation of the exudation to habitual constipation, are new points in connexion with the affection. Examination of the pigment showed it to present characters in all respects similar to those hitherto recorded in other cases by Charles Robin and others. The indian-ink-looking amorphous granules were found insoluble in almost all reagents, hot or cold, but displayed a deep blue colour when moistened with glycerine, and when dissolved in hot sulphuric acid firstly gave a beautiful purple hue, and, finally, a bistre tint. The pigment was evidently indigogenous. The second case was a girl of eighteen, sent to the author by Dr. Donkin. She was hysterical and phthisical, and suffered also from flatulent distension and constipation. The black powdery pigment afforded similar reactions to that in the first case, but the pigmentation was slighter and more fitful in appearance. In both cases any heat, emotion, &c., which determined the blood to the face, increased the pigmentation. Dr. Fox, in consideration of the fact that these were the first cases presented to a London Society with the exception of one shown by Sir Benjamin Brodie in 1845, entered into a short *résumé* of the subject and of other recorded cases, which are recorded in interesting monographs by Dr. Le Roy de Méricourt of Brest and Dr. Arthur Wynne Foot of Dublin, and insisted on the reality of the affection, which he challenged anyone to disprove. To the thirty-nine cases collected by Dr. Foot he added five others, making forty-four in all, six of them being in males and thirty-eight in females, at ages ranging between fifteen and fifty-seven years, and one a man aged twenty-two. The chief points discussed were the causation and the relation of the exudation to uterine troubles, general debility, and especially constipation; the influence of emotion, heat, &c., in increasing the pigmentation and the seat it usually occupies; the probability of the substance being exuded in a soluble form in the sweat rather than in the sebum, and its subsequent oxidation into a coloured pigment by contact with air; the varying shades of the colour (azure, deep blue, ochreous, black) of the pigment in different patients, and at different times in the same patient, the constant chemical and physical characters of the pigment, which prove it to be indigogenous and allied to similar products occurring occasionally in urine, pus, eczematous vesicles, milk, dropsical fluid, fæces, and vomit; and the arguments for and against malingering, showing, undoubtedly, that it is a real diseased condition. Lastly, Dr. Colcott Fox gave the results of the latest researches into the production of indican in the economy and its connexion with chromidrosis.—Dr. O'CONNOR asked whether there was any cutaneous hyperæsthesia or smarting, and whether the exudation was coloured from the first. The age of fifty-seven of one of Dr. Fox's patients was uncommon in these cases. In many cases uterine and other symptoms have appeared after the removal of the exuded material. He had seen one case in Dublin and one in London, and regarded the condition as one of steatorrhœa, of which there were varieties in the colour of the secretion. The black form of steatorrhœa was said to be hereditary. He asked, then, whether the sebaceous glands were affected, and thought it bore some relation to the condition of vitiligoidea, described by Addison and Gull.—Dr. CAVAFY had not the slightest doubt as to its being a genuine affection. The secretions of sweat and of urine had much in common, and he was glad that Dr. Fox had had the urine of these cases thoroughly examined for indican, with the result stated. The fact of the occurrence of this condition, together with obstinate constipation, favoured the view that the pigment was of the same nature as that in the urine—viz., indican, which occurs in excess in the urine during constipation. But indican appears in the urine under other conditions. Senator and Jaffe have found it in all chronic wasting diseases, in diabetes, in the later stages of carcinoma and in phthisis. It would be interesting to know if any of these coloured sweats occurred in phthisical people. By analogy similar explanations may be given for other coloured sweats. Red sweat may be due to an exudation analogous to hæmoglobinuria. Albumen has lately been observed in the sweat. Did Dr. Fox collect any of the fluid exuded, and, if so, did he find bacteria in it? For in one case in Germany chromogenous bacteria were found, and it was known that such chromogenous bacteria occurred in blue pus. The fact of emotion being followed by the outpouring of this blue sweat pointed to the occurrence of a local sweat centre, which can often be excited in a reflex way by the application of pungent substances to the tongue.—Mr. STARTIN asked if the coloured sweat occurred in other parts of the body. In a case under Dr. Payne, a woman aged forty, where there was uterine disease, there was coloured sweating over a limited area in each axilla. He suggested that a ferment was produced through the nervous influence, and that the indican became thereby oxidised.—Mr. LISTER, in his observations on blue milk, had thought it possible that the colour was due to the presence of bacteria, which were not themselves coloured; but in the present cases the colouration was related to nervous influences, and could hardly be supposed to be due to bacteria.—Dr. FOX, in reply, said that there was very little, if any, altered sensation in his cases. It was impossible to say whether the pigment was exuded from the sweat or from the sebaceous glands, but it contained no oily matter, which was evidence against its being a steatorrhœa, as Neligan supposed. No constitutional disturbance followed the removal of the pigment. In one of the cases Dr. Donkin found evidence of early phthisis. No bacteria were found in the pigment, and the effect of emotion in producing it was very marked. The indican rapidly became oxidised on exposure to air, and if its occurrence in sweat be admitted, there would be no difficulty in explaining the deposition of the pigment. The axillary secretion is naturally coloured.—Dr. O'CONNOR added, that in Sir B. Brodie's case Dr. Owen Rees found fatty matter in the deposit.

Mr. GODLEE read a short account of the progress of the case of Stretching of the Facial Nerve for Tic Spasmodique, related by himself and Dr. Allen Sturge early in the session. The patient on whom the operation was performed remained perfectly well till a month ago, then slight twitching of the orbicularis palpebrarum occurred in connexion with great mental worry; it was accompanied by some supraorbital neuralgia. A blister was applied above the eye and quinine was administered. The twitching has recurred once since that time again in connexion with a mental shock, but it has now disappeared again, the patient only having some stiffness about the eye, and difficulty in opening it when exposed to a cold wind. Another patient mentioned in the paper on whom Mr. Godlee had stretched first one and then the other facial nerve was also referred to, but as his case is not yet complete it was decided to postpone a detailed account of it till next session.—Dr. DOWSE said the recurrence of the affection bore out the experience of half a century in reference to nerve section in neuralgic and spasmodic tic; for invariably the affection has returned after a time. He had seen several such cases, and thought neither stretching nor division of nerves satisfactory. In cases of severe epileptiform neuralgia he had found the removal of exciting causes—e.g., carious teeth—to be the best treatment.—Mr. LISTER pointed out that nerve division and nerve stretching did not come under the same category. The remarkable fact was that the less violent measure was followed by the more permanent benefit; for recurrence of the affection invariably took place (sometimes very soon) after division, or even excision of a considerable length of nerve. But stretching in some cases—e.g., Nussbaum's—was actually curative. The case of Dr. Sturge and Mr. Godlee could hardly be said to be a failure, for both the slight recurrences of twitching had been dependent on derangement of health.—Mr. GODLEE, in reply, said that the patient had been treated by many physicians for four or five years without relief. The operation was not a serious one, and does not permanently lame the patient, who in this case has had one year at least of absolute comfort. The return of the twitching had depended on some nervous shock, and it was hoped that it would not be permanent. The relief obtained from the pains of ataxics by stretching the sciatic justified the operation, even if that relief were only temporary.

Mr. GEO. LAWSON exhibited a Breast, which he had removed on account of long-standing eczema of the nipple. In the reports of the Society for last year, after recording a case in which cancer had followed an intractable eczema of the nipple, he suggested that in cases of eczema of the nipple which have resisted for a length of time all treatment "the breast should be removed in anticipation of a disease which does not then exist." The case which he had now to relate was that of a lady who suffered from eczema of the nipple, which had resisted all treatment for over twelve months, and was extending. Feeling that the usual termination of such cases was diffused cancer, Mr. Lawson advised, and accordingly removed the breast. There was a red, scaly patch raised slightly above the level of the skin, and extending for about two inches around the nipple. The breast was examined by Dr. Thin, and he discovered cancer elements diffused throughout the organ. The preparation is now in the College of Surgeons' Museum.—Mr. LISTER thought the line of practice a serious one if meant to apply to all cases of eczema of the nipple. But he was not long ago consulted by a lady for eczema of the nipple, which he treated by local applications; but he heard afterwards that cancer had developed. At the same time he would hesitate about advising the removal of the whole breast in cases even of obstinate eczema of the nipple. In Mr. Lawson's case it did not appear that the breast was the seat of scirrhous cancer.—Mr. LAWSON said that he advocated excision of the breast in cases where the eczema of the nipple had resisted all treatment.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on May 4th, 1881 (Dr. Matthews Duncan, President, in the chair),

Dr. GALABIN showed, for Dr. JOHN BASSETT, two specimens: (1) The Placenta from a Case of Triplets. On the fœtal side were attached three umbilical cords, and the remains of three sets of membranes, without any appearance of separation in the placenta. (2) A Fœtus with the Placenta adhering to the Cerebral Membranes. The vault of the skull was absent, and no brain substance was developed. The placenta, which was prævious, adhered to the cerebral membranes. These membranes contained some fluid. The child was delivered by version, and breathed for about an hour.

Dr. MEADOWS showed Pessaries made of the new material xylenite, a compound of paper and nitro-glycerine. It was more elastic than vulcanite, and could be more completely softened for moulding by boiling water.

Dr. GODSON exhibited a new apparatus for applying heat or cold to the surface of the body. It was known by the name of Leiter's Temperature Regulator, and consisted of a coil of pliable, metallic tubing, which could be adapted to different parts. A continuous stream of hot or cold water could be circulated through it. He thought it might be valuable in post-partum hæmorrhage.

Dr. CLEVELAND showed a cylindrical Fleshy Substance, about three inches by three-quarters of an inch. It had a remarkable resemblance to a uterus, having a mouth with lips at one end and a central canal. It was expelled with pains and slight hæmorrhage three days after delivery of a seven months' child. The lady, who had borne previously eight children, said that in her last two labours a similar substance, but rather larger, had been expelled on the third day.

The PRESIDENT narrated a case of Phlegmasia Dolens with Lymphatic Varix. He was disposed to support the view of Tilbury Fox and others, that phlegmasia dolens is due to venous and lymphatic inflammation and obstruction, and that, of these two, the lymphatic disease is the more important, especially as being probably present in every case, while the venous disease is occasionally absent. The case of white leg occurred in the downward progress of a characteristic case of cancer of the womb. During its presence there appeared lymph-angiectasis of a part of the skin of the thigh, and this disappeared as the phlegmasia disappeared. The part visibly affected was at the upper and outer part of the anterior surface of the left thigh, and constituted an oval or triangular area broader above than below, and of such extent as might be nearly covered by the hand. There was no pain or tenderness. The projecting vessels, covered by epidermis, and having a yellowish-white tint and pearly lustre, were seen and felt, and the prick of the small point of a knife allowed a large drop of limpid lymph to immediately exude. A similar affection of lymphatics occurred during a slight attack of phlegmasia in the right limb, which began as the disease was slowly disappearing from the left. The lymph-angiectasis occurred in an area of skin mechanically weakened by being the seat of closely set spindle-shaped, ribbon-like skin cracks. These cracks were obscured by the lymphatic distension, and did not subsequently become again visible as skin cracks, except in small parts. The lymph-angiectasis was probably the result of general lymphatic tension in the whole limb, the special varicose lymphatics becoming so in consequence of being imperfectly supported by the weakened cracked skin. Similar phenomena were observed in the abdominal skin cracks of pregnancy under circumstances not regarded as morbid.—Dr. PLAYFAIR said that many clinical facts proved that thrombosis of the veins was not of itself sufficient to account for the phenomena of the disease. Thus, there were cases of thrombosis of the veins of the lower extremities, occurring in gouty subjects, in connexion with which nothing like phlegmasia dolens was observed. Dr. Duncan's cases showed the probably intimate connexion between a certain amount of septic absorption and phlegmasia, which was not uncommon in connexion with cancer of the uterus. He did not think that there was ground for assuming that lymphatic obstruction had more to do with phlegmasia than venous obstruction. He had never seen any lymph-angiectasis in puerperal cases, and in some instances thrombosis of pulmonary arteries preceded the phlegmasia.—Dr. GRAILY HEWITT thought there was no doubt that, in typical cases of this disease, both lymphatics and veins were affected. It was known that the venous obstruction originated in coagulation in the uterine sinuses extending to the iliac trunk, and it was probable that the lymphatic thrombosis occurred in a similar way.—The PRESIDENT would not attempt to estimate precisely the comparative influence in phlegmasia of venous and of lymphatic obstruction. He would only say that, while sometimes venous obstruction was certainly absent, we could not say the same of lymphatic obstruction.

Dr. GALABIN brought forward a Case of Extra-uterine associated with Intra-uterine Fœtation, in which Abdominal Section was performed. The patient was thirty-six years old, was married in the spring of 1878, in the summer of that year had an abortion, and in April, 1879, was delivered by forceps of a full-term child. She expected her second confinement in September, 1880, and engaged Mr. Thomas Duke of Rugby to attend her. During the fourth and fifth months of pregnancy she had considerable pain and tenderness in the right side of the abdomen. Two tumours were discovered; that on the left side gave the usual evidences of fœtal life, and was clearly the pregnant uterus. Over the tumour on the right side nothing could be heard by auscultation, and Mr. Duke, as well as several other medical men who examined the patient, concluded that the case was probably one of an ovarian tumour complicating pregnancy. On June 16th symptoms of rupture suddenly occurred, followed by those of peritonitis, and the outline of the right-hand tumour was found to have disappeared. The patient's state having become very critical the author was sent for, and reached Rugby on the evening of the 19th. He was inclined, from the history, to agree with the diagnosis of ruptured ovarian cyst; but the possibility of combined extra- and intra-uterine fœtation existing was suggested. He advised an exploratory operation as the only chance for life, and performed this on the morning of the 20th. A large quantity of blood and clot was found in the peritoneal cavity, and an extra-uterine fœtus contained only in its thin membranes. The placenta, attached to the back of the pregnant uterus and posterior surface of the right broad ligament, was left *in situ*, and a drainage-tube placed in the wound, entering the general peritoneal cavity. The operation was performed under carbolic spray. The patient appeared to be doing well for the first two days, and the temperature never rose above 99·8°. Labour, however, came on on the morning of the 22nd, and a child, which presented by the breech, was delivered stillborn. Though there was very little hæmorrhage by the vagina a great deal occurred through the drainage-tube. On the 23rd the temperature was normal, but hæmorrhage still went on through the drainage-tube, and she died, apparently from loss of blood, on the 24th. The author attributed the secondary hæmorrhage to the shrinking of the uterus in the expulsion of the fœtus, and consequent further detachment of the extra-uterine placenta from its posterior wall. Both fœtuses appeared to be of about six months and a half development, but the extra-uterine fœtus weighed only one pound and a half, the intra-uterine two pounds and three-quarters. A review was appended of similar recorded cases, in all of which the extra-uterine pregnancy appeared to have been of the abdominal form, while in none of them was a complete diagnosis made, while both fœtuses remained within the abdomen.—Dr. ROUTH congratulated the author on his skill and powers of diagnosis. It appeared that death was due to the further detachment of the placenta in labour, and he suggested that it would have been expedient to re-open the abdomen and arrest hæmorrhage by the actual cautery. He had seen adhesions in ovariotomy, even adhesions to the liver, successfully treated by the actual cautery. —The PRESIDENT regarded uncontrollable hæmorrhage as the great difficulty in surgical interference with extra-uterine pregnancy, and this even many months after the death of the fœtus. He did not look with much hope on the actual cautery as a means of arresting this or any kind of hæmorrhage, as he had used it, and seen it used, in vain.—Dr. GALABIN said that on account of the distance of the patient he had not had the opportunity of deciding on the expediency of re-opening the abdomen. He thought that a styptic, such as perchloride of iron, would be more effectual than the actual cautery in arresting hæmorrhage in such a case.

Dr. GEORGE RIGDEN read a paper "On Midwifery in Private Practice during Forty-three Years." 5682 mothers were delivered of 5751 children—viz., 2947 males and 2804 females; 65 were twin cases, and there were 2 cases of triplets. 5422 children presented by some part of the head, including the face; 156 presented by the breech; 89 by inferior, 84 by superior, extremities. There were 45 placental presentations included in the above; 255 children were still-born, 165 being premature; 105 had been dead some time; 759 were delivered by forceps; in 2 cases craniotomy had to be performed. Previous to 1860, forceps were used only once in 222 cases, while in the last twenty years they were used about once in 15 cases. The proportion of stillbirths was but very slightly diminished during the latter period, and the author attributed this slight advantage rather to greater experience than to the more frequent use of forceps. There were 13 maternal deaths—viz., 2 from puerperal convulsions, 5 from peritonitis, 2 from heart disease, 1 from fright, 1 from cancer of the tongue in an advanced stage, 1 from bronchitis, and 1 from scarlet fever.—Dr. EDIS thought great credit was due to Mr. Rigden for his exceedingly low maternal mortality. It was curious that the proportion of stillbirths did not seem to vary with the change from ergot to forceps. He believed that the timely use of forceps diminished materially both infant and maternal mortality, especially in large cities.

Reviews and Notices of Books.

The Factors of the Unsound Mind. By W. A. GUY, M.B., F.R.S. London: T. De la Rue and Co. 1881.

THIS is an important contribution by a physician of great learning and matured judgment to the question of the relationship of mental states to criminality. In his first chapter Dr. Guy deals with illusions of the senses, and he quotes many examples familiar enough to medical readers of perfectly sane persons who have suffered from sense-phantoms of various kinds. Dr. Guy has collected and analysed thirty-six cases of illusions. Of these twenty-eight were males and eight females, and they were of all ages, from four to eighty. Some were in robust health, others were delicate or worn by study. In some the illusions lasted for years, while in others they marked the onset of a febrile attack. The illusions had in some cases a reference to past or passing events, and in others no such reference could be traced. These illusions are not due to the workings of the imagination, but they "start into existence, a surprise and a perplexity." Dr. Guy, however, as a result of his analysis of cases, says: "Among the endowments specially mentioned in some of the most minutely described cases, an active imagination, a retentive memory, an acute perception, and a highly sensitive and sympathetic nervous organisation, are to be noted." This rule was not invariable, and many of the victims of illusions have been persons of a very opposite type. The following list of causes of illusions are given:—(1) Mental excitement and exhaustion. (2) Exhaustion of the strength by watchings, fastings, &c. (3) Convalescence from illness. (4) The onset of inflammatory disorders. (5) Disorders of alimentary canal. (6) Blood changes. (7) Certain poisons, such as alcohol, Indian hemp, and belladonna. (8) Disturbance and arrest of cerebral circulation. (9) Disease of the sense-organs. (10) Convulsive and paralytic disorders. passing allusion is also made to what the author calls *illusive transformations*—i.e., the transformation of common sights or sounds in the mind to things other than the reality. This is common enough in the insane, and is familiar also in cases of delirium tremens.

In the second chapter a delusion is defined as "*an involuntary thought, idea, or belief, without dates or premisses.*" Delusions may have their origin: (1) In illusions. (2) Sudden shock. (3) Visceral disease. (4) Excited emotions. (5) Disappointment or injury. (6) Disordered circulation or disease of the brain.

The analogy between dreaming and insanity, and the origin of the sense-phantoms and delusions of the dreamer, form the subject of the third chapter.

From dreaming, the analogue of insanity to somnambulism, the acted dream is an easy and natural transition. The facts that somnambulism has close relationships with epilepsy and insanity, that, like them, it is hereditary, and that the one condition often passes into the other, are dwelt upon. That remarkable condition, "the mesmeric state," is alluded to as showing how easily the will may be dethroned by artifice. The chapter on delirium serves to show how both illusions and delusions may be produced by bodily conditions and causes well understood and almost reproducible at the will of anyone.

In Chapter IV. many interesting illustrations of incoherence in written and spoken language are given, and their value as evidence of insanity is insisted upon.

The relationship of epilepsy, hysteria, and other disorders which are or may be characterised by convulsive movements is brought prominently forward, and is illustrated by many apt examples chosen from the writings of physicians of all times.

The proposition that madness is often but an intensified emotion is handled with great ability, and there occur in this chapter passages which deserve to be quoted *in extenso.* The leading dispositions of mankind are comparatively few. "Innumerable combinations of these elementary characters, harmonious or discordant, make up the individuals whom we encounter in all societies of men, and in whom outward objects or inward thoughts stir up the various emotions of pleasure and pain, of hope and joy, of love and pity, of pride and vanity, of awe and veneration, of shame, fear, anger, and remorse." The abnormal growth of one side of a disposition may give us individuals "consumed by an insane fear, insane despair, insane hatred, insane love, insane jealousy." "It will be observed," says Dr. Guy, "that I have made no separate and distinct allusion to conscience and the conscientious disposition, though a knowledge of right and wrong figures so prominently in our law courts as the test of criminal responsibility. My motive for the omission is that I do not see any sufficient reason for treating conscience otherwise than as one of the groups of emotions which answer swiftly and certainly to the objects or thoughts fitted to call them into play, or if differing from them in any particular in this, that conscience is maintained in a highly sensitive state by the constant and sustained efforts of the teachers of religion. In the classes among whom vice and crime abound, and to whom the teacher of religion does not gain access, it is reasonable to expect as low a development of conscience as of the other emotions which tend to virtue." That the constant stimulation by religious exhortations, assisted by the fine arts, is sure to produce an insane growth of one side of the character, is shown by the overbearing frequency of one form or another of religious mania.

In a short chapter a few references are made to cases of delirium and nervous disorder brought about by foul air or scarcity of food. "We know," says the concluding paragraph, "that such epidemics as the dancing mania have followed in the wake of pestilence and famine, while the homicidal mania of the French Revolution, and the mixed epidemic of homicide and fire-raising which prevailed during the siege of Paris in 1870, were in part explained by the scarcity of the one period, and the famine of the other."

Dr. Guy's classification of insanity is, primarily, into the *undeveloped*, the *degenerated*, and the *disordered* mind—idiocy, imbecility, and mania. The last class it is which furnishes the debatable criminals; and as a general plea for these unhappy persons Dr. Guy puts forward the argument drawn from a consideration of the modes of origin of the factors of the unsound mind, that an apparently sane person may suffer from "epilepsies of sense, thought, and speech," as well as from convulsive epilepsies affecting the muscles. There can be no doubt of the reality of epileptic insanity, and that epileptics may and do become violent and "mad" under the influence of epileptic sense auræ. The fact that epilepsy may be produced by peripheral irritation—such, for example, as a neuroma—is illustrated by cases.

When Dr. Guy deals with the criminal lunatics, he points out that the difficulty arises mainly with two classes—the imbeciles who have criminal tendencies, and the victims of sudden maniacal impulses. The author's long connexion with Millbank Prison gives him the right to speak on the subject of punishment, and the spirit of common sense tempered with mercy which is manifested in the chapter devoted to the discussion of "the punishment of the madman" cannot but be conducive to the right understanding of a difficult matter. Dr. Guy strongly asserts that for a certain class of criminals the fear of physical suffering is the only deterrent, and he has no sympathy with those who would abolish either the gallows or the lash. Neither the one nor the other has any deterrent effect upon lunatics; and those who have advocated, as Smollett did, the "punishment" of unreasoning beings have outraged both logic and humanity. "If instead of talking of *justice* Smollett had spoken of *mercy* he would have commanded my sympathy, though I must have withheld my consent; for I know enough of madmen to believe that the very kindest thing we could do to most of them would be to kill them; and this is equally true of many a victim of hopeless incurable bodily suffering." The punishment of death has no deterrent influence on persons of unsound mind; on the contrary, there are not few of these whose ambition it is to be hanged. It is clear, therefore, that the public safety is not enhanced by the enforcing of the law rigidly against the insane. The legal views of insanity, and the change which has been undergone by them from time to time, are passed in review in a most interesting manner.

The final chapter, that which deals with the amendment of the law, is perhaps the most practically important of all. The Criminal Code Bill has the following paragraph:—

> "In order to establish a defence on the ground of insanity, it must be proved that the offender was at the time when he committed the act labouring under natural imbecility or disease of or affecting the mind to such an extent as to be incapable of appreciating the nature and quality of the act, or that the act was wrong."

Dr. Guy suggests that the attention of the Court should be concentrated on one plain question: "Is the accused of unsound mind, and was he so about the time when the act was committed—that is to say, about the time when he may be assumed to have been contemplating it?" He also urges, as others have urged, that the scientific witnesses should be appointed *by the Court*, instead of being, as is now the case, selected by prosecution or defence, and mainly on account of some opinions which they have made public. With these suggestions we think all right-thinking persons will agree.

Index Medicus. A Monthly Classified Record of the Current Medical Literature of the World. Compiled under the supervision of Dr. JOHN S. BILLINGS, Surgeon U.S. Army, and Dr. ROBERT FLETCHER. Vol. I., 1879. Vol. II., 1880. New York: Leypoldt. London: Trübner and Co.

THOUGH it is more than one hundred years since the House of Commons voted £15,000 for preparing indexes to its journals, no serious effort seems to have been made, until a few years ago, to produce a tolerably satisfactory index of scientific and medical literature. Much, it is true, has been done by Mr. W. F. Poole of New York for general literature, yet few attempts have been made to systematise and classify the enormous mass of material contained in current scientific and medical literature.

In the year 1860 the Royal Society began the publication of a "Catalogue of Scientific Papers," but the utility of the work is seriously impaired by the defective arrangement. It consists purely of an alphabetical list of authors' names, and is, therefore, almost useless for bibliographical purposes. A distinct advance was, however, made in 1877, when the New Sydenham Society published an important work, entitled "A Medical Digest," prepared with immense care and labour by Dr. Richard Neale, during a period of thirty years. Though the "Digest" did not make any pretensions to be a complete index even to the works named therein, it did, nevertheless, practically form an index to the chief English medical periodical publications from 1837 to 1876. It contained over 90,000 distinct entries, and was itself supplied with a copious index, containing more than 9000 references. But we suspect that the work is not yet sufficiently known. This may be partly due to the fact that it is obtainable only by members of the New Sydenham Society. As we announced some weeks ago, Dr. Neale purposes, with the support of his professional brethren, to publish a new edition independently. This will be brought down to the end of the current year, and, it is estimated, will contain about 20,000 additional references, making in all more than 110,000 references to medical periodical literature of the last thirty-five years. It will then be, even more than at present, indispensable to those who wish to become acquainted with the history of medicine, surgery, and therapeutics during this important period.

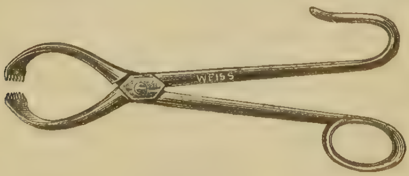
The work the name of which heads this notice is of a different and more pretentious character. It is, professedly, a classified catalogue and record of all the current medical literature throughout the world. Originally started in January, 1879, it has been continued monthly in spite of serious pecuniary loss. Indeed, at the end of the first year the publisher announced that the entire subscription price (for 1879) did little more than pay for the cost of the index to the first volume. With praiseworthy courage, however, the publisher continued the Index for a second year, and again at a loss. At the beginning of the third year, however, the prospect was somewhat brighter. The sum required for the continuation of the Index having been nearly covered by subscriptions and by special contributions to the guarantee fund, the publisher determined to venture upon the publication for another year.

Several medical societies in the United States have voted special sums to a guarantee fund to meet the loss that had hitherto attended the publication of the work. We would fain hope that its success is now assured, and that the subscriptions will in future not only cover the cost of production, but leave a margin of profit. Its discontinuance would be almost a calamity for every intelligent student and practitioner of medicine. It is printed on good paper, in excellent bold type, and is a marvel of accuracy and completeness; it is a worthy complement of the Index Catalogue in course of preparation by the same authors. (See The Lancet, Nov. 20th, 1880.)

New Inventions.

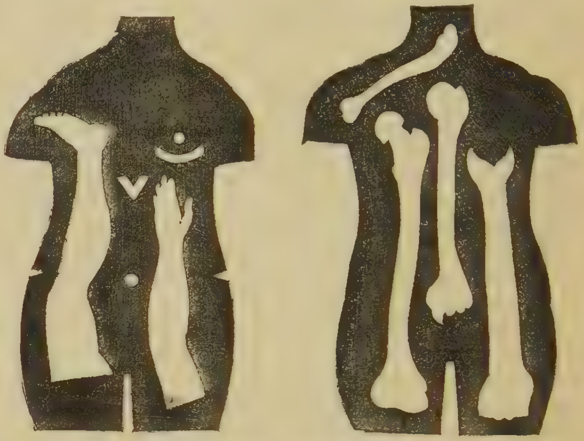
NEW TUMOUR FORCEPS.

These forceps have been devised by Mr. Bellamy, and made by Messrs. Weiss and Son, for seizing and steadying large tumours, such as fibrous, fatty, &c., while being removed by the knife. The objects gained are great leverage, a firm grip of the mass, and ease in manipulation. It is a modification of Museaux's forceps, with more bow in the blades and lithotomy forceps' grip. The hand is liable to get tired and slippery in removing hard tough growths, and he above instrument would seem to obviate these difficulties.



GOYDER'S CLINICAL STENCIL PLATES, (REGISTERED.)

It has always been desirable to record graphically (as well in the note-book as on the patient's board) the position of physical signs and the location of injuries. These stencil plates serve the purposes of the physician or clinical clerk by enabling him to trace outline forms of the body, male and female, on its anterior and posterior aspects. The presence of any physical sign can be depicted, and normal landmarks put in or omitted. The limbs can be drawn, and the position of any tumour, line of incision, excision, or amputation delineated. Lastly, with the plates, outlines of the femur, tibia and fibula, humerus and clavicle, can be drawn, and, by reversing the plate, bones of the opposite side are shown. By sketching in the prominent lines on the respective bones, the anterior or posterior surface is brought out. The ends of corresponding thigh and leg bones united by a few lines show the knee-joint back and front—a joint which is often diseased, and in which morbid physical signs can be easily mapped out. The idea is not a novel one, and has, we believe, been long recommended by Dr. Gee. We would suggest that the plates should be multiplied; for in order to take an exact map of the physical signs of the thorax and abdomen, the outlines of the ribs should be indicated, or at any rate the costal margin, which cannot be done on the plates in their present form. The plates are neatly cut, and put up in a folding morocco case, with a card of instructions, by Messrs. Brady and Martin, of Newcastle-on-Tyne.



Bequests and Donations to Medical Charities. The Exeter Lying-in Charity has become entitled to £200 under the will of the late Mr. Wm. Miles. Surgeon-Major Newland bequeathed £1000 to Mercer's Hospital, £500 to the Hospital for Incurables, and £250 to the Medical Benevolent Fund Society of Ireland. Mr. Edward Baker, late of Clapham, bequeathed, upon the death of his widow, £300 to the Clapham Dispensary, and £200 each to the Brompton Consumption Hospital, the Royal Sea-bathing Infirmary, Margate, and the City of London Hospital for Diseases of the Chest; also the remainder of such part of his personal estate as may be by law applied for charitable purposes to the principal London hospitals, at the discretion of his trustees. The Dundee Royal Infirmary has received £200 by the will of the late Miss Whetson of that town. The funds of the Windsor Infirmary have benefited to the amount of £1000 by the will of the late Miss Louisa Reid of Hyde-park-terrace. Mr. Padmore, late of Hallow, bequeathed £500 to the Worcester Infirmary, and £100 each to the Salop Infirmary, the Worcester Dispensary, and the Worcester Ophthalmic Institution. The Newcastle-on-Tyne Throat and Ear Hospital has received £100 from a benefactor.

The Newport Infirmary is to be enlarged to the extent of making provision for the accommodation of twenty-eight additional patients.

THE LANCET.

LONDON: SATURDAY, JUNE 4, 1881.

DR. CAMERON has given notice in the House of Commons that on an early day he shall move "a resolution condemning the conduct of the Local Government Board in refusing to take the most obvious means of encouraging revaccination, and in witnessing the compulsory closing of small-pox hospitals without causing provision to be made for the reception of small-pox patients." The aim of the resolution is excellent, and its utility would be undoubted if there were any reasonable hope that the attention of the House of Commons could at the present time be seriously interested in the question of the administrative policy of the Local Government Board with respect to small-pox in the metropolis. It would be well that the country should have some authoritative statement of the views that Board entertains respecting the promotion of revaccination (if, indeed, it have any views at all), and whether it has seen or sees its way out of the complicated matter of the small-pox hospital question—a question, it must be remembered, for which the Board is primarily responsible, and, in view of its anomalous relations with the Metropolitan Asylums Board, continues responsible. The Local Government Board, if it has hitherto displayed a lamentable want of statesmanship, has a certain pettifogging astuteness, which is not unlikely to bring confusion upon the heads of its opponents in the House, and, by an ingenious showing of what its strictly legal functions are, prove that it has done all that the law required of it, and in a way that deserves well of the Legislature, if not of the metropolis or the country at large. We shall not be surprised if a resolution condemnatory of the Board becomes in the course of discussion a resolution wholly approbatory, and we may have to admit, despite common sense and common observation, that administratively the present state of things in the metropolis as to small-pox is the best of possible results that could have happened, in the best of governments, in this best of worlds.

As far as revaccination is affected by plenteous supplies of animal lymph, has not Mr. DODSON told us again and again in the House that he has no view of encouraging revaccination by the supply of animal lymph for the purpose, except indirectly as it may furnish a more approved (by some persons) supply of humanised lymph from fresh stocks; and has not the House accepted this statement without indication of dissent? This is the approved principle of the National Vaccine Establishment, and is it for a great Government Department to change principles as easily as gloves? But the circumstances of the present outbreak of small-pox, it may be said, call for a revision of the principle referred to. Perish the thought! It is for epidemics to adapt themselves to proved departmental rules, not for departmental rules to be modified to meet epidemic exigencies. In the one case patient, trustful routine is all that is required. In the other case the foundation of bureaucratic administration would be rendered unstable throughout, and the manner of administration would be liable to be wholly lost in attempts to secure the object for which the administration was designed—a view which, as not formally provided for by the Legislature, and inconsistent with Acts of Parliament, according to the usual rules of interpretation, must be at once repudiated.

The true source of all the infectious hospital troubles in the metropolis rests in the question having fallen into the hands of the Poor Law authorities, mainly from the negligence of the sanitary authorities in the first instance, but afterwards from the perverse action and want of courage and foresight of the Local Government Board in the second, in having determined to pursue one kind of policy in the provinces and another in the metropolis. While using every exertion to divert the charge of infectious diseases from the Poor-law authorities and fix the responsibility upon the sanitary authorities in the provinces, as a question of public health administration, precisely the opposite policy has been pursued in the metropolis. Hence the evils in respect to small-pox hospital accommodation from which we are now suffering. From the commencement of our troubles on this question to the present time the subject has been considered by the Local Government Board, above all things, as a matter of Poor-law administration, and with the result that has surely followed all meddling with sanitary or public health matters by Poor-law administrators. The administration that could not conduct the sanitary government of a workhouse has failed almost necessarily in governing the more complicated arrangements required in dealing with epidemic small-pox amidst a vast population. The Local Government Board and its metropolitan adumbration, the Asylums Board, have come to grief in their work with reference to small-pox just as the old Poor-law Board and their representatives on the different Boards of Guardians came to grief in the sanitary administration of workhouses. How does it happen that the circumstances now being brought to light as to the influence of our large small-pox hospitals upon the neighbouring populations had to be discovered by outsiders, and were not recognised, and the evils rectified as they occurred, by the officers of the Local Government Board? The subject did not concern the duties, at least legally, of the Metropolitan Asylums Board. But the Local Government Board, possessing the functions both of Central Public Health and Poor-law Authority, had full powers of inquiry. Why were these not exercised when the earliest rumours of mischief from the hospitals got afloat? But throughout the whole of the difficulties connected with this subject the Board has shown itself peculiarly careful to exclude them from consideration as a question concerning its public health administration. Indeed, what can be more astonishing and inconsistent with the question to the Central Board having presented itself as one of public health, than the fact of its having assented to the Metropolitan Asylums Board borrowing a hulk of a line-of-battle ship from the Admiralty for use as a small-pox hospital in the Thames? If there be a construction least fitted for nursing small-pox patients on board, in the interests of the patients, it is an old hulk; if there be a disease least appropriate to be treated on a hulk it is small-pox. Further, if it should prove that the accumulation of small-pox in separate hospitals is apt to cause in some way or other the presence of the disease in houses situated within half-a-mile radius of the hospital, the conditions of such diffusion must be expected to be found in greater intensity in connexion with a hulk occupied by small-pox patients. Moreover, the belief that more effectual isolation will be secured in a floating hospital is, we believe, a delusion, unless special methods of guarding the ship are adopted, particularly if the hulk is to be moored, as we understand, off Deptford or Greenwich—that is to say, in the busiest part of the great highway of the river. It is difficult to believe that this matter has been submitted to the Medical Department of the Government, and that it is any more than one of those happy-go-lucky measures of the Asylums Board and Local Government Board which have so markedly characterised their doings during the present epidemic of small-pox.

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FROM the earliest dawn of scientific medicine electricity, in some shape or other, has been applied to the cure of disease. The ancients, although entirely unacquainted with its principle of action, knew some of its manifestations, and attempted to turn them to account in therapeutics; but it was only with the discovery of the first condensators that the rational use of electricity began. The Leyden jar was unquestionably the starting-point of electro-therapeutics. When it became possible to administer powerful shocks by drawing sparks from a reservoir, medical men began to employ them, and remarkable effects were produced. It is true that ROLLET and DU FAY had before this time taken sparks from the isolated subject, but they had not observed the production of muscular contraction by electrical influence. DE HAEN, one of the most illustrious physicians of the eighteenth century, seems to have made an extensive trial of the new remedy. He reports numerous cures of paralysis, chorea, and other nervous affections. But one of the most remarkable advocates of medical electricity was JOHN WESLEY. Amongst the various diseases which he mentions as having been cured are: blindness, chlorosis, *hysteria*, contraction of the limbs, lameness, palsy, pain in the back, sciatica, and deafness. We find in this list most of the complaints which are really capable of deriving advantage from the action of the electric fluid as at present employed; and one of the most remarkable coincidences that may be noted in this respect is that injurious as well as favourable effects were not unfrequently observed—certain patients struck with paralysis, others contracting nervous affections; and the cases may be compared with those which under DUCHENNE'S treatment became blind whilst being galvanised for neuralgia. Some twenty years later an able and systematic advocate of electrical treatment, MAUDUIT, expressed the opinion that electricity had a most positive and beneficial influence on nutrition, circulation, and secretion. A series of papers was presented by him to the then existing scientific bodies, and attracted considerable attention. But shortly after, at the close of the last century, the discovery of galvanism, whilst giving a new impulse to the medical use of electricity, entirely superseded the methods then employed, and dethroned franklinism, as it might have been thought, for ever. Forty years later galvanism, in its turn, fell into disuse, its place being taken by faradisation, which, after long reigning supreme, gradually gave way before a partial restoration of its rival, and now static electricity, long discarded from practice, has again returned to favour. The seven forms of its application recommended by the earlier electricians are described by SIGAUD DE LA FOND as—(1) The electric bath, in which the subject, placed upon an insulating stool, is put into communication with the prime conductor, which brings the surface of the body into a state of positive or negative tension, the fluid escaping continually from the hair, fingers, and the general surface. (2) The withdrawal of sparks from the body, electrified as previously described; this consists (3) in pouring, so to say, a series of sparks by means of a special conductor upon the diseased part which it is intended to bathe in electricity. (4) Next we have electrical frictions, which consist in the passage of a metallic rod upon the body of the patient previously electrified and covered with flannel or some other insulating material. The result is said to be rapid, the superficial local irritation producing a marked degree of formication, which, according to the author, is a sovereign remedy for chilblains. (5) Then comes insufflation, the mildest method of applying static electricity, and which is performed by approaching a metallic point communicating with the source to different parts of the surface; the patient then experiences the sensation commonly known as the electric *souffle*. (6) The converse method consists in exhausting the subject's electricity by a metallic rod, which instead of communicating with the machine is connected to a chain which trails on the ground. (7) Lastly, we have the electric shock. We find in these various methods the greatest analogy with modern practices. Static electricity is at present administered by means of the electric bath, the patient being insulated and placed in communication with the prime conductor. In this condition the electric *souffle* "irritation"—the electric aigrette (exhaustion), or the removal of sparks, can easily be employed by the same means as were in use eighty years ago. The chief difference lies in the great improvements which have been introduced in the construction of apparatus, and the vast amount of electricity which can be supplied to the patient at a given moment. Under these conditions the electric shock, one of the most powerful weapons of the old system, has been laid aside as equally painful and useless. An eminent contemporary expresses the opinion that of all the sensations which can be experienced none can be more disagreeable than the commotion produced by a Leyden jar, with the exception, perhaps, of being hanged. Among the physicians who have chiefly been engaged in the revival of static electricity may be mentioned Dr. TRIPIER, Dr. ARTHUIS, and Dr. VIGOUREUX, whose experiments in the service of Professor CHARCOT have attracted considerable attention. Some account of these will be found in a recent number of the *Revue Mensuelle*. The principle advantages of this mode of treatment may be rapidly summed up under a few headings. 1. Anæsthesia: The electric bath, methodically applied with a sufficiently powerful machine during a period of twenty to thirty minutes, and repeated about three or four times a week, has a most remarkable influence upon the cure of anæsthesia. It is, of course, in hysteria that the most rapid, and, it might almost be said, miraculous cures have been effected.

No wonder, since even the application of a piece of wood, or a layer of collodion, has sufficed in certain cases to give a good result. But loss of sensibility has been repaired in far more unpromising cases, where organic injury to the nervous centres had been distinctly ascertained; and where the normal condition has not been restored, in other ways, a great improvement has been achieved in this respect. 2. Contracture, whether hysterical or of a less immaterial nature, has also been successfully treated by franklinism in our own time, as, in days gone by, the Reverend JOHN WESLEY, as we have seen, testified to the marvellous results produced by its use. 3. Chorea and nervous trembling have in various cases been radically cured by the same means. 4. Suppressed menstruation has been restored after a few sittings. 5. Hypersæsthesia and neuralgia have in some instances been relieved, in others radically cured. Our forefathers stated that hypochondria was among the diseases which might be checked by franklinism. We need not therefore be surprised to find that neurasthenia, an ailment closely allied to hypochondria, if it is not the same malady under a more recent and dignified name, has often been considerably ameliorated by the electric bath. That reverses will occur in the practice of everyone who adopts static electricity as a mode of treatment is a fact which can easily be foreseen. All that can be claimed from a positive knowledge of authentic cases is that relief will sometimes be obtained where pharmaceutical treatment had failed as completely as galvanism or faradaism in restoring health. The subject is one which deserves the attention of medical men, and which will, undoubtedly, reward the labours of all scientific observers who may choose to investigate it. Possessing, as we do, generators of a power unknown to our predecessors, better acquainted than they possibly could be with the physiological action of the electric fluid under its various forms, and rich in the accumulation of an immense store of clinical knowledge, we can easily avoid the errors formerly committed in theory, and obtain more satisfactory results in practice. At all events one thing is clear. Electricity may be applied to the treatment of disease in all its varied forms, and we should avoid an exclusive and egotistical attachment to any one method recommended by a particular authority.

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AN influential meeting was held at Brighton on Tuesday, to consider the subject of Medical Reform, with reference to the education of our students in the practice of their profession. This is the third large meeting of the kind which has taken place within the past few weeks, first at Leeds, then at Bradford, and now at Brighton, so that we have had an opportunity of hearing the matured views regarding medical reform of some of the leading practitioners in the Northern and South-Eastern counties of England. So far as we can judge, the larger proportion of the profession is of opinion that the time has come for legislative interference in this matter. This opinion is not based on a mere love of agitation, but is founded on the belief that the curriculum and method by which our students become qualified to practise are defective, and that the existing licensing authorities of the United Kingdom, after ten years' effort, find themselves incapable of sinking their minor differences, and uniting to promote the common welfare of the profession. Some of the most prominent members of the medical corporations, however, still console themselves with the idea that the existing movement in favour of medical reform lacks vitality so far as the bulk of the profession is concerned, that it is something which has been created and kept alive by the editors of certain journals and a few restless individuals; but if such were the case, how is it possible, as Dr. C. HOLMAN remarked at Brighton, to account for the opinions expressed by the various gentlemen who have spoken at recent meetings on medical reform, as he argued these gentlemen are neither editors nor agitators, but some of the most influential and successful men in the profession? Beyond this, many of them employ young practitioners as assistants, and have an opportunity of forming an opinion as to the results of the present system of training students with reference to its capability of producing men who are fit for the work of their calling, and they have arrived at the conclusion, which is also entertained by the majority of the profession, that the education of medical students is unquestionably faulty, and they see no reasonable hope of improvement under existing circumstances. This is the motive power—the secret of the present movement in favour of reform. Medical men, as a rule, had no wish whatever to break away from the old corporations; they have waited patiently, and striven hard to induce our medical authorities to combine for the common good of the profession; but, weary of promises for conjoint action on the part of the corporations, they now affirm that the time has arrived for legislative action. We have endeavoured, and shall continue to strive, to give expression to the views of the profession on this subject. The meetings already held have not been promoted by us, but we, and the profession generally, are nevertheless under a deep sense of obligation to the gentlemen who have taken part in these meetings; for unless medical men come forward and speak out plainly it is difficult for us to gauge the depth of feeling that exists on the subject, and it is impossible for the members of the Royal Commission engaged on Medical Reform to arrive at a satisfactory conclusion unless the profession, through its representatives, now come to the fore and state their grievances, together with the measures they propose to overcome existing anomalies. In fact, as Dr. WITHER MOORE, the President of the meeting at Brighton, justly remarked, the Government cannot be expected to consider a matter of the kind until the profession has made up its mind what it really wants.

We confidently believe that a large majority of professional men have made up their minds and demand an alteration in the constitution of the General Medical Council. The profession assert that in their opinion the number of the Council should be reduced by one-half, that it should be endowed with the responsibility and real powers of a Council of Medical Education, and that its members should be elected by the medical practitioners of the United Kingdom. On the other hand, it is equally certain that some of the most influential men in the profession affirm their belief that a Council partly elected by the profession is not to be thought of. The reply is, What has been the outcome of the work performed in the Council by some of those gentlemen who are loudest in condemning the proposed change?

It is true, as DR. R. BOWLES contends, that the lack of results from their deliberations is in a large measure attributable to the Medical Act of 1858, under the provisions of which the Council work. But what reason is there to suppose that the bulk of professional men throughout the country are incapable of forming an opinion regarding the qualification of individuals best fitted to perform the work required of members of the Council? These gentlemen certainly know very well whom to trust when they require an opinion on professional matters, and they may equally be trusted to elect good Councillors.

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DR. LYONS, the member for Dublin, acted with perfect *bona fides*, and in a manner which must create a strong claim to the respect of his profession, in declining to present a petition which the King and Queen's College of Physicians in Ireland has seen fit to address to the House of Commons in favour of legal as opposed to medical coroners. This corporation has long held a position strangely out of sympathy with the profession on subjects of education and qualifications, and it is perhaps in harmony with the traditions of the King and Queen's College that it should run directly counter to the best interests of the profession in regard to any matter of practical concern. Its most recent exploit is the drafting of a petition asking "that every coroner should be either a barrister-at-law or on the roll of solicitors," and arguing that "while medical evidence is essential for the efficient conduct of a coroner's inquiry into the cause of death, it by no means follows that there should be a medical judge to try cases where medical evidence may form an essential portion of the case." Meanwhile the profession contends, as it has always contended, that no non-medical judge *can* weigh the skilled testimony of a pathologist. Mistakes of the kind now made by the King and Queen's College of Physicians in Ireland are the outcome of mingled ignorance and impracticability. Persons who make proposals like those embodied in this petition are obviously unacquainted with the history of the Coroner's Court, and cherish a dreamy view of its assumed dignity which is incompatible with any sound conception of the needs of the case. Coroners do not "try cases"! The *sole* purpose of an inquest is to ascertain the cause of death. It would disorganise the whole judicial system to magnify the office of coroner in such fashion as to make him a petty judge, at the foot of the administrative system. This is what the advocates for legal coroners are striving to accomplish. There is no need of such a Court as they seek to make out of the remains of the coroner's office. To investigate the causes of death in a district there must be a public official, and none can be so fit for the proper discharge of duties accruing to such an office as medical men. They alone can carry an inquiry of this nature to its legitimate issue by the most direct, efficient, and, let us say, the cheapest route. When a medical corporation goes out of its way and flagrantly oversteps the boundary line of its province to offer suggestions to Parliament, it is unaccountable that these should take the form of recommendations antagonistic to the common-sense instinct of the medical profession, and not less at variance with the intelligent opinion of the country. DR. LYONS deserves the thanks of his brethren on both sides of St. George's Channel for the wise step he took in refusing to be the agent of a body of professional gentlemen so demented as the College of Physicians in Ireland has shown itself.

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WE have recently published several letters from correspondents (some public vaccinators) complaining of the inefficiency of the vaccine lymph issued by the National Vaccine Establishment. Certain of the complainants are men too accustomed to vaccinate to permit it to be inferred for one moment that there can have been any shortcoming in the operative procedure, and in a few instances the failure in the use of the lymph has been too uniform and repeated for it to be attributed to any other cause than the want of activity in the fluid. It is unfortunate that this question should be raised at the present time, when, in the public interest generally, it is desirable that confidence should be maintained in the central lymph establishment and its issues; but at the same time it is natural, as no doubt the demands for lymph from the establishment exceed the normal proportion. We hold this subject so important that we have sought independent information with regard to it in the metropolis and elsewhere; and we find on the one hand that while not a few vaccinators who have had and have occasion for using largely lymph obtained from the National Vaccine Establishment cannot speak too highly of its character for efficiency and certainty in use, others have lost all confidence in it, and if they have occasion to procure fresh supplies of lymph do not seek them at Whitehall. From this we infer that the vaccine lymph issued from the National Vaccine Establishment is more variable in quality than should be, and that in the interests of the establishment and of vaccination generally the Local Government Board should institute some inquiry into the cause of this variability with a view to remove it, if it should be found to depend upon remediable causes. If this be not done, and that pretty quickly, and the question be suffered to slide, as the rumours about the Hampstead Hospital were allowed to slide, the Local Government Board will possibly find that while it has been sleeping others have been wide awake, and a matter which in the first instance had concerned the National Vaccine Establishment alone had developed until it had come to concern vaccination generally. It does not follow that with regard to questions to which the Local Government Board chooses to shut its eyes other persons interested in them will elect to follow the same course. The policy of the blind leading the blind can have but one result; but it may be doubted, having regard to the present state of the small-pox hospital question in the metropolis, whether the Local Government Board is yet prepared to accept this uniformity of the result. But at least it should feel assured that this is not the time to have the question of dealing with the metropolitan epidemic of small-pox complicated by doubts as to the efficiency of the lymph issued from Whitehall, nor to risk bad or imperfect vaccinations and revaccinations from the use of feeble or worthless lymph.

THE next examination for the certificates in Sanitary Science given by the University of Cambridge will commence at Cambridge on Tuesday, Oct. 4th. Any registered practitioner may present himself who is in his twenty-fourth year. Applications for admission or for information should be addressed to Professor Liveing, Cambridge.

Annotations.

"Ne quid nimis."

THE HOSPITAL SUNDAY FUND.

THE Council of the Hospital Sunday Fund met on Monday, under the auspices of the Lord Mayor, who shows the most kindly interest in the success of the Fund, and has agreed to attend officially at Westminster Abbey in the morning and at St. Paul's in the afternoon of the 19th, where Her Majesty's judges, too, have consented to attend. The Council has unanimously determined that it cannot give a grant to Surgical Appliance Provident Associations which require a multiplicity of letters in severe cases, and the public will heartily support the Council. It is wonderful that these associations do not see how strong public feeling is against their rule. The Eastbourne Convalescent Hospital having made a representation that it could not give more than ten letters for every hundred guineas granted by the Fund, and the matter having been considered by the General Purposes Committee, the Council, on the motion of Sir Sydney Waterlow, unanimously recommended a grant for this year on these terms. It is no doubt a large sum for the Council to pay, but the hospital has large expenses and deals generously with its subscribers, and through them with its patients. Dr. Glover seconded Sir Sydney's resolution, observing that whereas the question with this hospital last year was one of principle, this year it was merely one of detail, which might be left to time and the authorities of the Fund and the hospital respectively.

CONVERSAZIONE AT ST. BARTHOLOMEW'S HOSPITAL.

ON Friday last a conversazione was given by the governors and medical staff of this ancient hospital, which was attended by the Prince and Princess of Wales, and nearly 2000 guests. The school was formally opened by the Prince about eighteen months ago, but since that time has received many additions, and is now in thorough working order, and it was thought by the staff to be a good opportunity to show to the public the arrangements that have been made for the instruction of the students. The space between the quadrangle and the new buildings of the school was converted into a large reception-room, capable of holding 600 persons and more. The visitors were received by Sir Sydney H. Waterlow (the treasurer of the hospital) and his daughters, Dr. Andrew, the senior physician, Mr. Savory, the senior surgeon, and other members of the staff. From the reception-room passages led on the one side to the library, well filled with books and finely fitted up with oak panelling, to the physiological class-room and to the museum, and on the other side to the anatomical theatre, the medical theatre, the dissecting-room, and, at some distance, to the dispensary of the hospital, where the manufacture of various medicines was exhibited. The walls were everywhere lined with pictures and drawings. In the library was a remarkable piece of Japanese bronze work, and a collection of Cloisonnée enamel, lent by Sir Trevor Lawrence, as well as a series of engravings by Bartolozzi, lent by Mr. Seabright and Mr. Morris. The physiological class-room contained a large collection of physiological and electrical apparatus, with microscopes and microscopic objects of interest, lent by the leading firms in the metropolis. In the museum a potter was engaged with his wheel, and proved a special attraction, and Sir W. Muir had been kind enough to lend the series of the models of ambulances of all countries from the earliest times to the present, which is kept in Netley Hospital. The band of the Coldstream Guards played at intervals in the museum. Glee-singing by the London Vocal Union, and the performances of Sibold's string band, contributed to the amusements of the evening. Refreshments were served in the great hall, which was entered through the treasurer's house, and the walls of which were adorned with many paintings of value. The entertainment was a great success.

TRAINED NURSES FOR THE SICK POOR.

AN Association having for its object the provision of efficient nursing for the sick poor in their own homes must command the sympathy of the medical profession in a great degree, because it is in their own homes that the poorer classes chiefly need assistance. Hospital charity has its legitimate sphere, but it is not expedient that it should be allowed to encourage the poor to seek relief from the burdens of sickness by invariably flying to the hospitals. What has been urged against the cultivation of a confirmed and hereditary habit of recourse to Poor-law relief, on the smallest pretexts, may be urged with equal force and cogency against a system of hospital administration and extension which fosters a habit of sick-hospitalism. We are not, however, equally sure of the other objects which the Metropolitan and National Nursing Association proposes to itself—namely, the raising of the standard of nursing and improvement in the social position of nurses. There can, of course, be no direct objection to raising the standard of nursing, if by that the Association means rendering nurses more obedient to the will of medical men, and less disposed to trust to their assumed knowledge of "treatment," than they have recently shown themselves; but, it must be confessed, we view with suspicion all these movements. Even the Association for the Provision of Aid for the Wounded and the Injured by Street Accidents has begun to "examine" its pupils as to the measures desirable for the treatment of "emergencies," the exanthemata being included in the list! We stand in dread of elevations of the standard of quasi-medical work. They too often mean elevation to a grade at which the sort of "medical" work done by lay agency becomes ridiculous, if not positively mischievous. Excellence in nursing should consist in implicit and intelligent obedience to the injunctions of the medical man in charge of a case. Again, we have our misgivings as to the policy of making improvement in the social position of nurses an object. If nurses are proficient as skilled servants of physicians in attendance on the sick, their position *will* improve so far as it is desirable that it should do so; but it is difficult to imagine what improvement can be expected beyond that of better pay for better work. The bad old class of nurses satirised by Charles Dickens in his portraiture of "Sairey Gamp" has passed away. There is still room for improvement in the manners, and even greater scope as regards the modesty and obedience, of nurses; but we do not think this improvement is to be sought by seeking a better social position for members of the calling. Housekeepers do not find that the measures which have been taken for the social "elevation" of domestic servants have led to substantial improvement in the class of cooks and housemaids. The notion of lady-helps may be dismissed as absurd, and the class of lady nurses will not be perpetuated. Nurses must always be *servants*, and they cannot safely be permitted to rise above that position in society. The more respectable they are the better, provided always their respectability does not interfere with their obedience. The main object of this Association is commendable in the highest degree, and we wish it every success; but as regards its secondary objects we are not so well assured, and would gladly see them practically subordinated.

CONTRIBUTION TO THE STATISTICS OF MYOPIA.

DR. O. INST of Zittau in Saxony, in a note which appears in the just published *Archives of Ophthalmology*, states that he has examined the eyes of 1229 pupils of the two high schools of Zittau, the one of which was erected in 1866, the other in 1871, and in both of which the hygienic conditions of light, space, and arrangements of furniture leave nothing to be desired. The contrast between them and the dark rooms of our older schools is striking. The examinations were made in the same room, under equable artificial illumination, both with glasses and the refraction ophthmaloscope, mostly without artificial mydriasis. Only those cases were entered as myopia which showed a decided improvement of visual acuteness by concave glasses, and whose myopia was verified by the ophthalmoscope. In some instances good vision could only be obtained by the aid of a convex glass, nevertheless there was no ophthalmoscopic myopia. The well-known affection of spasm of accommodation, represents, he thinks, the transition from the hyperopic into the myopic refraction. He has met with a few cases in which repeated atropia treatment each time produced a temporary good result, but did not prevent the development of permanent myopia. The percentage of myopia in the seven classes of the new high schools was as follows:—25·7, 11·4, 22·2, 43·6, 45·0, 80·0, and 58·8, which, leaving out the accidental inordinate figures in the first year and the sixth, agrees well with the results obtained by Cohn and other observers. Myopia being as frequent in the new schools of Zittau as in other educational institutions of the same kind, we may fairly conclude that it does not chiefly result from insufficient illumination of the school-rooms, but rather from the great and ever-increasing demands on the industry of the pupils at home, forcing prolonged labour on their eyes during the evening hours, frequently by insufficient artificial light. Hence, though far from underrating the dangers of bad sanitary conditions in the school-rooms, Dr. Inst urges the necessity of sparing children's eyes the fatigue of evening work as much as possible. In regard to treatment, he thinks, with the majority of ophthalmic surgeons, that the effects of atropine are only temporary, and states that he intends to try convex glasses, a proceeding that, with Knapp, we believe is fraught with danger by aggravating the injurious habit of holding objects nearer than the position of the far point of their distinct vision requires.

THE RECENT COLLIERY ACCIDENT AT DEARHAM.

AN inquest, which had to be adjourned, was held a few days ago on the body of Robert Highmore, a miner, killed by a stone falling from the roof of the colliery. He was treated by Dr. Crerar of Maryport and his assistant for dislocation of the clavicle by bandaging and rest. There was at first extreme collapse, but after the lapse of three or four days he was progressing, in their judgment, satisfactorily, when they were dismissed to make way for Dr. Spurgin and Dr. Jackson. Dr. Spurgin's account of the man was that he was suffering from dyspnœa; respiration 80; pulse 125, feeble and weak; tongue furred; expression very anxious; eyes very brilliant; and a general state of high fever, with rusty expectoration. This was his condition a day after that on which Dr. Crerar had discontinued attendance, and on which he describes him as having nothing in his state to cause death. Dr. Crerar and his assistant both refused to give narcotics. Dr. Jackson, who saw him before Dr. Spurgin, sent four pills with half a grain of morphia in each, of which one was taken, and Dr. Spurgin injected hypodermically a quarter of a grain. The chief discussion at the inquest was as to the respective effect of different treatments by bandaging and by narcotics. We must leave this to the judgment of medical men, only observing that after such injuries bandaging and rest are most essential elements of treatment. Apart from all questions of the applicability of narcotics in such cases, we think it most important not in any case to send out morphia in half-grain doses, to be repeated every half-hour till sleep is produced. The idea that a bandage would drive a fractured rib, even if such existed, into the lung will not bear discussion, and was not seriously maintained either by Dr. Spurgin or Dr. Jackson. We can only express regret and surprise that the coroner, though occupying two days in this inquiry, did not order a post-mortem to settle differences of opinion and to give accuracy to judgments on the conduct of medical men.

ERICHSEN MEMORIAL FUND.

WE understand that at a meeting of Mr. Erichsen's old colleagues and pupils, recently held at the house of Mr. John Marshall, F.R.S., it was proposed to endeavour to obtain some permanent memorial of Mr. Erichsen's long connexion with and great services to the School of Medicine of University College. The approaching completion of his term of office as President of the Royal College of Surgeons being considered as a fitting occasion for such a monument, it was decided that steps should be taken to invite former students of University College, and others of Mr. Erichsen's friends, to contribute. The memorial is, we believe, to include a bust of the eminent surgeon, which it is proposed to place in University College. The name of Mr. Erichsen is so highly respected, and so well known in connexion with his work on surgery, not only in Great Britain and the Colonies, but also throughout Europe and the Continent of North America, that very many, we are sure, will be glad of this opportunity of contributing to a testimonial to one who has done so much for the honour of British surgery. Subscriptions to the "Erichsen Memorial Fund" may be sent either to Mr. Marcus Beck, 30, Wimpole-street, W., who has undertaken to act as honorary treasurer; or to Mr. W. A. Meredith, 14, Old Burlington-street, W., the honorary secretary. No subscription is to exceed two guineas in amount.

THE HOTELS OF ROME.

THE *Italian Times*, the English journal published in Rome, has established a Commission with a view of inquiring into the sanitary conditions of the hotels of the city, and of suggesting such improvements in them as may be found requisite. The Commission is composed of Dr. L. Aitken, Dr. Erhardt, Dr. Fiordispini, Dr. Manassei, and Dr. J. H. Thompson. The conception of this Commission has been very well received by hotel managers, to their credit be it said, and it has commenced its work with good promise of being carried to a successful issue. It is a kind of work which must exercise the best effect upon visitors, in giving them confidence that they may enter the hotels of the city without serious risk of suffering from the defects of drainage and water-supply which are so largely believed to attach to them. For it is idle to deny that the reputation of Rome as a resort for tourists has been greatly prejudiced by the fear that the sanitary arrangements of its hotels are far from what they should be. We regret to observe that the Italian Medical Association has taken umbrage at this Commission, and has summoned a meeting to discuss "the measures to be taken in view of the arbitrary interference of certain foreign medical practitioners with the hygienic condition of Roman hotels." But if neither the Municipality nor the Association has seen its way to do this in the interest of foreign visitors, the world in general will feel only too much obliged to the proprietorship of the *Italian Times* for having had the genius for seeing a way of doing the work, and forming an agency which gives promise of its being well done, and which, moreover, meets the approval of the hotel keepers themselves.

THE APPOINTMENT OF A HOMŒOPATH AS MEDICAL OFFICER OF HEALTH AT HASTINGS.

A MEMORIAL drawn up and signed by a considerable number of influential ratepayers has been presented to the Mayor of Hastings, requesting him to convene a public meeting to protest against the recent appointment of the present medical officer of health, which was made contrary to the general wish of the inhabitants. As is well known, this gentleman is a homœopath, and the memorialists urge that the appointment is calculated to do infinite damage to the trade and prosperity of the town as a health resort, since members of the medical profession will refrain from recommending their patients to visit the town if the step that has been taken is maintained. The Mayor, though he admits the right of the inhabitants to call a public meeting, declines to do so himself, as the matter he thinks is entirely within the province of the Town Council, and any action on his part would be anomalous and unprecedented. We hope this decision on the part of the Mayor will not prevent those ratepayers who have the best interests of the town at heart from summoning a meeting, with a chairman of their own, to discuss this important subject. The material welfare of the two towns, Hastings and St. Leonards, will, as the memorialists state, suffer considerably unless the profession and the general public receive an assurance that sanitary matters are efficiently conducted. How this can be the case if the present state of matters continues we are at a loss to conceive. The duties of a health officer constantly involve questions of professional etiquette of the most delicate nature; and a gentleman who has the entire confidence of his professional brethren, and can rely on their cordial co-operation and support, is best able to carry out matters of sanitary reform, and deal promptly with difficulties in times of emergency, which would be impossible in the case of an unpopular man, to whom such support would be given grudgingly and of necessity. The competition among health resorts is now so keen that no town can afford to handicap itself unfavourably in the race by an indifference to health matters. In considering the relative advantages of health resorts having many characters in common, any suspicion of there being a hitch in the sanitary arrangements of any one of them will be sufficient to ensure a casting vote being given against it. Moreover, the ratepayers of Hastings credit the members of the medical profession with strange magnanimity if they suppose that practitioners will send patients to a town where, if attacked with any epidemic disease, they will be brought into direct contact with practitioners who hold views diametrically and irreconcilably opposed to their own.

REMOVAL OF THE KIDNEY FOR NEPHROLITHIASIS.

AT the Charing-cross Hospital is a lad aged fifteen, from whom Mr. Barwell removed a kidney on May 5th, and who is now convalescent. The boy had been under observation for about a year with pyelitis and retro-peritoneal abscess. An incision was made about ten months ago, with the effect of mitigating the symptoms. The wound had healed, leaving only a sinus. In April, by sounding through this passage, Mr. Barwell detected a stone. Yet although the lad was becoming very anæmic, with irregular hectic temperature, no consent for operation could be obtained until the above date, when lumbar nephrectomy was performed. Two peculiarities rendered the removal unusually difficult—viz., the dense thick cicatricial tissue and the proximity of the rib to the ileum. Mr. Barwell cut through the tissues, and came upon the kidney with the stone impacted. An endeavour to extract this latter caused copious bleeding, hence the operator rapidly enucleated the gland, and passed a ligature round the pedicle *en masse*. Since want of room forbade removing the kidney entire, it was divided and extracted in two parts. The operation was thus completed very quickly, and with scarcely any loss of blood. Since then the boy has been going on uninterruptedly well, his temperature becoming normal and regular, the wound being now nearly healed. This is, we believe, the second successful case of removal of the kidney for stone.

EMPLOYMENT FOR SOLDIERS' WIVES.

A FEW years ago, in Dublin, if we remember rightly, the important step was taken by an army medical officer of establishing a class for the instruction of soldiers' wives in the duties required of midwives. The object of the promoter of this praiseworthy measure was double—that of providing in each regiment one or more qualified nurses whose services would be available for the wives of soldiers in the colonies, where such aid is often scarcely to be procured, and of training the women for a special duty, which they might turn to profitable account both during the period of their connexion with the army and after that had ceased. Another step in this direction has just been taken by the formation of an association for the instruction of soldiers' wives in general nursing. Last week a meeting was held at Woolwich in connexion with the association, and there was no lack of distinguished patronage, Viscountess Strangford, Lord Chelmsford, Sir Frederick Roberts, and General the Hon. E. T. Gage taking part in the proceedings. Major Duncan, R.A., stated that the Field-Marshal Commanding-in-Chief took a warm interest in the question, "and had addressed a circular letter on the subject to all the commanding officers in the service, of whom three-fourths had answered favourably." The object in view is very commendable, but we doubt whether the promoters sufficiently realise the difficulties likely to be encountered. A large proportion of soldiers' wives are women who have not the qualities required in good nurses, and the selection of those who are to be trained must be a task of great difficulty. We cannot for a moment suppose that it is intended to train all the women of a regiment for such duties, and we have no indication of the manner in which, or the persons by whom, the selection is to be made. Then, again, there is the difficulty of withdrawing these women from their families. Who is to care for their children while they are engaged at the hospital? Unless the selection is made with judgment and a very careful supervision is maintained over the nurses, we fear the results will prove far from satisfactory. We are not much impressed with the sagacity shown by Lord Chelmsford in his remarks on the subject. He observed that "all the good results which had followed the arrival of Florence Nightingale and her band of nurses at Scutari were to be yet achieved in similar cases by the soldiers' wives." Is it possible that Lord Chelmsford has failed to recognise in Florence Nightingale a woman in ten thousand—ay, in a hundred thousand;—and does he really expect results from the soldiers' wives such as were obtained by that remarkable lady and her band of educated nurses? If he does, we have no hesitation in predicting failure and disappointment. And what are we to say of his anticipation of the occurrence of similar cases to those of Scutari and Balaklava? Have the military authorities profited so little by the sad experiences of those days as to justify his lordship in predicting a similar fiasco? We sincerely trust, however, that wise counsels may prevail, and that by judicious selection and careful administration much good may be effected, even though it does not amount to anything like that foreshadowed in the speeches at the meeting.

THE COMMISSIONERS IN LUNACY AND ASYLUM REPORTS.

OUR readers will have noticed that for some years past we have avoided, as far as possible, any formal reference to the printed reports of asylums. The time has now arrived when it may be well to state the grounds of this reticence. We make no apology for speaking plainly. The facts are these. Under the system which requires or allows the Commissioners in Lunacy to write the reports of their visits to asylums in the books of these institutions, and which permits the compilers of asylum reports to reproduce these reports in their pages, the records left by the Commissioners have come to be nothing more or less than testimonials left with the authorities of asylums in return for the courtesy shown during an inspection. This is a most disastrous condition of matters, and we venture to suggest that it is one which demands the very serious consideration of the Legislature. The subject is one of the gravest practical interest to the public, and whatever else in connexion with Lunacy may be played with or postponed, this little matter at least might be promptly reformed.

THE BLOOD IN CASES OF EXTENSIVE BURNS.

THE congestion of the internal organs in cases of severe burns has long been a familiar fact to surgeons. But it has been questioned whether the marked constitutional symptoms produced by such injuries are to be entirely explained by this congestion, and by the direct influence of the burning upon the cutaneous sensory nerves, or whether part of such immediate symptoms, and also the later phenomena, may not be caused by some intimate change in the blood itself. Hoppe-Seyler has recently examined the blood of two patients extensively burnt, and he found that in one of them 2·4 per cent, and in the other 5 per cent. of the hæmoglobin had escaped into the serum, which in the latter case only corresponds to about 25 grms. of blood. The blood readily absorbed oxygen, and became of a bright-red colour, and when exhausted evolved carbonic acid gas. No notable change in the corpuscles was discernible by microscopical examination. In one case the urine contained methæmoglobin, but the quantity only represented 2·14 grms. of blood. From these results there is no evidence that destruction of blood-corpuscles plays any part in producing the general symptoms of burns.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

A CONFERENCE has been held between delegates of this Association and of the Hospital Saturday Fund. It is difficult to form an accurate estimate of the plans of the Association. Beyond the idea of a company to float fifty dispensaries in the metropolis, at which the working classes are to be attended on the very lowest terms, we are not favoured with much detail at the meetings. At any rate, such detail is not reported. We caution the promoters against thinking that they can mass the working classes together under the care of a young and untried medical man, to be paid a salary more befitting a clerk than a doctor, which is the method that seems to find favour with them. This will not prevent the members from seeking gratuitous advice at hospitals or dispensaries where men of some standing may be seen; and a scheme such as that proposed should not be encouraged by gentlemen wishing to raise the providence of working men in the extremely important matter of their health and that of their families.

THE CARDIAC CIRCULATION.

L. LANGER has been making observations on the terminations of the small veins of the heart. The minute apertures by which many of them open into the right auricle—foramina Thebesii—are familiar to all, but he has demonstrated similar openings into the left auricle, which Bockdalek had previously discovered. And further, Langer finds that in both ventricles, especially on the papillary muscles, and near the orifice of the pulmonary artery and aorta, are fine apertures smaller than the foramina Thebesii, which he proved communicated with the veins by driving air through them into the veins, and coloured fluids from the veins into the ventricles. The vessels thus opening on to the inner surface of the ventricles are very small, and not the direct branches of the great cardiac veins, and they seem to be devoid of valves. These minute vessels probably serve a useful purpose in equalising the circulation in the heart-substance under its varied conditions.

THE RECORDER AND FALSE STATEMENTS TO REGISTRARS.

THE Recorder, Sir Thomas Chambers, made, the other day, some very curious remarks in reference to the case of a woman named Hyde, who was charged before him with giving a false address of the place of birth of her child in order to avoid having it vaccinated. The woman creditably admitted the offence, her excuse being that a child previously had died, whose death *she attributed* to vaccination. Thereupon the Recorder made the observations which have excited our surprise. He said the whole medical profession were in controversy about the matter—of vaccination, we presume. But what had that to do with the offence of a false statement under the Registration Acts? And even if it had been pertinent it was as inaccurate as anything could be, for there is no one point on which the medical profession is so near unanimity as that of the efficacy of vaccination and revaccination.

ARMY COFFEE TAVERNS.

WE observe with much satisfaction that a coffee tavern for the men of the Guards has just been opened in Buckingham-palace-road, near the Victoria Station. It is intended to be kept open from 5 A.M. till 12 at night, and in addition to providing food and non-alcoholic drinks at very moderate prices, will be amply supplied with newspapers, and rooms will be set apart for reading, writing, bagatelle, &c. It is proposed hereafter to add a library. We wish every success to this laudable endeavour to provide rational amusements for the men of the Guards, and to afford them comfortable accommodation and enjoyment free from the temptation to intemperance which is so abundantly spread before them in the form of magnificent gin palaces.

VARIX OF THE ŒSOPHAGUS.

AMONG the extremely rare positions in which varicose veins may be found is the mucous lining of the œsophagus. An example was exhibited at the Pathological Society by Dr. Bristowe in 1856, in which "the veins of the mucous membrane were found to be enlarged and tortuous, especially in the lower part, having all the characters of varicose veins of the lower extremities." Death was caused by hæmorrhage from the perforation of one of these dilated veins. C. J. Eberth records a closely similar case in *Deutsches*

Archiv f. Klin. Med. A man forty years of age had suffered for four years from hæmatemesis and bloody or tarry stools, and this had been repeated eight times within a year of his death. As there was pain over the region of the stomach, the symptoms were thought to depend upon an ulcer of the stomach. At last a fatal hæmorrhage occurred, and it was then found that the veins of the mucous membrane were varicose over the lower half of the œsophagus, and that, reaching the size of pencils, they projected as soft cords from the surface. The hæmorrhage was traced to an opening in one of these veins, about two centimetres above the cardiac orifice. Several minute white cicatrices were also found along the greater curvature of the stomach.

THE ELECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE annual election of Members of Council of the Royal College of Surgeons of England is fixed for Thursday, July 7th. The retiring members are Sir James Paget, Mr. Haynes Walton, and Mr. Wheelhouse of Leeds. The two former gentlemen are expected to offer themselves for re-election; but Mr. Wheelhouse, it is said, will not again seek the suffrages of the Fellows. The following Fellows will be candidates:—Mr. Hulke (1857), Mr. John Croft (1859), Mr. Christopher Heath (1860), and Mr. Reginald Harrison (1866). As the announcement of the day of election appears in the *London Gazette* to-day (Friday), other candidates may be forthcoming, among whom many would be glad to find Mr. George Pollock (1846).

THE STARVATION FOLLY.

AGAIN the American community are to be scandalised by an attempt to fast, this time for forty-five days. Granted the feat is possible, what then? It is a disgrace to the medical profession in the United States that men should be found willing to lend themselves to the grim farce by "watching" it. We are not forgetful of the unhappy fact that the profession in England is discredited by a folly almost amounting to wickedness of the same class. Some years have, however, elapsed since the occurrence of this English scandal, and we may hope our brethren at home have learnt wisdom. We only notice the matter to denounce the whole business. It is useless and mischievous. The procedure is a folly verging on madness, and ought to be so regarded and discountenanced.

A NOVEL and interesting method of adding to the funds of the Chelsea Hospital for Women has been proposed in the shape of a grand fancy fair and musical fête, to be held on June 8th, 9th, and 10th, in the Royal Albert Hall, which will be converted for the occasion into an old English market-place. All the accessories of the fair will be in the old English style, and the device, having been accorded the patronage of Royalty and of a large number of the aristocracy, may be expected to prove a gratifying success.

THE Medical Acts Commission met at 2, Victoria-street, Westminster, on Friday, the 27th, Saturday, the 28th, and Monday, the 30th May. The evidence of Dr. Acland, Sir James Paget, and Mr. Erichsen was taken. There were present: The Earl of Camperdown (Chairman), the Right Hon. W. H. F. Cogan, the Master of the Rolls, Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. McDonnell, Professor Turner, Mr. Bryce, M.P.; and Mr. John White, Secretary.

MR. J. K. BARTON will be elected Vice-President of the Royal College of Surgeons in Ireland on Monday next, the 6th inst.

IT is always pleasant to report the progress of the Coffee Tavern movement. A few days ago the Earl of Onslow opened the Royal Army Coffee Tavern, Stoke, which is a handsome building of three stories, replete with conveniences including stables. The success of this undertaking is much due to the rector of Stoke. But the Earl of Onslow is to be thanked for laying the foundation stone, and for opening the tavern in a speech showing his sympathy with coffee taverns as a means of opposing intemperance.

WE are glad to see that on the recommendation of the Indian Government the Companionship of the Order of the Indian Empire has been conferred on each of the undermentioned officers of the Royal and Indian Medical Services:—Deputy Surgeon-General Norman Chevers, Surgeons-Major Waring, Moorhead, Oliver Barnett, J. Anderson, and Surgeon Owen.

THE Companionship of St. Michael and St. George has been bestowed on Halliday Macartney, M.D., English Secretary to the Chinese Legation.

MR. A. O. M'KELLAR has been elected president, and Dr. M. Long hon. treasurer, of the Queen's University Graduates' Association.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORT OF MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

The Isle of Wight.—Hitherto the Isle of Wight has had to be regarded chiefly from the climatic advantages it derives from its geographical position and from its topographical beauties. Now we are called upon to regard it from the more intimate consideration of its sanitary condition. The Local Government Board has thought it desirable to submit the sanitary administration and condition of the island to a close inquiry, and the result is now before us in the form of a report by Dr. Ballard, one of its most experienced medical inspectors. The contents of this report will, we apprehend, be a matter of painful surprise to tourists, health-seekers, and medical men, in general. It shows that the best interests of the island have been, and continue to be, sacrificed to an incoherent and negligent sanitary administration. It would appear that the sanitary interests of the island are confided to the care of nine separate sanitary authorities, eight of these having charge of the more important urban districts, and the ninth being the authority for the rural district—this district including 86,876 acres of the 93,341 acres which constitute the total area of the island, and about half the total population, the remaining 5465 acres being under the control of the urban sanitary authorities. These several authorities act quite independently of each other, recognise no common interest, display different degrees of activity in the pursuit of their functions, and, in the case of the most extensive district (the rural), the authority even goes out of its way to frustrate the very aim of its existence by an appointment of officers—to wit, nine medical officers of health and four inspectors of nuisance—without any provision for coördinate action, an arrangement which, as might have been anticipated, is fatal to the proper performance of the duties of these officers and to the proper sanitary administration of the district. It is not surprising, therefore, to find that the sanitary condition of the island as a whole, and in view of the great reputation it enjoys among tourists and health-seekers, has been lost sight of in the local interests which concern the several sanitary administrations, and that these again have been dealt with from a contracted point of view, which has been in the highest degree prejudicial to efficient sanitary work. Dr. Ballard, in describing the sanitary state of the various local administrative districts in the island, has to show everywhere serious defects of sewerage or drainage, or water-supply, or of all these matters, with a general prevalence of enteric fever, and in some localities phthisis, which for the future must be seriously considered by visitors, at least, to the island. Writing of West Cowes, Dr. Ballard says: "I gather from the reports of the medical officer of health, and from the conversations I have had with him and with other medical gentlemen practising in Cowes, that for some years past enteric fever has largely prevailed there, not only in the lowest and the poorest part, where the district is (as mentioned before) liable to be flooded from time to time, but in other parts of the town also, and even in the new streets at the highest elevations. No parts of the town and no class of houses appear to have been spared, and visitors who have come there for health have carried away the contagion with them to their homes elsewhere." It is impossible to peruse the report without inferring that this remark is applicable to every part of the island, rural as well as urban. The account given of the pollution of one of the sources of the public water-supply of Sandown is revolting. The sanitary administration of St. Helen's, although lax in several respects, alone seems to deserve a word of approval from Dr. Ballard. No portions of the island appear in less favourable light than Ventnor and the rural district. The reader of this report will be chiefly struck by the evidences of indifference which it furnishes on the part of the sanitary authorities to the intimate sanitary interests of the inhabitants, and of the numerous visitors who flock to the island every year. The only safety from the domestic conditions mischievous to health described by Dr. Ballard, to which visitors are exposed, must rest with the sanitary authorities. If these neglect their duties, or negligently perform them, as they have obviously done, confidence in the island as a health-resort must be eventually destroyed. For people will soon learn to avoid a place where the good to be obtained from a beautiful climate is so very apt to be annulled by bad drainage and sewerage, and a polluted water-supply. Let us hope, however, that this report from Dr. Ballard will arouse the people of the island and the sanitary authorities to a proper sense of the precarious position in which the health-restoring qualities of the island stand, and that we shall presently learn that a more active and intelligent sanitary administration throughout the island has begun. It is painful to find that the most beautiful spot perhaps under British skies should, from lack of foresight of its local authorities, have become reduced in respect to many of the domestic conditions of unwholesome living to a condition which would be discreditable to localities that make no pretensions to be health-resorts.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Middlesex and Hertfordshire Combined Sanitary Districts.—Dr. C. E. Saunders reports a progressive improvement in the health of the combined districts under his supervision, and, as usual, offers much thoughtful advice for the consideration of the sanitary authorities. The death-rate of the combined district, which was 18·6 for the three years 1874–6 inclusive, had fallen to 16·2 for the four years 1877–80. The most noticeable feature in the returns of causes of death was the fatality from summer diarrhœa. Dr. Saunders attributes this to the influence of high temperature, a deficiency of rainfall, and to "filth," exemplified in what he terms, as he tells us "advisedly," "the beastly habits of the people," and the foulness of some, at least, of their surroundings. "It is," he observes, "the influence which filth, in its commonest forms, has on the atmosphere, that it is my greatest desire to see more fully recognised; hence it is with disappointment that I still have to report that so little has been done towards clearing off that abomination—the open privy; and I venture again to ask sanitary authorities to lose no opportunity of enforcing the earth-closet system, which, however badly it may be constructed or kept, and however far it may fall short of what an earth-closet can effect in deodorising excreta, yet in its worst form is incomparably better than the open privy." Dr. Saunders gives some interesting illustrations of the scattering of infectious diseases from the metropolis into the suburban districts, and, equally interesting, of the facility with which such scattering may be prevented from doing mischief if the means of isolation are available.

Withington, Urban (*Lancashire*).—Dr. Railton reports for this district in 1880, among a population estimated at 15,000, a birth-rate of 26·4 per 1000 persons living, and a death-rate of 13·7. Dr. Railton gives careful attention to an exposition of the true principles of house-drainage, illustrating his observations with a diagram; and his remarks deserve the closest attention of the householders in his district.

Glanford Brigg, Rural (*Lincolnshire*).—Mr. James Burdett Moxon reports for 1880 a death-rate of 18·0 per 1000 persons living amongst a population estimated at 29,199. Mr. Moxon's experience of typhoid fever in this district has been such as to confirm, in his opinion, the views of those medical men who believe that the malady is capable of being disseminated by infectious emanations from the sick, and he would enforce the necessity of isolation and the use of disinfectants, as well as means for securing freedom from polluted water, imperfect drains, accumulations of filth, &c. The chief feature of the health history of the year was an excessive infantile mortality. This mortality Mr. Moxon attributes mainly to the imperfect manner in which children are protected from the cold and wet of our climate, and the mode (improper) in which they are nourished, particularly the absence or deficiency of milk in their diet. The difficulty of obtaining milk in parts of his district seems to be great, and he suggests that some of the leading inhabitants should organise measures for the sale of this essential article of diet.

Hexham, Rural (*Northumberland*).—Dr. M'Grigor Maclagan, in his carefully prepared and thoughtful report for 1880, returns a birth-rate of 31·9 per 1000 of the estimated population, and a death-rate of 19·020, being a considerable increase upon the death-rate (17·114) of the previous year. He describes the state of the district with reference to water-supply, drainage, privy accommodation, and dwellings, and shows that while much has been done to amend these matters since the formation of the district, especially as regards privy accommodation, much remains to be done. No special incidence of any of the principal zymotic diseases has to be recorded, but Dr. Maclagan offers some observations upon the difficulty of controlling the spread of infection from the free intercourse maintained among families; and he refers also to one of the notable modes of dissemination of infection in the districts as being determined "by persons who go from house to house selling articles for domestic use, linen and woollen cloth, which is displayed to, and examined by, persons who have been in direct communication with infectious disease, which, after much inspection and handling, is again rolled up and carried to some neighbouring house." He makes the following observations on the same subject:—"Schools, again, have frequently proved the media through which infectious disease has been propagated in the district. Children themselves, recovering from infectious disease, or coming from houses in which disease exists, convey contagion to their schoolmates; and to prevent a further increase of disease in this manner, the closing of schools has been advocated. This is a point, however, which should be left to the discretion of the medical officer, as there can be no doubt that under certain circumstances a greater danger exists of favouring the increase of disease by closing a school than otherwise. When a school composed of children from one village, or who live closely together, is closed, the natural consequence ensues that they are continually invading each other's houses, and thus are brought into closer proximity to disease than when attending school; on the other hand, if a school consists of children from cottages in a sparsely populated and scattered district, some benefit might be derived from its closure."

Maidstone, Urban (*Kent*).—Mr. Algernon Adams reports for 1880 a birth-rate of 31·34, and a death-rate of 18·83 per 1000 population. The healthiness of the district was even greater in 1880 than it was in 1879, although the last-named year is said to have been "remarkably healthy." The utility of the sanitary hospital (although by no means one to be highly commended) was made strikingly manifest in enabling the medical officer to effectually check small-pox in each of four several invasions of that disease. Diarrhœa was the most fatal zymotic disease during the year. Mr. Adams made minute inquiry into the circumstances attending every case of death from the disease, and the conclusions he arrived at were as follows:—"That putrescent changes and improper food are the chief factors in the production of this disease, the changes being set up by high temperature and the miasma which abound in urban districts in the summer season. Starch foods and Swiss milk are bad substitutes for breast milk; experiment and observation have demonstrated that during hot weather putrescent changes are most prone to occur in farinaceous foods, after them in Swiss milk, less so in cow's milk, and least of all in breast milk. When we consider how careless the poor are in cleansing the feeding bottles so universally used it almost amounts to a practical certainty that these deaths from infantile diarrhœa are chiefly due to fermentative and putrescent changes in the improper foods administered. These conclusions lead us to rely for a reduction of infant mortality upon the beneficial results which we may hope to flow from a dissemination of the knowledge that hand-nursing is a dangerous proceeding, especially in the hot season; when, however, hand-feeding is unavoidable the purest and best cow's milk, to the entire avoidance of farinaceous substances, administered by the spoon or scrupulously clean bottles is the only tolerably safe proceeding." Writing of the sanitary condition of Maidstone, Mr. Adams describes improvement in several important respects, but is reserved on the quality of the water-supply, which he says is only "fairly good," and speaks of the hospital accommodation as "dangerously inadequate," a term which indicates that it could have been used with good effect far more largely than it has been had there been more of it and it had been better situated. An interesting separate report on the sewerage of Maidstone accompanies the annual report, also an instructive popular pocket memorandum relating to infectious zymotic diseases.

THE DISPOSAL OF REFUSE.

Few questions have given, and still give, so much trouble to local authorities as the disposal of the house refuse and refuse matters which accumulate among communities. Even when this refuse does not include, as is the case in many localities, excremental matters, and is limited for the most part, as in London, to the contents of ash-bins and market refuse, the difficulty of disposing of it without the creation of nuisance has hitherto been insuperable. And this disposal has to be conducted under circumstances which truly form a stigma upon our civilisation. The local authorities of the metropolis have proved singularly indifferent to the evils arising out of the manner in which the metropolitan refuse has at present to be disposed of, and the ratepayers have had to submit to a chronic poisoning from their dust-holes, which has often provoked the most earnest protests, but with little effect. Of late years there have been certain sickly signs on the part of the local authorities of an awakening sense of the evils to which the inhabitants have been and are subjected from this source, and the most important indication of this awakening must be taken to be the action of the Commissioners of Sewers of the City of London on the subject. They not long ago appointed a committee with certain of their officers to visit sundry northern towns where it was reported some fuller light was being obtained on the question of disposal of refuse, and a report of these proceedings is now before us from the pen of their medical officer of health, Dr. Sedgwick Saunders, which we would fain hope will mark the beginning of a new era in refuse disposal in London. The report is entitled "Some New Methods of Disposing of all kinds of Refuse by Cremation," and it gives a careful account of the disposal of the refuse of communities by fire as practised in several northern towns. "The system alluded to involves two propositions," says Dr. Sedgwick Saunders—"viz.: (1) The destruction by fire of everything combustible in house and trade refuse. 2. The separation of the vegetable from the animal and mineral matters, and its conversion into charcoal." The committee have returned to London wholly in favour of this system; and Dr. Sedgwick Saunders so fully agrees with them that even thus early he contributes to the means for carrying it into effect a design for "a carcase crusher or devil," so that his name will probably in future be intimately associated with the machinery by which the system will be fully carried out. This report of Dr. Sedgwick Saunders is certainly the most important contribution to the literature of the subject that we have yet had. It is admirably illustrated by plans of the "destructors" and "carbonisers," as the furnaces employed are termed, and which owe their origin to the inventive faculty and mechanical genius of Mr. Alfred Fryer of Nottingham. Contrasted with the system of disposal now in operation in the City (of which Dr. Sedgwick Saunders gives a graphic account) it seems almost inevitable, even if the question of decency among a civilised community were alone considered, that the system of cremation must be adopted by the Commissioners of Sewers. If this be done, we have little doubt that an example will be set which other sanitary authorities will be morally compelled to follow, and the metropolis at last relieved from the most disgraceful blot on its sanitary administration. To this good end Dr. Sedgwick Saunders' report is a contribution of the highest importance.

The Sanitary Committee of the Marylebone Vestry congratulates itself in having secured land, *within six miles of the parish*, as a site for a small-pox hospital. This is a curious comment on Dr. Richardson's proposition, that parishes will willingly receive their own sick within their bounds, but object to the sick from other parishes being imposed upon them. The small-pox tent hospital for St. Pancras, which has been opened in the parish of Finchley, as far away from the parish for the use of which it is intended as it is proposed to take the Marylebone hospital, appears to have been fairly used, notwithstanding its distance. Fifty small-pox cases had been admitted up to the 20th ult., and 45 patients were then in the tents.

A proposition to convert the City of London Workhouse at Holloway into a small-pox hospital has given rise to a perfect storm of local opposition. Deputations from the locality have waited both upon the Metropolitan Asylums Board and the Local Government Board to protest against the proposition, and the deputation to the Local Government Board, it is reported, urged that instead of utilising the workhouse, which is situated in the midst of a populous neighbourhood, for the purpose in question, a temporary structure should be erected on some land at Finchley, which is at the disposal of the authorities.

The extraordinary rumour that arose in some parts of the Black Country a short time ago, that three American black doctors were about to visit the Board Schools and forcibly vaccinate the children, has extended to parts of Derbyshire and Yorkshire, and caused as much trouble from the excited mothers as it caused at Dudley and Cosely. At Stonebroom, in Derbyshire, the school was stormed by the mothers of the children, and the teachers were compelled to close it.

We are glad to observe that the Commissioners of Sewers of the City of London are giving attention to the subject of erecting public conveniences for both sexes. The metropolis is scandalously provided in this respect, to the unimaginable misery of numerous persons.

The Warminster Local Board have instructed their Sewerage Committee to form an estimate of the cost of carrying out the scheme recommended by them, and the Central Board is to be asked to sanction the loan necessary to put the drainage into an efficient condition.

A curious case of vaccination by more than twenty punctures is reported from Bridgewater, of which the explanation is not yet forthcoming.

The Birmingham guardians have resolved to employ twenty men to search out all unvaccinated children in the town.

Scarlet fever of a virulent type is reported to be raging at Leicester, and making increasingly extensive demands on the resources of the fever hospital of the town.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a slight further decline last week. In twenty of the largest English towns, the Registrar-General estimates, on the basis of the numbers enumerated on 4th April last, that 7,608,774 persons will be living in the middle of this year; in those towns 5154 births and 2912 deaths were registered last week. The births were 32, and the deaths 345, below the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 20·3 and 20·8 in the two preceding weeks, declined last week to 20·0. The lowest rates in the twenty towns last week were 13·9 in Plymouth, 16·9 in Brighton, 17·1 in Bristol, 17·2 in Wolverhampton, and 17·5 in Hull. The rates in the other towns ranged upwards to 22·3 in Manchester, 22·5 in Sheffield, 22·8 in Oldham, and 24·2 in Liverpool. During the first eight weeks of the current quarter the death-rate in the twenty towns averaged 21·2 per 1000, against 23·3, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 396 and 424 in the two previous weeks, further rose to 452 last week; these included 125 from measles, 94 from small-pox, 84 from whooping-cough, 68 from scarlet fever, 42 from fever (principally enteric), 27 from diarrhœa, and 12 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 3·1 per 1000 in the twenty towns, and ranged from 0·0 and 0·7 in Wolverhampton and Plymouth, to 3·5 in Bristol, and 3·8 in London, Liverpool, and Leicester. Measles showed the largest proportional fatality in Liverpool, Bristol, and Sheffield; and scarlet fever in Leicester, Hull, and Bristol. Fever (principally enteric) showed increased fatality in the twenty towns, and caused the highest death-rate in Liverpool. Of the 12 deaths referred to diphtheria 8 occurred in London. Small-pox caused 100 more deaths in London and its outer ring of suburban districts, and 1 each in Brighton and Norwich; no fatal case of this disease was recorded in any of the seventeen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 942 to 1390 during the three preceding weeks, further rose to 1552 on Saturday last; of these 538 were accommodated in the tents for convalescents at Darenth. The new cases admitted to these hospitals, which had been 379 and 346 in the two previous weeks, rose to 402 last week. The Highgate Small-pox Hospital contained 84 patients on Saturday last, and 20 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 254 and 256 in the two preceding weeks, declined to 241 last week, and were 16 below the corrected average number in the corresponding week of the last ten years; they included 138 from bronchitis and 80 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 3·3 per 1000 in London last week; while the rate from the same diseases was 5·6 in Liverpool and 4·1 in Salford.

The causes of 70, or 2·4 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 1·6 per cent., whereas it averaged 3·2 in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton; Portsmouth, Plymouth, Leicester, or Nottingham; whereas the proportions of such deaths were highest in Oldham, Leeds, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week was equal to 18·4 per 1000, showing a further decline from 21·4, 20·6, and 19·9, the rates prevailing in the three preceding weeks; this rate was 1·6 below the average last week in the aggregate of the twenty large English towns. The rates in these eight Scotch towns ranged from 11·4 and 16·5 in Dundee and Greenock, to 24·4 and 29·2 in Paisley and Perth. The Registrar-General of Scotland has not yet revised his estimates of population in accordance with the recently-enumerated numbers; it is pointed out, however, that the calculated death-rate in Paisley is probably over-stated through an under-estimate of its present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 82 and 61 in the two preceding weeks, rose to 72 last week; they included 19 from whooping-cough, 18 from diarrhœa, 13 from measles, 11 from scarlet fever, 7 from "fever," 4 rom diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·8 per 1000 in the eight towns, and was 0·3 below the average rate from the same diseases in the twenty large English towns. This zymotic rate ranged in the eight Scotch towns from 0·6 and 1·3 in Greenock and Dundee, to 3·9 and 4·3 in Perth and Leith. The 19 fatal cases of whooping-cough in the eight towns showed an increase of 3 upon those returned in the previous week, and included 10 in Glasgow, 4 in Edinburgh, 2 in Aberdeen, and 2 in Paisley. The 18 deaths from diarrhœa also reached the number in the previous week, and included 10 in Glasgow and 3 in Dundee; the fatality of diarrhœa was proportionally more than three times greater last week in the Scotch than in the English towns. The 13 deaths from measles reached the numbers in recent weeks; 9 were returned in Glasgow and 4 in Aberdeen. The fatal cases of scarlet fever, which had been 12 and 5 in the two previous weeks, rose again to 11 last week, of which 5 occurred in Glasgow, 4 in Edinburgh, and 2 in Leith. The 7 deaths referred to "fever" (including typhus, enteric, and simple continued) rose within one of the number in the previous week, and included 3 in Glasgow and 2 in Edinburgh. The annual death-rate from this cause in the eight towns was equal to 0·28 per 1000, and was somewhat below the average fever rate in the twenty English towns. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 140, 111, and 96 in the three preceding weeks, further declined to 89 last week, and were equal to an annual rate of 3·5 per 1000; the rate from the same diseases in London did not exceed 3·0.

HEALTH OF DUBLIN.

The rate of mortality showed a further decline in Dublin last week. The annual death-rate in the city, which had been equal to 29·9 and 25·2 in the two preceding weeks, further declined to 24·9 last week; this rate was lower than that recorded in any week since September, 1879. The 159 deaths in Dublin last week showed a further decline of 2 from recent weekly numbers, and included 13, or rather more than 8 per cent., that were referred to the principal zymotic diseases, against 14 in each of the two previous weeks. The 13 deaths from these zymotic diseases included 9 from fever (typhus, enteric, or simple), 2 from scarlet fever, 2 from whooping-cough, and not one either from small-pox, measles, diphtheria, or diarrhœa. The annual death-rate from these zymotic diseases was equal to 2·0 per 1000, while the rate from the same causes was 3·8 in London and 2·7 in Edinburgh. The deaths referred to fever in Dublin, which had been 3, 8, and 7 in the three preceding weeks, rose to 9 last week, and were equal to an annual rate nearly five times as high as the average rate from the same cause in the twenty large English towns. The 2 deaths from whooping-cough corresponded with the number in the previous week, while the 2 fatal cases of scarlet fever showed an increase. The deaths of infants were more numerous than in either of the two previous weeks. Seven inquest cases and 8 deaths from violence were registered during the week.

THE RECENT CENSUS IN THE LARGEST ENGLISH TOWNS.

In his last weekly return the Registrar-General published new estimates of the present population of twenty of the largest English towns, based upon the actual numbers enumerated on the 4th of April last. These new estimates have been substituted for the estimates that had been in use since the beginning of the year, which were calculated on the hypothesis that the rates of increase that prevailed during the ten years 1861–71 would be maintained during the decade just ended. These new estimates of population have a twofold interest—they not only afford the means of comparing the growth of the several towns during the past ten years, but supply a basis for the calculation of trustworthy vital statistics. The hypothetical estimate of the population of the twenty towns was 7,616,417, and was within eight thousand of the new estimate, based upon the recently enumerated numbers. The rate of increase in the aggregate of the twenty towns has been almost identical in the last two decades. In many of the towns, however, very wide differences occur between the two estimates, based respectively on theory and enumeration. The population of registration London is now fixed at 3,814,571 persons, which exceeds by more than a hundred thousand the estimate hitherto in use. This under-estimate of the London population has had the effect of somewhat over-stating its recent rates of mortality, and is due to the fact that the London population has increased at a greater rate during the last than in the preceding decade. The increase of the population of London during the last ten years, by excess of births over deaths, and by aggregation, has been considerably more than half a million of persons; this increase is indeed more than equal to the population of Liverpool, which is the second largest English town. The aggregate population of the nineteen provincial towns is almost identical with that of the metropolis, but as the mean rate of increase in these towns during the past ten years shows a decline from that which prevailed in the preceding decade, the population was over-estimated by more than a hundred thousand. The population of Liverpool is estimated at 552,425, and that of Birmingham at 400,757. Manchester and Leeds are the only other towns with populations exceeding 300,000, while the next largest towns are Sheffield and Bristol, which have populations between two and three hundred thousand. No less than ten of the other towns have populations exceeding a hundred thousand; while the population of the three remaining towns was below that amount. Manchester alone among the twenty towns showed a decline of population (of nearly ten thousand) during the ten years 1871–81. The rate of increase in the other towns ranged from 9·2 and 9·3 per cent. in Plymouth and Norwich, to 28·5 in Leicester, 34·2 in Nottingham, and 41·2 in Salford. Norwich, Birmingham, Nottingham, Liverpool, Salford, and Hull, like London, increased at a greater rate between 1871 and 1881 than in the previous decade. The estimate of the populations of these towns hitherto in use has therefore been somewhat too low, and recent death-rates have been overstated. In the thirteen other towns, however, the rates of increase in the last decade have been lower than in the previous ten years; the estimates of their populations recently in use have therefore been too high, and the death-rates have, as a matter of course, been understated. This understatement of the annual rate of mortality has been largest in Leicester, Sheffield, Salford, and Bradford, and was nearly equal to 2 per 1000 in each of these towns.

HEALTH STATISTICS OF MADEIRA.

An interesting and favourable report on the health and sanitary condition of Madeira during 1880 has recently been published by Dr. Julius Goldschmidt, a medical practitioner of long-standing in the island. The population of the whole island is reported to be 130,473, of which 39,000 reside in the town and suburbs of Funchal. The annual death-rate for the whole island does not exceed 20, and for Funchal 24·4, per 1000. The island is remarkably free from epidemic diseases; and scarlet fever, diphtheria, measles, and whooping-cough are said to be seldom fatal. About six years ago, however, a severe epidemic of small-pox prevailed, which caused about 1000 deaths, which is the less surprising as we are told that there is a general prejudice against vaccination. An excessive fatality from heart disease is attributed to the steepness of the roads, and to the heavy burdens usually carried up and down the hills by the labourers. Considering the general equableness of the temperature, acute diseases of the lungs show considerable fatality; this, however, principally occurs among those living in mountain districts, who in their daily journeys up and down the mountains are exposed to extreme changes of temperature. The population seems to enjoy a remarkable immunity from phthisis, although the social condition of the poorer classes would predispose them to this disease. The foreign residents of the island, who for the most part live under favourable social conditions, are mainly descended from phthisical parents, and yet only one death from consumption is reported to have occurred among this population during the last fifteen years. Entozoa are remarkably prevalent among children, and a considerable number of deaths are referred to the indefinite cause, "febris verminosa." Leprosy too, which is said to have been introduced to the island by the first settlers, still prevails in its southern and western parts; it is estimated that between 400 and 500 persons in the island are affected by this disease, and a special hospital usually contains from seven to fifteen patients. Except for those living in defiance of the simplest hygienic laws, it is evident that Madeira must be classed among the healthiest spots in the world.

THE IRISH CENSUS OF 1881.

Although the alterations in the populations of the Irish towns as compared with the Census of 1871 are not yet accurately known; yet it has been ascertained that in Dublin, Belfast, Londonderry, Newry, and Dundalk the population has increased, and therefore the birth- and death-rates are overstated when calculated according to the returns of 1871. On the other hand, it appears that a decrease has taken place in the populations of Limerick, Waterford, Drogheda, Galway, Clonmel, and some other towns in Ireland.

THE SERVICES.

HEALTH OF OUR TROOPS AT THE GOLD COAST.

A good deal of sickness is reported to exist amongst the troops lately assembled at Cape Coast Castle in view of threatened hostilities with the King of Ashantee. The garrison has been increased by the 2nd West India Regiment from Jamaica, and detachments of the 1st West India Regiment from Sierra Leone; the barrack accommodation at the castle being very limited, the men are distributed in hired houses in the town and in tents, and it is among the former that fevers, dysentery, and diarrhœa are prevalent to a considerable extent. The sickly season at the Gold Coast is close at hand, and we understand Sir Samuel Rowe is anxious to reduce the force to the smallest limits compatible with the existing unsettled state of things in the Colony. The officers are suffering from fever equally with the men, one officer having died, and several having been invalided since the expedition arrived on the Coast.

The death is announced at Queenstown, Ireland, of Surgeon-Major Walter Blake, Army Medical Department. Mr. Blake obtained his commission as an assistant-surgeon in 1864, and was promoted to the rank of surgeon-major in Sept., 1876. His death was due to pneumonia and bronchitis.

The death is reported of Surgeon John Coghlan, late of H.M. 86th Regiment, at Kingstown, on the 28th ult. Deceased was, it is alleged, the oldest medical officer in the service, having recently completed his ninetieth year. He served during the Peninsular War, and retired on half-pay in 1844.

It is stated in the *Broad Arrow* that a fresh inquiry into the cause of the death of Brigade-Surgeon Lundy at Allahabad has been ordered, an analysis having shown that the deceased did not commit suicide by taking poison, as the verdict at the inquest declared.

Deputy Surgeon-General W. J. Moore has been appointed to act as Surgeon-General with the Government of Bombay during the absence of Surgeon-General Beatty, on leave in England.

Surgeon George Stockwell, M.D., has resigned his Commission in the 2nd West Riding of Yorkshire Corps of Artillery Volunteers.

ADMIRALTY. — The following appointments have been made:—Staff Surgeon Richard A. Mowll, M.D., to the *Rocket*, vice Mackie; Surgeon John Mackie, to the *Penguin*, vice Williamson; Surgeon Henry M. Levinge, to the *Flirt;* Surgeon James Hitchcock, M.B., agent at Gamrie, N.B.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Tuesday the Veterinary Surgeons Bill was read a second time.

In the House of Commons on Thursday, May 26th, Mr. Duckham gave notice that on the motion to go into committee on the Lunacy Law Amendment Bill he will move its rejection.

The Case of Captain Butler.

On Friday, Mr. Childers, in reply to Mr. M'Coan, said it was the case that Captain Butler was granted twelve months' sick leave from India, which leave was further extended for six months. He was informed that if at the expiration of that period he was still unfit for service he would be called upon to resign. However, he reported himself sick, and was so found by a medical board, and was accordingly ordered to embark for India. On the day before he should have embarked he sent in a certificate from a civil doctor to the effect that he was unfit to return. He asked, too, for four months' more leave, and upon that he was called upon to retire. There was another reason, of a non-medical character, which made Captain Butler unwilling to return, and that was that he believed he would be arrested for debt as soon as he landed at Bombay. Mr. Childers did not purpose to lay on the table any such return as the hon. gentleman suggested. He did not think it was the wish of the House to interfere with questions of this kind, which were essentially questions for the Commander-in-Chief, subject to an appeal to the Secretary of State.

A petition for alteration of the Lunacy Laws was presented from Limerick. Dr. Lyons has given notice of his intention to move that the Infectious Diseases Notification (Ireland) Bill be referred to a select committee. The Solicitor-General for Ireland and Mr. Meldon have put upon the paper a number of amendments which they propose to move in Committee on the Bill.

Vaccination.

On Monday, Mr. Hopwood asked the President of the Local Government Board whether it was the fact that the matron and one or more nurses at the hospital at Halifax had recently taken small-pox, a few days after revaccination; whether there was any reason to believe the vaccination was of variolous matter; and, whether it was the fact that there was in use in the country a large quantity of vaccine which was in fact variolous matter, or small-pox communicated from the human subject to cattle, and from them extracted and used in inoculation under the Vaccination Acts.—Mr. Dodson replied that the facts of the case were these: At the end of March last a small-pox patient was sent to Halifax Fever Hospital. Thereupon the matron and the nurses were strongly urged to be revaccinated, but they all refused. Three weeks afterwards the matron showed symptoms of the disease, and the day following four of the nurses were vaccinated. One of these had a slight attack of small-pox, which showed itself in two days, and another a more severe attack in four days afterwards. Therefore they must all have been affected by the disease when the vaccination took place, and when the vaccination could be of no avail. The other two nurses escaped altogether. There was no reason to believe that the vaccination was of variolous matter, and the medical man who vaccinated them distinctly stated that it was good vaccine lymph. As to the last part of the question, if variolous matter was intended to mean small-pox, or matter capable of producing small-pox, there was no such matter used in vaccination under the Vaccination Acts. As a matter of fact, he was informed that all attempts of late years to produce small-pox by inoculation of variolous matter appear to have been abortive.

A petition was presented from R. Power for inquiry in connexion with the Indian Army Medical Service. A copy was presented of papers respecting medical officers in India. Mr. Sexton gave notice of a question as to the sanitary accommodation in Kilmainham prison, which he described as insufficient and filthy.

The Local Government Board and the Small-pox Epidemic.

Dr. Cameron gave notice, that on Friday, the 17th inst., on going into Supply, he will call attention to the lack of capacity and resource displayed by the Local Government Board in dealing with the small-pox epidemic at present raging in London; and to move that this House deplores the death and suffering caused by the epidemic of small-pox at present raging in London, and condemns the conduct of the Local Government Board in refusing to take the most obvious means to encourage revaccination, and in witnessing the compulsory closing of small-pox hospital accommodation, when most urgently needed, without attempting to enable adequate provision to be secured for the reception of small-pox patients, thereby leaving hundreds of cases destitute of proper treatment, and sources of infection to densely peopled localities.

Vaccination Prosecution at Warrington.

Mr. P. A. Taylor asked the Secretary of State for the Home Department if he had come to any decision in regard to the fines illegally imposed upon six persons (amounting with costs to 36*s.* 6*d.* each) at Warrington, for refusing to have their children vaccinated, the conviction having been made under the 29th clause of the Vaccination Act, while the children were from three to six years old.—Sir W. Harcourt said the conviction could not be sustained, and he had dirceted the fines to be remitted.

On Thursday, the Attorney-General for Ireland stated that he had received a report, in the absence of Mr. Forster, that the sanitary accommodation at Kilmainham prison was adequate and satisfactory.—Mr. T. P. O'Connor remarked that his information was entirely to the contrary.

The Contagious Diseases Acts.

Mr. Hopwood asked the Secretary of State for the Home Department whether it was the fact that one or more surgeons employed in the compulsory examination of prostitutes under the Contagious Diseases Acts had been made justices of the peace, in order that they might carry out the Acts in a twofold capacity, administering and executing the law; whether he would state by what Minister such gentlemen were recommended to Her Majesty for appointment; whether he approved of such a confusion of duties; and whether the individuals in question should not be called upon to make their choice in respect of those Acts to act either as magistrates or as surgeons only.—Sir W. Harcourt replied that he had no further information on this matter since the hon. member asked the question before. If the hon. member had any ground to think that any of these individuals had been improperly appointed, or had improperly conducted themselves in this matter, and if he would be good enough to state that ground, he (Sir W. Harcourt) would order an inquiry to be made on the subject.—Mr. Hopwood wished to ask the right hon. gentleman if he had not received a letter from him, in which he had mentioned certain persons who were employed in this double capacity, at Devonport, Windsor, and Northampton; and he desired to know whether the right hon. gentleman thought these gentlemen should be allowed in the interests of the public service to continue to discharge double functions.—Sir W. Harcourt said he had no exact information on the subject, but he would inquire what were the facts about these gentlemen.—Subsequently Mr. Carbutt asked if they were to understand that due inquiry would be made in the matter, and if it was found that the gentlemen were acting in a double capacity he would express an opinion that that should not continue, as there was an appeal under the Act for the examining surgeon to the justice of the peace, and they must in that case be the same person.—Sir W. Harcourt said he would make full inquiry into the matter, and the question could then be repeated.

Correspondence.

"Audi alteram partem."

CLINICAL TEACHING AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—As I have had special opportunities of estimating the value of the clinical teaching at Addenbrooke's Hospital, I shall be glad if you will allow me space for a few remarks before the correspondence on the subject is closed.

It is unnecessary to say a word as to the merits of the lecturers of the Cambridge School; their well-known names are a sufficient guarantee of the excellent teaching which is given there. The clinical material, too, to be found in the hospital wards, and especially in the medical wards, will compare most favourably with that at the disposal of the staff of any of our large London hospitals. And yet in many respects the teaching might, I believe, be made more useful. There, as elsewhere, the physician may be found explaining to students, ignorant of the elements of anatomy and physiology, the differential diagnosis of an obscure case of disease. And there, as elsewhere, students may be seen wasting the most precious hours of the morning listening to able clinical lectures, when they were perhaps ignorant of the very name of the disease which the lecturer is illustrating before they entered the class-room. The compulsory attendance on hospital practice and clinical lectures for twelve months prior to passing the Second M.B. Examination is, I know, felt to be a great grievance by many of the hardest working students of the school, and considering that three more years must be so spent before the third M.B. is passed, the time might, I think, with great advantage be reduced to six months. It will scarcely be denied that to attempt to teach physical diagnosis to men ignorant of the mechanism of the heart and the course of the blood-stream is a waste of time on the part of both teacher and taught. Before the student enters the medical wards of a hospital he must at least be acquainted with these elementary facts, if the time there spent is to bring him any return in sound knowledge. I would suggest that students beginning hospital work should be compelled to attend the surgical practice for the first six months, and should not be admitted to the medical wards until they have dissected for at least one winter session, and are acquainted with the anatomy of the thoracic and abdominal viscera. I would also suggest that the visits of the staff to the wards should be made in the afternoon. During the time spent by most men at Cambridge the scientific part of their training is of far greater importance than the purely practical, and to it should be devoted the best working hours of the day. The undergraduate who has no special object in view in his studies may perhaps be right in considering that from three to four hours' reading in the morning constitutes a fair day's work, but it is not unreasonable to ask men who are studying for a profession which embraces such a wide range of subjects as medicine to devote one hour of the afternoon to hospital work.

Cambridge can never provide a complete medical training, but there is no reason why students should not leave there for the London hospitals as thoroughly instructed in the preliminaries of the practical as in the difficulties of the scientific aspect of medicine. The great interest I take in the Cambridge Medical School must be my apology for what may be considered an attempt to instruct my teachers.

I am, Sir, yours truly,
Clarges-street, May, 1881. J. K. FOWLER.

To the Editor of THE LANCET.

SIR,—Your correspondent "Medicus" says the remarks I made about the practical teaching at Addenbrooke's Hospital require some explanation. If I may have unintentionally made it appear that the physicians and surgeons are wanting in zeal, my letter not only requires an explanation, but they require an apology, for it would be hard to find in any one metropolitan hospital more zealous and skilful teachers than Drs. Paget, Latham, Humphry, Bradbury, and Wherry; but, occupied as they are with the cares of large private practices, it is next to impossible for them to spend several hours daily in seeing out-patients, in addition to those in the wards, consequently the "objects of interest" in the wards get the lion's share of the students' attention, to the comparative neglect of that storehouse of useful, but unhappily unused material, the out-patient department, the administration of which is chiefly relegated to the house-physician and surgeon. So that we find the Cambridge medical student towards the close of his career too often strangely deficient in that knowledge which will be required of him a little while hence, and crammed with a catalogue of curious cases, which, like dewdrops upon the grass, will melt and vanish in the heat and burden of the day.

I am, Sir, yours obediently,
May, 1881. A CAMBRIDGE UNDERGRADUATE.

SPONTANEOUS COW-POX.

To the Editor of THE LANCET.

SIR,—As even Dr. Carpenter (who believes in the fundamental identity of vaccinia and variola) now suggests having recourse again to the cow for an entirely new supply of lymph to replace the present deteriorated stock, I presume that there is little doubt that such an attempt will be made on a considerable scale.

The question now arises whether it would be best made with a foreign or native stock. If a foreign stock is selected it is evident that much must be taken upon trust of which the fullest evidence is desirable. My own faith in the virtues of either is limited; but being patriotic, I like to give the preference to the native article, and therefore place at your disposal the information recently sent to me from the county of Elgin, N.B., where it appears the disease vaccinia is by no means extinct, and every year it breaks out in one of the farms. Let me suggest that such lymph be fairly tried, and a record kept of its effects, carefully separating such record from that of persons vaccinated with lymph from other sources. The extreme activity of lymph which has not been humanised by passing through some human beings will always constitute a difficulty when the question of compulsion has to be considered. But the alternative of having to run a risk, now acknowledged by all parties to exist (and which is enough to make the firmest believer shudder), absolutely leaves no option to those who have to administer the law. Animal lymph must be provided for *the whole people*, or the principle of compulsion must be finally abandoned.

I am, Sir, your obedient servant,
EDWARD HAUGHTON, M.D.
Upper Norwood, S.E., May 28th, 1881.

LIVER ABSCESS AND DYSENTERY.

To the Editor of THE LANCET.

SIR,—As the April number of the *Indian Medical Gazette*, just to hand, which contains the closing portion of a lengthy paper of mine on Hepatitis, contains also the matured opinions I arrived at some years ago, as to the relationship between "liver abscess and dysentery" in that country, I extract the same below, and will thank you to insert it in THE LANCET in that connexion by an early date. With this proviso, however, that were I recasting that paragraph again I would word it in a very different and much more emphatic phraseology than it now wears. In other words, instead of admitting reluctantly, as I do within, that this interdependence is "not proven," I should now say that it does not exist, or, if so, however remotely, that the liver "leads the way."

The considerations on which this conclusion is based are too minute or numerous for reproduction here; they are, moreover, so personal to myself, or to the subject under review, that I could scarcely hope to be able to explain them properly without going into details that might appear trivial or irrelevant; and this being so, I would respectfully ask any gentleman who may condescend to notice this little communication to begin any reference he may make to it with the intimation that he has *personally* investigated the matter for himself, as I have done, on the spot, *coram cadavere;* otherwise I will not again recur to the question, for it accords with my experience that Indian observers are just as keen at copying one another in this and other particulars as are their brethren nearer home; and as to the statistics of the case, they are not, in my opinion, worth the paper they are written on.

Discussing then the *locale* of abscess in the liver in India as above, and after stating that, according to my observation, it is more frequently developed in the centre, or rather towards the upper surface, of the right lobe than in any other part of that organ in the North-west and the Punjab, I proceed to say that, such being the case, "it would follow that the abscess would be more likely to eat its way into the chest than into the abdomen; and this too is," I add, "the most usual termination of the two." Then continuing, I say: "Again, this situation would seem to imply a local rather than an eccentric irritation; and I have for many years regarded the interdependence or relationship that is said by some pathologists to exist between bowel disorder and hepatic suppuration as—to use the mildest phrase at my command—not proven."

Though it cannot be denied that "the large intestine does, in the majority of cases of abscess of the liver, present important morbid alterations, especially in tropical countries," yet "are we quite unable to trace any such anatomical continuity of propagation in most cases of hepatic abscess, *while on such a supposition hepatitis ought to be infinitely more frequent than it really is*"; and I most heartily concur with Frerichs when he says, at vol. ii. p. 116, that "*the connexion between intestinal ulceration and hepatitis, as cause and effect, has been by no means established*, although it cannot be denied that in exceptional cases, under favourable circumstances, dysenteric and other forms of ulcerations of the bowels *may possibly* induce phlebitis of the roots of the portal veins, and so give rise to abscess of the liver." The italics are mine, but they are only used to emphasise the more my own willing endorsement of his opinion; and I have looked in vain for the last fifteen years for any or such a confirmation of Budd's views on this point as would induce or oblige me to change my own. I have long harboured an impression, which now amounts almost to a conviction, that no such relationship or interaction exists; and I believe that the contrary opinion has been developed too hastily, or that it is based on a generalisation which a wider field of observation would question or overthrow.

Your obedient servant,
Ashton-under-Lyne, May, 1881. WM. CURRAN.

P.S.—Allow me to add that this paragraph was written five years ago at Sitapur, and to suggest that a circular through the P.M.O.'s office in India, addressed to such senior officers only as had personally tested the point for themselves, would be the best, if not the only effectual, means of acquiring practical information on this moot question.

PUERPERAL MORTALITY IN WORKHOUSES.

To the Editor of THE LANCET.

SIR,—The Local Government Board are collecting statistics upon a subject of interest to obstetricians, and as I append the form with a few additions of my own, I need not explain why I do not know what may be the object of the Local Government Board, but I can see that some useful information may be gathered from the numerous workhouse infirmaries in England which may help in clearing up many moot points in connexion with midwifery. I think this is another score in favour of the value of workhouse infirmaries as a means of solving many of the grave problems which disease opens out (THE LANCET Commission, 1866). A careful analysis of all the facts will show the mortality, class of patients, and the rest, and a comparison may then be made with similar facts obtained from our general lying-in hospitals. Perhaps the Obstetrical Society of London might, on seeing the nature of the facts collected, deem the subject worthy of their attention.

HALIFAX UNION INFIRMARIES.

Returns showing the Number of Births in the Workhouse or Lying-in Wards of the Union, and the Number of Women Confined therein who Died in Childbirth or from causes connected therewith, during the past Ten Years, with other particulars relating thereto.

1	2			3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	—
Years.	Boys.	Girls.	Total.	First confinements.	Married.	Single.	Twins.	Puerperal fever.	Hæmorrhage.	Convulsions.	Puerperal peritonitis.	Other causes.	Total.	Remarks.	Version.	Craniotomy.	Forceps.	Still-born.	Mothers syphilitic.
1871	9	4	13	10	1	12	...	...	...	...	...	...	...	...	...	...	...	1	...
1872	11	7	18	15	2	16	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	12	2	14	11	1	13	...	...	...	...	...	...	...	...	...	...	...	2	...
1874	7	17	24	20	2	22	...	...	...	...	...	...	...	...	...	...	...	1	3
1875	12	7	19	11	2	16	1	...	...	...	...	...	...	...	...	...	1	...	...
1876	14	11	25	19	1	24	...	...	...	...	...	...	...	...	1	...	2	...	2
1877	12	10	22	17	1	20	1	1*	...	...	...	...	1	...	...	...	1	1	...
1878	10	12	22	15	2	21	...	...	...	...	...	...	...	...	...	...	2	1	1
1879	15	6	21	17	3	18	...	...	...	...	...	...	...	...	...	...	2	...	...
1880	13	11	24	19	2	21	1	...	...	...	....	...	...	...	1	...	2	3	1
Totals...	115	87	202	154	17	183	3	1	...	...	...	...	1	...	2	...	10	9	7

* Puerperal septicæmia. Full particulars of this case were published in the Obstetrical Journal, November, 1878.

I am, Sir, yours &c.,
T. M. DOLAN, L.R.C.P.E.

May, 1881.

THE DURHAM UNIVERSITY SURGICAL DEGREE.—IS IT M.S. OR C.M.?

To the Editor of THE LANCET.

SIR,—Will you kindly insert the following correspondence, which will speak for itself?

The facts that the Durham University authorities give an extra paper in Surgery to, and require of candidates for their Mastership in Surgery the performance of operations on the dead subject in the presence of the examiners, and consider it an Honours degree, seemed to demand that the matter at issue should be settled by authority.

I am, Sir, very faithfully yours,
W. BARRETT ROUÉ, M.B., M.S. Durh.,
Physician to the Bristol Hospital for Sick Children.

[COPY.]

165, White Ladies-road, Bristol, March 2nd, 1881.

DEAR DR. PHILIPSON,—When I forwarded my qualifications to Messrs. Churchill for their Medical Directory, 1881, I entered M.B., M.S. On consulting the publication I was surprised to find the letters M.S. had been exchanged for C.M.

Again, when I sent notice of a recent appointment to THE LANCET, I used the letters M.B., M.S., and found that the authorities of that paper had also altered the letters M.S. to C.M.

May I ask you, therefore, to send me an official statement in your capacity as Professor of Medicine in the University of Durham as to what letters surgical graduates of the University are entitled to use.

With your permission I intend publishing this letter and your reply in the medical journals.

I am, dear Dr. Philipson, very faithfully yours,
W. BARRETT ROUÉ.

G. H. Philipson, Esq., M.D., F.R.C.P., Professor of Medicine, Durham University.

[COPY.]

7, Eldon-square, Newcastle-upon-Tyne, May 24th, 1881.

DEAR DR. ROUÉ,—I have much pleasure in informing you that the Senate of the University of Durham, at their meeting this day agreed "that Masters in Surgery should be permitted to use the letters M.S. as the abbreviation of the degree."

With very kind regards and every good wish,
I remain, yours faithfully,
(Signed) G. H. PHILIPSON.

W. B. Roué, Esq., M.B., M.S., 165, White Ladies-road, Bristol.

GLASGOW.

(*From our own Correspondent.*)

LAST year a series of papers appeared in the *Glasgow Medical Journal*, written by Dr. F. Henderson, of Helensburgh, on a form of "endemic influenza," which he stated was prevalent in the district in which he lived. This influenza he attributed to effluvia from the polluted water of the Clyde, and from the Glasgow sewage which is carried down the river and deposited on the foreshores of Helensburgh and the Gareloch district generally by the ebb and flow of the tide. This charge was rather a serious one to bring against a favourite seaside resort, "the Brighton of Scotland," and as it cut directly at the source of income of many of the inhabitants, they, through the town commissioners, set themselves to prove that their shores are as clean and their waters as pure as their general surroundings are lovely, and no one can deny that they have succeeded, to their own satisfaction at least. The report of the Commissioners in the matter shows that Dr. Henderson's endemic influenza has no existence in the locality, that the waters of the bay contain less impurity than certain of the London drinking waters, that the "sand" taken from the shore is as pure as that obtained from Lamlash, in the Island of Arran, and that the sewage discharged into Helensburgh bay is "a very mild sewage." The report, in fact, proves far too much. It is undeniable that not so very long ago the waters of this part of the firth were clear and pleasant to look at; but it is well known that for some years impurities have been increasing at such a rate, both in the water and on the shore, that sea-bathing has become a practical impossibility. It is evident that this matter cannot rest where it is; it needs further clearing up. Dr. Henderson's reply to this apparently crushing report is awaited with some curiosity.

Several cases of small-pox have been detected in Glasgow lately. With one exception they were observed among Continental emigrants, who pass through Glasgow for America in such numbers at this season of the year. The appearance of the disease here has put our sanitary authorities on the alert, and it is now arranged that emigrants passing through Scotland shall be examined at the port of debarkation, so that persons presenting signs of small-pox shall be prevented carrying it further.

Obituary.

WILLIAM DONALD NAPIER.

It is our painful duty to record the sudden decease of Mr. William Donald Napier, a gentleman who has for many years occupied a high position in the profession. At an early period of his career he devoted his attention to the special study of dental surgery, and nearly thirty years ago commenced to practise that branch of surgical work, and continued to do so with marked success until his decease, which happened, somewhat suddenly, on Thursday, the 26th ult. He had been in delicate health for some time past, but by relaxation from the more arduous duties of practice his friends hoped that he might survive for many years. Mr. Napier was a member of the Royal College of Surgeons, and a Fellow of several of the Medical Societies. He took a very keen interest in the ethics of the profession, and was most earnest in maintaining the privileges of surgeons who, like himself, have devoted their lives to the special practice of dental surgery. The services he rendered, almost single-handed, to the surgical profession, as distinguished from the outlying class of "dentists" who are not surgeons, cannot be soon forgotten, and should not remain unacknowledged by the general body of medical practitioners, or the Association of Surgeons Practising Dentistry, whose honour he stoutly upheld. Mr. Napier was a man of most elegant taste, and in private life an affectionate and kind friend.

COOMBE LYING-IN HOSPITAL, DUBLIN.—The fifty-third annual meeting of the subscribers to this hospital was held last week; and from the annual report we learn that the income for the year ending March 31st last amounted to £1502, being a decrease of £264 as compared with the previous year, while the expenditure was £1755. The Board trust that the necessary help will be forthcoming to enable them to clear off the debt of £1043 they have incurred. This necessity is greater than ever, owing to the closing of the maternity department of Steevens' Hospital, so that the entire district now depends upon the Coombe Lying-in Hospital for the care of those requiring aid in labour. The Board have appointed Dr. Samuel Gordon, Ex-president of the College of Physicians, a consulting physician in the room of the late Dr. Alfred Hudson; while the vacant assistant-mastership has been filled by the appointment of Dr. Poole, who, with Dr. Neville, resides in the hospital. We understand that since the annual meeting was held special subscriptions amounting to £259 have been received.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Part of the Professional Examination for the Fellowship at a meeting of the Board of Examiners on the 26th ult.:—

John B. Sutton, Middlesex Hospital; Frederick Deighton, Cambridge and St. George's Hospital; Bertram H. L. Stivens, King's College; Alfred Lingard, St. Thomas's Hospital; Richd. F. Rand, Edinburgh and Glasgow; Arthur B. Prowse, Liverpool and St. Mary's Hospital; Percy Edgelow, St. George's Hospital; William R. Buckell, University College; James Wilson, Belfast.

Of the 98 candidates who were admitted for examination during last week, 57, or over 58 per cent., failed to satisfy the Board of Examiners, and were referred for six months' further anatomical and physiological study.

The Final Examination for the Fellowship was brought to a close on Monday last. Of the 27 candidates examined 10, or 37 per cent., were rejected. We shall publish the list of names next week. At the corresponding period last year there were only 68 candidates examined, of which number 31, or 45·5 per cent., were rejected.

[In the list of Members published in our last, for "Joseph Wilmot Buxton" read "Dudley Wilmot Buxton."]

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 26th:—

Douty, Joel Harrington, Middlesex Hospital.
Goddard, Walter Horace, Norfolk-crescent.
Greene, Henry, Norfolk-crescent.
Odling, Alfred Edward, St. Thomas's Hospital.
Ranson, William Edward, Alfred-place.

The following gentleman also on the same day passed the Primary Professional Examination:—

Augustus Frederick Clay, General Hospital, Birmingham.

THE power of granting degrees in medicine, as well as in laws, science, and music, has been granted to the University of Adelaide, South Australia.

THE JACKSONIAN PRIZE.—The subject of this prize for the ensuing year is "Wounds and other Injuries of Nerves, their Symptoms, Pathology, and Treatment." For the present year, it is the "Pathology and Surgical Treatment of Diseases of the Hip-joint."

ROYAL HOSPITAL FOR INCURABLES.—The day of the opening of the new wing of the Royal Hospital for Incurables by the Duke of Connaught, originally fixed for the 9th of July, has been altered to the 16th in consequence of the Royal Volunteer review at Windsor being ordered for the 9th.

PROFESSOR GERALD YEO will commence his course of three lectures "On the Application of the Graphic Method to the Study of Muscle Contraction," in the theatre of the Royal College of Surgeons, on Monday next, the 6th inst.: the first lecture, on the "Phases and Varieties of a Single Contraction;" Lecture 2, "The Summation of Contractions and Tetanus;" and Lecture 3, "On Fatigue and Recuperation."

EAST LONDON HOSPITAL FOR CHILDREN.—The fourteenth annual meeting of the governors of this useful charity was held this week. The receipts during the past year were £11,313, being an increase of £4959 over those of 1879-80. The expenditure amounted to £6007. It is intended to apply the balance to the work of building and furnishing the third storey, and to the enlargement of the out-patient department.

AT the seventy-fourth annual festival of the London Truss Society, held on the 27th ult. at the Albion Tavern, and over which Mr. Sheriff Waterlow presided, it was stated that during the past year more than 9000 persons had received the benefits of the charity, a number exceeding by 561 that of any previous year, and since its foundation 369,515 people had been relieved by the society. Donations and subscriptions to the amount of £600 were announced at the meeting.

RECENTLY Dr. Baird of Perth, who appears to have been for some time indisposed by illness, was waited upon by a deputation composed of leading citizens of Perth, and presented with a purse of 200 guineas, accompanied by an expression of the esteem in which he was held, and of sympathy with him in his affliction.

UNIVERSITY COLLEGE HOSPITAL.—At University College, on Wednesday afternoon, Mr. Justice Fry presiding, Mr. Justice Watkin Williams distributed the medals and prize certificates to the successful students in the medical faculty. The gold medals were awarded in anatomy, to E. Hudson; in physiology, to W. A. Gostling; in chemistry, to P. Mukerji; in medicine, to W. C. Wilkinson; in surgery, to C. Stonham; in zoology and comparative anatomy, to A. E. Tovey; and in clinical medicine, to C. Stonham. Afterwards Mr. Justice Watkin Williams briefly addressed the students.

BROMPTON CONSUMPTION HOSPITAL. — By the report read at the annual court of governors of this charity, held last week, it appears that during the year 1880 the number of patients admitted was fifty-four in excess of that of the previous twelvemonth. Of the total number of admissions (904), and of those remaining at the end of 1879 (185), there were discharged greatly benefited 795, and 102 deaths. The new extensive building, to contain 137 additional beds, was nearly completed, and payments on account of the contracts to the amount of £51,673 had already been made.

LONDON HOSPITAL MEDICAL SCHOOL.—The following is a list of the results of the late scholarship examinations:—Clinical Medicine: Mr. J. A. Williams, Mr. Harris (honorary certificate), Mr. Adkins (honorary certificate). Clinical Surgery: Mr. J. A. Williams. Duckworth Nelson Prize: Mr. J. A. Williams, Mr. Russell (honorary certificate). Anatomy Scholarship: Mr. Allden, Mr. J. Thomas (honorary certificate), Mr. Langston (honorary certificate). Anatomy, Physiology, and Chemistry Scholarship: Mr. F. H. Taylor, Mr. Gordon (honorary certificate). Out-patient Dressers' Prizes: Mr. Nicholson, £15; Mr. F. H. Taylor, £15; Mr. Blaxland, £10.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION. The fifth annual meeting of the above Association was held on Friday, May 27th, at the rooms of the Medical Society of London, under the presidency of Dr. B. W. Richardson. The report stated that the number of members had increased to 250 and of associates to sixteen, the latter being medical students, and alluded to the fact that there are known to be many more abstaining medical men at present unconnected with the association. The accounts were presented, and showed a balance in hand of £9 0*s.* 6*d.* The re-elected officers having been installed, S. S. Alford, Esq., read a paper on "The Practical Treatment of Dipsomania." A warm discussion followed, which was adjourned till that day month.

BOOKS ETC. RECEIVED.

BAILLIÈRE ET FILS, Paris.

L'Œuvre de Claude Bernard. Introduction par Mathias Duval; Notices par E. Renan, Paul Bert, et Armand Moreau; Table Alphabetique par le Dr. Roger de la Coudraie; Bibliographie des Travaux Scientifiques, etc., par G. Malloizel. pp. 384, avec un Portrait.

Recherches Histologiques sur le Tissu Connectif de la Cornée des Animaux Vertébrés. Par le Dr. Med. Eloui. pp. 139. Avec six Planches.

BLACK, A. & C., Edinburgh.

France, South Half; or South beyond the Loire. Third Edition. Illustrated with 13 Maps and 19 Plans.

Encyclopædia Britannica. Ninth Edition. Edited by T. S. Baynes, LL.D. &c. Parts XLV. & XLVI.

BLAKISTON, P., Philadelphia; TRÜBNER & CO., London.

Plastics and Plastic Fillings. By J. F. Flagg, D.D.S. pp. 207. With Illustrations.

CHURCHILL, J. & A., London.

Lectures on Diseases of the Nervous System, especially in Women. By S. Weir Mitchell, M.D. pp. 238. With 5 Plates.

Contributions to Military and State Medicine. By John Martin, A.M.D. Vol. I. pp. 306.

On the Mont Dore Cure, and the Way to Use it. By Horace Dobell, M.D. pp. 179.

Deformities of the Mouth, Congenital and Acquired, with their Mechanical Treatment. By Oakley Coles. Third Edition. pp. 223. With 83 Wood Engravings and 96 Drawings on Stone.

DAVIS, G. S., Detroit.

The Student's Manual of Histology. By C. H. Stowell, M.D. pp. 279. With 192 Engravings.

LEWIS, H. K., London.

Roumanian Fairy Tales and Legends. pp. 124. Illustrated.

Lectures upon Diseases of the Rectum and the Surgery of the Lower Bowel. By W. H. Van Buren, M.D., LL.D. pp. 412. With Illustrations.

LEYPOLDT, F., New York; TRÜBNER & CO., London.

The Index Medicus: a Monthly Classified Record of the Current Medical Literature of the World. Compiled under the Supervision of Dr. J. S. Billings and Dr. Robert Fletcher, M.R.C.S.E. Vols. I. & II.

LIPPINCOTT, J. P., & CO., Philadelphia.

A System of Oral Surgery. By J. E. Garretson, M.D., D.D.S. Third Edition, thoroughly Revised, with Additions. pp. 916. With Steel Plates and Woodcuts.

LIVINGSTONE, E. & S., Edinburgh.

Dr. Gheist: an Autobiography from the Midlands. pp. 285.

LONGMANS, GREEN, & CO., London.

Note-book of an Amateur Geologist. By J. E. Lee, F.G.S., F.S.A. pp. 80. With 209 Plates.

Selections from the best Latin Authors. By the Rev. E. Fowle and the Rev. W. E. Whitaker, B.A. pp. 137.

LOW (SAMPSON) & CO., London.

De la Syphilis Tertiaire dans la Seconde Enfance et chez les Adolescents. Par Dr. Antoine Roussel. pp. 252.

De quelques Troubles Mécanique de la Circulation du Sang dans les Maladies du Cœur et dans la Compression des Vaisseaux. Par Dr. F. Beaudouin. pp. 129. Avec Tracés Sphygmographiques.

Nature Parasitaire des Accidents de l'Impaludisme. Par Dr. A. Laverau. pp. 103. Avec deux Planches Lithographiées.

Wood's Household Practice of Medicine, Hygiene, and Surgery. Edited by Fred. A. Castle, M.D. In 2 vols. pp. 819–942. Illustrated by over 700 Wood Engravings.

Supplement to Ziemssen's Cyclopædia of the Practice of Medicine. Edited by G. L. Peabody, M.D. pp. 844. Illustrated.

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The Relations of Science and Religion. By H. Calderwood, LL.D. pp. 323.

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A Manual on Diseases of the Eye and Ear, for the Use of Students and Practitioners. By W. F. Mittendorf, M.D. pp. 430. Illustrated with Coloured Lithographs and Woodcuts.

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Practical Botany for Elementary Students. By D. Houston. pp. 126.

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The Public Health and Local Government Act, 1875, and the Statutes incorporated therewith, with Short Explanatory Notes. By J. V. Vesey Fitzgerald, B.A. Third Edition, Rewritten and Enlarged. pp. 468—lv.

Edinburgh Medical School; Guide to Students. (Livingstone.)—Mr. Spencer Wells's Note-book for Cases of Ovarian and other Abdominal Tumours; Sixth Edition. (Churchills.)—Die Nebenwirkungen der Arzneimittel; Pharmacologisch-Klinisches Handbuch, von Dr. L. Lewin. (Hirschwald, Berlin.)—Duration of Normal Human Pregnancy; by Dr. P. O'Connell.—Popular Science Monthly, May.—Sanitary Assurance; by Prof. F. de Chaumont, F.R.S.—Clinical Studies on the Pepsical Peptones of Chapoteaut.—Ueber die Folgen von Drucksteigerung in der Paukenhöhle und die Function der Bogengänge; von Dr. Benno Baginsky.—Syllabus of Materia Medica; by Drs. A. Harvey and A. D. Davidson: Fifth Edition. (Lewis.)—Archives of Otology, March. (Putnam's Sons.)—New Commercial Drugs and Plants; by Thos. Christy, F.L.S.—Trance and Trancoidal States in the Lower Animals; by Dr. G. M. Beard.—How we Catch Cold, and how to avoid it; by Dr. T. G. Wright; Third Edition. (Churchills.)—Medical Reports of the China Imperial Maritime Customs for the Half-year ending Sept. 30th, 1880.—The Functions of Microscopic Organisms in the Economy of Nature; by O. Hehner, F.C.S.—Rational Sunday Observance; by J. F. Clarke, D.D.—On the Localisation of Diseases in the Spinal Cord; The Cultivation of Specialties in Medicine; by Dr. E. C. Seguin.—The Scientific Roll; conducted by A. Ramsay, F.G.S.—Lehrbuch der Physikalischen Heilmethoden für Aertze und Studirende; von Dr. M. J. Rossbach; erste Hälfte. (Hirschwald, Berlin.)—The Eustachian Tube; by T. F. Rumbold, M.D.—Le Daltonisme; Rapport présenté à M. le Ministre des Travaux Publics, par le Dr. A. Dekeersmaecker. (Manceaux, Bruxelles.)—Shortening of Limbs after Fracture; by Lewis A. Sayre, M.D.—Sessional Proceedings of the National Association for the Promotion of Social Science, May.—Fraser's Magazine, June.—Girl's Own Paper, June.—Good Words, June.—Sunday Magazine, June.—Hardwicke's Science Gossip, June.—The Contemporary Review, June.—The Veterinarian, June.—Heart Starvation; by Dr. J. M. Fothergill. (Lewis.)—Health Lectures for the People. (Heywood, Manchester.)—Unnecessary Surgical Operations in the Treatment of Diseases of Women; by Dr. C. E. Wing, Boston.—A Practical Method of Analysis of the Simpler Chemical Salts, arranged in a Concise Form; by H. A. Phillips. (Wyllie, Aberdeen.)—The Feeding of Infants, together with the Preparation of Food for the Sick and Infirm; by Thomas Carter Wigg, M.D. (Bemrose.)—The Carisbrooke Magazine, June.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the lates*

BAKER, J. B., L.R.C.P., M.R.C S.E., has been appointed House-Physician to Charing-cross Hospital.

BARR, J., L.R.C P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Towcester Union, vice Floyer, resigned.

BELLINGHAM, J., M.R.C.S.E., has been appointed Medical Officer to the North District of the Dudley Union.

BOOTH, L., M.D., M.R.C.S.E., &c., has been elected Medical Officer of Sherburn Hospital, near Durham, vice R. W. Gillespie, resigned.

CANNING, P. W. G., R.N., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident House-Surgeon to the Hull and Sculcoates Dispensary.

FRASER, T., M.B., L.R.C.P.Ed., has been appointed Medical Officer to the Workhouse of the Berwick-on-Tweed Union, vice Brown, resigned.

GORDON, S., M.D., has been appointed Consulting Physician to the Coombe Lying-in Hospital, vice Hudson, deceased.

GRINDON, F. J., L.S.A.L., has been appointed Resident Obststrical Officer to Charing-cross Hospital.

JULER, H. E., M.B., F.R.C.S E., has been appointed Assistant Surgeon to the Royal Westminster Ophthalmic Hospital.

KILNER, C. S., M.B., C.M., has been appointed Medical Officer to the Workhouse of the Thingoe Union, vice Wing, resigned.

LEWIS, W. A. A., L.R.C.P. & L.R.C.S., has been appointed Surgeon to the Oswestry Cottage Hospital and Oswestry Dispensary, vice J. S. Davies, M.R.C S.E. & L.S.A.L., deceased.

LYSTER, Mr. C. R. C., has been appointed Assistant House-Physician to Charing-cross Hospital.

MOSSE, Mr. H. R., has been appointed Assistant House-Surgeon to Charing-cross Hospital.

PARKER, G. R., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Southern District of the Lancaster Union.

POOLE, W. C., M.B., L.R.C.S.I., has been appointed Assistant Master of the Coombe Lying-in Hospital.

ROBERTSON, J., M.D., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Cockermouth Rural Sanitary District.

SPENDER, T. K., M.D., M.R.C.S.E., L.S.A.L., has been appointed Physician to the Bath Mineral Water Hospital, vice Falconer, deceased.

STAFFORD, T. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Maxey District of the Peterborough Union.

TAYLOR, F. E., M.R.C.S.E., has been appointed House-Surgeon to Charing-cross Hospital.

VALLANCE, T. J., M D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Schools of the West Ham Union.

WOODHEAD, G. S., M.B., M.R.C.P.Ed., has been appointed Demonstrator of Pathology and Assistant to the Professor of Pathology in the University of Edinburgh.

Births, Marriages, and Deaths.

BIRTHS.

ARMSTRONG.—On the 20th ult., at Rodney-street, Liverpool, the wife of James Armstrong, M.B., of a son.

BATEMAN.—On the 27th ult., at Whitchurch, Oxon, the wife of Francis Bateman, M.B., of a son.

LORD.—On the 25th ult., at Wilton House, Landport-terrace, Southsea, the wife of Frederick Lord, L.R.C.P.Ed., L.R.C.S.Ed., of a son.

NICHOLLS.—On the 2nd ult., at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a daughter.

POIGNAND.—On the 23rd ult., at Upper-street, Islington, the wife of Malcolm Poignand, M.D., of a son.

STEVENSON.—On the 27th ult., at Sandhurst Lodge, Gresham-road, S.W., the wife of Thomas Stevenson, M.D., F.R.C.P., of a daughter.

MARRIAGES.

BRUCE—PARKER.—On the 1st inst., at St. Mark's, Sheffield, the Rev Canon Bruce, Rector of Carlton, Worksop, to Ann, widow of the late Samuel Parker, F.R.C.S., of Broomgrove Cottage, Sheffield.

GOSS—SLADE.—On the 25th ult., at St. Swithin's Church, Walcot, Bath, Tregenna Biddulph Goss, of Bath, Surgeon, to Aimée, daughter of the late Edward Slade, of Calcutta, and adopted daughter of James Slade, of Kensington-place, Bath.

DEATHS.

HILLIARD.—On the 21st ult., at The Vicarage, Tettenhall Wood, near Wolverhampton, George Richard Hilliard, M.R.C.P.L., formerly of Rayleigh and Chelmsford, Essex, in his 81st year.

HUTTON.—On the 27th ult., at 240, City-road, Edith Annie, the dearly-loved child of Robert J. and Kate Hutton, aged 9 months.

NAPIER.—On the 26th ult., suddenly, at George-street, Hanover-square, W., Donald Napier, M.R.C.S.E., aged 50.

RADFORD.—On the 29th ult., at Higher Broughton, Thomas Radford, M.D., F.R.C.P.Ed., aged 88.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 2nd, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 27	29·79	N.W.	60	58	78	68	56	·04	Overcast
„ 28	29·89	N.	61	57	99	71	56	..	Cloudy
„ 29	30·01	E.	60	58	88	67	53	·25	Raining
„ 30	30 26	E.	63	56	109	76	46	..	Bright
„ 31	30·40	E.	65	54	110	81	51	..	Fine
June 1	30·19	E.	65	58	110	82	55	..	Hazy
„ 2	30·15	E.	66	60	109	79	54	..	Bright

Medical Diary for the ensuing Week.

Monday, June 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, June 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Thomas Carlyle."

Wednesday, June 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Professor M. Duncan, "On some Unusual Developments of the Axial Canals of Sponge Spicules and their Meaning."

Thursday, June 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor C. E. Turner, "On Russian Literature: Tourgenieff.

Friday, June 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—8 P.M. Professor Dewar, "On Origin and Identity of Spectra."

Saturday, June 11.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor C. E. Turner, "On Russian Literature: Nekrasoff.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following are the written questions asked on the 26th ult. at the final examination for the Fellowship:—

1. Describe the anatomy of dermoid cysts, and discuss the question of their mode of origin. In what regions are they usually found, what symptoms do they produce in each region, and what treatment should be adopted?
2. In a case of aneurism at the root of the neck, on the right side, what circumstances would aid you in fixing its seat? What methods of treatment are applicable, and what would influence your selection of each method?
3. Mention the nerve-trunks of the upper extremity which are especially liable to be injured in accidents, and give the symptoms which would result in each if the nerve concerned were completely divided.
4. Describe the various risks encountered by a patient who has undergone the operation of lithotomy; state the best means of their prevention, and the treatment to be adopted in each complication.

There were twenty-seven candidates, of whom ten were rejected. At the corresponding examination last year there were nineteen candidates, of whom eight were rejected.

"TEMPERANCE AND THE DOCTORS."

AN account from the *Western Gazette* has been sent us of a speech delivered by Mr. Alfred Crespi, at Yeovil, on the medical bearings of alcohol. Mr. Crespi's speech was rather an attack on doctors than on drink. He pointed out that doctors were such gentlemen that his own social status had rather been lowered than otherwise by entering the profession, and that medical men sought rather to please their patients than to form an independent judgment, to which indeed, from their low origin in the lower middle class, they were incompetent. We are sorry to have to add that neither the vicar, who presided, nor Dr. Ridge, who followed Mr. Crespi, took exception to these remarks, which seem as ungrateful for all that has been done by the profession for temperance of late years as they are unjust. But the profession must feel thankful to Mr. Crespi for at least abating its lowliness by coming into it and so far lifting it up, and, further, for the light thrown by his speech on the habits of the upper classes with whom he mixed *before* he stooped to enter the medical profession.

St. B. (Belvidere).—The case was reported in THE LANCET of April 9th last.

TIGHT-LACING.

To the Editor of THE LANCET.

SIR,—In 1861, when I was Mr. Skey's house-surgeon, a woman, aged fifty-three, was brought in a state of collapse to St. Bartholomew's Hospital with strangulated femoral hernia on the right side of four days' duration. The protrusion was returned by the usual operation, but the patient died. On examination it was seen that the part strangulated had been the tip of the gall-bladder. The lower part of the thorax was very narrow and so elongated that the end of the last rib touched the crest of the ilium; the liver, deeply furrowed by the ribs, reached far into the iliac fossa; and the gall-bladder, which was filled with gall-stones, protruded nearly four inches beyond the edge of the liver. The patient, her sister told me, had been for many years a noted tight-lacer. I hope this case, in which the gall-bladder was forced out of the abdomen into the thigh by tight-lacing, may help you to expose the dangers of this practice.—I am, Sir, yours, &c.,

May 31st, 1881. HOWARD MARSH.

DRUG-SELLING AND DISPENSING IN BENGAL.

THE amended Municipal Bill for Calcutta, recently passed by the Bengal Legislative Council, deals, amongst other things, with certain abuses which have hitherto existed in the drug trade in that province. Now (says the *Indian Medical Gazette*) mouldy extracts and pill masses, worm-eaten roots and effete tinctures can be seized and confiscated, and vendors punished for attempting to palm off trash on the public instead of physic. Formerly drug-shops were indeed subject to registration, but no conditions were imposed with this object. Any man could open a drug-shop, whether he possessed any knowledge of drugs himself or employed a competent or an incompetent assistant. Now the owner of a drug-shop is compelled to employ a man whose knowledge of drugs has been tested and certified. And no dispensary where European drugs are kept and compounded can be registered unless a qualified compounder is engaged.

Ethnologist.—The "Barnard Davis Collection" was purchased by a special vote of the Council of the Royal College of Surgeons, at an expense of £1000, and has been added to the museum of that College. It contains nearly 2000 specimens, nearly all well authenticated and catalogued.

SILVERLOCK'S MEDICAL REFERENCE BOOK.

To the Editor of THE LANCET.

SIR,—Referring to the notice of the above, we write to inform you that Mr. George Brown did not furnish the list of consultants complained of in your journal. That information was volunteered by a member of the profession at the time when the work, as edited by Mr. George Brown, was in hand, and was then accepted as an addition to the work.

We wish to call attention to the fact (which does not appear to be generally noticed) that the list is made out on a principle, "authors on special subjects only," as notified at the beginning. Whether wisely or not, we do not pretend to have any opinion.

We can only wish the author had made a happier list.

I am, Sir, yours faithfully,

June 1st, 1881. Pro H. SILVERLOCK, C. W. H.

To the Editor of THE LANCET.

SIR,—I shall feel obliged if you will kindly permit me to state that the "List of Consultants," published in Silverlock's Medical Reference Book, was inserted in that work (notwithstanding my name appears on the title-page as editor of the same) without my knowledge or consent. That my name should have been connected with anything so obviously calculated to cause offence to the profession generally has been to me a source of great annoyance.—I am, Sir, yours faithfully,

Gibson-square, Islington, N., May 24th, 1881. GEORGE BROWN.

DESQUAMATION AFTER DRUGS AND AFTER SCARLATINA.

To the Editor of THE LANCET.

SIR,—The observations we have made in this hospital with regard to desquamation may briefly be summarised thus: The more intense the rash, the quicker the peeling of the skin. Very slight cases, when the rash is only visible for a few hours, are usually a long time in completely desquamating, and in many of these cases it is sometimes deferred for some weeks, so that we have occasionally been on the point of discharging a patient when the first signs of desquamation have been discovered. Peeling is usually first seen in the folds of the neck and on the forehead and face, whilst yet the rash is fully out on the lower extremities and body. The last parts to get rid of their old skin are the feet, and particularly the heels. In several cases, with intensely bright scarlet rash and high temperature, the desquamation has been complete in thirty days; the great majority, however, take from sixty to seventy days before we consider them fit for discharge, although they may have been perfectly well for weeks. In many cases it has been extremely doubtful whether, after nine weeks' quarantine, the old thick skin has been completely shed from the heels.

The dead skin from scarlatina patients no doubt carries infection, but there must be some other factor at work sometimes, for on several occasions we have kept patients here for eight weeks, bathing them almost daily. The hair has been cut short, and the head frequently washed with a carbolic acid lotion (one part in twelve). Desquamation has been observed to be complete. New clothes have been brought, the patient taken from a bath, dressed in them, and at once taken home, when it has occurred that children of the same family have caught the fever in something like a week after their relative's return. Desquamation frequently takes place during the progress of enteric fever, but, so far as I have seen, the feet and hands have not peeled except in the cases of labouring men, and this I have observed in the same class when laid up for some time with a fractured leg, or other injury keeping them from their usual work. Out of nine hundred cases of scarlatina I do not remember to have seen one where desquamation at some period or another has not taken place. A young lady is in hospital now who, sixty-four days since, was admitted with slight rash and sore-throat, and from whose feet flakes of dead skin can now be peeled.

I am, Sir, yours, &c.,

Fever Hospital, Bradford, May, 1881. W. R. RIX.

BOY-SMOKERS.

WHATEVER difference of opinion there may be amongst members of the medical profession as to the effects of the moderate use of tobacco by adults, the discussion in our columns at the commencement of the year 1880 of the subject of smoking revealed a pretty general agreement in the conclusion that the employment of the narcotic weed by persons of immature years was wholly and distinctly detrimental. Some time ago a law was passed in Germany to prohibit the use of tobacco by boys under fifteen, either at home or in the streets. Several of the Swiss cantons have now, it is stated, followed the example of their big neighbour, and made it illegal for youths to indulge in the deleterious habit. Half an hour's stroll in the streets of London is sufficient to engender in the peregrinator a wish that something could be done in this country to check the consumption of tobacco by little boys whose mouths are more fitted to receive a stick of barley-sugar than a short black pipe.

DOMESTIC REGISTERS OF HEALTH.

To the Editor of THE LANCET.

SIR,—The prevalence of small-pox, the necessity that exists for revaccination, and the uncertain data one derives from persons desirous of knowing whether it is or is not necessary to be revaccinated, lead me to make public a suggestion I have often made in private practice—namely, that parents should provide for their children a record-sheet showing when vaccination and revaccination had been performed, successfully or otherwise, and that this sheet should be amplified by short notes of the illnesses which occur in after-life, verified when practicable by the medical man in attendance.—I am, Sir, yours, &c.,

Hogarth-road, May 25th, 1881. CHARLES PRIDHAM.

HYPODERMIC INJECTION OF MORPHIA.

To the Editor of THE LANCET.

SIR,—Will any of your numerous readers kindly inform me how best to ward off the sickness so often following the subcutaneous injection of morphia. I have at present a patient suffering from severe and long-continued intercostal neuralgia, to whom the morphia affords great relief, but distressing sickness invariably comes on soon after its administration, and lasts for several hours. I have tried adding a small quantity of atropine, but this has not been followed by any good results. I will be very much obliged for any information on this point.

I remain, Sir, yours truly,

May 23rd, 1881. J.

"A PRACTICAL PHASE OF THE LUNACY QUESTION."

To the Editor of THE LANCET.

SIR,—Medical officers of asylums will probably not be disposed to find much fault with your article of May 7th (page 749), except with that portion of it which appears to underrate the value of their therapeutic efforts.

You say "there is practically no such thing as treatment now-a-days," but you admit that the patient is placed "under what are deemed to be favourable circumstances, amid pleasant surroundings," that "drugs are given to produce quiet, to relieve pain," &c., and that "the effect of such drugs as come recommended to the notice of the asylum physicians of England, from the Continent and the United States," is investigated. Surely, Sir, this is doing something in the way of treatment. In general medicine, is not the position of our most scientific physicians with regard to drugs (except in the case of some half dozen so-called "specifics,") one of enlightened scepticism, and their mode of treatment in most cases "expectant," endeavouring to remove all obstacles in the way to recovery, and lending a helping hand to the natural powers as occasion may offer?

Again, you say "there is little or nothing personal in the treatment." This may unfortunately be true, to a certain extent, of the "chronic" or "incurable" cases, owing to the vast numbers which have to be dealt with in our public asylums, but as regards the "acute" or "curable" cases it certainly is not the fact. As you say, five per cent. may be taken as the proportion which the curable cases bear to the total number of patients in any given public asylum. On this computation the number of curable cases a superintendent of even the largest asylum could have under his care at any one time would be from forty to sixty, a number to which he is well able to give individual attention, and the observation and treatment of these cases is, to every medical officer worthy of the name, an affair of the deepest interest.

The experiment of establishing lunatic hospitals, to which all curable cases should, in the first instance, be sent, is no doubt worth trying; but from the fact that the best of the existing hospitals do not obtain much better results than good public asylums, when due allowance is made for the different class of patients admitted, it would be well not to be too sanguine in our expectations.

In conclusion, a word with regard to the letter of an "Ex-superintendent" in your last number. He is much exercised on account of the want of professional ability displayed by asylum medical officers, and then goes on to suggest a reform which he admits would necessitate smaller salaries. To be consistent he should advocate the abolition of salaries altogether, then he might succeed in attracting men of even "leading ability" to the study of lunacy. I imagine that the public would be only too delighted if all the public services could be improved in this easy and economical manner.

I am, Sir, your obedient servant,

M.B.

TRAINING SHIPS.

AT the conference of managers of reformatories and industrial schools, held this week at Bristol, Captain Nicholetts, R.N., offered some important observations on training ships. It was not to be expected perhaps that the speaker should make any prominent reference to the hygienic state of those vessels; indeed, he seems to have altogether ignored this branch of the subject. Yet in any complete description of training ships the consideration of their condition from a sanitary point of view must necessarily be included. We have on more than one occasion (see THE LANCET for April 24th and June 5th, 1880) expressed our opinion on this point, and would take the present opportunity of enforcing the need of precautions in the direction indicated in the articles to which we have referred.

Mr. K. G. Ault.—We cannot say. The gentleman may be the holder of a foreign degree.

Messrs. Lambert and Morrison.—The subject is under consideration.

Mr. T. Smith Rowe.—The institutions are numerous. The Classified Directory to the Metropolitan Charities (published by Longmans and Co.) contains a full list of them.

A Physician.—None but a graduate in the degree of "Doctor" can legally call himself by the title.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

SIR,—Under the above heading "In Perplexity" records the early stage of a very interesting case. My note-book furnishes two somewhat analogous, though not such severe cases, which may also interest your readers.

Case 1. On April 8th, 1881, a young lady sickened with small-pox, and on the 12th was removed to a private hospital on account of the family. During the four days she was nursed by her mother. On the 12th the mother was revaccinated successfully in four places; the rooms, bedding, &c., disinfected.—25th: She now sickened.—26th: Temp. 104° F., with a discrete eruption out. Although the vesicles were few, the erythematous blush around each was much larger than I have usually seen in slight cases. The other features were the intense headache from the onset, and all through its course for the next fourteen days. The headache cleared off, and then for the next four days severe facial neuralgia existed. The vesicles crusted about the seventh day, and rapidly fell off. She is small, spare, and not of a particularly nervous temperament. She has made a good recovery.

Case 2. That of a servant girl aged sixteen, strong and robust. A young lady had been removed from the house eight or nine weeks before, had made a good recovery and returned. About a week after her return the girl was revaccinated, and successfully, in three places. Fourteen days after revaccination she sickened with small-pox of an extremely mild type. She made a good recovery. I do not suppose that she contracted the disease from the young lady in any way, as she had been known to have been visiting in an infected district.

I am, Sir, yours, &c.,

May 28th, 1881. L.R.C.P.E. & S.E.

"LICENSING BODIES AND THEIR DIPLOMAS."

To the Editor of THE LANCET.

SIR,—I think a law ought to be passed compelling the assigns of deceased medical men to deliver up the diplomas within a reasonable time after death, so as to prevent the selling of them to others, as I fear it could be easily proved that the diplomas and brass plates of deceased men are used by those who can get hold of them.

I am, Sir, yours faithfully,

May 30th, 1881. G. D. HARDING, M.R.C.S., &c.

THE BITES OF INSECTS.

JUST now, when a sudden, though probably brief, visitation of fine and warm summer weather entails a small plague of flies and insects, it is well to remember that the prompt application of an alkali to the bitten part allays the irritation and commonly at once relieves the suffering consequent on a class of injuries which, though small, are often exceedingly annoying and even troublesome, especially in the case of children and persons with sensitive skins. Soda and ammonia will answer the purpose.

UTERINE DILATORS.

To the Editor of THE LANCET.

SIR,—With reference to the letter from Messrs. Mayer and Meltzer (in THE LANCET of Saturday last), into which they import the name of my friend and senior colleague, Dr. Chambers, I am enabled to state on his authority that he did not obtain the uterine dilator from that firm until after I had shown a working example of my own instrument at the Chelsea Hospital for Women by Messrs. Maw, Son, and Thompson. *Suum cuique.*—I am, Sir, your obedient servant,

Thurloe-square, S.W., May 23rd, 1881. JOHN JAMES, M.B. Lond.

"THE BLOOD OF SAINT JANUARIUS."

To the Editor of THE LANCET.

SIR,—In your last issue Mr. A. Clarence Foster asks if this miracle has ever been submitted to the ordeal of unbiased scientific inquiry. In reply I beg to say that the ecclesiastical authorities at Naples have preserved a document from Sir Humphry Davy, asserting that he knew of nothing in chemistry or nature which could account for what he had witnessed. He was present at the "miracle" in 1818, when he went to examine the manuscripts of Herculaneum. Your correspondent will find more information on this subject in the "Manchester Dialogues," first series, by the Rev. Thomas Harper, of Stoneyhurst College (London: Burns and Oates, Portman-street, W.).—I am, Sir, yours obediently,

May 28th, 1881. F. E. C.

THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH.

To the Editor of THE LANCET.

SIR,—I have noticed a letter in your last issue drawing attention to the frequent uselessness of the lymph supplied by the National Vaccine Establishment. My father, who is a public vaccinator, has usually made the same complaint; indeed he resorts to the National Vaccine Establishment as little as possible, and never with any confidence.

I am, Sir, yours, &c.,

May 17th, 1881. A READER OF THE LANCET.

To the Editor of THE LANCET.

SIR,—In answer to "A Public Vaccinator," I beg to state that I have been disappointed in every case that I have vaccinated with the lymph supplied by the National Vaccine Establishment. This has on one occasion caused much inconvenience and delay, as I had to procure better lymph from the wholesale chemists that I deal with.

I am, Sir, yours, &c.,

May, 1881. ANOTHER PUBLIC VACCINATOR.

To the Editor of THE LANCET.

SIR,—I lately obtained a supply of vaccine from the above establishment with which I vaccinated three adults, two of whom succeeded admirably, and one failed, this latter due no doubt to insusceptibility on the part of the patient.—I am, Sir, yours faithfully,

London, May 28th, 1881. T. d'O. PARTRIDGE.

To the Editor of THE LANCET.

SIR,—During the last twenty years I have been supplied with lymph from the above-named institution upon certainly more than one hundred occasions, and have always found it efficacious. Several of my medical friends have been supplied in the same way, and upon no occasion have I heard them complain.—I am, Sir, your obedient servant,

Stockwell-road, S.W., May 28th, 1881. R. H. S. CARPENTER.

To the Editor of THE LANCET.

SIR,—During the last four years I have had occasion to apply to the National Vaccine Establishment for lymph about eight times, and I think it only just to that establishment to state that in every case the lymph has proved highly satisfactory, never having had a failure through it.

I am, Sir, yours, &c.,

May 28th, 1881. A GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—I have been a public vaccinator for the last twenty years, and nearly always been furnished twice a year with a couple of tubes of lymph from the above institution to begin vaccinating with, during which period I can only recall to mind one or two failures, so think my testimony is of some value as to the quality of the lymph supplied to applicants.

I am, Sir, yours, &c.,

May, 1881. A PUBLIC VACCINATOR.

Mr. Richard B. Searle goes a little too far in claiming for those holding qualifications from Colleges of Physicians that they never forget what is due to the dignity of the profession. He errs, too, in a legal respect in saying that the possession of the degree of M.D. only conveys an honorary distinction. It empowers its possessor to recover charges for medical services just as well as does the Licence of a College of Physicians.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Lithgow, London; Mr. Partridge, London; Dr. Barrs, Leeds; Mr. Colston, New Whittington; Mr. W. H. Smith, London; Mr. W. B. Roué, Bristol; Dr. Rayner, Hanwell; Mr. Lawson Tait, Birmingham; Mr. Howard Marsh; Surgeon-Major Jeffcoat, Chatham; Dr. Spender, Bath; Dr. Hooper, London; Mr. Kingzett, Tottenham; Dr. Swift Walker, Hanley; Mr. Scott, London; Fleet-Surgeon Keelan, Falmouth; Mr. Garman, Wednesbury; Dr. Barnardo, London; Mr. Doyle, Edinburgh; Dr. J. W. Taylor; Mr. Alfred Bethell, Bridgnorth; Dr. Bindley, London; Mr. Cowell, London; Messrs. Southall, Son, and Barclay, Birmingham; Mr. F. Fox; Fleet-Surgeon Hayne, Woolwich; Dr. R. J. Lee, London; Dr. Anningson, Cambridge; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. R. H. S. Carpenter; Mr. Crerar; Dr. E. Haughton, Norwood; Messrs. Macniven and Cameron, Edinburgh; Mr. Cairns, Wakefield; Mr. Allsop, Manchester; Mr. McLaren, Larbert; Mr. Peutland, Leominster; Mr. Ridges, Wolverhampton; Mr. Frasnel, Clifton; Mr. Williams, Oxford; Messrs. Lambert and Morrison, London; Dr. Hughes, Llanberis; Mr. Harding, London; Mr. Maggs, London; Mr. Trennery, Bristol; Mr. Shirley Deakin, Allahabad; Mrs. Mawer, Bucharest; Dr. Ridge, London; Mr. Ault; Dr. J. K. Fowler, London; Mr. R. B. Smith; Dr. Phillips, Exeter; Mr. Shirley Murphy, London; Mr. A. B. R. Myers; Dr. Rayner, Great Malvern; Mr. Flinn, Brownhills; Mr. J. White, London; Mr. Silk, Gravesend; Mr. Glencross, Bourn; Dr. Macnaughton Jones, Cork; Mr. J. M. Fox, Lymm; Mr. J. Byrne, London; Mr. Kelsall, Ashton-under-Lyne; Mrs. Jackson, Sheffield; Mr. Kimpton, London; Mr. Deacon, Knighton; Mr. Whitton, Towcester; Dr. Alessandri, Tuscany; Mr. W. J. Brown, Chester-le-street; Messrs. Lloyd and Co., London; Mr. Wood, London; Dr. Strahan, Beverley; Dr. Seaton; Messrs. Roberts and Schrader, London; Dr. Johnstone, Leicester; Dr. Loughnan; Messrs. Silverlock; Mr. Collins, Paignton; M. R. Z. S.; W., Southgate; Fidelis; Medico; Appetitus Rationi Parent; F. E. C.; M.R.C.S.; A General Practitioner; Veritas; A Cambridge Undergraduate; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. White, London; Mr. Hodgkinson, London; Dr. Tipley, Brigg; Mr. Willey, Birmingham; Messrs. Harvey and Reynolds, Leeds; Messrs. Drake, Stratford; Mr. Dora, Sherborne; Mr. Tomson, Luton; Dr. Colmer, Yeovil; Messrs. Richardson and Co., Leicester; Mrs. Rahn, Ipswich; Mr. Ellis, Newcastle; Mr. Kinder, Leamington; Messrs. Cuttler and Davis, Worcester; Dr. Hebblethwaithe, Leicester; Mrs. Baxter, Glasgow; Mr. King, Stratton; Mr. Bond, Brill; Mr. Blades, Exeter; Alpha; R. B. K., Walham-green; A. B. C., Eastbourne; K. C., Whitstable; M.R.C.S., Grantham; H. C. H.; P. J. F.; Medico; A. D., Liverpool; Chirurgus; T., Peckham; L. B., Luton; A. B., Stamford-hill; Priory; A. R., Plymouth; W. S., Birmingham; E., Edinburgh; Alpha, London; Medicus, Maryport; Medicus, Minchinhampton; L. M., Leeds; M. D. T. P.; Medico, Ballantray; D. V., Manchester; &c., &c.

Italian Times, West Cumberland Times, Carlisle Patriot, Indian Weekly Mail, Anti-Vivisectionist, Soulby's Universal Advertiser, Nottingham Daily Express, Cornish Telegraph, Indian Medical Gazette, Perthshire Constitution, Annual World, Nottingham Daily Guardian, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

Clinical Lecture

ON THE

CATHETER-TREATMENT OF PERINEAL FISTULÆ.

BY J. C. OGILVIE WILL, M.D., F.R.S.E.,
SURGEON TO, AND LECTURER ON CLINICAL SURGERY AT, THE ABERDEEN ROYAL INFIRMARY.

GENTLEMEN,—I desire to direct your attention to the case of the patient now before you, who was admitted some time since on account of urinary troubles. When he was admitted to hospital he told ~~us~~ that some months previously he had fallen from ~~the~~ top of an omnibus, alighting on his buttocks ~~; that~~ a severe injury was inflicted on his perineum, that there was at the time a free discharge of blood from his urethra, that he micturated with great difficulty, that inflammation supervened, and that the surgeon under whose care he was opened an abscess which formed in his perineum, after which urine continually flowed from the wounds. Attempts to pass instruments into his bladder had been made, but they were unsuccessful. On examination, two large fistulous openings, one on the right and the other on the left side of the perineum, were found; and upon urethral exploration, an obstacle, which I had but little difficulty in recognising as a traumatic stricture, was found in the bulbous portion of the canal. When he micturated very little urine came by the meatus, most of it flowing from the fistulæ. The stricture was, as traumatic strictures often are, exceedingly difficult to penetrate, but with the aid of a very small elbowed French catheter I succeeded in reaching the bladder. The impression I formed was that, as a result of the injury inflicted on the urethra, there had been irregular adhesion of its lacerated edges, and that this and the subsequent cicatricial contraction had led to an alteration of the normal axis of the canal, so that it had assumed an angular form at its strictured part. This conclusion was arrived at from the impossibility of passing any straight instrument, stiff or flexible, or any metallic bougie with the ordinary curve; while an instrument with an angular or *coudée* end readily found its way into the opening of the stricture, and thence into the bladder; and I was strengthened in this belief by subsequent experience, for a like difficulty with the one instrument and a similar ease with the other was experienced until the stricture was dilated to a not inconsiderable extent. I may remark, by the way, that, had I confined myself to the use of the ordinary French flexible or English gum or metallic catheters, this case would in all probability have furnished an additional instance of impassable stricture, but the simple expedient of using an instrument suited to the exigencies of the case fortunately prevented any addition to that list in which no surgeon desires to figure.

Having now laid before you the condition in which our patient was found, let me next direct your attention to the means adopted for the dilatation of his stricture, and especially for the cure of the fistulæ.

Our first desire was—as it should be in every case where urethral fistulæ co-exist with stricture—to restore the canal to its normal calibre, and this we accomplished by a combination of the continuous and gradual dilatation methods, and you will often find that complete dilatation of the stricture is all that is required; for the urine, finding the barrier to its egress removed, flows through the natural channel, and ceases to pass into the fistulæ, which being relieved from the irritation arising from contact with such putrescent fluid, take on healthy action, and cicatrisation ensues. In this case, however, as often happens where there is loss of substance—i.e., where the openings are large, dilatation failed to effect a cure of the fistulæ, and I had now to consider how the access of urine to the fistulous openings might be most surely prevented.

Two methods of accomplishing this desideratum presented themselves—namely, (1) tying in a catheter; and (2) the systematic use of a catheter at each act of urination. As some of you know, I intended to adopt the former course, but the patient has himself so intelligently carried out the latter that a cure has resulted. If you will examine his perineum and scrotum—where a fistula had also formed —you will perceive that cicatrices mark the points where a few weeks ago there were masses of granulations, and the man tells us that "water now never comes the wrong way;" if he will maintain the position in which he is now placed, by the occasional passage of a bougie, his stricture troubles and their most distressing accompaniments are at an end.

The result is certainly most satisfactory, and has been obtained, I may tell you, much more easily than I could have ventured to hope. The treatment of fistulæ by tying in a catheter, of which I would now speak, has fallen into undeserved disuse, but in cases where you cannot rely upon the patient's intelligence in carrying out the method just mentioned, or where the urethra rebels against the frequent passage of a catheter, you will, I feel assured, find it most useful. I should, however, not conceal from you the fact that this mode has been "weighed in the balance and found wanting" by those who are justly entitled to speak with authority. Sir Henry Thompson has stated that on account of the capillary action which is set up between the sides of the instrument and the urethral walls urine flows out, and finds its way through the fistulæ. "This mode of treatment," he writes, "is to be regarded as inadequate to the cure of fistulæ, except so far as it produces dilatation; and it is one which has obtained countenance chiefly from the plausibility of a theory which is certainly unsupported in practice." Mr. Reginald Harrison, who has recently written on this subject, holds a similar opinion—viz., "I have never found any advantage from the retention of a catheter in the bladder with the object of curing a fistula, as the urine invariably makes its way into the fistula by the side of the instrument." To the adverse testimony of these two surgeons I could easily add similar opinions culled from the works of many other well-known and distinguished writers, but as I seek not to secure your condemnation of, but your favour for, this method, it would be unwise to so prejudice you as to prevent your acceptance of it.

For the purpose of proving that the opinions just quoted are not absolutely correct, and that the mode of treatment under notice is not deserving of the obloquy cast upon it, let me recall to your recollection two cases recently in this hospital. As the first one presents features of considerable interest apart from the result of treatment, I shall recite it at length. One evening I was sent for in haste to J. K——, who had been admitted after the hour of visit, suffering from retention of urine. The man was then suffering so acutely from the effects of retention that he was unable to supply me with the particulars of his case, but I subsequently learnt that he had been under treatment in hospital for stricture, and that he had been dismissed six weeks previously, a full-sized bougie having been passed. He had remained fairly well until a few days before his readmission, when he began to find difficulty in urination; thirty-six hours before he came under my notice he was attacked by complete retention, and he was seen by a medical man, who at that time and subsequently made attempts to pass a catheter but failed, and he was then sent here. On inspection a huge hypogastric swelling presented itself; there was great œdema of the scrotum and penis, and bulging of the perineum on the right side. On account of the perineal swelling no rectal examination could be carried out. Attempts to pass a catheter were unsuccessful, and the administration of chloroform, which was commenced, had to be stopped, as dangerous symptoms supervened. I at once determined to aspirate his bladder, and drew off two and a half quart bottlefuls of highly ammoniacal urine. The perineal abscess was freely opened and a considerable quantity of pus was discharged; it was odourless.

On visiting the patient next morning I found the house-surgeon in the act of applying the exhauster of the aspirator to the needle, which had been allowed to remain *in situ*, but no urine entered the receptacle. There was therefore no water in the bladder, a circumstance of which an explanation was speedily forthcoming, for the bed on which the man was lying was soaked with urine, which had found egress through the perineal opening. The œdema of the parts had become much lessened. Catheterism was still impossible, but two days later a bougie conduct rice was safely conducted into the bladder, and through a catheter, which was screwed on to the end of the conducting bougie and passed into the viscus, several ounces of urine flowed.

Before speaking of the treatment adopted for the cure of the fistula which thus resulted, let me give you in a few words my view of the pathology of this case. When I first saw the patient certain of the symptoms suggested rupture of the urethra and extravasation, for there was a history of prolonged retention, and an œdematous scrotum and penis. But the presence of an over-distended bladder disproved that idea, for I need hardly tell you that had rupture taken place the urine would speedily have found its way outwards, and would have spread into the perineum and scrotum, and upwards through the cellular tissue covering the abdomen. Further, the pus evacuated from the perineal abscess would have had a urinous smell, but it was odourless. The abscess was, in short, not the result of extravasation, but it was the cause of the retention, and the subsequent escape of urine through the perineal opening resulted from necrosis of the urethra occasioned by inflammatory action. If assistance had been but a little longer delayed urine would undoubtedly have been found mixed with the pus, and had relief been afforded at an earlier period rupture would have been averted. I have digressed from our subject, but the lesson which this case teaches is a vital one, and if it impresses you with the necessity for early interference in cases of perineal abscess the time devoted to its consideration has been usefully spent, for there will be no risk of your allowing a similar case to be followed by such undesirable consequences as ensued in this one.

Our patient's progress, though it was slow and protracted, can be laid before you in a very few words. When the urethra had resumed its normal dimensions, a full-sized English gum catheter was lodged, and the fistulous opening, which was a large one, gradually decreased in size, the discharge of pus and urine from it became less and less, and ultimately a cure was effected. Before that most desirable result was attained there were many vicissitudes, for during a period of several days we found that all the water came through the catheter, and then when it seemed that a cure was nigh, we were told that some drops of urine had found their way through the fistula. This latter circumstance was observed only when the catheter had lain in the urethra for some days, and its explanation was found in the fact that the eye of the catheter had become encrusted with the phosphates, and that the means employed were therefore imperfect. Acting upon this suggestive hint the dresser, Mr. John Reid, used a fresh instrument every three or four days, a procedure which perfectly overcame the difficulty, and from this time progress was uninterrupted. The oversight of the necessity of using a new catheter at short intervals furnishes us with one, at any rate possible, reason for the failure of this method of treatment in the hands of those who have employed it and condemned it; and if you should be called upon to adopt it, you should bear in mind our experience here. In tying in a catheter you will find the following plan a good one. Procure a flat, narrow india-rubber band, such as is sold by stationers, pass it over the glans into the groove behind the corona, and attach it to the catheter by two or more threads of well-waxed suture silk. This is a cleanly and efficient mode, and seems to me to be superior to plasters or tapes, which are generally recommended. The second case to which I have alluded as an example of the utility of bladder-drainage was one of long-standing multiple perineal and scrotal fistulæ, where many repeated and varied attempts at effecting their closure had proved futile. In this case extreme induration of the tissues was a most marked feature. Treatment by means of a catheter tied in was ultimately adopted, and in the course of a few weeks the abnormal openings were soundly healed, and the induration had completely disappeared.

These two cases show you that perineal fistulæ can be cured by this simple and easily carried out procedure; but a modification of this method, which I regard as a decided improvement, although I have not yet had an opportunity of putting it to the test of practice, has recently been proposed by Mr. Chiene of Edinburgh. His method of bladder-drainage consists in the establishment of a syphon, which he accomplishes by means of a piece of india-rubber tubing attached to a gum-elastic catheter, which is introduced so that its eye is just within the neck of the bladder, and it is kept in position by sticking-plaster. The tubing passes over the side of the bed into a bottle placed on the floor, and by filling the tube and the bottle with carbolic water a syphon action is set up. This is only a rough and imperfect sketch of the mode devised by Mr. Chiene; but you will find full details in his most suggestive paper contained in the *Edinburgh Medical Journal* for December, to which I refer you. Now, if the syphon action can be maintained we may regard the india-rubber tube as an elongation or prolongation of the ureters, for a direct and continuous connexion is established between the kidneys and the recipient vessel, and the bladder ceases for a time to exercise its normal function as a receptacle for the urinary secretion. Mr. Chiene has shown that this is possible; hence we must view this new mode as a decided advance on the old one, and with its introduction the objection to the catheter-treatment must disappear; and I believe that bladder-drainage will ere long become an established practice among those who are called upon to treat cases of urinary fistulæ.

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

By FREDERIC J. MOUAT, M.D., F.R.C.S.,

FORMERLY PROFESSOR OF MEDICINE, CLINICAL MEDICINE, AND MEDICAL JURISPRUDENCE IN THE MEDICAL COLLEGE OF CALCUTTA, AND FIRST PHYSICIAN OF THE HOSPITAL ATTACHED TO THE COLLEGE; DEPUTY INSPECTOR-GENERAL OF HOSPITALS (RETIRED); VICE-PRESIDENT AND FOREIGN SECRETARY TO THE STATISTICAL SOCIETY OF LONDON, ETC.

I.—THE CONTROL AND MANAGEMENT OF HOSPITALS.

BY no means the least important factor in the successful working of hospitals, is their right government. The concerns of all such institutions are many and various. For their proper regulation the fittest agency for each part of the appointed work should be selected, or elected. The general government, including the financial control, the special regulation, and the professional agency, superior and subordinate, are all necessary for their effective management.

In the general government, the public, as distinguished from the purely professional interests, should be chiefly regarded.

In the immediate management the professional element should not only be predominant, but absolute; for professional training alone can fit any man thoroughly to understand the multitude of matters of detail which require to be dealt with, with economy, despatch, and efficiency.

In most foreign countries the central and superior control is in the hands of a governmental administrative agency. In Paris, this is represented by the Director of the Assistance Publique, under the supervision of a council presided over by the Prefect of the Seine, and consisting of members of the municipal council, medical members, mayors, and other notabilities. The director is believed to be practically an independent officer in all executive measures. He has under his orders a staff, comprising a general secretary and several bureaux, each with its superintendent in charge, as may be found detailed in the French National Almanac.

The nearest approach to this organisation with us is the Local Government Board, which, however, in its attributes and functions differs very widely from it.

A cursory study of the laws of most European countries regulating the control and management of institutions devoted to the care of the sick, and to the relief of destitution, with which they are usually associated, has satisfied me that they will not fit easily into our system of self-government and absence of State interference; and that, beyond some useful general principles, there is little in them that will bear direct transplantation.

That our manner of dealing with them, although right in principle, is susceptible of considerable improvement in practice, I hope to be able to show when treating of the organisation of medical relief in this great metropolis, which is a kingdom in itself. The chief and most important change required, I hold to be the entire separation of sickness from mere destitution, this being merged in the general hospital system of the country, as an integral and inseparable part of the great question of public health; all other matters connected with destitution continuing, as at present, under the Poor-law authorities.

The hospitals themselves I consider ought to have just so much of State control as to secure their proper direction, with the remedy of such defects as may be shown to exist. I know of no good reason why the different hospitals of London and other great cities, should exhibit such very different risks to life in similar circumstances, diseases and accidents, as they do now, and have done for long past; and why a proper uniform system of hospital record in all departments of their administration should not be as compulsory as customs, trade, and other economic returns, in matters of far less general and scientific interest.

If the State interferes, as it does rightly, to protect all classes who are unable to protect themselves from injury and misgovernment, surely the sick and those who are afflicted by causes over which they themselves can exercise no control, demand the same consideration for the body, as they now receive for the mind and its disorders. It involves but the extension of a principle which is firmly established in our legislation, and it can easily be so regulated as in no way to interfere injuriously with the self-government which is still more deeply impressed on our national character, and guides us so surely and successfully in most matters of social and domestic economy.

In the lives of the poor, and of all engaged in manual labour, sickness plays a much more important part than it does in any other class of society. The munificent public and private charities of this country are amply adequate to deal with all legitimate demands upon them without inflicting additional burdens upon the purses, or taxes upon the time and attention, of the wealthy and benevolent, if they were only a little better organised, and somewhat more judicious care were bestowed upon their distribution.

GENERAL MANAGEMENT.

The general supervision of the concerns of all large hospitals should be in the hands of a mixed committee or body of governors, sufficient in number to be subdivided into sections of convenient size, to control the financial arrangements, additions to or alterations of buildings, and similar matters.

Should it not be deemed expedient to introduce an official element into this body, there is fortunately in such a community as ours, no lack of persons of cultivation and leisure strongly imbued with philanthropic sentiments, ready and willing to undertake such duties.

This general committee, by whatever name it is called, should be purely administrative, and have no executive functions.

On it should be men possessed of an adequate knowledge of finance, of structural arrangements, and of such economic principles as are required in the general control and direction of an establishment, whose special function is to do the largest amount of good to the sick and suffering, without prodigality or parsimony, and without fear or favour.

There are many circumstances connected with this general management of hospitals, in which the aid and advice of educated women would be valuable, both in council and in action. The laundry, the cooking department, the domestic arrangements of the nurses and female servants, as well as the women's and children's wards, would all benefit by such supervision. Hence, a certain proportion of all general committees should consist of ladies.

On the committee should also be the consulting physicians and surgeons of the hospital itself, and possibly other distinguished members of the profession, unconnected with the hospital, to act as a special medical committee; to see that, in the application of the means of relief, the institution is kept well abreast of the progress of the art and science of medicine and surgery, and to assist, in consultation with their lay brethren, to deal with abuses where they are found to exist, and, where technical and special knowledge are needed, to suggest the best means for their remedy or removal.

In such a body, the public and the profession would alike have confidence. The former would have the assurance that their money was well spent, that the hospital was humanely conducted, and that the poor and afflicted obtained all the advantages intended for them. The latter would be assured that the personal benefit of each patient was carefully considered, and that while none were made the subject of questionable experiments, the interests of the progress of science were not neglected, in introducing new and improved means for the cure, and, above all, for the prevention of disease—the latter being of national importance.

Such an organisation would not interfere injuriously, if at all, with vested interests or founders' wishes so long as these latter were in harmony with the constantly progressive changes in society, and the new conditions arising out of such changes.

The above is no hypothetical or speculative scheme, for, with some modifications of detail, it may be seen in active operation in some of the well-conducted hospitals of the United States at the present moment, and in the great hospitals of Edinburgh and Glasgow.

All persons engaged in inquiries into our hospital system know how difficult it is to obtain reliable information, and how little the public or the profession know of the exact state of most of our hospitals. This does not usually arise from any desire for concealment, but because each is more or less a law unto itself, and there is a want of uniformity in the system of records, which is seldom kept in such manner as to be of any real scientific or administrative value, so far as the published statements of hospitals indicate.

SPECIAL OR EXECUTIVE CONTROL.

The immediate government of a hospital should be entrusted to a resident Medical Superintendent. It is so generally in the United States of America, in some of the greatest hospitals of the continent of Europe, in the most important hospitals of Scotland, and in the large and well-managed separate Poor-law Infirmaries of this metropolis. To the medical superintendent all persons within the walls of the institution should be strictly and directly subordinate. There should be no concurrent, separate, or conflicting authority. He should not be charged with the treatment of the sick, and should neither possess nor exercise any power of interfering with the physicians or surgeons in their treatment of cases of disease, accident, or injury. The direction of all other internal concerns should be exclusively in his hands, such as the maintenance of order and discipline, the regulation of supplies of all kinds, the custody of all appliances and instruments, and the initiation of all such structural and other changes as may from time to time be found necessary. In matters of finance and supply he should act under the orders of the special sub-committees of finance and buildings, appointed from the general governing body. He should regulate the admission and discharge of patients, and the keeping of the records of the hospital, with the aid of such subordinate staff as is always required in great institutions. The out-patients' department should also be under his control. The appointment, removal, and distribution of all nurses, servants, and subordinates generally, should likewise be vested in him, subject to the immediate control of a house committee. He and all the sub-committees should submit an account of their proceedings, monthly, or as much or less oftener as may be deemed necessary, to the general committee at its appointed meetings, with whom should rest the final sanction and approval of all matters connected with the institution. The general committee should have a paid secretary to arrange and keep its records, and be the official medium of communication between that body and the officers of the hospital.

If there be any class or kind of public institution which more than any other demands the possession of special and technical knowledge, and more direct unity of authority in its immediate management, I hold it to be a hospital. A medical superintendent, from his professional training, is alone competent to gauge at once with promptitude and decision all the requirements of such an institution; and, as he must always be appealed to in the last resort, common sense and the proper conduct of business of all kinds in every other walk of life, indicate that he should possess the power, in the first instance, of dealing with every such matter as pertains to the economical and efficient control of a place devoted to the healing of the sick. Fettered as he would be by his responsibility to special committees and the general committee, there would be no fear of his abusing such authority, for a sure and swift remedy could be found for such abuse. But, as a matter of fact, it is not abused in those institutions in which it is in use, as I have had several opportunities of seeing.

However, even our existing system, mediæval and out of harmony as it is with the age in which we live, is better than that of the director of a French hospital, acting solely under the orders of a central official authority, which is about the most inefficient and mischievous form of government that I have ever seen in action.

Reform in the direction above indicated will not, I know, meet with ready acceptance from many benevolent and philanthropic persons, whose views are entitled to the most respectful consideration. We are as a people slow to mend our ways, and have a not unnatural dread of changes, which are usually regarded as more or less leaps in the dark.

Yet, this is in no way a speculative change, for it has long been in practical operation in other places, and is so in one important class of public hospitals among ourselves. Let those who have any misgivings on the subject visit and examine the institutions referred to for themselves, and see in their economy, efficiency, and the absence of all friction in their working, undeniable proof of the soundness of a system which has passed from the region of discussion to that of accepted fact.

The axiom that unity of executive control means efficiency of management, applies quite as much to public as to private business. Hospitals, I contend, form no exception to this, and the more general rule that those are best qualified to conduct a business successfully, who are best acquainted with its requirements.

NURSING.

The most important of all the subordinate agency required in hospitals, is undoubtedly that of nursing, of which indeed it would be difficult to over-estimate the value in its proper place, and in due restriction to its special purpose.

For the moral and domestic direction of the nurses, and for the thousand daily needs essential for their comfort and happiness, together with many collateral duties which a male superintendent cannot properly discharge, a matron is required—not as an independent and coördinate authority, but as an integral part of the machinery of management, kept in harmony by the single direct ruling authority.

That skilled and trained labour is infinitely more efficient and trustworthy than unskilled and untrained labour, is undeniable. But, to elevate nursing into a special profession, and to arm it with independent authority in the management of disease or accident, I hold to be a mischievous mistake, alike in public institutions as in private life. It is, and must always be from its very nature, a subsidiary function, but not the less valuable or important on that account. To elevate the minor to the position of the major, is as illogical in theory as it is unsound in practice.

Nurses stand in the same relation to the surgeons and physicians of a hospital that non-commissioned and warrant officers do to the officers of the army and navy, and that skilled artisans in a factory or workshop, do to the foremen and scientific directors of the works. To arm them with independence in any form, is as impolitic in the one, as it would be destructive in the other.

I cannot, again, concur in any scheme of connecting the duty of nursing with any form of religious or quasi-religious organisation; for hospitals are open to all classes, sects, and creeds, and should be absolutely free from even the suspicion of any sectarian bias, or proselytising tendency.

Far be it from me to underrate the possession on the part of a nurse of the deepest religious feeling, for there can be no better guarantee of her tender consideration for the sick, and of her conscientious fulfilment of her proper duties, which are entirely secular and professional, and should remain so. Nearly forty years ago I myself applied to the Roman Catholic Archbishop of Calcutta to grant me the services of some of his religious ladies, to organise and introduce into the female wards of the Medical College Hospital, then under my executive charge as secretary and resident medical officer, an improved and skilled system of nursing, at that time quite unknown in British India. He complied, and for some four or five years these exemplary and truly Christian women conducted the duties of nursing in the most perfect manner, under my constant personal supervision, and that of my late colleague, the then professor of midwifery. The successor of the archbishop above referred to, much to my regret and with many apologies on his part for taking a step in opposition to the action of his predecessor, withdrew the ladies in question. His plea was that the earnest devotion of the nuns to purely secular work, interfered with the strict performance of their religious duties. From first to last they never stepped beyond the exact line of their hospital work, so far as the sick were concerned, or assumed functions or powers inconsistent with their relations to the professor or myself. The harmony of action and efficiency of nursing were unbroken, and we parted with mutual regret and regard. I assume, then, to speak with authority on a question which has recently greatly exercised the public mind, and which, in the instance referred to, is now happily at rest.

I do not enter into the question of the right method of training nurses, because it would need a paper to itself, and is not necessary to my contention. Moreover, it has been treated exhaustively by one who can never be mentioned without an expression of the respect and admiration due to exceptional knowledge of the subject, to rare ability in its consideration, and to a life-long devotion to a work which will for all time be associated with her name.

The nursing department of St. Thomas's Hospital, the excellent arrangements of the great Infirmaries in Scotland, and the special provision for the same end made at the Johns Hopkins Hospital at Baltimore, with many others which might be mentioned, are all typical and efficient modes of dealing with the question of training, in the only manner that appears to me to be thorough, and free from objection.

The mode of appointment of the medical officers of all civil hospitals in the kingdom is probably not free from objection; but so long as it brings the best men to the front, and secures to the sick the ability and care necessary for their restoration to health, there is no pressing reason for suggesting a change. To men possessed of the requisite knowledge and skill, hospital offices are sure passports to public favour and to professional reputation. This will, however, do little for those who lack the higher qualities which go to the formation of a perfect surgeon and physician, such as are to be found in all our great institutions.

(To be continued.)

THE PATHOLOGY AND TREATMENT OF DIARRHŒA IN PHTHISIS.

By C. THEODORE WILLIAMS, M.A., M.D., &c.,

PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

Diarrhœa is often the cause of fatal termination in phthisis, its exhausting discharges reducing the weight and impoverishing the blood more than the cough and expectoration, or even than the fever. Three different kinds of diarrhœa are met with during the course of the disease. 1st, That arising from acidity of the primæ viæ; 2nd, from intestinal ulceration; 3rd, from lardaceous disease of the intestines. A great deal of the diarrhœa connected with the first stage of phthisis is attributable to the first cause, and many practitioners think when they have allayed this, they have arrested ulceration, whereas they have only got rid of dyspepsia. It is unnecessary to dwell on this form, which as a rule arises from over-feeding patients, and is accompanied by a coated tongue, tenderness in the right hypochondrium and epigastrium, loaded urine, anorexia, flatulence, and frequent light-coloured stools.

The second form, or intestinal ulceration, is the commonest cause of fatal diarrhœa in phthisis, and prevails in a considerable proportion of third-stage patients. Louis found ulceration of the intestines in five-sixths of his cases, Bayle in 67 per cent. of his, Lebert in 67 per cent. of his Breslau ones, and in only 39 per cent. of his Zurich ones. The Brompton Hospital post-mortem book for the last twelve months gives the following. Out of seventy-five cases of phthisis in which the intestines were examined, sixty-one had ulceration of a tubercular nature, giving a percentage of 81, a higher percentage than that of either of the above authorities except that of Louis. It is only right to state that a most careful search was made on each occasion by the present pathologist, Dr. Ewart.

The pathology of tubercular ulceration requires a large number of specimens to display its exact course, most autopsies only showing the last destructive stages.

Ulcers are to be found occasionally in nearly the whole intestinal tract below the duodenum, but they are so extensive and involve so great an amount of the mucous membrane of the large intestine as often to give it an entirely wormeaten appearance, and in many instances the large intestine of a case of phthisical diarrhœa cannot be distinguished from that of tropical dysentery, so well portrayed lately by Sir Joseph Fayrer in his Lettsomian Lectures. In the small intestine, however, especially in the ileum, we are able to trace the early steps of the ulcerative process, and I hope the cases I am about to relate will illustrate these. The first stage consists of an inflammatory hyperplasia of the solitary and agminate glands, as shown by their prominence when the intestine is opened. The second stage consists either in their conversion into pustules by formation of matter, or by their undergoing caseation. Either phase is followed by the third stage, which is the evacuation of their contents, leaving behind ulcers with smooth floors and sharp, clear-cut edges. Up to this point the process is held by many authorities to be inflammatory, and not strictly tubercular. After a while grey tubercle is detected in the floor of the ulcer, which in time undergoes caseation, causing extension, vertical or lateral, of the original ulcer.

The secondary tubercles follow the line of the bloodvessels, and sometimes are seen from the peritoneal surface, demonstrating how deep these ulcers extend. When ulceration has arrived at this stage, each spot presents thickened irregular edges and an uneven floor. The intestinal wall around them is generally thin and wasted, and it is often easy to recognise the ulcerations from outside without opening the intestine. In time, these patches, extending, join neighbouring ones, and eventually the whole circumference of the mucous membrane becomes a mass of disease. It is in this condition that we often find the colon and sigmoid flexure. Before ulceration, however, reaches this degree, it is not uncommon to find separate ulcers of great length; Louis found one measuring eight inches, the floor being formed by the muscular coat, except in the centre, where even this had disappeared, and only the peritoneal coat remained. Considerable thickening of the peritoneal coats, especially in the region of the ulcers, takes place, and thus it is that perforation is comparatively rare. When it occurs, peritonitis is inevitably set up, but even then it is sometimes of a localised description, the extravasations being walled off by fresh adhesions. As a rule, however, the peritonitis is general, and death soon follows the perforation. Rindfleisch gives a case where several coils of the intestines were adherent, and perforations took place in the adjacent portions in five different places. Occasionally vessels are penetrated by the ulcerative process, and death occurs by hæmorrhage. Hanot states that he saw two such instances in the service of M. Lasègue, in each case the amount of blood lost being very striking. After death the source was found to be a small opening in a vessel in the middle of a Peyer's patch, which was deeply ulcerated. Biermer gives a case of large intestinal hæmorrhage following tuberculous ulcer of the rectum in a child.

These are the most unfavourable pathological courses of the process; but, on the other hand, the ulcer may shrink, the walls become more indurated, and at length form a puckered cicatrix in the mucous membrane, largely contracting the circumference of the intestine; and in patients dying of chronic phthisis these scars are occasionally seen.

Accompanying the ulcerative changes we often find considerable swelling of the mesenteric glands, but this is generally the case in the later stages of the disease. Walshe found alteration in these glands in from one-third to one-fifth of his cases of phthisis.

Let us now take some examples of intestinal ulceration to illustrate the above remarks.

CASE 1 is one of advanced phthisis, with the common accompaniment of disease (chiefly lardaceous) of the liver and kidney, giving rise to ascites and anasarca, but at the same time intestinal ulceration was proceeding, causing obstinate diarrhœa. John B——, aged twenty-nine, draper's assistant, was admitted into the Brompton Hospital, Oct. 30th, 1879, with a history of cough, loss of voice, expectoration, and wasting for eight months. Night sweats commenced with illness, but have ceased lately. Diarrhœa appeared a month ago, but stopped in fourteen days; then œdema of the legs and ankles commenced. On admission the appetite was good; cough and expectoration moderate; temperature, pulse, and respiration all normal; weight 8 st. 5¾ lb.; pupils rather contracted; urine contained albumen (¼). Examination of the chest showed dulness, flattening over the whole left chest; cavernous tinkle was audible from the clavicle to the third rib, and above the scapula, and crepitation was heard below these points. Hepatic dulness was increased upwards. In December the patient became excited and wandering in manner and speech. The bowels were costive, the albumen increased to ¾ of the test-tube; the œdema became more extensive. After free purging the head symptoms subsided; the œdema diminished, and the amount of albumen was reduced to ⅜. Diarrhœa returned on the 28th of January, 1880, and at first was very moderate, the motions being two or three daily. It gradually increased to five motions a day at the end of February, but under a simple regimen of milk and beef-tea the daily number of stools was reduced to three. On the 11th of March the patient became so weak that a more generous diet, including brandy, was adopted, and the diarrhœa increased to nine and eleven motions a day. Under opiate and astringent enemata it was reduced to two motions a day, but the number speedily increased if the enemata were omitted. On the 2nd of April the œdema increased, and ascites made its appearance; the urine continued abundant, with a large percentage of albumen. Cavernous sounds became audible in the right lung, the breathing became more and more difficult, and on the 29th of April he died, the diarrhœa continuing till the end.

Autopsy, twenty-seven hours after death, by Dr. EWART.—Abdomen: The peritoneum contained a pint and a half of pale opalescent fluid. The mucous membrane of the stomach was thickened and pasty and covered with glairy mucus. The upper portion of the intestine was normal; but from the lower third of the ileum downwards the gut was much ulcerated. No distinct tubercle was recognisable in connexion with the ulcerations. These were clearly of follicular origin, and they appeared to result more immediately from the rupture of purulent accumulations (similar to those commonly seen in follicular tonsillitis), some of which were as large as a split pea, or rather larger. The next step of the ulceration was characterised by a clean floor and a very sharp edge. Lastly, in some places, a third step was recognised—viz., that of shrinking and of induration. This was especially noticeable where several ulcers and pustules were arranged in a row in the transverse diameter of the ileum. The ascending and transverse colon were wormeaten by serpiginous and circular ulcers, situated so close to each other as to scarcely leave any healthy surface. Scattered ulcers were found as far as the rectum. The mesenteric glands were not much enlarged; one was calcified. The liver weighed 3 lb. 4 oz.; it showed fatty and fibroid changes to the naked eye, but isolated streaks and dots of deep brown appeared when iodine was applied. The spleen weighed 15 oz.; it showed a few infarcts and some lardaceous changes. Pancreas: Bloodvessels distinctly lardaceous. The kidneys weighed 19 oz.; smooth, pale, with pink pyramids; the cortex showed opaque, yellowish-white streaks, within a semi-transparent basis. Iodine turned several of the Malpighian capsules brown. The kidney was a good specimen of the large white variety, combined with lardaceous disease. Heart: The mitral anterior flap had a small fibrinous vegetation on it. Lungs: Both pleuræ adherent; left anterior lobe occupied by a large vomica with fibrous wall; posterior lobe shrunk, contained tubercular mass in process of softening. The right upper lobe contained a large cavity full of grumous fluid, the rest of the lung being spongy and pervaded by tubercular nodules undergoing rapid softening. The mucous membrane of bronchi thickened. Bronchial glands: The subtracheal one was large, firm, red, and had a patch of pigmentation, but no tubercle. The larynx showed pinhole ulcerations and eroding of the vocal cords.

CASE 2.—William W——, aged sixteen, single, was admitted into the Brompton Hospital on May 11th, 1880, with a history of cough and expectoration for eighteen months, the latter occasionally streaked with blood. Diarrhœa had persisted for two months, and night sweats for a longer period. Great emaciation had resulted. On admission the cough and expectoration were moderate, the breath short on exertion, and the tongue red and irritable; the bowels relaxed twice daily. Pulse 104; temperature 99° F.; urine, sp. gr. 1015, acid, contains no albumen; weight 6 st. 8 lb. Physical signs: Dulness and cavernous sounds audible from the clavicle to the third rib on the right side; some dulness above the scapula. On May 19th the patient was seized with symptoms of acute nephritis; albumen appeared in the urine, and crepitation was audible at the bases of both lungs, in addition to the above physical signs. The acute symptoms passed off in ten days, the diarrhœa being somewhat less during their persistence; but albumen continued in the urine up to the patient's death. The diarrhœa returned at the end of June, and gradually increased, in spite of all treatment, from three stools to ten stools daily, the medicines used being bismuth, bismuth and opium, sulphate of copper and opium, turpentine, enema of opium with acetate of lead, &c., with tannic acid, and also injections of linseed-tea and opium. With the exception of the last-named, which reduced the number of motions for a time to two daily, none of the above can be said to have in any way controlled the diarrhœa. Great pain in the umbilicus was noted at the beginning of August. The albumen towards the end of the patient's life amounted to seven-eighths of the tube, and at one time the urine after boiling was solid, and both œdema and ascites were present. The patient sank on August 30th.

Autopsy, twenty-four hours after death.—Abdomen contained a small amount of fluid. Intestines showed ulcerations in the jejunum and ileum, and in the large intestine. They were of two kinds—(1) small and round, resulting from simple softening and destruction of tissue; lower down in the intestine were (2) larger ones, possessing a rather thickened floor, in which miliary tubercles were present and visible on the peritoneal surface of the bowel. The neighbourhood of the ileo-cæcal valve was severely ulcerated, and the colon formed one continuous ulcer. From the ileum downwards both forms of ulcer occurred side by side. The liver was fatty and lardaceous, the spleen very lardaceous, the kidneys smooth and pale, with pink pyramids. The changes of chronic tubal nephritis were well marked. Malpighian capsules lardaceous, giving a strong iodine reaction. Heart normal, except tricuspid orifice somewhat dilated. Lungs: Right pleura adherent; right lung contained a large smooth-walled cavity, the size of an orange, and a smaller one lined with a glistening membrane. The lower lobe contained abundance of grey tubercle, either isolated or grouped; many of these last were in the process of softening. Left lung inflated, with some cicatrices at the apex. Bronchial glands enlarged, and contained miliary tubercles. Larynx and trachea: Extensive ulcerations occupied the whole tract from the tip of the epiglottis to the second division of the bronchi. The mucous membrane of the larynx was much thickened, and there was considerable hyperæmia of the trachea and bronchi. Ulcers were present in the pharynx, on the buccal surface of the epiglottis, on the base of the tongue, and the tonsils were hollowed out by caseation.

Remarks.—Both these cases are cited to illustrate the morbid anatomy of ulceration. Case 1 shows well the first steps in the process—the swelling of the glands, their suppuration, and caseation; Case 2 the different forms of ulcer, and the secondary infection which takes place in and around them. As in both instances renal disease existed to a considerable extent, and exercised a large influence on the symptoms, these cases cannot be considered good clinical examples of intestinal ulceration, but they are undoubtedly good ones of the morbid anatomy. It is seldom that so much destruction of the mucous membrane exists as occurred in Case 2, for here the pharynx, larynx, and bronchi, in addition to the intestines, were attacked. No history of syphilis could be traced in either.

CASE 3 is a good instance of perforation and peritonitis. Charles C——, aged nineteen, admitted October 7th, 1881, into Campbell ward, with the following history. He was attacked one year ago with pain in the left side, chiefly on taking breath, accompanied by diarrhœa and followed by pains in abdomen. Pains subsided, but were followed by cough, expectoration, night sweats, and wasting. When admitted his cough was moderate; expectoration scanty; appetite very bad; tongue red and irritable. Pain was complained of in the lower part of the abdomen. Bowels open three times a day. Pulse 80; temperature 103° F.; respiration 20. The physical signs showed the existence of a cavity at either apex. Bismuth and opium were given internally, and linseed poultices applied to the abdomen; but as the pain in the abdomen persisted, a blister two inches square was applied over the seat of pain. The diarrhœa ceased, and the cough became less frequent, but the pain persisted. On the 19th the pain had extended over the whole abdomen, and there was tenderness on pressure, chiefly over the right side. Tongue furred; bowels relaxed; hands and feet cold. Two days after he died suddenly.

Autopsy.—The abdomen contained abundant purulent fluid, encapsulated in the lower parts of the abdomen by fibrous adhesions. In the process of unravelling the gut, three perforations were detected in connexion with the encapsulated portions of the peritoneum. The intestines presented large ulcers from the middle of the jejunum to the end of the rectum, being most numerous and best marked in the ileum. No tubercle was visible in the peritoneal coat. The ulcers were devoid of raised edges and free from thickening, except where a few granulations were commencing; the ulcers appeared to enlarge by gradual implication of the neighbouring solitary glands. The mesenteric glands were swollen, some were suppurating and others caseous. The lungs showed both pleuræ strongly adherent at the apices. Both lower lobes were spongy and but slightly congested, but contained fresh translucent tubercles scattered through them. The upper lobes showed congestion of deep venous colour, interspersed with numerous nut-sized cavities containing yellow matter. The cavities, which had apparently been recently formed in the partially indurated tissue, were lined and stood in direct connexion with several funnel-shaped bronchi, and were situated at the periphery of the lungs. Various caseous masses, of apparently broncho-pneumonic origin, were noted in the upper lobes. No tubercle was detected in the upper lobes. The tissue intervening between the cavities under the action of spirit was deprived of its congestion and showed pigmentation and old fibrous changes. The bronchial glands were pigmented; the other organs were healthy.

Remarks.—This is a fair instance of extensive ulceration leading to peritonitis, partial probably at first, as shown by the encapsulated portions, but afterwards more general. The state of the lungs indicates that an attack of pleuro-pneumonia, probably of both lungs, led to induration of the tissue of the upper lobes, and consequent dilatation of the bronchi. These bronchectases extending and forming collections of muco-pus in the neighbourhood, the lymphatics became implicated, and hence the fresh tuberculosis. The difficult point to determine is when the intestines became implicated, and whether their lesions occurred first, and were the starting-point of the systemic infection, or whether the bronchectases were so. The history was not sufficiently distinct to decide this.

(*To be concluded.*)

ETIOLOGY AND CLINICAL BEARINGS OF THE GERM THEORY OF DISEASE.

BY DR. GEORGE HARLEY, F.R.S.

The Editor calls attention to the following

Note by the Author.—"Reformed speling: This paper is printed without encumbering its words with redundant, and consequently useles, duplicated consonants."

It must be understood that THE LANCET does not adopt the method, but simply complies with the request of Dr. Harley.

CHAPTER II.

Efects of Animal Germs and Germ-spawn artificialy introduced into the Bodies of Healthy Animals.

THE first experiment made with what I consider animal germs was the folowing:—

(F) A quantity of normal healthy gastric juice was withdrawn from a healthy dog's stomach through a fistulous opening. It was set aside in a smal-neck botle until it had not only become putrid, but strongly alkaline, and ful of living animal organisms;[1] though, strange to say, not a single spore nor filament of a fungus was to be detected in it by the aid of the microscope. An ounce of it, without any preparation whatever, was then slowly injected into the left femoral vein of a large dog. On the folowing day it apeared out of sorts, and refused its food. It rapidly recovered, however, and in four days was aparently perfectly wel. This result surprised me, seeing the deleterious results I had seen folow the injection of putrid blood, and even of blood directly withdrawn from the vesels of starved living animals, and it led me to try to ascertain if the deleterious efects of putrid animal maters were proportionate in any way to what by our senses we would consider to be relative degrees of abomination. With this object in view the most disgusting looking and smeling animal liquid was sought for, and it was suposed to be discovered in the macerating trough of the disecting-room, which had not been emptied for years. On placing a drop of the filthy-smeling alkaline fluid from the macerating trough under the microscope it was found to literaly swarm with actively-moving Brownian granules, vibriones, and germ-spawn. It also contained numbers of crystals of triple phosphates. An ounce of this was injected very slowly into the femoral vein of a dog. It seemingly caused it not the slightest imediate inconvenience, as it at once troted of to its food, and began eating it as if nothing had been done to it. Within twenty hours afterwards, however, it was found dead. The deadly efects of this ofensive animal fluid being therefore undoubted, I resolved to try if the germ-spawn contained in the liquid would alone be suficient to kil an animal. Litle thinking that the result I would obtain would give a solution to the aparently mysterious fact, long afterwards noticed by other observers, that splenic fever (which is due to the presence of bacili in the circulation) could be induced in healthy animals by inoculating them with blood of infected animals when no bacili were visible in it, and yet in the course of time bacili would develop and be found in the blood of the animals so inoculated. This I explain by saying that, although there were no bacili in the blood inoculated, it nevertheles contained bacili germ-spawn.

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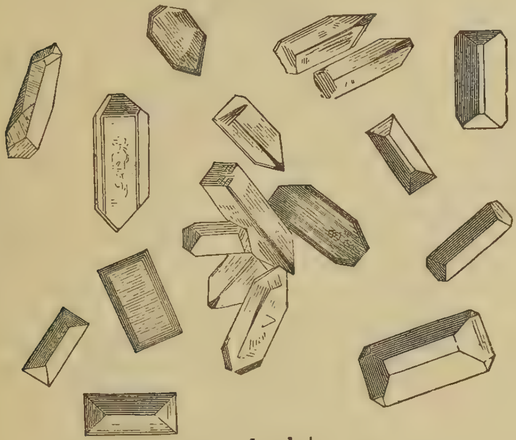
[1] Gastric juice contains a special ferment of its own caled pepsin, which, when introduced into milk, induces lactic acid fermentation; whereas, when acting in its own normal secretion—gastric juice—it sets up an alkaline-amoniacal fermentation, similar in its results, though not in its mode of action, to the alkaline-amoniacal fermentation of normal acid urine.

FIG. 6.



Triple hosphates.

(G) To test the value of my germ-spawn theory I proceeded as folows :—

A quantity of the putrid liquid from the macerating trough was carefuly filtered through filtering-paper which only alowed the minute—almost invisible—germ-spawn and the soluble materials in the liquid to pas through it. The vibriones and Brownian granules, together with al the solid substances it contained, were retained behind on the filter.[2] An ounce of the thus prepared foul-smeling water, suposed to be loaded with germ-spawn, was slowly injected into the left jugular vein of a ful-grown terier dog. The imediate efects of the operation were simply *nil;* but they would not have remained so long, for next evening—that is to say, within eighteen hours after the injection had been made, the colege servant on going to seek the dog found it very il; so il that he at once took it up in his arms and brought it into the laboratory. On my arival there at 10 A.M. I found the animal in an almost comatose state. Its respiration was only 7 per minute. Its femoral artery was nearly pulseles. Its skin was cold, and it not only could not stand on its legs, but it had scarcely power to move them. A smal quantity of blood was withdrawn and examined under the microscope, but nothing abnormal was found in it. Some of it was put aside to crystalise, on acount of my having noticed that rat's blood under similar conditions crystalised unusualy readily; but no crystals whatever formed in it. On the folowing morning the animal was found not only dead, but stif. Strange to say, notwithstanding this, its body smelt most ofensively, and yet the rigor mortis proved that the foul odor was not due to the result of ordinary tisue decomposition.

Extravasations of blood had taken place under the skin and into the muscles, especialy about the animal's neck in the neighborhood of the wounds. The duodenum was found filed with sanguinolent mucus, and its mucous membrane was uniformly red and congested-looking, with one or two points of extravasation. This is a point to be noted from its having a particular bearing on the cause of the black vomit and tary dejections met with in cases of hepatic disease—where there is a complete suspension of the biliary secretion—and hæmorhages take place into the digestive canal. It has an equaly important bearing on the pathology of putrid fevers.

(H) Being satisfied by the results of these and other experiments, of a precisely similar character, of the deadly efects not only of animal micro-organisms, but of their germ-spawn when directly introduced into the circulation of a healthy animal, I determined to ascertain if this same chain of pathological results could be induced by the local aplication of the same abnormal living elements to healthy living tisues. In order to insure that the inoculation, if it took place at al, should be the result of thorough contact, I injected half an ounce of the same liquid as was used in the preceding experiment, under the skin of the back of a perfectly healthy dog. No imediate results folowed upon the operation. On the folowing day it apeared perfectly wel, with the exception of a slight pufines being observed under the skin at the seat of the injection. But even that apeared to give it but litle inconvenience, as it alowed the part to be gently manipulated without manifesting any symptoms of pain. In three days even this had disapeared, and the dog seemed perfectly wel. The slight results here obtained (as I knew from the previous experiments that the liquid was not inocuous) could only arise from one of two things—either that the quantity employed was too smal, or that the dog was unusualy insusceptible to its efects. With the view of ascertaining which of these ideas was most probably the corect one, I proceeded to increase, not only the actual quantity of germ-spawn, but also the area of the healthy tisues with which it was brought into contact, by injecting an ounce—that is to say, double the quantity of fluid—under the skin of the back of another aparently equaly healthy dog of the same species, and almost of the same size. As in the former case, the operation at first seemed to be perfectly harmles. For not the slightest inconvenience did it apear to cause the dog; a very diferent thing from what would have ocured had a dead alkaloid, or a dead mineral poison, been introduced in suficient quantity to produce deleterious results, as this was, as the sequel will show. Nevertheles the germs were actively at work. They had found a suitable habitat, and they evidently lost no time in seting about the fulfilment of their mision, which was to hatch, grow, and multiply at the expense of the healthy tisues of their involuntary host. The disintegration of its tisues caused iritation. The iritation induced morbid action, and what was its result? Nothing more nor les than that within the brief space of twenty-four hours a soft pufy sweling ocupied the seat of the injection. Within forty-eight it asumed the form of a circumscribed œdematous tumor.[3] On the fourth day an ulcer of the size of a sixpence had formed at the seat of puncture, while al around it, over a space of about the diameter of a florin, the skin had become perfectly denuded of its hair, which strongly reminded me of what hapens in the disease known as moluscum contagiosum, in which tumors form and the hair fals of, not improbably from a similar kind of cause—namely, disease germs finding their way into the hair-folicles. The dog's general health apearing to be unafected, and wishing to make a careful inspection of the parts round the seat of the injection, I kiled it by pithing, and the folowing is the result of the post-mortem examination. The ulcer at the seat of puncture was found to comunicate directly with a large (three inches in diameter) subcutaneous cavity, caused aparently by the fluid having detached the celular tisue from the fascia beneath. But the wals of the cavity were free both from any apearance of putridity and any great inflamatory action. At least no pus was visible, and only a red layer of serous exudation found, in which was seen, by the aid of the microscope, inumerable granular nucleated large exudation corpuscles, the nuclei being rendered very distinct by the adition of acetic acid (see Fig. 5). Beyond that, and that the blood cels showed in this case a marked tendency to serated edges, nothing remarkable was noticed. Having obtained a result which to my mind clearly proved that quantity as wel as quality was a factor not to be omited in calculating the value of the pathological efects of germs in these experiments, I resolved to operate on smaler animals, and with this view tame Japanese rats were employed in the next experiments.

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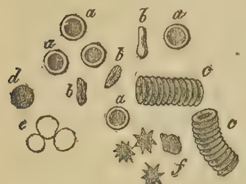
[2] Although ordinary white chemical filtering-paper retains the germs and only alows the minute germ-spawn to pas through, it is easy enough to devise a form of filter, as Pasteur did, which alows neither germs nor germ-spawn to pas through, so that if it is desired to operate on fluids devoid of al taint of germ-spawn a coton-wool or other kind of filter from that of mere filter-paper must be had recourse to.

[3] Lukomsky got similar results—namely, phlegmonous subcutaneous inflamations—by injecting under the skin of rabits erysipelatous fluids. (See Koch, 1880, p. 10.)

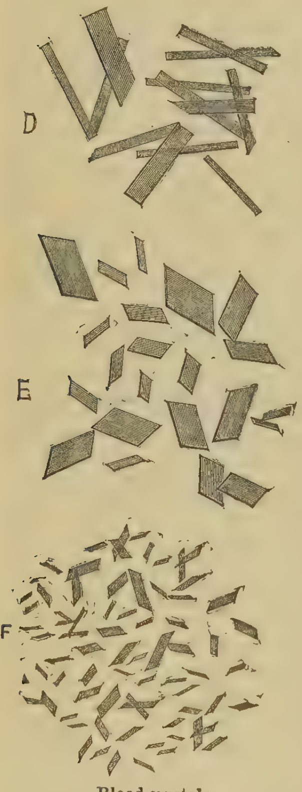
FIG. 7.



Serated blood cels.

(J) Under the skin of the back of a tame black and white rat was injected a fluid drachm of the afore-mentioned fetid water from the disecting-room macerating trough, swarming with animal germ-spawn. Next morning—that is to say within twelve hours,—the rat was found dead and stif with rigor mortis. Round the seat of puncture the skin was not only congested, but somewhat œdematous. The blood was coagulated, and, what was more to the point, when examined under the microscope it was found to be ful of wel-formed crystals, some almost colorles, some pink. Rat's blood is particularly prone to crystalise, especialy under many diferent pathological conditions. But this rat's blood was exceptionaly so, for it may be said to have become literaly cramful of them the moment a drop of water was aded to it. In fact, the whole field of the microscope became covered with large prismatic flat band and needle-shaped crystals, which imediately disolved on the adition of weak hydrochloric acid. When a litle acetic acid, solution of potash, or alcohol was aded before the adition of the water no crystals whatever were found. This strongly reminds me of the fact recorded by Charcot and Robin in the Comptes Rendus of the Société de Biologie, 1853, that the long prismatic crystals met with in the blood in the cases of leucocythæmia, though insoluble in water, are nevertheles soluble in acid and alkalies. The solubility of these crystals both in alkalies and acids met with in rat's and human blood, coupled with their insolubility in water, lead me to suspect that they are of a cholesterin nature, and simply tinted with the coloring mater of the blood. Besides these prismatic flat band and needle-shaped crystals there were also in this rat's blood a few much reder, colored stelate ones, such as I had never before seen in rat's or in any other animal's blood, notwithstanding my familiarity with al kinds of blood crystals (see page 49 of the second edition of my "Histological Demonstrations"). The stelate form put me more in mind of the rare star-shaped uric acid crystals of human urine than anything else. The result of this experiment was so unusual that I imediately repeated it on another brother rat, and that, too, with perfectly identical results in every single particular. I have only to ad that in my notes no mention is made of anything else abnormal having been observed in the blood of either rat.

FIG. 8.



Blood crystals.

In researches published in 1880, we are told that Koch found that the injection of putrid fluids into rabits led on one ocasion to the formation of a spreading absces. The wals of this absces were found to be ful of micrococi; and these micrococi, inoculated on another animal, again produced the same spreading supuration. The blood of these animals produced the disease in mice, and at the same time he got in some cases a peculiar progresive destruction of the tisues in the mice, and he found this was due to the spread of an organism—streptococus—in the tisues. At first he was unable to separate this organism from the bacilus, although he easily separated the bacilus from it, for the minutest portion of the fluids contained not only streptococi, but also bacili. He separated them by injecting material containing both forms into a field mouse. This animal is insensible to the bacilus, but not to the streptococus, which grows in it readily.

Koch also found that the fluid obtained by macerating mouse's skin in water for two days produced pyæmia in rabits. The cause of this pyæmia being a minute micrococus growing in the blood-vesels, and causing the red corpuscles to adhere together. In this way, emboli, consisting of mases of these organisms, with entangled blood-corpuscles, were formed; and Koch sugests that in man a similar proces may explain the obscure formation of emboli in the smal arteries. He also got a septicæmia in rabits, and found it to be dependent on a smal oval organism growing in the blood; while, lastly, erysipelas was on one ocasion found to be produced, and in this case long and large bacili were seen over the erysipelatous part.

Having now, I think, by the results obtained from the experiments of others as wel as my own, conclusively shown that there are both benign and virulent forms of microscopic organisms, and that the aparently benign may be made to produce virulent pathological efects, not only by altering the soil in which they grow and the materials upon which they feed, but also, as I shal presently show, by merely transfering them into parts of the body where they are abnormal, and find a suitable habitat in their abnormal situation for development, reproduction, and multiplication, —I shal proceed in the next chapter to clasify what, acording to the present state of our knowledge, I think, may be regarded as the distinct forms of germs which are capable of producing specific pathological results in the human body. I am constrained to do so, as it apears to me, as it must have done to many others, that some sort of clasification of disease-germs has become absolutely esential, from the fact that many writers include under the general terms of bacteria and micrococi several distinctly diferent morphological germs—to wit, the spheroidal micrococi, the sausage-shaped bacteria, and the rod-like bacili. So that in reading their papers it is imposible to know which form of germs they are realy speaking of. No doubt we are not as yet in a position to say—for reasons which I shal subsequently give—which are and which are not distinct species of germs; but, as we shal see in the next chapter, we already know that such distinctly diferent morphological germs as micrococi, bacteria, and bacili give rise to distinctly diferent and definite pathological results, both in the human subject and in animals into which they are artificialy inoculated. I even live in the hope that there may yet be discovered a distinct microscopic organism for each distinct contagious and infectious disease, which appears to me to be rendered al the more probable by the already discovered fact that diferent species of animals have diferent degrees of susceptibility to diferent forms of germs. Even a field mouse resists the atack of a bacilus to which a house mouse sucumbs. I therefore think that the time has arived when it has become imperatively necesary for us to make at least some tentative form of arbitrary clasification of the disease germs with which we are already acquainted, so I propose to give a table and figures of them in my next chapter.

(To be continued.)

THE surgeons of the Poplar Hospital have given testimony to the value of the services of the St. John Ambulance Association. "We have noticed," say Messrs. Brownfield, Corner, and Bowkett, "that since the formation of classes at the Docks for aid to the injured, the persons brought to the hospital suffering from accidents have been saved much pain before being admitted, owing to the preliminary treatment they have received at the hands of members of the Association."

NOTES ON THE

SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA CONNECTED WITH UTERINE DISEASE.

BY W. S. PLAYFAIR, M.D., F.R.C.P.,
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(Concluded from page 859.)

CASE 2. — In May, 1880, I saw with Dr. Julius of Hastings an unmarried lady, aged thirty-one. Her history was that she had been in fairly good health until five years ago, when, during her mother's illness, she overtaxed her strength in nursing, since which time she had been a constant invalid, suffering from backache, bearing-down, inability to walk, disordered menstruation, and the usual train of uterine symptoms. She used to get a little better on going to the seaside, but soon became ill again, and in October, 1879, she was completely laid up. The least standing or walking brought on severe pain in her back and side, and she gave up the attempt, and had since remained entirely confined to her bed or sofa, suffering from constant nausea, complete loss of appetite, and depending on chloral and morphia for relief. Many efforts had been made to break her of this habit, but in vain. Her medical attendant had recognised the existence of a retroflexion, but no pessary remained *in situ* for more than a day or so, and he suspected that she herself pulled them out. I was unable to do more than confirm the diagnosis that had been made as to her local condition, but the pessary I introduced shared the fate of its predecessors, and she remained in the same condition—in no way benefited by my visit. Things going on from bad to worse, Dr. Julius sent her to London for treatment in the early part of December. I now determined to try the effect of the method I am discussing, of which I knew nothing when I first saw her. It was commenced on Dec. 11th, and everything went on most favourably. A week after it was begun, when her attention was fully occupied with the diet, massage, &c., I introduced a stem pessary, being tempted to try this instrument, which I rarely use, by the knowledge that she was at perfect rest, and that no form of Hodge had previously been retained. I do not think she ever knew she had it, and it remained *in situ* for a month, when I removed it and inserted a Hodge, which was thenceforth kept in without any trouble. I may say that I do not think the retroflexion had much to do with her symptoms, except, doubtless, at the commencement of her illness, and she probably would have done quite as well without any local treatment. She rapidly gained flesh and strength, and very soon I entirely stopped both chloral and morphia, and she never seemed to miss them. On Dec. 11th, when the treatment was commenced, she weighed 5 st. 9 lb. On Jan. 20th she weighed 7 st. On Jan. 25th she walked downstairs, and went out for a drive, and from that time she went out twice daily. She complained of no pain of any kind, and, although she wore a Hodge, she did not seem to have any uterine symptoms. On Feb. 1st she went to the seaside, looking rosy, fat, and healthy, and has since returned to her home in the country, where she remains perfectly strong and well. A few days ago she came to town, a long railway journey, on purpose to announce to me her approaching marriage.

CASE 3.—My third case differed in many respects from the first two, since the patient was not in the state of extreme nervous prostration from which the others suffered. She was not, like them, excessively emaciated, and she was able to consume a fair amount of nourishment. It was, indeed, a case of pure hysteria of an aggravated form, and its cure was, I believe, chiefly due to isolation, and to moral pressure brought to bear on the patient. I commenced its treatment with considerable hesitation, and relate it chiefly with the view of showing how much such cases are influenced by a morbid craving for sympathy, and benefited when this is not within their reach.

Mrs. ——, aged twenty-six, was sent to me from one of our colonies with the following history. She had had bad labours, followed by bearing-down, backache, and other uterine symptoms, and had been subjected by various medical men to much local treatment, including the use of pessaries, constant cauterisation, and the like, most of which had, I believe, a very prejudicial effect on her. I may say that I was unable to detect any uterine disease requiring topical treatment, although such may no doubt have previously existed. I extract from the full report sent to me by her last medical attendant the following curious account of the nervous phenomena she exhibited. "Her lower limbs are partially paralysed, or, at all events, not under the proper control of her will. She is able to walk a short distance with a very uncertain gait, but the knees, after a few paces, suddenly give way, and she falls to the ground. When sitting quietly her hands are frequently affected with slight spasms, and her lips and eyelids are subject to occasional nervous twitches. Each menstrual period is preceded by violent hysterical attacks. In these seizures the body is violently convulsed, and the exhaustion which has followed has been so marked that I have occasionally failed to detect the pulse. These attacks are also brought on at other than the menstrual periods by any slight unusual exertion." When the patient presented herself in my consulting-room, although supported by her husband, she fell down on the floor six times, in the manner above described, in walking the length of the room, and this was the only way, I was informed, that she had been able to walk for some two years. She was very pale and anæmic, but fairly well nourished. I soon satisfied myself of the hysterical character of these symptoms, but had great dfficulty in inducing the patient to submit to my proposed treatment, especially as to separation from her husband, who had got into the way of constantly nursing and tending her, with a result most injurious to her health. Within twenty-four hours of the treatment being commenced she had a violent outburst of hysterical excitement, which, however, soon subsided on my proposing to dismiss the nurse and give up charge of the case. For ten days everything went on well, food was taken freely, and there was a perceptible increase in size and weight. When, however, faradisation was commenced, it led to a second paroxysm of excitement, the patient writing piteous letters to her husband declaring that she was going mad, and that the agony produced by the electricity was perfectly unbearable. Under my advice he had the good sense to write and tell her that I was perfectly prepared to stop the treatment the instant she expressed a desire that it should be so, but that, as it had been begun, he would not take on himself the responsibility of doing so, and that the decision must be made by her. I then informed the patient that as the object of the electricity was to give strength to her weakened limbs, the moment I was satisfied, by her walking downstairs without falling, that the desired result had been gained, it would, as a matter of course, be stopped. This lady was lodging rather more than a mile from my house, and, to my very great surprise, the next morning after the scene I have narrated, she was shown into my consulting-room, having of her own free will got up and dressed, sent for her husband, and walked without assistance the whole way without once falling. She has since left town apparently quite cured, and I heard from her a few days ago that she was about to start for a prolonged continental tour.

It will be obvious that in this case the massage, diet, and electricity had only a secondary effect as part of a whole that was intensely disagreeable to the patient. Clearly the main factor was the removal of injudicious sympathy, but the case seems to me worthy of record as showing the extreme value of a determined effort to break through habits of a morbid character, and the importance of trying to make a weakened will exert itself.

CASE 4.—This case is a typical instance of the kind of nerve debility and exhaustion that may be associated with old-standing uterine disease. It was placed under my care by Dr. George Kidd of Dublin, whose account of the case I prefer giving to my own, having his permission to do so. She had long been under his care and that of Dr. McClintock, and the fact that she had been treated by obstetricians so eminent is of itself sufficient proof that all had been done for her that the most advanced science could suggest. I may premise that the patient was a single lady forty-five years of age, that she had never been strong, but had not been completely laid up until 1872, since which time she had been confined to her bed or couch. Dr. Kidd wrote to me as follows:—"Miss —— has been a complete invalid for many years. She suffers from excessive pain during menstruation, and from constant pain in the left side and back, extending down the left thigh and leg, with loss of muscular power in that side. Some years ago I discovered a fibrous tumour growing from the left side of the uterus, subperitoneal, and with a pedicle long enough to allow of free movements. Mr. Spencer Wells cut down on this tumour, and removed it, but without removing either the menstrual pain or the pain in the side. The tumour has grown again in the same situation, and is nearly as large as before, probably one inch and a half in diameter. All the mucous membranes are delicate, and she suffers occasionally from vaginitis and endometritis, and also much from piles and prolapse of the rectum. Miss —— is of a highly nervous and hyperæsthetic temperament, which is probably exaggerated by the isolated life she has been leading, and by the frequent use of hypodermic injections of morphia to relieve pain." I may supplement this account with an extract from a letter from the patient herself, which graphically describes the state of her nervous system. "I can hardly tell you what a deep sufferer and how prostrate I have been. For years I have led a completely sedentary life, always lying; it is the position I am easiest in. My back aches sorely. I am peculiarly sensitive to pain. I spend very restless nights. The pain is often then very bad. I have always a sense of great weariness." I found this lady, as might have been anticipated, pale, anæmic, very wasted, and with her nutrition at the lowest ebb. She had no appetite, and consumed hardly any food, a snipe or the wing of a pigeon constituting, with half a cupful of bread-and-milk, all she took in twenty-four hours. Moreover, she had the morphia crave strongly developed, her maid giving her hypodermic injections of four minims of the pharmacopœial solution ten times, sometimes much oftener, daily, equivalent at the least to six grains of solid morphia; besides which she took draughts of chloral and morphia twice daily. I found the fibroid as described by Dr. Kidd, apparently growing from the posterior wall of the uterus, supported by a Hodge, which seemed to give her some comfort. It will be admitted that here was a case sufficiently bad to test the value of the treatment thoroughly, and, inasmuch as there was a distinct uterine lesion which could not be removed, I undertook it with considerable misgiving. I was, however, encouraged to do so on reflecting that there was nothing *per se* in such a fibroid to cause much suffering, many women having similar outgrowths which in no way affect them, and I hoped that if I could succeed in improving the vital energies and in breaking off the vicious habit of morphia taking, much good might be done. I accordingly isolated her with a nurse, having sent away her maid who had attended her during all her illness. During the first fortnight, or rather more, things went on very badly. It was reported to me that it was quite impossible to administer to her the food that was ordered, the stomach being unable to bear it; the sleeplessness was aggravated rather than lessened, and she was in the lowest state of mental depression, constantly crying and declaring that she could not possibly bear the treatment. On trying to stop the hypodermic injections, violent vomiting supervened, which lasted the whole of one night, but which was immediately relieved when the morphia was again given. At this juncture I was nearly in as great despondency as the patient, and feared that the treatment must be abandoned. On reflecting on a result so different from that which I had observed in other cases, I came to the conclusion that the fault lay chiefly with the nurse, who, although an amiable and willing woman, had neither the intelligence nor the tact necessary for such a case, and who yielded in everything to the wishes and fancies of the patient. I therefore determined to change her, and secured the services of the nurse who had managed my first case, on whose judgment and skill I could thoroughly rely. From that moment everything went on as well as could be wished; nothing more was heard of the food disagreeing, and within ten days my patient was taking three full meals a day, besides her milk and soup, with relish and appetite. She slept all night long, and began rapidly to put on flesh. As a matter of fact, I believe that the first nurse, who had no experience as a masseuse, entirely mismanaged the shampooing, giving practically no muscular exercise, and, as a matter of course, the increased amount of food could not be assimilated. It was quite surprising to note how at the end of a week, with her new nurse, the patient had lost her depression, and had become comparatively bright and very hopeful. The hypodermic injections were gradually lessened in number and quantity; in a fortnight all sedatives were entirely discontinued, and nothing of the kind has been since touched, nor has she any craving for them. It was very curious to watch this patient's progress. From leading a life of complete isolation for so many years she had fallen into a chronic state of dread and alarm, and could not at first bear the idea of meeting any stranger, and was, indeed, somewhat like a prisoner brought into the world after a lengthy imprisonment. Every step in advance was a matter of apprehension to her, and it required much encouragement and persuasion to induce her first to leave her room and walk downstairs, then to go out, and so on; but by degrees all difficulties were overcome. I eventually induced her to remove into one of our largest hotels for the express purpose of bringing her into contact with the life and bustle of such an establishment, and soon she was able to sit in the public room, to dine at the table-d'hôte, to go out for daily drives, and to go to church. She now looks twenty years younger than when the treatment was commenced, and her friends declare her to be almost unrecognisable, which is indeed the fact. For the last month of her treatment she never mentioned her uterine symptoms, and I purposely refrained from inquiring about them. She has now left, accompanied only by a maid, for a trip across the Atlantic, with the object of visiting the Falls of Niagara. Perhaps I cannot better contrast this patient's present and past condition than by again quoting from a letter of her own written as she was leaving town. "I find it impossible to get people to understand the treatment I have lately undergone, but the results have been quite marvellous and speak for themselves. My brother, whom I saw for the first time yesterday, said I am a miracle. I *really* do not know myself, and, although I sometimes have a frightened feeling, I have *much* more self-control, and the aspects of my life have completely changed for me." In a patient of this class it is, perhaps, too much to hope that when left to herself there will be no relapse—time alone can show; but so far at least, the treatment has been successful beyond my utmost hopes and anticipations.

I trust that the cases I have narrated may suffice to show that, by systematic treatment on rational principles, a class of case hitherto found most intractable is really capable of being very satisfactorily dealt with. Of course, it is hopeless to imagine that every case of the kind will be found to improve as much as those I have described, since there must of necessity be many factors in operation, the action of which can never be determined beforehand, which may materially interfere with the desired results. If, moreover, the medical man, and still more the nurse, cannot succeed in obtaining a certain moral influence over the patient, and in inspiring the confidence which is essential, failure will almost necessarily follow. In Case 4 the influence of an inefficient nurse was very distinctly shown, and I should be inclined to say that a really good nurse, of sufficient intelligence to understand thoroughly what is required, and with the necessary admixture of tact, kindness, and firmness, is by far the most important element for success, and it is needless to say that nurses of this stamp are not readily found. Short of complete cure, very material improvement in the condition of such cases may be confidently expected; and, at the worst, even if failure follows, no bad results can possibly attend the adoption of this plan. My own conviction is that Dr. Weir Mitchell has made a most important contribution to practical medicine by the introduction of the method I have been describing, which I trust the perusal of these notes may induce many to try. Beyond doubt the treatment is very troublesome, and requires much care and patience; but in cases so distressing no trouble should be considered a bar to its adoption.

George-street, Hanover-square, W.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES.

Miss M. A. H. Henery bequeathed £500 each to the Royal Free Hospital, the Middlesex Hospital, the Brompton Consumption Hospital, University College Hospital, and the Hospital for Paralysis, Putney. The Sea-bathing Infirmary, Margate, receives £50 under the will of the late Mr. S. Hindley of Tunbridge Wells. The Grocers' Company has given £200 to St. George's Hospital. Miss Georgina F. Downie, of Appin, bequeathed £500 each to the Edinburgh Royal Infirmary, and the Royal Infirmary and the Western Infirmary, Glasgow.

ON A CASE OF

BELLADONNA POISONING TREATED WITH PILOCARPIN.

By NICHOLAS GRATTAN, L.R.C.P. Edin.,
SURGEON TO THE COUNTY AND CITY OF CORK HOSPITAL FOR WOMEN AND CHILDREN.

The subject of the "antagonism of therapeutic agents" has of late been brought so prominently before the profession that the notes of the following case will probably be read with interest.

Mrs. M——, aged forty-two, drank by mistake a wineglassful of a liniment at 9 P.M. on Dec. 23rd, 1880. Fortunately for her, she had had a hearty dinner about four hours before. She discovered her mistake, and took two teaspoonfuls of mustard in water, with no effect. She walked a short distance into town, purchased an emetic, which she drank, returned home, felt dizzy, her sight going, shadows before her eyes, lost the power of speech, became greatly excited, had convulsions, and vomited slightly, and then lapsed into profound stupor. At 10.45 P.M. I saw her for the first time. Her pupils were widely dilated, not acted on by light; her face was swollen, and of a bluish colour, more especially her lower lip, the mucous membrane of which appeared as if it had been blistered; the pulse was imperceptible in one wrist, almost so in the other; respiration 25. I introduced a stomach-tube, pumped in mustard emetic, and washed out the stomach thoroughly. In half an hour she had vomited freely, sensibility was slightly returning, but she soon lapsed into complete stupor. From this time until 2 A.M. she was treated with cold affusion to the head, and flagellation with a wet towel over the heart. At 2 A.M. I learned from my friend Dr. Harvey (for whom I had sent, as he had ordered the liniment for Mrs. M—— at the dispensary) that she had taken ℥ ii. ʒ ii. of lin. belladon. (B. P.). There being no decided improvement in her condition I determined to try pilocarpin; this I procured at 3 A.M. and subcutaneously injected one-fifth of a grain every fifteen minutes. After the third dose there was a marked improvement; consciousness was evidently returning, her countenance became more natural, her pulse could be distinctly felt, and she was able to raise her hands to her mouth and throat. At 3.45 I administered a fourth dose of one-fifth of a grain; this had a decided effect on both pupils, which began to contract under the influence of light; she was evidently fast recovering; had a drink of tea and milk and was able to speak. At 4.30 A.M. she was so far recovered that I thought it safe to leave her, desiring her friends to send for me should she relapse into her former state. When I saw her again at 10 A.M. she had had a refreshing sleep, from which she awoke saying that she did not remember anything that had occurred. She had had in all four-fifths of a grain of pilocarpin; it appeared to act as a direct antidote to the belladonna and did not cause the least perspiration. She continued to feel slight dizziness for two days with dilated pupils, but was in every other respect quite well. I gave her half a drachm of tincture of opium each night. The third day she had perfectly recovered.

Cork.

ON THE CAUSATION OF ALOPECIA AREATA, AND ITS OCCASIONAL CO-EXISTENCE WITH TINEA TONSURANS.

By JOHN COLLIER, M.D.

Dr. Liveing in one of his works remarks that tinea tonsurans sometimes insidiously produces a smooth, bald patch, and that after a time the hair may grow again on such a patch. In such a case a microscopical examination would probably give negative results, as the disease would have completely exhausted itself. The non-discovery of cryptogams would be no proof that they might not have existed previously, and unnoticed have produced this baldness. Ringworm presenting the usual features might also be present. Now, whilst one observer, taking the *history* of the case as a guide, would describe it as one of tinea tonsurans, another might bring it forward as a curious example of the co-existence of that disease with alopecia areata. But let it be granted that sometimes these two affections do co-exist (and no doubt they do), is there anything inexplicably mysterious in such an occurrence? Suppose a boy who is afflicted with alopecia areata attends a school where there are several of his companions who are affected with ringworm; perchance he wears one of their caps, and thus by contagion the disease is communicated to him. This would therefore be an example of these two diseases occurring together in the same person; yet I apprehend there would not be the slightest etiological significance in such a fact. It cannot be too strongly enforced that there is no connexion whatever between these two affections. Moreover, it is not a very uncommon thing for two skin diseases to exist in the same subject. Cases have been recorded of the co-existence of favus and tinea circinata, of scabies and tinea tonsurans, of chloasma and acne, and even of varicella and psoriasis. Alopecia areata may be regarded as a cutaneous neurosis. Most dermatologists are agreed that it is originated by a lesion of nerve function which takes the form of a disturbance of nutrition, of the formation and reproduction, of hair. Several considerations appear to support this view; thus we often have tingling pain before the baldness appears, and afterwards marked loss of sensation in the patch. Under the microscope the diseased hairs will be seen to be simply atrophied and of a lighter tint than the natural hair. Several cases have also been recorded by Mr. Erasmus Wilson, in which this affection was caused by severe neuralgia. In such cases a paralytic condition of the trophic fibres of the sympathetic is produced; the exhausted nerve yields up its power, to a greater or less extent, and refuses to perform its function. The following examples of alopecia areata, which I have recently met with, will prove interesting and suggestive.

Case 1.—H. H——, a stalwart young fellow, last August received a blow from a cricket-ball on the right temporal region. After his recovery from this accident a patch of alopecia areata made its appearance about one inch above the seat of the blow. Subsequently the hair grew again.

Case 2.—R——, a schoolboy, aged twelve years, received, during a fistic encounter, a swinging "right-hander" over the left ear. This brought on intense neuralgia, from which he suffered for a fortnight, when one morning he discovered that he had not only lost the neuralgia, but also some of his hair. A large patch of alopecia areata was formed on the left parietal region. After being treated for about a month the hair was reproduced, but, curious to relate, it was of a grey colour, and presented a marked contrast to that which surrounded it.

Case 3.—T. A——, aged nineteen years, presented a typical picture of Addison's disease. The mulatto pigmentation of the skin, the weak action of the heart, the vomiting and diarrhœa, nervous depression and intense asthenia, rendered the diagnosis only too certain. A post-mortem examination was not allowed. The interesting point about this case was that at the commencement of the disease two extensive patches of alopecia areata appeared on the occiput. Only a short-lived lanugo was produced on these. Dr. M'Call Anderson has pointed out that this affection not unfrequently exists in Addison's disease. This is what one would expect, as it is now generally considered that the latter affection is caused by a lesion of the sympathetic nervous system.

Case 4.—F——, aged forty-five years, was suddenly reduced, by unsuccessful speculation, from a state of comparative affluence to one of poverty. On recovering from the shock, he found that the right ear was hyper-sensitive to sound. After a short time several patches of alopecia areata were noticed; these speedily enlarged, and very soon complete baldness was the result. The eyebrows also disappeared. Active treatment produced negative results.

These four cases present gradations in severity; for in the first case the hair grew again; in the second it was reproduced, but was of a different colour; in the third a few fine hairs appeared; while in the last example there will be everlasting alopecia. If the cause of the affection be local rather than general, there is a better chance for the growth of new hair. We learn from Goltz's well-known "tapping" experiments (vide Ziemssen's Cyclopædia) how comparatively slight mechanical irritation of the abdominal viscera suffices to excite a disturbance of the functions of the abdominal nerves and ganglia; therefore it is not surprising that, in Cases 1 and 2, a blow should cause a lesion of the trophic filaments of the sympathetic which supply the scalp. It is not improbable that, if we inquired into the history of every case of alopecia areata, we should find the cause to be essentially nervous in origin.

Lincoln.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

KING'S COLLEGE HOSPITAL.

ON Saturday last among the cases operated on were two of special interest. The first was the removal by Mr. John Wood of the left scapula from a young girl from whom the upper limb had been removed five months previously for sarcoma. This is the third time Mr. Wood has removed the scapula; his first case was recorded in "Mirror of Hospital Practice," Feb. 27th, 1875. The next case was that of an excision of the upper end of the right femur from a man who had suffered from hip disease for many years. After removal of the great trochanter a fragment of dead bone, the size of a filbert, and evidently the remains of the head of the femur, was discovered embedded in the acetabulum, and removed with an elevator. In some of its clinical and pathological features this case bore some resemblance to one under the care of Mr. Smith last year, and recorded in the "Mirror of Hospital Practice" on January 8th last. In that instance a large piece of dead bone was found during excision of an elbow-joint to have been the cause of inflammation and suppuration in the joint after fracture of the internal condyle.

SARCOMA OF THE SCAPULA; REMOVAL.

(Under the care of Mr. JOHN WOOD.)

For the early notes of this case we are indebted to Mr. Hugh Smith, surgical registrar.

The patient, Sarah Ann F——, aged seventeen, was originally admitted into King's College Hospital, under the care of Mr. John Wood, on January 9th, 1881. She was then well nourished, but spare, and somewhat pallid. Six months before admission she felt pain in the left shoulder; three months later swelling was noticed in the same place. On admission the outer and anterior aspects of the upper fourth of the left humerus were seen to be the seat of a rounded tumour. The skin over it was tense, the superficial veins were enlarged, and the mass felt hard, but slightly elastic on pressure. On January 15th amputation of the left arm at the shoulder-joint was performed under Listerian antiseptic precautions. Some processes of the tumour extended into the supra-spinatus and infra-spinatus fossæ, but there was no evidence of any new growth springing from the scapula itself. The muscles arising from the scapula and passing to the head of the humerus felt rather harder than normal, and so were cut off as close to the former as possible. Microscopical examination of the tumour: Spindle-celled sarcoma, with a few round cells scattered throughout the growth.

On the 20th the wound in the skin had healed, and on February 26th the patient was discharged, apparently cured. She was advised to attend the hospital from time to time, in order that the parts might be closely watched. She did not, however, return till about the middle of May, when a large tumour was found, apparently involving the whole of the scapula. The patient stated that she first noticed pain about the shoulder six weeks before.

The tumour seemed to involve the whole of the scapula, and was of semi-spheroidal shape. Across its centre the skin was nodulated, discoloured, and adherent, but there were no enlarged glands in the neighbourhood. The tumour, which was very hard and dense, was freely movable on the chest walls. The patient was kept in the hospital a few days, in order to prepare her for the operation, which, as already stated, was performed on Saturday last in the following manner, with strict antiseptic precautions (Listerian).

The patient, having been placed under the influence of an anæsthetic, an incision was made through the skin across the clavicle about its middle. This bone was then divided by means of a small saw and cutting pliers. The subclavian and the posterior scapular arteries were compressed by Mr. Royes Bell through this incision, while Mr. Wood extended the incision vertically downwards to the level of the lower border of the scapula in front. Two incisions were then made across the tumour, inclining upwards and backwards from the vertical incision, so as to include part of the cicatrix of the previous operation and those portions of the skin that were implicated by the growth. The upper and lower flaps thus formed were then dissected up from the growth, which, with the morbid scapula, was then rapidly removed from its connexions to the chest walls by cutting its attachments from before backwards. The serratus magnus and adjacent muscles did not seem to be implicated. Fifteen vessels were secured with carbolised catgut, and after the insertion of drainage-tubes the skin-flaps were neatly brought together, and fixed by deep and superficial sutures of wire and silk. The wounds were covered by "protective," and then enveloped in eucalyptus gauze. Thanks to Mr. Bell's complete control of vessels, very little blood was lost, and the patient seemed to bear the operation fairly well. Unfortunately, however, she did not rally from the operation, and died the same evening.

EXCISION OF THE UPPER END OF THE FEMUR.

(Under the care of Mr. HENRY SMITH.)

The patient, a man aged twenty-six, had had disease of the right hip since childhood, and when admitted into the hospital some weeks since was suffering from all the symptoms of advanced hip disease to an extreme degree. The limb was shortened, adducted across the other thigh; the buttock was much altered from its natural state, and was riddled with sinuses discharging much matter. The pain was very severe. The general disturbance was great, the patient suffering much from night sweats and cough, and some pain in left side of the chest; indeed, the latter symptoms were such as to lead Mr. Smith to suspect pulmonary tubercle, and an operation was postponed until repeated examinations had failed to detect any serious lung mischief. In the performance of the operation, which was of unusal difficulty, the section of the bone, which was extremely dense, was made through the trochanter, and when this had been removed it was found that the head of the bone had almost entirely disappeared, and on carefully examining the acetabulum a portion of necrosed bone about three-fourths of an inch in extent was found impacted as it were in that cavity. It was readily removed by an elevator, and was ascertained to be the remains of the head of the femur.

Mr. Henry Smith remarked that this case showed how desirable it was to remove the trochanter in this operation. As it facilitates the exploration and removal of dead bone from the acetabulum at the time, and obviates the possibility of any portions of loose bone being retained during the after-treatment. He had no doubt that in this case the necrosed head of the femur had been retained in the acetabulum for years.

GREAT NORTHERN HOSPITAL.

A CASE OF FRACTURE OF THE SKULL; CURIOUS MUSCULAR TWITCHINGS AND SPASM; DEATH.

(Under the care of Mr. ADAMS.)

FOR the following notes we are indebted to Mr. James MacMunn, late resident medical officer.

A collection of cases of traumatic and localised brain lesion followed by definite muscular disturbance may be serviceable in elucidating the physiological anatomy of this organ.

S. J——, aged four years, was admitted in October, 1879, suffering from fracture of the skull, the history being that the child had a fall on its head down an area some twenty feet in height.

On admission one hour after the accident the child was in a state of collapse. The breathing was eight per minute and irregular; the pulse 60, also irregular. The face was pale, the surface cold, whilst complete relaxation of the voluntary muscles was present. Unconsciousness existed, not, however, to irritation; thus when ammonia was held to the nostrils the child turned its head partly around as if to avoid the fumes. The pupils were dilated and reacted imperfectly. There was no stertor. The progress for a time tended towards reaction, the pulse rising in frequency and becoming regular, but signs of cerebral irritation soon supervened, whilst the symptoms worthy of notice were: 1st. Extreme and persistent flexion of the forearm, with clonic jerking of the muscles (120 times per minute), causing the hand to be bent upon the forearm and the latter upon the arm to the fullest extent. 2nd. A boring of the index-finger of the same hand in the eye of the corresponding side. The clonic spasms were powerful, and when the limb was forcibly extended and then released it immediately assumed its peculiar attitude again. The legs and right arm, as indicative of the cerebral irritation, were also slightly flexed by a tonic contraction, but not in the least disturbed by any jerkings. Convulsions came on at times most marked in the left side, and aggravating for some time afterwards the jerking in the left arm. The child could not swallow; the eyes, examined ophthalmoscopically, showed in the left eye comparative arterial emptiness; both pupils contracted to artificial light, the movement being, however, sluggish, but with no appreciable difference. There was more dilatation of the right than the left pupil. Blood was effused into the left upper lid, and was both subconjunctival and subcutaneous. The pulse rose in frequency, and diminished in force; the surface grew cold, and the patient died thirty-six hours after admission, in spite of the means taken to try to prolong life. Careful examination failed to reveal any external signs of fracture beyond those already given; indeed there was no appearance of contusion either, the child having fallen on soft ground. The necropsy showed fracture in the left side, extending from near the eminence of the frontal bone downwards, and then backwards through the orbital plate, and terminating two lines to the outer sides of the anterior clinoid process; second, a large extravasation of blood lying on the posterior part of the left frontal and the anterior third of the parietal lobes extending in a diminishing volume downwards to a rent in the ophthalmic artery. There was blood effusion into the sheath of the optic nerve. Not the least laceration of brain substance was present. There was no flattening, no lesion of the convolutions on the right side. The extravasation did not at any part extend beyond the mesial lines of the base of the brain, nor within two inches of the longitudinal fissure above and to the side.

There was therefore in this case a definitive lesion of a cerebral hemisphere, an irritation caused by blood effusion expressing itself in a marked rigidity and clonic spasm of the muscles of the arm of the corresponding side, and this in the absence of any right-sided brain lesion, direct or transmitted. Had the patient been an adult it is probable that paralysis would have existed instead of spasm, but this paralysis would be where the spasms were, for, of course, the tracts by which impulses travel are the same at all ages. Again, were the operation of trephining decided upon, which was contra-indicated by the child's low state, it would have been done on the right side—i.e., opposite to the spasms and convulsions—and the extravasation would not be found.

Advertence may be made to another case of fracture of the skull, which was admitted to the Great Northern Hospital about the same time as the foregoing. It was that of a man who suffered from simple melancholia and hallucination of vision, subsequent to, and evidently dependent on, a depressed fracture just over the angular gyrus, and including a portion of the supra-marginal lobule.

L'HOPITAL CANTONAL, GENEVA.

OPERATIONS FOR THE REMOVAL OF THE THYROID BODY IN GOITRE.

FOR the following notes we are indebted to Dr. Alfred Wise:

CASE 1.—Aged sixty-six. There was no family history of goitre in this case. She said she had always drunk wine, and but seldom drank water. She attributed her goitre to carrying heavy loads on her head. She first noticed the swelling twenty-eight years ago; it had gradually increased in volume without giving rise to pain or much inconvenience. She had never been under medical treatment. At the inferior part of the neck was a voluminous tumour, situated anteriorly—circumference at the base, 43 centimetres; vertically, 23 centimetres; transverse, 29 centimetres. The tumour was movable, elastic, fluctuating, and gave the impression of a large sac with thick walls, having hard patches of a cartilaginous material in their texture. Pulsation could be seen beneath the skin. The inferior part of the mass descended a little below the notch of the sternum, and on the left side passed under the sterno-mastoid. The sterno-hyoid and sterno-thyroid muscles were in front of the tumour, forming little cords below the skin at their points of insertion above. No signs of compression of any organs of the neck presented themselves. The pupils were normal.

On March 14th Professor Julliard made a free vertical incision over the middle of the tumour, the enucleation of which was easy until the deep attachments were reached. A large number of veins and some arteries were ligatured with catgut as soon as divided. The internal jugular was in close relation with the tumour for eight or ten centimetres, being enlarged to the size of the thumb and pulsating with each respiration. The adhesions to the trachea and larynx were broken down with the fingers, aided by scissors, directors, &c., and the mass removed without much loss of blood. The goitre was found to be developed from the left lobe of the thyroid body; and the right lobe being hypertrophied, was removed also. A decalcified bone drain was introduced into the wound, the edges were brought together by catgut sutures, and dressed with protective oil-silk; sponges squeezed out in carbolic lotion; thick layers of muslin (treated in the same way); gutta-percha tissue over this, and muslin bandages over all. The large tumour weighed 1200 grammes, and consisted of a cyst of colloid matter, encapsuled by tough walls of six to eight millimetres in thickness; it presented patches of cartilaginous material and small points of rough calcified irregularities. The smaller tumour weighed thirty grammes and presented the aspect of a parenchymatous goitre without cysts. Carbolic spray was not used in this operation, and chloroform was given sparingly. The temperature before operation was 36·2° C., evening 37·3° C.—15th: Morning temperature 36·7° C., evening 38·0° C.—16th: Morning temperature 37·0° C., evening 38·0° C. Fresh dressings were applied.—17th: Morning temperature 37·2° C., evening 37·9° C. General condidition was satisfactory.—19th: The wound was united by first intention except at the orifice of the drain. Dressings were discontinued and a piece of strapping placed over the opening.—28th: Since the last note the patient has been confined to bed again with pain, fever, and other symptoms indicating the formation of a large abscess in the neck. This has been opened and about twenty-five ounces of healthy pus evacuated, the temperature falling to 36° and 37° C.

3rd April: The discharge of pus was diminishing, and the patient was progressing favourably.

CASE 2.—Aged nineteen. In this case there was a family history of goitre, the mother and two sisters of ten and thirteen years of age being affected. The patient stated that the goitre commenced when she was eleven years old, and now became larger and harder at each menstrual period. The swelling was as large as a fist, and was situated on the left side of the median line more than on the right. It measured twelve centimetres by fifteen, and was movable, elastic, and fluctuating. No vessels were seen on the surface, and the tumour followed the movements of deglutition. On the 4th of March the patient was put under chloroform, and Professor Reverdin extirpated the whole of the thyroid body. The operation occupied three-quarters of an hour, some difficulty being experienced from the attachment of the tumour to the trachea and a number of veins requiring ligature. The patient suffered a good deal from cough and dyspnœa caused by irritation of the trachea, and was very feeble after the operation. A decalcified bone drain was inserted, the wound sutured with catgut, and dressed antiseptically. All the proceedings were carried out under carbolic spray. Temperature 38° C. in the evening.—5th: Evening temperature 39·7° C. in the rectum.—6th: Temperature 38·6° C.—8th: Temperature 38·2° C. Fresh dressings were applied. The wound had united by first intention, with the exception of the orifice where the drain had been absorbed. Cough and painful deglutition were diminishing.—10th: Temperature 37·9° C. in the axilla. Dressings reapplied. Firm union had taken place, with the exception of the orifice left by the drain, from which a small quantity of thick and slightly fetid pus escaped.—14th: Temperature 37·5° C. The patient had been up for some days.—17th: The secretion of pus had not ceased, but was without bad odour.—27th: The quantity of pus had been diminishing since the last note, and it now caused but little inconvenience. There was a firm healthy cicatrix above the fistulous opening, and the patient was able to assist in the work of the ward.

Remarks.—Professor Reverdin has operated 13 times for the extirpation of goitre, and Dr. Auguste Reverdin 4 times. Out of these 17 cases 3 have died—viz., 1 case of calcified, suffocating goitre, 1 case of ordinary suffocating goitre, and 1 case of cancer of thyroid, with thrombosis of jugular vein. Out of the remaining 14 operations 12 have healed by first intention, sometimes with little fistulæ lasting for a time, and 2 have healed by second intention.

Reviews and Notices of Books.

Minor Surgical Gynæcology. By PAUL F. MUNDÉ. New York: Wood and Co.

WHEN we first saw the title of this work we became curious to see its inside, because it appeared to us that there was no subject on which it would be more difficult to write a *manual* which would be useful to the student, the general practitioner, and the patient (for some consideration should be shown her), than minor surgical gynæcology. And this appeared to be the case for two reasons: (1) Inventive genius has been so marvellously prolific in this field of medicine that, in order to do justice to the innumerable tools of all kinds which have been or are still used by some gynæcologists, the work would necessarily degenerate into an illustrated catalogue of instruments. (2) With regard to many of the operations characterised unfortunately by the term "minor" which are practised upon the pelvic female organs, opinions so diverse are held that it would be impossible to discuss them in an adequate manner in a manual. The first of these difficulties the author appears to have felt, for he states in the preface: "I have endeavoured not to give the book the appearance of an instrument-maker's catalogue." Of the second, however, in so far as we have been able to discover, he appears to have been utterly unconscious.

The work is divided into two parts: the first, which forms about one-third of the whole, treats of Gynæcological Examination. This is again subdivided into chapters on verbal examination, methods of local examination, postures for examination, examination couches, examination without instruments, and examination by means of instruments. All these subjects are treated of fully, and the student who has mastered this part of the work will have the means at his disposal for diagnosing the conditions to be met with in the female pelvis. This part contains one hundred illustrations, of which nearly forty are of vaginal specula or drawings to explain their use. It is not easy to find the object of some of the illustrations—indeed, we have quite failed,—while many others would find their appropriate place in an "instrument-maker's catalogue" only.

The second part treats of "Minor Gynæcological Manipulations and Applications." It is in the writing of this part that the second difficulty mentioned would or should be felt. Curiously enough, however, the author has selected to describe several operations, such as division of the cervix, excision of the lips of the cervix, applications to the endometrium, the value and place of which have not yet been definitely settled, while he has omitted small operations, such as removal of cysts of the vulva and of the vagina, of extruded polypi, and division of an imperforate hymen, about which opinions are in the main agreed; so that much space is devoted to the description of operations of doubtful value and necessity—operations which are, it is true, practised and extolled by many, but are, on the other hand, rejected by others as unnecessary, or often productive of mischief.

To displacements and their treatment by pessaries, both vaginal and intra-uterine, the space and number of illustrations devoted are utterly beyond their importance. There are more than seventy drawings illustrating these instruments, many if not most of which have no peculiar value outside the imagination of their inventors. Indeed, these instruments seem to serve no good purpose except to exhibit in a very painful manner the unscientific character of our knowledge of diseases of women. Some of the illustrations in this part of the work are evidently no more than diagrams. They have not been drawn from nature; and when we compare them with what is found in nature we find them to be incorrect. We refer more especially to the illustrations of the uterus in a state of flexion. In all of these the cavity of the uterus is shown dilated. Now, there are several specimens of the flexed uterus preserved in museums, and accurate drawings of some of them have been made and published, but in none of them is the canal in a condition of dilatation. It is true that most of the illustrations bearing on this matter are not original to the author, but copies from the works of others, but they have been made according to a preconceived theory, and not from specimens. There are some things in the work which we prefer to pass without notice.

There are many matters described in it about which all are agreed, and in so far it is a sound guide to the student; but, as we have pointed out, and this is of far greater importance, the work contains descriptions of manipulations and operations about the value of which there is much doubt; and the one thing certain about them is that they are not unassociated with serious danger, and consequently they should be had recourse to but rarely. In some cases they have proved fatal, while in others they have been productive of permanent injury, rendering their subjects life-long invalids. Operations of this kind, in which benefit is doubtful and the risk great, should not be undertaken by the advanced student, nor indeed by anyone who is not perfectly acquainted with the conditions in which they may justifiably be had recourse to, and fully cognisant of their dangers. Could we regard the female pelvis as a storehouse for instruments or a laboratory for physiological and pathological experiment, we would heartily recommend the work before us as one of the best of manuals; but as we regard the patient as an important, and indeed the only important, factor in the operation, the sole object of which should be her benefit, we cannot approve the frequent recourse to means associated with so much danger. We think the author has attempted an impossible task in writing a manual on minor gynæcological surgery which would prove beneficial to student, general practitioner, and patient. The subject is at present incapable of such treatment. Although the descriptions of manipulations and operations in the work are well done, yet this is not sufficient. It is as important to know when to operate or to introduce a pessary as to know how. This knowledge cannot be gained by the perusal of a short manual descriptive of operations, but by study of the larger works on gynæcology, together with observations at the bedside. In minor gynæcological surgery the knowledge how to operate without knowing when is far more likely to prove injurious than no knowledge at all, or than mere expectant treatment. Although this work, in our opinion, lacks some of the most important qualities a manual should possess, yet we cannot withhold our admiration for the diligence, method, and ability shown in its compilation. We can only regret they were not directed to a worthier object.

Archives of Dermatology. Edited by Dr. BULKLEY. Vol. VII., No. 2. New York: Putnam's Sons.

WE have much pleasure in directing renewed attention to this very excellent publication, which is, since the discontinuance of the *Journal of Cutaneous Medicine and the*

American Journal of Syphilography and Dermatology, the only scientific journal published in the English language devoted exclusively to skin and venereal diseases. It continues to afford valuable assistance to those who give special attention to these classes of disease, and, to our mind, in a greater degree than the similar journals in France, Italy, and Germany; but it is further the aim of the editor to so enlarge its field of usefulness as "to serve as a communication between the specialist . . . . and those in general practice." Dr. Bulkley has been fortunate in the many able collaborators who have assisted him in his endeavours, and we are glad to see that two of the younger English dermatologists, Mr. Morris and Dr. Colcott Fox, have now been added to his staff—the former taking the duty of digesting the recent literature of the anatomy and physiology of the skin, and the latter therapeutics and such general topics as medicinal rashes, statistics, baths and mineral waters, &c. We hope the "Archives" will meet with the support it deserves amongst British practitioners.

The Life and the Poetical Works of John Critchley Prince. By R. A. DOUGLAS LITHGOW, LL.D., M.R.C.P. Edin., F.R.S.I., &c. In three Volumes. Manchester: Abel Heywood and Son. London: Simpkin, Marshall, and Co. 1880.

WE ought sooner to have noticed this work, and we can only do so now with much more brevity than we could wish. The work has this double interest for us, that it contains the record of a human life which, despite its poverty and its sins, has great and beautiful lessons; and, secondly, that the life is written, and the poems are edited, by a member of our profession, with a sympathy and an appreciation of genius which are never more fitly placed than in the medical man, to whom nothing is foreign that is human. To take time from a busy professional life to write the life of a working man, born in 1808, who thought himself a poet, and wrote poems that fill two considerable volumes, is not a proceeding that would commend itself to all medical men. But Dr. Lithgow has so done his work as to lay all lovers of poetry and all lovers of men under considerable obligation. We should, indeed, have noticed these volumes weeks ago but for the fact that whenever we have taken them up we have found a sort of fascination either in the poems themselves or in the life of Prince as told by Dr. Lithgow. Prince was undoubtedly a poet of no mean genius, and, though he struggled with poverty such as working men nowadays know or need know little of, this very poverty and struggle enhance the value of his poetry and our admiration of it. We commend his poems and Dr. Lithgow's "Life" to our readers—the one for their beauty, their melody, and their healthiness of sentiment, and the other for its great sympathy and its truthful narration of a life too common in its misery, but too rare in the thoughts and faculties by which even misery is elevated and mitigated.

Syllabus of Materia Medica for the Use of Students, Teachers, and Practitioners. By ALEXANDER HARVEY, M.D., and ALEXANDER DYCE DAVIDSON, M.D. Fifth Edition. London: H. K. Lewis. 1881.

THE popularity of this little book is attested by the appearance of the fifth edition. It is practically a list of the preparations of the British Pharmacopœia, and is sufficiently compact to go into the waistcoat-pocket. It is a convenient book of reference to the practitioner, and we fear also a convenient cram-book for the student. The attempt to assign the relative value to different preparations and drugs, by means of numbers, is retained, but seems to us of very doubtful utility, giving, where it does not mislead, no useful information.

New Inventions.

RESPIRATOR FOR USE AFTER TRACHEOTOMY.

DR. ARNISON, of Newcastle-on-Tyne, has designed a respirator to be attached to the front of a tracheotomy tube. The respirator is intended to obviate the risk of pneumonia, which is one very fertile cause of death after tracheotomy, and is probably caused by breathing air which has not been warmed and moistened by traversing the natural air-passages on its way to the lungs. It is on the principle of the ordinary respirator, and consists of six circular plates of fine wire gauze enclosed in a box. The box slides into a rim which projects from the front of the neck-plate, and it is so made as to be easily removed, not only by the surgeon or nurse, but also by the patient himself if he should find any impediment to breathing through fouling of the plates. The lid of the box (an open ring) takes off, and the plates can be taken out and cleaned, being quite free and not attached to each other. It has been tried on a patient of Dr. Drummond in the Newcastle-on-Tyne Infirmary, and it was not found necessary to clean the plates oftener than once in two or three days. A disc of carbolised gauze catches any discharge coughed up, and so prevents fouling. It is evident that the respirator cannot be used where there is persistent cough with expectoration, which would rapidly foul the plates. It is only adapted to cases where cough is absent or comparatively quiet, in which it may probably be prevented or relieved by breathing warm air, moisture being supplied by a steamer as usual. The tube is the ordinary tracheotomy tube, and is made in two sizes, one respirator fitting both. The respirator has been made for Dr. Arnison by Messrs. Weiss and Son. The only suggestion we would offer is that it would be an improvement if the box and plates could be made still lighter than they are, so as to lessen the weight of the respirator.

MESSRS. SOUTHALL BROS. AND BARCLAY'S SURGICAL APPLIANCES.

THE above firm are the manufacturers of some very useful materials for surgical purposes. They prepare a Dextrinised Millboard which is sold in strips and angles; it is very light and firm, and yet brittle enough to be easily broken into required lengths. When soaked in boiling water it becomes pliable in a few moments, and is then readily moulded to a part, and quickly again becomes hard, forming a very light, cleanly, and sufficiently rigid splint. We have also made a trial of their Antiseptic Pads, formed of absorbent cotton-wool enclosed in absorbent gauze, and the whole impregnated with salicylic and carbolic acids. Their absorbent power is extremely valuable, and they are a very simple and cleanly dressing for open and discharging wounds. They are made of various sizes, and some are well adapted for the lying-in room. The Antiseptic Absorbent Bandages may be useful in some particular cases. Of Southall's Antiseptic Elemi Plaster or Hospital Strapping we can only say that after a fair trial we have found it superior to any we have hitherto met with. It is very pliable, adheres without heat or moisture, is cleanly to use, does not crack off, and does not adhere too closely. Its antiseptic property may be of some value when applied directly to wounds, but whether this is so or not, its other excellences enable us to recommend it with confidence.

TINNED-WIRE STILETTES.

MESSRS. SAMUEL LAW & SONS have submitted to us some specimens of their fine tinned-steel-wire stilettes for hypodermic syringes. For strength and elasticity they far surpass those generally supplied with the syringes, and are really of use in clearing the fine tubular needles of dirt or crystallised metalloid. Similar wire of larger gauges can be utilised for the stilettes of catheters, &c.

THE LANCET.

LONDON: SATURDAY, JUNE 11, 1881.

THE high percentage of rejections at the various examinations recently held at the Royal College of Surgeons of England is of grave significance and importance to everyone interested in medical education. Some critics (perhaps unsuccessful and disappointed teachers) have indulged in angry comments on the general character of the examinations conducted by the authorities of the College, and have even impugned the competency of some of the examiners. This pique is, perhaps, only natural. The exigencies of the examination system drive teachers and examiners into open and avowed antagonism. There is constant and incessant strife over the merits of the pupil and candidate. Teachers and students, when unsuccessful, are apt to imagine that the examiners are crotchety, capricious, and unfair, while the examiners, when the rejections are high, will not hesitate to declare the candidates are ill taught and badly prepared. Considering that the oral parts of the examinations at the College are open to Fellows of the College, and to other members of the profession properly introduced, it would, at first sight, seem easy to discover the meaning and reason of this high rate of rejections. The matter is not, however, so simple, because an important element is wanting. The quality of the examination and the character of the examiner may be determined, and a sufficiently correct judgment may always be formed of the fitness of a candidate, but there is no means of discovering the merits of the absent teacher whose business it has been to superintend the candidate's training and education. In the hope of obtaining some clue to the great number of rejections we have repeatedly visited the oral examinations for the Membership as well as for the Fellowship, and we will state at once that we entertain a very strong opinion that in a large number of instances candidates are very imperfectly trained, and not a few have evidently undergone no sort of preparation for examination. This is most noticeable at the pass examination for the membership, and least noticeable at the first examination for the membership. The conditions of the Fellowship examination are peculiar, and do not materially affect the question we are now considering—namely, the average education of medical students.

No one, we imagine, will dispute the statement that the first examination, or examination in anatomy and physiology, is a more trying ordeal for the young student than the second, or pass examination; and yet, as a rule, candidates acquit themselves better at the first examination than at the final. We would go so far as to say that even at the pass examinations weak candidates are, usually, better acquainted with surgical anatomy than with practical surgery and surgical pathology. Indeed, it is not uncommon to see a candidate familiar with all the superficial markings and "landmarks" of surgical anatomy, but ignorant of many of the rudiments of practical surgery. The obvious explanation of this remarkable difference is that students are, nowadays, taught anatomy and physiology systematically, and have fairly good facilities for practical study. With practical surgery and surgical pathology, on the other hand, the reverse obtains. To be present at the practical part of the pass examination for the membership is often a melancholy occupation. Many candidates seem to have no notion as to how they should proceed to examine a patient. At a recent examination it was not rare to find candidates ignorant not only of the differences between hydrocele and orchitis, or hydrocele and hernia, splay-foot and suppuration of the tarsal articulations, enlarged bursa and periosteal swellings, or enlarged bursa and fatty tumour, but ignorant also of the methods of physical examination by which those differences might be discovered. Whether the fault be his own or his teacher's, a candidate has not been trained who cannot apply any other test to a hydrocele, or orchitis, or hernia than balancing the enlarged scrotum on the flat of his palm, who examines for fluctuation by prodding a swelling with the tip of his middle finger, who is unable to apply any other test than ocular inspection to a doubtful tumour, and who does many other things that candidates at the College are often observed to do. All this implies absence of practical training. There is in our medical schools no lack of lectures and no scarcity of demonstrations, such as they are, but there is an urgent need of larger opportunities for practical training in clinical medicine and surgery. As no one can acquire skill in practical chemistry or physiology by means of lectures alone, and without practising experiments and manipulations in the laboratories, so no one can become a skilled medical practitioner without actual personal labour in the various departments of a hospital. There is reason to fear that in straining after a transcendental pathology and an over-elaboration of physical aids to diagnosis, the student is not taught the rudiments of his art. This must be patent to anyone who will take the trouble to visit the College examinations, especially during the off season.

We have no desire to pose as apologists for any body of examiners or any examinations, nor do we wish unduly to disparage the candidates. We wish merely to express the conviction based upon a large experience—namely, that as regards practical surgery and surgical pathology, the medical student is at best but imperfectly trained, and at worst he is not trained at all. Nor will this be a matter of surprise when we consider the difficulties of providing dresserships and clinical clerkships for all the pupils at a large school. Even at the largest hospitals there is a dearth of clinical offices compared with the number of applicants, while at the smaller hospitals many students have practically to go without dresserships. From some hospitals many students are compelled to present themselves for examination without any other knowledge of practical surgery than they have been able to acquire while writing prescriptions for the out-patient surgeon, or in opening once or twice abscesses in connexion with impetigo of the scalp, or occasionally strapping an ulcerated leg. Some remedy for this unsatisfactory state of things will have to be found. One way out of the difficulty might be to adopt a proposal made some time ago, to open up the workhouse infirmaries for clinical instruction to medical students. There are doubtless many drawbacks to this plan, but probably not more than to any other. It would, however, be necessary that the authorities of the schools should exercise full and efficient control over such extra-academical hospitals.

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AMONG the most important recent additions to our knowledge of the pathological changes which attend and characterise inherited syphilis is that of the affections of the growing extremities of the bones which leads to the separation of the epiphyses. It is not, indeed, a new discovery. VALLEIX, in 1835, described an instance of separation of the epiphyses, with suppuration and with overgrowth of the periosteum, in a newly-born child, and recognised its dependence on inherited syphilis, but the observation remained isolated for thirty years, until, in 1864, RANVIER and others published some additional examples of the change. Our present knowledge of the subject, however, dates chiefly from the careful account of it given by WEGNER in 1870, to which important new facts have been added by PARROT, TAYLOR of New York, GOODHART, and BARLOW. The affection of the ends of the long bones has lately been carefully studied by HEUBNER and VERAGUTH, whose papers appear in the last number of the *Archiv für Path. Anatomie.*

WEGNER regarded the change as an inflammatory irritation commencing in the deepest layer of the cartilage, and extending from this to the bone, while WALDEYER, KÖBNER, and PARROT consider that the bone is the seat of the primary change. The view of WEGNER has been upheld by HAAB, who described a peculiar fissuring of the cartilage, which he considered to be the initial change, and to constitute a primary syphilitic chondritis, and this conclusion is now confirmed by VERAGUTH, from a careful examination of a well-marked case. HAAB described finely granular linear degenerations extending through the cartilage, but VERAGUTH found in addition a peculiar fibrillation of the cartilage which seemed to be the immediate cause of the cleavage. It is probable that these fibres are not of new formation, but exist normally. According to TILLMANNS and KASSOWITZ, they may be rendered visible by the maceration of thin sections of normal cartilage in dilute nitric acid, or in a solution of chromic acid, and have then precisely the arrangement which the syphilitic process discloses. They interlace in all directions, but in the proliferating zone there is a preponderating arrangement in parallel bundles. Hence, according to VERAGUTH, the first step in the pathological process is that under the influence of the virus in the blood of the syphilitic child there occurs an excessive formation of vessels in the cartilage, and a corresponding overgrowth of the cellular elements. The change is greatest in the proliferating zone, and soon assumes a distinctly inflammatory character. *Pari passu* with this productive activity of the cells a retrograde process occurs in the intercellular tissue. The cementing substance between the fibrillæ becomes softened, or as it were dissolved, and the solidity of the cartilage is lessened in consequence, especially in the proliferating layer, in which the parallel arrangement of the fibres renders the effect of the change in the interfibrillar material the greater, and ultimately permits the occurrence of the parallel fissures which then extend through to the perichondrium. The cells increase in number by proliferation, and to them are added numerous lymphoid elements which wander in from adjacent vessels. Several observers have described a transformation of the medulla of the bone into granulation tissue, and the growth of this tissue into the fissures in the cartilage. This was not present in VERAGUTH'S case; many of the vascular canals of the cartilage contiguous to the growing papillæ of the medulla contained spindle-shaped and angular cells, but not in sufficient abundance to suggest an actual ingrowth of the medulla, so that the latter must clearly be regarded as an after-effect, the result of the fissuring, and not its cause. Some morbid changes were found in the bone itself, but these were of a degenerative character—fatty degeneration of the cells of the medulla, deficiency of osteoblasts, and abundance of giant cells,—and are to be regarded as secondary to the affection of the cartilage, which is thus, as HAAB asserted, a primary syphilitic chondritis.

This affection of the growing bones is usually painless, non-febrile, and readily influenced by treatment. It is very different with a morbid state which sometimes accompanies it—suppuration into and about the joints adjacent to the bone disease. This complication is accompanied with fever, often runs an acute course, almost like that of an acute specific disease, is attended with much pain and a pseudo-paralytic condition of the affected limbs, and is generally fatal in spite of treatment. It is to this that HEUBNER'S paper is devoted, and two well-marked cases are described. The comparative rarity of suppuration shows that it is not a necessary consequence of the bone disease, although the latter must be regarded as the exciting cause of the formation of pus, since no case unattended by the peculiar affection of the ends of the bone has yet been met with. Of the cause of the predisposition which exists in some cases, and permits the disease of the bone to excite suppuration, little is yet known. It has no relation to the extent of the osseous mischief. In one of HEUBNER'S cases this was comparatively small, and was lessening, together with a syphilitic eruption, under treatment, when the suppuration occurred, and ran a most rapid course. Moreover, a disposition to the formation of pus can scarcely be regarded as a characteristic of syphilitic lesions. It may be that the chief influence is that tendency to suppuration which is so often manifested by all children during the first few months of extra-uterine life. SENATOR has lately called attention to the great frequency of purulent pleurisy and pericarditis in infants at the breast, and HEUBNER points out also that primary purulent meningitis is almost confined to this age. Moreover, purulent joint affections have been met with in infants as complications of other diseases, such as purulent inflammation of the pleura. This tendency, then, may constitute the predisposition; but although it explains the occurrence of the suppuration, it scarcely explains its rarity. Some additional general or local condition must exist when it supervenes, and this, it is suggested, may be the conveyance of irritating material by the lymph channels from the diseased bone. It is well known that in bone slight influences, scarcely recognisable, may determine the benign or malignant character of an inflammatory process, as in the development of osteo-myelitis. Indeed, the joint affection we are now considering bears resemblance in many particulars to a pyæmic process, and is attended with a similar jaundice.

Its practical importance is very great. It has apparently been almost invariably fatal, and its nature during life has rarely been recognised. Its symptoms—high fever, severe pain, and immobility of limb, with swelling of joints supervening on a slighter affection of the ends of the bones in a subject of inherited syphilis—are so characteristic that the nature of the malady need never be mistaken.

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THE *Evening Standard* is dreadfully irate in its own decorous fashion because, in a recent notice of the association for providing nurses for the sick poor, while expressing unbounded sympathy with the main object of this Society, we avowed a certain degree of doubt with regard to the policy, and some misgivings as to the result, of the proposal "to raise the standard of nursing and to improve the social position of nurses." Our courteous contemporary observes censorially: "There is a feeling of uneasiness lest raising the standard of nursing should mean raising the standard of revolt against the heaven-born custom of calling in and paying a doctor always and everywhere. There is an almost sacerdotal fear that if the laity get to learning more than to open their mouths and shut their eyes, and take what the doctor sends them, we shall perchance some day find them applying their own sticking-plaster, dressing a burn, or even putting on a bandage." Considerable candour characterises the way in which the argument is put, and it is impossible to avoid recognising the elegance of the remark about "paying the doctor"; but we are not in a complaining spirit, or inclined to be hypercritical as to words. It may be confessed we do view with suspicion and regard with fear the attempt to develop a separate craft of nursing, and to encourage the "laity" in applying their own sticking-plaster, dressing burns, and putting on bandages; and we will tell the *Evening Standard* and all who may be good enough to be interested in our opinions, why. Trained nurses are, perhaps not unnaturally, prone to magnify the quasi-medical knowledge they pick up in the wards of a hospital, and relying on their intelligence and experience, they apply the sticking-plaster to fractured skulls, dress the burns according to their own notions of expediency, with remedies of their own selection or concoction, and put their bandages on still dislocated or unset fractured limbs. Being intelligent women, and therefore, in their own estimation at least, more gifted than men, they assume, or claim to have acquired, a "practical" knowledge of the art of healing in the course of a brief training under a "sister" not less incompetent than themselves, which qualifies them to act *with* instead of *under* the physician or surgeon in charge of a case, and by their presumption jeopardise the success of his treatment, or even induce the friends of the sick person to dispense with his services. Besides this, the professional recognition given to these women fosters a feeling in the public mind that medicine and surgery are, after all, very simple methods or practices in aid of recovery, and that a "knowledge" which can be acquired in a few months cannot be really very important.

The "trained nurse" tends to displace the doctor, and the intuitive instinct of "common sense" prevalent among the community will in its turn supersede the "trained nurse." The whole movement is essentially retrograde. Medicine has with difficulty succeeded in raising itself to the level of a scientific calling, and now by the creation of a class of professional nurses, it is preparing the way for a return to the days of the "wise women," and further back to that older time, when a false sentiment of religion claimed the art of healing as a mysterious attribute of the priests and their agents, and obviated the need of a laborious investigation of the laws of Nature by an affectation of skill to treat disease by the light and aid of the supernatural. When once the trained nurse is raised above the level of an agent charged to carry out the instructions of the medical man in attendance on a case, she quickly begins to *help* the doctor, and will in the end replace him. We are content to take our contemporary's own account of the use to which the knowledge assumed to be acquired by these nurses is destined. "Take the not uncommon cases of paralysis of the lower limbs, or spinal curvature, with bed-sores. Is it a movement to be viewed with suspicion, that a doctor having such a case under him should have it attended every day for him, and the necessary work done by a nurse who has had the benefit of training?" &c. It is curious that the illustration selected should be one of bed-sores accompanying some cerebro-spinal affection! Has our contemporary forgotten one or two of the more prominent incidents of the recent struggle at Guy's Hospital? Did it not occur to his recollection how in one case want of power, the effect of disease, was mistaken for sulkiness or hypochondriasis; while in another, the "nursing department" in its wisdom routed up a patient suffering from an acute brain affection, and who ought on no account to have been moved, in order to apply a routine dressing of dusting-powder for imaginary bed-sores? Had the nurses in these instances not been "trained," the physicians in attendance might, indeed, have been put to the trouble of giving explicit directions as to their management, and, in order to attain the knowledge requisite to enable them to give these directions, they must, as young men, have mastered the art of *nursing* the sick in practice as well as principle; but all this pain and labour would have been amply compensated by the assurance that the sick under their care were skilfully attended. There is nothing to be gained by "training" nurses beyond the point of making them docile and intelligent attendants on the sick, qualified to carry out the instructions of a medical practitioner efficiently—but *not* qualified to undertake even the *nursing* without his express orders, still less to usurp his position at the bedside, and treat the case.

It is time the profession and the public took the question of training for nurses into very serious consideration. We concede that it is a trouble-saving expedient, but for the sake of ease at the moment we are sowing the seeds of greater trouble in the future. No question can arise as to the need and benevolence of providing nurses for the rich and the poor, particularly the latter; but the nurses so provided should be *nurses* simply and exclusively, not pseudo-practitioners. The practical difficulty arises from the fact that women are naturally of an aspiring nature, and they have for some time past been incited by unscrupulous agitators to struggle for what they are pleased to consider enfranchisement—an enfranchisement from all that is feminine and womanly. They are no longer content to achieve excellence in the *manner* of nursing. The aim—most shortsightedly encouraged by the profession—is to make nursing something more than sick-tending. The "trained nurse" of the day scorns the simple notion of keeping a patient "clean and comfortable," and doing what the doctor tells her in regard to the administration of food and medicine. She must have room to "exercise her discretion," and unless the discretion left is wide, and the "order" given expresses or implies recognition of her special character as the professor of an art of "nursing" which is something beyond the ken of the medical practitioner, she will either "retire from the case"—that is the phrase,—or with mute malignity take it into her own hands behind the back of the doctor and treat it after her fashion. These nurses will do anything to exalt their position and magnify their importance. It every now and again comes to the knowledge of medical practitioners that, having established a reign of terror or blandishments over the patient, they will adopt measures of treatment and even give medicines in secret. As we write, a case recurs to our recollection in which it was discovered that a skilled nurse had been systematically dosing a lady after her confinement with chamomile-tea to such an extent as to prevent her taking proper nourishment. There was no question as to the *bona fides* of this nurse. She meant excellently well, and was treating the case to the best of her "skill" for a symptom which she preferred to keep from the knowledge of the doctor. Neither the patient nor her immediate friends dared to complain, or to breathe a misgiving, to the medical man in attendance until the condition became serious. This was a small matter, and we mention it because it may be thought comparatively insignificant. It is against the small beginnings of insubordination we need to contend. If any association can or will take the trouble to convince the medical profession that its *sole* aim is to train nurses to carry out the instructions of practitioners, the movement will inspire confidence, and deserve our warm support. Nurses should be trained as cooks and housemaids are trained, not to order the dinners or to arrange the domestic business of the household, but to do as they are bidden. If women of "superior intelligence" and "social position" are willing to engage in work of this class—which, however, seems to the last degree unlikely—they may do it as well as those who are less favoured in the matters of birth and education, but there is no reason to suppose they can discharge the onerous and essentially disagreeable duties of the sick chamber more efficiently than respectable women of the classes immediately below them. There is not less need of a new opening for honest work available for the daughters of the artisan class and small shopkeepers, than for the daughters of medical men, clergymen, and the seemingly well-to-do but really struggling classes midway in the ranks of society. We must confess to a strong persuasion that it is from the lower middle classes and the families of the industrial orders of the community nurses should be taken. And being derived from these classes the young women should be trained not to act as *professional* persons in hospitals and private houses, with a profound contempt for menial work, and a proud assumption of the right to be "waited on" and "obeyed" by all about them, but simply to deport themselves and do their duty as tenders-of-the-sick, having the intelligence suited to their position, and showing their skill in the strict and simple performance of the tasks specifically entrusted to them, without either claiming to possess or pretending to exercise a knowledge of disease and its treatment, which must always in fact, and should therefore also avowedly, lie beyond them. It is in the interests of the sick, not less than of the professors of the art of healing, we give expression to these views on the subject of trained nurses, and we are convinced that sooner or later the public and the profession will see cause to agree with us.

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LONDON is not only the largest and the healthiest of the large cities of the world, but it is, probably, the only city which possesses trustworthy mortality statistics extending over a period of forty years. The Registrar-General has just issued his Annual Summary of the Vital Statistics of London and other large English cities for the year 1880, completing the fourth decade of observation since the Registrar-General's Weekly Return was first published. The death-rate in London during 1880 is reported to have been equal to 22·2 per 1000 of its inhabitants; and we are told that in only five other of the last forty years has so low a death-rate been recorded. It must be remembered, moreover, that when this Annual Summary was under preparation the results of the recent Census were not known, and that the population of London in the middle of 1880 was, therefore, under-estimated. We now know that the true London death-rate during last year did not exceed 21·5 per 1000, a lower death-rate than which has been recorded in only three of the past forty years. The fatality of zymotic diseases somewhat exceeded the average last year, which was mainly due to the epidemic prevalence of summer diarrhœa; the deaths referred to fever (including typhus, enteric, and simple) showed, however, a further considerable decline, and were fewer than in any year on record. The 475 fatal cases of small-pox showed an increase of 25 upon the number in the previous year, and exceeded the average for non-epidemic years.

The main interest of the present return, however, centres in the retrospect it affords of the health statistics of the forty years 1841–80. The decade which closed with the year 1880 was one of lower mortality in London than any of the three preceding decennial periods for which trustworthy statistics are available. It appears that the death-rate, which had ranged from 23·7 to 24·9 in the three decades of the thirty years 1841–70, and which averaged 24·3 during the whole period, declined to 22·8 in the ten years ending 1880. The rate in the most recent decade, moreover, is further reduced to 22·4, if the mean population of the period be calculated in accordance with the number recently enumerated. The health of London, which was practically stationary during the thirty years ending 1870, showed a marked improvement during the following ten years, and it may be estimated that, at least, 70,000 persons within Registration London were living at the end of the ten years who would have died had the mean death-rate of the preceding thirty years been maintained. It is satisfactory to note, moreover, that if the last decade be divided into two quinquenniads the death-rate in the later is considerably lower than that in the earlier five years. These facts are referred to by the Registrar-General as affording strong evidence that the sanitary efforts of recent years have not been unfruitful, more especially as the increasing density of the population in London would inevitably have led to increased mortality if not counteracted by improved health organisation. The reference of the lower death-rate of the last decennium to improved sanitation in the metropolis appears the more fully justified when it is borne in mind that the saving of life is almost entirely due to diminished mortality from zymotic diseases. It is shown that this mortality, which had been all but stationary during the three preceding decennia, fell during the last decade no less than 25 per cent. below its previous average. A considerable portion of this gain was doubtless due to the immunity from fatal Asiatic cholera during the ten years; but the decline of fever fatality affords undoubted evidence of improved sanitary condition. The average annual death-rate from fever differed but slightly in the first three decades of the past forty years, and averaged 0·92 per 1000. In the ten years 1871–80 this fever death-rate dropped to 0·37 per 1000. We are reminded that these figures signify that nearly 19,000 more persons would have died from fever during the ten years in London if the rate from this cause had remained at its previous level; and further, that more than 100,000 Londoners were preserved from attacks of fever by the improved health condition of the metropolis. The fatality of scarlet fever during the past ten years was also considerably below that recorded in any of the three preceding decades. The death-rates from measles, whooping-cough, and diarrhœa were also somewhat lower during the last decade, although the decline was less marked. Perhaps the most unsatisfactory feature of the recent mortality statistics of London is the slight decline that has taken place in the rate of infant mortality. Infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 158 per 1000 in London during last year, and corresponded with the mean rate in the ten years 1871–80; in the preceding thirty years infant mortality, measured in this manner, averaged 159 per 1000. Bearing in mind the considerable decline in the general death-rate and the marked decrease of zymotic fatality, a larger fall in the rate of infant mortality should have been recorded. Although infant mortality is probably fully as much a social as a sanitary question, it is a subject demanding more attention at the hands of sanitary authorities than it has hitherto received.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL MEDICAL CONGRESS.

THE preparations for the forthcoming meeting of the International Medical Congress are well in hand, and would appear to be worthy of the occasion, which promises to be one of very great interest. The final arrangements for the places of meeting are made, and all the Sections—sixteen in number—will be accommodated in the rooms of the University of London, or of the various Royal Societies close by. The Royal College of Physicians has given up rooms for the offices of the Reception Committee, and this will form the lay head centre of the Congress. The list of members of the Congress is opened already, and those intending to join are requested to enrol themselves at the College of Physicians without delay. At the last there is sure to be a great rush of foreigners, and for this reason, and also to enable the Committee to have a good idea of the number likely to be present, it is desirable that all who can should join at once. We would remind those who have subscribed to the expenses of the Congress that such subscriptions do not include the entrance fee of one guinea. This is charged to everyone, subscriber or non-subscriber, and will hardly cover the bare cost of the literary material presented to each member. We may add that this will consist of a volume, published before the meeting, containing an abstract, in English, French, and German, of all the papers presented to the Congress, and, later on, the volume of Transactions, with all the papers in full. The expense of publishing these volumes will be so great that the fees of membership are hardly expected to meet it. The list of subscriptions is still open, and as there are yet some members of the profession who have not responded to the appeal of the Executive Committee, we would remind them of the adage, *Bis dat qui cito dat.* One of the features of the meeting will be a Museum of Pathology; for this all objects of medical or surgical novelty relating to pathology or the illustration of disease will be acceptable. But the Committee has wisely decided to keep two or three special points in view. One is to show groups of patients illustrating the following rare diseases: Addison's Disease, Coincidence of Gout and Rheumatic Arthritis, Charcot's Joint Disease, Myxœdema, Syphilitic Bone Disease in Children, Mollities Ossium, Primary Muscular Atrophy, Rupture of Large Nerve-trunks, Morphœa, Keloid of Alibert, True Leprosy, Lupus Erythematosus, and Xanthelasma. Dr. Ord has promised to exhibit a series of cases of Myxœdema, and Dr. Dyce Duckworth one illustrating the various phenomena of Gout. It is needless to enlarge upon the instructive nature of a collection of Leprosy cases—say six or ten—such as no one individual could possibly see together without a journey to Norway or India. It is hoped that by the assistance of the various metropolitan hospitals this part of the undertaking will be made very successful. The Committee is anxious that all who have now under their observation cases of the kind asked for will keep the addresses of them, and make arrangements in good time for their attendance. Another feature of the Museum will be a classified collection of drawings, photographs, or models of diseased conditions. It is also proposed to exhibit a collection of Vesical Calculi of unusual character, or those which have been removed by unusual methods, more especially by Bigelow's operation; and of Biliary Calculi of large size which have been passed per anum or removed by operation. Intending contributors to the Museum should signify their intention as early as possible to the Sectional Secretary, Mr. H. H. Clutton, 16, Palace-road, S.E.

THE EFFECT OF PERIPHERAL IRRITATION ON ANÆSTHESIA.

THE interesting observations of M. Grasset on the removal of anæsthesia of cerebral origin by the application of blisters to the skin, to which we directed the attention of our readers in a former number, demonstrate in a striking manner the influence which peripheral impressions exercise on the action of the central nerve-cells. That a similar influence may be produced when the cause of the anæsthesia is not central but peripheral, is shown by an interesting case lately brought before the Société de Biologie of Paris by M. Malécot. There was anæsthesia of the shoulder, arm, and upper part of the forearm following a wound two centimetres long, three fingers'-breadth below the outer extremity of the clavicle, and a finger's-breadth within the anterior axillary line. The resulting anæsthesia involved the shoulder, arm, upper part of the forearm, and the front of the thorax on the same side, being bounded by an irregular line, not corresponding to the distribution of any nerve. There was also some muscular weakness in the forearm. The wound healed, but the anæsthesia remained for two months unmodified by any treatment. The anæsthesia being regarded as reflex, the result of an action on the centre, a blister, ten centimetres square, was applied over the cicatrix. Next day the sensibility had returned in the forearm and inner part of the arm, just above the elbow. A second blister, just above the wound, increased the area of sensibility, and after a third blister the anæsthesia of the shoulder and thorax gradually disappeared.

THE COLLEGE ELECTIONS.

MONDAY next is the last day for sending in applications for election into the Council of the Royal College of Surgeons. The Fellows who may be expected to compete are Sir James Paget, Mr. Haynes Walton, Mr. Sydney Jones, Mr. Hulke, Mr. Croft, Mr. C. Heath, and Mr. Reginald Harrison.

EMPLOYMENT FOR SOLDIERS' WIVES.

IT is satisfactory to know that those with whom rests the responsibility of the nursing in military hospitals are by no means so blind to the difficulties involved in Lady Strangford's scheme for the employment of soldiers' wives in that duty as the report of the proceedings of the meeting at Woolwich fairly seemed to indicate (see THE LANCET of June 4th). It appears from a statement in the *Broad Arrow*, that the report of that meeting which was furnished to the daily papers was very inaccurate, one-sided, and incomplete. While it recorded the presence of Lord Chelmsford, Sir Frederick Roberts, and Lady Strangford, it omitted all reference to Surg.-General Shelton, who might be naturally supposed to have more practical knowledge of the subject than most of those who took part in the proceedings. But he did not, like Lord Chelmsford, endorse all the views held by the lady patroness; on the contrary, he pointed out the practical objections to the scheme, and foreshadowed the difficulties likely to arise in working it, and on that account, we presume, his presence at the meeting was ignored, and his remarks were not reported. The point to which Mr. Shelton chiefly called attention was the existence already of agencies for nursing in the army. These are—(1) The Army Hospital Corps, which has shown itself so efficient on service in the Transvaal; (2) the regular staff of trained female nurses at Netley and Woolwich, always available for service when they may be required; (3) the staff of female nurses supplied by the National Aid Society, and now undergoing training in the military hospitals; and (4) the female nurses specially employed wherever there is a hospital for women and children. With these resources in existence, Mr. Shelton doubted the expediency of starting another organisation which could only be carried on efficiently at a very considerable outlay. Is such a course necessary, and is it justifiable? We are disposed to answer these questions in the negative. It seems much more desirable to improve, and if necessary to extend, systems now in operation, and which are doing really valuable though unostentatious work, than to start new societies with the usual staff of paid officials, and with the drawback of coming into unnecessary competition with those already in existence. The omission from the report of the Woolwich meeting of any reference to Surgeon-General Shelton—the representative of the Army Medical Department—to the telling remarks made by him on the unnecessary expenditure of labour and money likely to arise from carrying out the scheme, and to the clear exposition he gave of the adequate provision already in operation for nursing in military hospitals, has given rise to an unpleasant feeling with reference to a movement which, if necessary, ought to enlist the warmest sympathies of all who feel an interest in the welfare of our soldiers.

ST. GEORGE'S HOSPITAL AND THE ATKINSON-MORLEY CONVALESCENT HOSPITAL.

THE annual report of St. George's for this year is an interesting one, though we can only note a few of the principal facts. As to out-patients, means have been taken to reduce the number, so that relief should be given only to the necessitous. The decrease in 1880, as compared with 1879, is 142. We are struck by the smallness of this number. As regards in-patients, the most noticeable fact is that 2500 out of 3543 were admitted without letters of recommendation, and in consideration only of the urgency of their cases. The Hospital Saturday Fund withheld £100 on account of not receiving more letters, though it received in the same proportion as the Hospital Sunday Fund, and 52 more than it used. The hospital makes out so good a case that the Hospital Saturday Fund should send the £100, especially as the managers of the institution, in consequence of decrease in receipts and increase in expenditure, have had to sell nearly £8000 worth of stock. In the letter of the secretary to the secretary of the Hospital Saturday Fund, it is said that of the number treated in the hospital, 1500 were working men or their wives and children. We are curious to know the occupation of the remaining 2000, which, the secretary would seem to imply, were *not* of the working class. Of the 3180 patients discharged from the hospital in 1880, 681, or 21·35 per cent., were admitted to the Atkinson-Morley Convalescent Hospital.

FISH.

THERE can be no question that fish might with advantage form a more common article of diet than it now does. It is notorious that the market supply is manipulated to keep up prices, the commodity being regarded as a luxury rather than a necessary. Nobody is to blame for treating the article thus *commercially*, but it is a reproach to the good sense of the community that the value of fish as an article of food is not generally recognised. It is eminently a form of nutriment well suited for the use of a population working to a very considerable extent with its brains, and exposed in no ordinary degree to the wear and tear caused by worry. If proper arrangements were made for the rapid transit of fish to the metropolis, and an adequate and accessible market were provided for its sale, the population might be well supplied at reasonably low prices. Obviously those who trade in fish cannot be expected to incur the risk of loss by the spoiling of a peculiarly perishable article before it can be distributed, and they may well be excused for some finessing to keep up prices; but difficulties such as these ought to be overcome. It is not necessary to point out to medical readers the importance of a full and good supply of fish, but it is time the profession took means to bring considerations well known to themselves under the notice of the public, so that the opportunity which seems to have occurred for the removal of needless obstacles to the use of fish as an element of ordinary diet may be utilised.

ANOTHER HOSPITAL DIFFICULTY.

WE understand that a serious difference of opinion exists at the Bristol General Hospital between the Staff of the institution and the Committee (or rather a small majority of the Committee) as regards the material best suited for use in the reflooring of the wards. It appears that when the hospital was rebuilt in 1856, cement floors were laid down, and that in the brief period of twenty years these floors had become so bad that it was necessary to renew them. The Staff held strongly that cement was not suitable for the flooring of a hospital, and that wood was the only material that should be used; the Committee, however, in the face of this, by a bare majority, decided to relay cement; and accordingly this material was used throughout the building. Within a few months the condition of these new floors had become so faulty that the Committee were warned by the Staff of the danger that might arise to the patients under treatment in the institution. Various experiments were tried in the attempt to put the existing floors into a satisfactory condition, but without success; and the latest decision of the Committee has been to entirely relay one of the wards with cement—the very material that had already so signally failed—turning a deaf ear to the emphatic and repeated protests of the Staff, and to all the scientific evidence that has been furnished them in proof of the great superiority of wood. The matter has assumed so serious an aspect that the president of the hospital has resigned his post, on the ground that he cannot share the grave responsibility thus incurred by the Committee; and we believe that the Staff are taking measures to bring the whole case before the general body of governors of the institution. It is difficult to conceive how a body of men possessed of average intelligence and capable of forming an unbiased opinion, could have taken so erroneous a course as that adopted by the Committee. The cement floors had signally failed; surely if the same material was worthy of any further trial, it should possess advantages from a medical point of view far greater than any other. But exactly the reverse is the fact. In the first place cement is highly absorbent, and is therefore calculated to form a fit soil for the development of those preventable diseases—erysipelas and the various forms of blood-poisoning—against which it is the aim of modern science to defend a hospital. Further—and this, too, is a very grave objection—a cement floor is exceedingly cold, and cannot but exercise a most injurious influence upon many patients. It is well known that even persons in apparent health will suffer from rheumatic pains after standing on stone or cement floors; and upon patients whose vitality is lowered by disease the chilling effects of such floors will in many cases exercise a most prejudicial influence. Wood is unquestionably the only material fit for hospital floors. It can be so laid and coated as to be non-absorbent, it is easily cleaned and kept in good condition, it is far less noisy than cement, and is warm and comfortable for the patients—in short, it is in every respect incomparably superior to cement. The latter material is suitable for barns and warehouses, but is altogether out of place in a hospital. We cannot but think that those members of the Committee who are so anxious to perpetuate the mistake originally made in the hospital would hardly select cement as a flooring for their own bedrooms. It appears that, according to the existing rules, the Staff send two representatives to the Committee, but that these have no power to vote. The position in which men of scientific training and high professional standing are thus placed is most anomalous; and recent events have shown how important it is that those who are best qualified to decide the scientific questions that from time to time come before a hospital committee should be able to enforce their opinion by a vote. We believe our view will be endorsed by the governors of the hospital when the matter comes before them for consideration.

INOCULATION OF RABIES.

M. PASTEUR and his assistants have succeeded in communicating rabies by the inoculation of the brain of a dog dead of the disease. The experiments were successful with pieces of the cortex and of the medulla oblongata, and with the cerebro-spinal fluid. There is, of course, nothing very remarkable in this result. It has long been known that the virus is widely diffused in the body of the dog, and it would be strange if the brain did not contain it, when we consider the demonstration which the symptoms afford of the action of the poison on the nerve-centres. M. Pasteur moreover asserts that by trephining a healthy dog, and placing in contact with its brain cerebral tissue from a rabid animal, not only is the disease communicated with certainty, but the incubative period is reduced to a few days in every case. The disease may manifest itself in either of its two habitual forms—the ordinary form, or "dumb-madness."

BANQUET TO THE PRESIDENTS OF THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS.

ON Saturday, the 4th instant, Sir William Jenner and Mr. Erichsen were entertained at a banquet at St. James's Hall, given in their honour by their colleagues in the Faculty of Medicine of University College and on the staff of University College Hospital. The chair was occupied by Professor John Marshall, F.R.S., who was supported on his right and left by the two guests of the evening. In addition to members of the present staff, there were present Dr. Russell Reynolds, Sir Henry Thompson, Dr. Hare, Dr. George Harley, and Dr. Maudsley. Dr. Walshe and Mr. Quain were unavoidably prevented from attending. The meeting was purposely made as informal and as friendly as possible, and the only toast was that of the two distinguished guests, who, having been fellow-students together and colleagues both at the college and hospital, had respectively risen to the highest attainable distinction in their respective branches of the profession. It was pointed out by the chairman that, although it is necessarily a somewhat rare event for the Presidents of the two Colleges to be supplied from the same medical school, it is by no means without precedent. The dinner was excellent, and the evening will long be remembered as a pleasant social gathering of friends to do honour to colleagues of whom they may well be proud.

SUICIDE WITH A REVOLVER.

A VERY remarkable case of suicide occurred at the village of Priors Marston, near Leamington, on May 15th. The deceased, a master bricklayer, aged fifty-nine, was found by his brother-in-law, dead, lying on his right side near a chest of drawers, and with his clothes on fire. This was at 12.20 P.M. on Sunday, May 15th. Mr. F. W. S. Culhane deposed that on stripping the body he found the skin under the left nipple blackened and charred, and in the centre of it a wound, which had the appearance of a bullet wound, and was found to traverse the pericardium and both ventricles of the heart. The sixth rib was broken, and the pericardium full of blood. The bullet was not found. The body when first seen was quite warm. The charring and burning of the chest were due to the clothes being on fire. The burns had the character of post-mortem burns. When first found the heels of deceased were almost touching the chest of drawers. The top drawer was partially open, and in it was found a seven-barreled revolver with one chamber recently discharged and the other six loaded. The case presents several points of interest. In the first place the burning and charring were so considerable (the coarse jacket, corduroy waistcoat, shirt, under-vest, and band of trousers being destroyed almost entirely on the left side) as to lead to the idea that death was in some way connected with burning, and it was only on a close examination that the bullet wound was discovered in the middle of the charred wound. The dropping of the pistol into the drawer in which it was found was a very peculiar circumstance, and the accidental closing of the drawer by the first person who came into the house made he cause of death still more of a puzzle at first sight. However, there was no doubt that it was a self-inflicted wound, and the only question lay between ccident and suicide.

ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the Royal College of Physicians was held on the 8th inst., under the presidency of Sir William Jenner, Bart. A letter from the Secretary to the Medical Acts Commission inviting the College to specify any matters within the scope of the Commission upon which the College could afford further information was under consideration; but no conclusion was arrived at. After some discussion it was decided to summon a special meeting at an early date for the purpose of obtaining a definite expression of opinion on the part of the College as to the way in which its interests would be affected in the event of a State Licensing Board being instituted; and also to give the Commission such information as might be deemed necessary upon the whole subject.

M. LITTRÉ.

BY the death of M. Littré the medical profession loses one of its most distinguished members. Though M. Littré was not a medical man in the strictest sense of the term, he devoted ten years of his earlier life to the study of medicine and the allied sciences. He was finally prevented from taking his degrees by the loss of his father, which compelled him to lay aside for awhile his intention of practising physic to take to literature. Next to his famous dictionary of the French language his best known work is his edition of the Hippocratic treatises. To the preparation and publication of this work he devoted more than twenty years of painstaking labour. Littré's "Hippocrates" is, and will probably remain for many years to come, the most complete and scholarly collection of the treatises written by the "father of medicine" and his disciples. M. Littré was a conspicuous illustration of the healthfulness of hard work. His industry was as inexhaustible as his learning, and though over eighty years of age his energy until a few months ago showed but little abatement.

ARMY MEDICAL OFFICERS' BENEVOLENT SOCIETY.

AT the annual meeting of the Army Medical Officers' Benevolent Society, held on May 21st, Inspector-General Lawson in the chair, £770 were voted, in various sums ranging between £10 and £50, to thirty-one orphan families of medical officers, with the object of assisting in their education. This Society, which was founded in 1820 by the late Sir James McGrigor, Bart., for so many years the Director-General of the Army Medical Department, has during the long period of sixty years been the means of affording valuable and much-needed assistance to the orphans of medical officers. Very careful inquiries are made into the circumstances of all candidates before any recommendations are made by the committee, and we have reason to believe that the affairs of the Society are efficiently and prudently conducted, and that it well deserves the countenance and support of the Department.

CHURCH BELLS.

THERE is not a word to be said against church bells in the abstract, or in their proper place—that is to say, in the country, where a peal of bells may be useful to call the residents scattered over an extensive district to service; but in towns they are an intolerable and most mischief-working nuisance. To the sick, suffering from headache and nervous irritation, the ding-dong and jangle of church bells constitute a very serious annoyance; and we do not hesitate to say, in many cases, the loss of rest and the general disquietude they produce not only lessen the chance of recovery, but may expedite a fatal issue. This is a grave charge, but we make it advisedly. The labour of covering the roadway with tan or straw, to drown the noise of passing vehicles, is vain while the bells of the neighbouring churches remain unmuffled. It is difficult to exaggerate the magnitude of the evil to which we draw attention. It is a daily cause of injurious excitement to the sick, and a provocative of ill-temper to the healthy. The time is approaching when it may be needful, in the interests of the weak and suffering, to apply to the Legislature for a special enactment prohibiting the ringing or tolling of church bells in populous localities. For the present, however, the appeal lies to the humanity of the clergymen and churchwardens of city and suburban parishes. Surely they will not persist in a perfectly unnecessary infliction, which is shown and known to work dire evil!

"HOMŒOPATHIC REMEDIES" DO NOT ACT HOMŒOPATHICALLY.

THE medical profession and the public will be interested to learn, on the highest authority, that homœopathists do not themselves believe that what are called "homœopathic remedies" act *homœopathically*. It seems that no homœopathist has of late years even pretended that the drugs he employs cure disease on the principle *similia similibus curantur!* This dogma is simply a statement of the so-called "principle" on which the homœopathist selects his remedies. This is obviously a minor consideration, and one in which the public has little if any interest. What the patients of homœopathic practitioners expect from these gentlemen, and fee them for, is "homœopathic *treatment.*" It is a matter of perfect indifference to the sick man or his friends how the physician *selects* his drugs. The only practical question is how he treats his cases, and in what manner the drugs act. Having elicited a frank confession of the facts as to the action of drugs, we can only appeal to honest men still connected with this so-called "Homœopathic School" to abandon openly a position which they admit does not exist, and which is, therefore, only a name—full of meaning to the lay public, but of no significance to themselves. We do not wish to speak strongly on the subject, but it is certainly the reverse of candid to retain a name which means nothing and deludes the public. With the publication of the letters which appear in another column, the discussion must end. The truth is now at length before our readers on the admission of leading homœopathists, and the only possible inferences are writ large and plain.

THE INFLUENCE OF THE VAGUS ON THE HEART.

M. FRANÇOIS FRANCK has endeavoured to determine on what part of the heart the influence of the vagus is first manifested. He has found that if the peripheral extremity of the divided pneumogastric is stimulated with a current so feeble as to just produce the arrest of the cardiac action, the ventricles alone cease to contract; the auricles on the contrary go on pulsating, but more slowly than before, and if the stimulation is continued or is increased, they also stop. It is supposed that, normally, the systole of the auricles is the immediate excitant of the systole of the ventricles, but the stimulation of the pneumogastric in this case appears to prevent this normal response to the auricular contraction, although the effect of the latter in distending the auricle continues, as a manometer introduced into the ventricle demonstrates. This is true, however, only of the right side of the heart. When the ventricles are arrested the left auricle receives little or no blood, while the right auricle becomes distinctly overfilled. The difference is probably due to the slight tonicity of the pulmonary vessels compared with those of the general system. It is not owing to any simultaneous contraction of the vessels of the lungs, due to the stimulation of the vagus, for, as Brown-Séquard and others have shown, the vaso-motor nerves of the lungs are derived from the sympathetic, and not, as has been taught, from the pneumogastric nerve.

BILLROTH'S CASE OF EXCISION OF THE PYLORUS.

WE learn from the *Wiener Medicin. Blätter* that the woman upon whom Professor Billroth performed the operation of excision of the pylorus and adjacent part of the stomach, with temporary success, for the cure of a cancerous growth, has just succumbed. The operation was performed in January, and all promised well until about a month ago, when she began to fail, and death took place from exhaustion. She has lived long enough, however, to testify to the practicability of the operation.

PROVIDENCE IN MANCHESTER.

THE forty-ninth annual meeting of the subscribers to the Manchester and Salford District Provident Society was lately held. The committee seems to have been able to give a good account of its stewardship. Reference was made to the Provident Dispensary Association thus:

> "The establishment of provident dispensaries was contemplated in the original scheme of the Society, and the amalgamation was welcomed by the Provident Dispensaries Association, whose organisation for want of sufficient funds was at the time only making slow progress towards providing efficient medical aid and medicine, at low weekly subscriptions, for the families of working men who, not able to pay ordinary medical fees, were either left to neglect, plunged into debt, or were reduced to beg for charitable aid. The experience of the past year had taught the Committee that the task they had undertaken would be no easy one, and that they must expect little aid or sympathy from existing medical associations. It was thought that the expenditure—spread over three years—of £2500 would be sufficient to meet the requirements of the Society for that purpose, but the Committee now believed they would require at least £4000 to thoroughly establish and accomplish the work they desired to do."

MUMPS.

MM. CAPITAN and CHARRIN, having regard to the clinical evidence on which mumps is classed among the acute infective diseases, have searched for an organised virus in the secretions of patients suffering from the disease. In the blood of every case they found an abundance of minute organisms, for the most part spherical, but partly prolonged, and in the form of mobile rods. In the saliva, as is usual, there were large numbers of organisms, but most of these resembled those found in the blood. None could be discovered in the urine.

WE learn that Dr. Pavy has been pursuing his investigations upon the physiology of sugar and its allied principles in the animal system, and has obtained results which have opened out a fresh line of research, and led up to a new light being thrown upon the subject. His results will be brought before the Royal Society at the last meeting of the session on Thursday next.

DR. BARCLAY of London, Dr. A. Ransome of Manchester, Dr. De Chaumont of Netley, and Dr. Corfield of London, have been appointed examiners for the sanitary science certificate at Cambridge. The examination will commence on Oct. 4th. Professor Liveing is the secretary.

A MEETING for the purpose of discussing the project of establishing a Scarlet Fever Convalescent Home is announced to be held at the Mansion House on the 27th inst., at 3 P.M.

IN Edinburgh the winter months are now so largely occupied by systematic lectures that students are anxious to overtake most of their practical work during the summer session, and this accounts for the increase in the number of short courses on special subjects which are undertaken at this time. These lectures are mainly voluntary as regards attendance, and yet they are in many cases crowded—as, for instance, the class of Practical Physiology in the University. The Histological and Practical courses on Pathology in the University and extra-mural schools are also well attended, while in the dissecting-rooms students in unusually large number are at work. The new class-room in the Botanical Gardens is now in use.

WE direct the attention of our readers to important notices with reference to medical registration. Gentlemen are occasionally astonished to find themselves no longer on the Medical Register. The explanation is that they have changed their address without giving notice to the Registrar. Under these circumstances the Council is empowered to remove names. It is important to notice that it is not enough to intimate change of address to any Registrar. The intimation must be made to the Branch Registrar by whom the practitioner was originally registered.

A SPECIAL hospital has been opened at St. Petersburg for the treatment of epileptics and idiots—classes of patients excluded both by the existing general hospitals and the lunatic asylums. The hospital is situated out of the city, on the line of the Finland railway, in a healthy position amidst gardens and pine forest, and is furnished with great comfort. Dr. Thiling, who has given special attention to the treatment of mental maladies and diseases of the nervous system, has been placed at the head of the medical staff.

AT a stated meeting of the New York Academy of Medicine, held May 19th, 1881, the following resolution was moved by Dr. Charles C. Lee, seconded by Dr. Alfred C. Post, and unanimously adopted:—"That the congratulations of the New York Academy of Medicine be transmitted to T. Spencer Wells, Esq., Foreign Associate of the Academy, for his remarkable and unprecedented achievement of one thousand operations of ovariotomy, by which the lives of seven hundred and sixty-nine women have been saved."

MR. MCALISTER, who was senior wrangler in 1877 and subsequently pursued medical study at Cambridge and at St. Bartholomew's Hospital, has been appointed medical lecturer in St. John's College, Cambridge. The office is a new one, and its occupation by so distinguished and able a person is likely to attract medical students to the College and to give additional efficiency to the medical school of the University.

WE understand that a conversazione will be held at the South Kensington Museum on Wednesday evening, June 29th, to celebrate the fiftieth anniversary of the Harveian Society. A committee to carry out the arrangements has been appointed, consisting of the President, Mr. Henry Power, Dr. J. E. Pollock, Dr. Farquharson, M.P., Mr. George P. Field, and Mr. Malcolm Morris.

A SORT of Co-operative Workmen's Medical Association has been started at Chatham. About two thousand artisans residing at Rochester and Chatham are said to have joined the Society. They will appoint their own medical officers, purchase their own drugs, &c.

DR. STURGES has been appointed Foreign Examiner in Medicine at the University of Durham for the present year.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Port of London.—The Reports of the Port of London Sanitary Committee and of its medical officer of health for the half year ending the 31st December contain several matters of much interest. They give an account of valuable work done during the period to which they refer, and suggest certain important questions for further consideration. It appears that the number of ships visited during the half year was 8740, including 398 "outward bound," and that of these ships 354 were found in a more or less insanitary condition. The total number of ships visited during 1880 was 16,341, of which 563 had to be cleansed or otherwise dealt with sanitarily. But the diminution in the number of unwholesome ships visiting the port since the Port Sanitary Authority commenced its work is remarkable. In 1873 no less than 17 per cent. of the vessels inspected were found uncleanly; during the six months to which this report refers, only 3 per cent. had to be so classed. Hitherto the detailed sanitary work of the port has had to be done by the medical officer of health, aided by two inspectors. This strength of staff has not been found equal to the demands made upon it by the new arrivals daily, and the visitation of ships in dock has had to be neglected. The Sanitary Committee has now decided to appoint a third inspector. Dr. Collingridge reports the health of the port as having been exceedingly good, with the exception of certain outbreaks of infectious sickness on board the training ships. Sixty cases of sickness were removed from ships to hospital. The state of the water in the river during the summer gave rise to some anxiety from the large quantity of sewage it contained. This was derived in part from the floating population of 15,000 to 20,000 persons, from numerous still open drains and closets which empty into the river, and which will require special attention, and from a proportion of sewage derived, Dr. Collingridge states, from the outfalls of the great metropolitan sewers at Barking and Crossness. Dr. Collingridge evidently is suspicious that the sluices at these outfalls have been at times opened during the flow of the tides. It is clear that the vexed question of the influence of the sewage outflow at Barking and Crossness upon the state of the water in the river above the outfalls is not yet fully settled, the Metropolitan Board of Works notwithstanding. But readers of the report will probably be more interested in the suggestion made by Dr. Collingridge that a further epidemic of typhoid fever on board the reformatory school ship *Cornwall*, anchored, if we mistake not, five miles below the metropolitan sewage outfalls, may have been determined by the sewage poured from these into the river and diverted into the bight where the ship rides. He writes of the volume of sewage being visible in the stream where the ship lies, and of chemical evidences of greater sewage pollution of the water on the north shore than the south. "If the constant outpouring of the sewage continues," he writes, "it will become sooner or later a grave question whether the Thames will any longer be a proper or safe river for stationing training-ships." In view of the serious question here suggested, and of other questions not less serious, it is to be hoped that Dr. Collingridge will give continuous attention to the subject. His statement as to visible evidence at Purfleet of the large outflow at Barking and Crossness will strike many persons with surprise; and with regard to the chemical evidence considerable doubts will be entertained. The metropolis is often accused by residents on the lower reaches of the river of "stinking them out" by the offensive refuse it frequently sends down for agricultural purposes in barges. Dr. Collingridge's revelations as to the enormous quantity of fish condemned at Billingsgate indicate in part a source of the intolerable stench to which people inhabiting the rural districts on the Thames below London are subjected. Dr. Collingridge has some observations on the port sanitary authority's hospital-ship, the *Rhin*, which suggest increased doubts as to the wisdom of the selection of a ship for hospital purposes by the Metropolitan Asylums Board, to relieve the pressure upon them in reference to small-pox.

Greenock.—A copy of a correspondence as to landing infected persons from emigrant ships at Greenock accompanies the reports for the month of April of the medical officer of health (Dr. Wallace) and sanitary inspector (Mr. Mackay). From Mr. Mackay's report we learn that emigrants suffering from infectious diseases have been sent ashore and forwarded to Glasgow in the most promiscuous way, without information being conveyed to the sanitary authorities either of Greenock or Glasgow. Now that attention has been called to this matter no doubt the arrangements for the medical inspection of emigrants, which are described as "inherently bad," will be modified.

Hastings.—Mr. Ashenden reports for the first quarter of the year a birth-rate of 30·19 per 1000 of the population, and a death-rate of 16·75. The advantage of the borough possessing a sanitary hospital was shown by the occurrence of two cases of small-pox (a mother and child) who were removed there, and the spread of the contagion arrested.

Birmingham.—Dr. Hill reports for the first quarter of the present year births at the annual rate of 39·59 per 1000 population, and deaths at the annual rate of 21·29 per 1000 population.

Dublin.—Dr. Cameron reports for the five weeks ending 30th April that the mortality of the city was in the annual ratio of 31·78 per 1000 living, the rate being 31·8 on the northern side of the city, and 32·36 on the southern. Typhus predominated among the zymotic diseases.

THE CARDIFF UNION WORKHOUSE.

Dr. Alfred Sheen, the medical officer of the Cardiff Union Workhouse, has issued an excellent report on the medical condition of the workhouse and schools belonging thereto for the year 1880-81. The cases of sickness admitted to the workhouse hospital during the year numbered 1087, of whom 617 were discharged cured, 183 relieved, 16 transmitted to the asylum, and 131 died, 140 remaining under treatment on the 25th March. It is evident that during the period to which the report refers the workhouse has been sorely put about from insufficiency of space to bestow upon its sick, and in respect to accommodation of cases suffering from infectious maladies. But these difficulties, it appears, will presently be remedied, as a new Union workhouse is now being erected which will give double the accommodation afforded by the old one. The question of nursing in the workhouse hospital seems to require attention, for the arrangements do not appear to have been framed with due regard to the number of serious cases of maladies now received in it. The consumption of stimulants in the workhouse, which Dr. Sheen showed in his previous report had been largely reduced, was still further reduced last year. The schools are reported as having been free from any serious amount of disease during the year. We learn that it was the custom until recently to allow children born in the workhouse to leave the house unvaccinated to swell the section of the population unprotected against small-pox. This Dr. Sheen has now remedied, and finds, it would appear, little difficulty in obtaining the mother's consent to the vaccination of the child before she goes forth among the general population. The reference to the fact calls attention to this curious oversight of the Vaccination Authority (the guardians themselves forsooth), and how readily it may be overcome without anyone's feelings being offended as soon as attention is directed to it.

THE METROPOLITAN WATER-SUPPLY.

Colonel Bolton, R.E., reports that the water in the Thames in that part of its course where the Metropolitan Water Companies draw from the river their supplies was good in quality during the whole of April; and Mr. Crookes, Dr. Odling, and Dr. Meymott Tidy report for the month ending May 19th that the waters supplied by the different water companies had been "uniformly clear, bright, and almost colourless, proving that they had been well and efficiently filtered." Examined chemically they showed "excellent aeration and great freedom from organic matter. They leave nothing to be desired for dietetic purposes."

AN IRRECONCILABLE COW.

At the recent Dorset Quarter Sessions, on the discussion of a report from the county analyst, Viscount Portman brought before his colleagues the case of a cow which utterly disregarded the provisions of the Adulteration of Food Acts. The proprietor of the animal had been convicted by the magistrates for selling milk deficient in cream, and had appealed against the decision. After careful examination the Inland Revenue Department Laboratory found that the deficiency arose from no manipulation of the milk, but was peculiar to the cow from which it was obtained. The law has made no provision for a contingency of this sort. The milk was normally abnormal, and we presume that cows so constituted will have to be discarded from contributing to the public milk-supply. Practically, we presume that every milk-farmer should submit the product of his kine to the county analyst before he ventures to send it into the market.

ALDERSHOT AND SMALL-POX.

Those persons who never tire of decrying vaccination might profitably reflect on the immunity enjoyed by the camp at Aldershot. There has not, we have reason to know, been a single case of small-pox at Aldershot, and there can be no doubt in the minds of unprejudiced people that this happy state of matters is due to the excellent arrangements for securing the revaccination of every recruit in the Service. It cannot be doubted that constant intercourse must go on between London and Aldershot; but between vigilance and vaccination the disease has found no footing in the latter place. One soldier lately on furlough was known to have been staying with his mother, who had just died of small-pox. On returning to the camp he was put into quarantine until it was apparent that he was not the bearer of infection.

In view of the persistence of small-pox in London, and mindful of the sufferings which befell their borough ten years ago, the Nottingham Town Council have issued posters and are distributing an excellently prepared pamphlet by their medical officer of health, Dr. Edward Seaton. An attempt has been made to counteract the beneficial effects which the posters and pamphlet are likely to have by a correspondent of one of the local papers throwing doubt upon the policy of revaccination and quoting a series of arguments against *compulsory* revaccination, put forward in a recent discussion before the French Academy of Medicine on the subject. Nothing is said by this correspondent of the arguments to the contrary, although they have resulted in the Academy voting by a large majority for the establishment of both compulsory primary vaccination in France and compulsory revaccination.

The Midland Railway Company have prosecuted at the Bedford Petty Sessions two individuals (brothers) who had travelled by their line to that town while suffering from small-pox. In one case the individual was on his way from London to Leek, but his condition being discovered, he was removed from the train at Bedford and taken to the Small-pox Hospital there. The second case was curious. The individual sickened at a later date than his brother, but failing to obtain admission into a hospital in the metropolis, he deliberately travelled to Bedford in hope of getting admission into the hospital there, in which his brother was then under treatment.

The Lord Chancellor has declined to add to the roll of justices of the peace for the borough of Southampton the name of a gentleman who had been twice convicted and fined for offences against the Vaccination Act, notwithstanding he was sheriff of the town and county. In answer to a question on this subject in the House of Commons, the Home Secretary observed that "a gentleman who had not himself recognised the duty of obeying the law was hardly a suitable person to add to the roll of borough magistrates."

Small-pox, it would appear, has seized hold of Gravesend. Seventeen cases of the disease are under treatment in hospital there, while others are being treated in their own homes. In one instance, it is stated, where a child suffering from the disease was improperly lodged in a house occupied by other families, the magistrates refused to give an order for removal to hospital, and three of these families have since contracted the disease.

The want of an infectious disease hospital for Rochester and Chatham has now, it is reported, been met by the joint action of the Corporation of the former with the Local Board of the latter. The cost of the building is estimated at about £5000.

It is understood that the West Ham Local Board is about to apply for an injunction against the Poplar Board of Works in respect to their Small-pox Hospital in the West Ham district. It is not stated whether West Ham will seek an injunction against its own Small-pox Hospital, which adjoins the Poplar Hospital, or whether it will close it of its own accord, or whether it will use it if necessary.

The Corporation of Huddersfield have successfully prosecuted a householder for not having notified under the Local Act the existence of infectious disease in his family, a medical man not having been called in. This being the first case under the Act a heavy penalty was not pressed for, and the Bench simply inflicted a fine of 1*s.* and the expenses.

Opposition has been withdrawn to the Bill before Parliament authorising a company to construct conduits from Lancing, on the Sussex coast, to London for the supply of sea-water to the metropolis.

It is reported that at the request of the Metropolitan Asylums Board a second ship is to be prepared for the reception of small-pox patients, it having already been found that the *Atlas* will not be equal to the demands upon it.

Professor Ruskin has raised his voice against the pollution of Coniston Lake, and it appears likely that the Ulverston Rural Sanitary Authority will give ear to his remonstrances.

A French lugger recently put into Aberdeen with one of the crew ill from small-pox.

A fatal case of revaccination in a lady over sixty years of age is reported from Sittingbourne.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a slight increase last week. In twenty of the largest English towns, estimated by the Registrar-General to contain in the middle of thi year a population somewhat exceeding seven and a half millions of persons, 5194 births and 2967 deaths were registered last week. The births exceeded by 8, while the deaths were 290 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 20·8 and 20·0 in the two preceding weeks, rose again to 20·3 last week. The lowest rates in the twenty towns last week were 12·6 in Brighton, 14·4 in Wolverhampton, 15·3 in Plymouth, 16·9 in Leicester, and 17·0 in Bradford. The rates in the other towns ranged upwards to 22·7 in Sheffield, 23·7 in Sunderland, 23·9 in Bristol, and 25·5 in Manchester. During the first nine weeks of the current quarter the death-rates in the twenty towns averaged 21·1 per 1000, against 23·2, the average rates in the corresponding periods of the five years 1876–80.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 396, 424, and 452 in the three preceding weeks, declined to 446 last week; these included 116 from measles, 91 from whooping-cough, 85 from small-pox, 60 from scarlet fever, 37 from fever (principally enteric), 43 from diarrhœa, and 14 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 3·1 per 1000 in the twenty towns, and ranged from 0·0 and 1·0 in Plymouth and Brighton, to 3·4 in Leicester, 3·7 in London, and 4·0 in Sheffield. Measles showed the largest proportional fatality in Bristol, Sheffield, and Newcastle-upon-Tyne; scarlet fever in Wolverhampton; and whooping-cough in Leicester, Sheffield, Leeds, and Manchester. The 14 deaths referred to diphtheria included 9 in London and 3 in Portsmouth. Enteric fever caused the highest death-rate in Portsmouth, Hull, and Newcastle-upon-Tyne. Small-pox caused 90 more deaths in London and its outer ring of suburban districts, and 1 each in Liverpool, Manchester, and Newcastle-upon-Tyne; no fatal case of this disease was recorded in any of the seventeen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 942 to 1552 during the four preceding weeks, further rose to 1644 on Saturday last; of these 583 were accommodated in the Convalescent Camp Hospital at Darenth. The new cases admitted to these hospitals, which had been 346 and 402 in the two previous weeks, were 359 last week. The Highgate Small-pox Hospital contained 86 patients on Saturday last, and 28 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 256 and 241 in the two preceding weeks, were 249 last week, and corresponded with the corrected average number in the last ten years; they included 133 from bronchitis and 84 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 3·4 per 1000 in London last week; while the rate from the same diseases was 5·2 in Liverpool and 3·5 in Salford.

The causes of 44, or 1·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0·9 per cent., whereas it averaged 2·1 in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton, Portsmouth, Norwich, Wolverhampton, or Nottingham; whereas the proportions of such deaths were largest in Salford and Oldham.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week was equal to 20·6 per 1000, showing a slight increase upon the low rate that prevailed in the previous week; this rate was 0·3 above the average rate last week in the aggregate of the twenty large English towns. The ratio in these eight Scotch towns ranged last week from 10·6 and 13·7 in Paisley and Dundee, to 26·0 and 27·3 in Leith and Perth. The Registrar-General of Scotland again notes that he has not yet revised his estimates of population in accordance with the numbers recently enumerated; it is pointed out, however, that the rates in some of the towns, especially in Paisley, are probably over-stated through an under-estimate of their present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 61 and 72 in the two preceding weeks, declined again to 62 last week; they included 14 from whooping-cough, 14 from diarrhœa, 13 from scarlet fever, 10 from "fever," 6 from measles, 5 from diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·4 per 1000 in the eight towns, and was 0·9 below the average rate from the same diseases in the twenty large English towns. This zymotic death-rate ranged in the eight Scotch towns from 1·3 and 2·1 in Dundee and Paisley, to 3·5 and 3·9 in Leith and Perth. The 14 fatal cases of whooping-cough in the eight towns showed a decline of 5 from those returned in the previous week, and included 6 in Glasgow, 3 in Edinburgh, and 2 in Leith. The 14 deaths from diarrhœa were fewer by 4 than the number in the previous week, but in proportion to population were more than twice as numerous as in the twenty English towns. The fatal cases of scarlet fever, which had been 5 and 11 in the two previous weeks, further rose to 13 last week, of which 2 occurred in Glasgow, 8 in Edinburgh, and 2 in Leith. The 6 deaths from measles, however, all of which were returned in Glasgow, were less than half the number in the previous week. The 10 deaths referred to "fever" (including typhus, enteric, and simple) showed a further increase upon recent weekly numbers, and included 6 in Glasgow and 2 in Aberdeen. The annual death-rate from this cause in the eight towns was equal to 0·40 per 1000, and considerably exceeded the average fever rate in the twenty English towns. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in eight towns, which had steadily declined from 140 to 89 in the four preceding weeks, rose again last week to 106, and were equal to an annual rate of 4·2 per 1000; the rate from the same diseases in London did not exceed 3·4.

HEALTH OF DUBLIN.

The rate of mortality showed an increase again in Dublin last week. The annual death-rate in the city, which had been equal to 29·9, 25·2, and 24·9 per 1000 in the three preceding weeks, rose again last week to 26·4. The rate in the city averaged 28·6 per 1000 in the first nine weeks of the current quarter, against 20·7 in London and 20·6 in Edinburgh. The 169 deaths in Dublin last week showed an increase of 10 upon the number in the previous week, and included 12, or rather more than 7 per cent., which were referred to the principal zymotic diseases, against 14 and 13 in the two preceding weeks. Of these 12 zymotic deaths, 7 resulted from "fever," 4 from scarlet fever, and 1 from diarrhœa, whereas not one was referred either to small-pox, measles, diphtheria, or whooping-cough. The annual death-rate from these principal zymotic diseases did not exceed 1·8 per 1000, while the rate from the same diseases was equal to 3·8 in London and 3·3 in Edinburgh. The deaths referred to "fever" (including typhus, enteric, and simple) in Dublin, which had been 7 and 9 in the two previous weeks, declined again to 7 last week, but were equal to a rate more than four times as high as the average rate from the same cause in the twenty large English towns. The 4 deaths from scarlet fever exceeded the numbers returned in recent weeks. The deaths of elderly persons corresponded with the number in each of the two previous weeks, whereas those of infants showed a further considerable decline.

THE HEALTH OF ROME.

A letter from the Rev. H. W. Wasse, Chaplain in Rome, which appeared in *The Times* of Wednesday last, aptly illustrates the danger of writing on health statistics without full acquaintance with the import of figures relating to this subject. The object of the letter is stated to be to counteract the effect of reports "as to the unhealthiness of Rome during the past season." Mr. Wasse's facts are, first, that among English Protestant visitors six deaths have occurred within the city since October last. Now, this information is absolutely valueless unless the number of such visitors was known, and even their bare number would not be much assistance, as it would be unwise to accept the crude death-rate among a fluctuating number of visitors of unknown ages as any test of the health condition of the city. Unfortunately, however, for the sanitary reputation of Rome, Mr. Wasse goes on to state, in the second place, that of those six deaths among English Protestant visitors since October two resulted from typhoid fever and one from diphtheria; in other words, that fifty per cent. of those deaths were referred to diseases of generally acknowledged filth origin. Well might the Roman authorities wish to be protected from their friends. It appears from the official returns of mortality statistics published in Rome, which are reproduced in the Registrar-General's Weekly Return, that the annual death-rate in that city during the first half of the current quarter averaged 26·6 per 1000, showing a marked decline from the rate that prevailed during the first quarter of the year. The recent death-rate in Rome, although showing a large excess upon the average rate in large English towns, does not compare unfavourably with the death-rates in most other European cities. The fatality both of typhoid fever and diphtheria very considerably exceeds that recorded in English towns, but has recently been below the Roman average. Small-pox caused 103 deaths between the 1st of January and the middle of May, but this disease was considerably more fatal in London during the same period.

THE SERVICES.

ARMY MEDICAL DEPARTMENT DINNER.

THE officers of the Army Medical Department held their first annual dinner on Saturday last at the Inns of Court Hotel, Sir William M. Muir, K.C.B., Director-General, in the chair. Nearly one hundred officers, past and present, attended, including Sir Galbraith Logan, K.C.B., Surgeon-Generals T. Longmore, C.B., A. Shelton, W. Rutherford, C.B., H. H. Massy, C.B., S. Fasson, R. Lawson, W. Maclean, C.B., J. A. Fraser; Deputy Surgeon-Generals C. D. Madden, J. Irvine, J. Hendley, C.B., F. Holton, J. P. Cunningham, J. O'Nial, C.B., T. W. Fox, J. E. Moffatt, J. Crerar, P. S. Laing, G. Anderson, J. Jee, V.C., C.B., J. Mure; Brigade-Surgeons J. B. C. Reade, J. Ekin, L. Kidd, G. M. Slaughter, O. Barnett, C.I.E., F. Collins, J. C. Johnston, J. Johnston, J. Adcock, E. D. Tomlinson, W. Creagh; Surgeon-Majors R. W. Jackson, C.B., H. R. Veale, T. N. Hoysted, A. F. Bradshaw, E. F. O'Leary, C. Mackinnon, I. Inkson, J. Warren, W. G. Don, W. C. Boyd, J. S. Comynd, F. Scanlan, T. Walsh, T. M. O'Brien, A. J. Ferguson, E. Hoile, A. Allan, J. E. Clarke, S. K. Ray, G. E. Will, C. H. Godwin, C. A. Maunsell, F. B. Scott, W. Nash, W. T. Martin, F. Howard, M. Cogan, J. Candy, A. F. S. Clarke, J. Maturin, R. Tobin, G. Evatt, H. W. Mackinnon, J. L. Notter, S. Moore, J. Macartney, T. J. Gallwey, J. D. Gunning, G. E. Dobson, J. Walker, E. V. MacSwiney, W. Gasteen, T. Ligertwood, J. G. Randall, G. C. Gribbon, J. E. Purdon, P. H. Johnston; Surgeons J. M. Beamish, H. Bradford, J. A. Smith, J. Martin,

H. A. Fogerty, J. Forrester, S. H. Carter, H. C. Kirkpatrick, H. Grier, C. C. H. Smith; Professors F. de Chaumont, F.R.S., W. Aitken, F.R.S., Flower, F.R.S., late 63rd Regiment; Drs. Farquharson, M.P., late Coldstream Guards, Pearson, late Rifle Brigade. Dr. Reid, Director-General of the Naval Medical Department; and Sir Joseph Fayrer, K.C.S.I., were guests of the officers.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major James Bonnyman, M.D., has been granted retired pay, with the honorary rank of Brigade Surgeon.

Deputy Surgeon-General M. F. Manifold, Surgeon-Majors W. L. Farmer, B. J. Jasdowski, A. J. Bartley, and R. W. Hinds are on passage home from India in H.M. troopship *Euphrates*, which left Bombay on May 11th. Brigade Surgeon J. W. Hulseberg and Honorary Surgeon Munday of the Bengal Medical Service have been provided with passages in the same ship.

Surgeon-Major A. F. Preston, who was severely wounded at the battle of Maiwand, has been granted extension of leave from April 16th to October 16th, by the Commander-in-Chief in India.

Deputy Surgeon-General Simpson, Bombay Medical Service, has been appointed Principal Medical Officer of the South-Eastern Afghan Field force at Quettah.

Surgeon J. T. Carey, Army Medical Department, has been granted six months leave from India on urgent private affairs.

ADMIRALTY. — The following appointments have been made:—Staff Surgeon William D. Isaac, to the *Urgent*, vice Beale, sent home in the *Humber* in charge of invalids; Staff Surgeon William Galloway, M.D., to the *Griffon*, vice William D. Isaac; and Staff Surgeon St. Lawrence Ffrench Mullen, M.D., to the *Dasher*, vice William Galloway, M.D., in lieu of a surgeon; Surgeon E. W. Luther, to the *Warrior*, vice F. R. M. Loftie.

THE INODOROUS PROCESS OF EMPTYING CESSPOOLS.

FOR the last nine months a company, called the "Société Anonyme des Vidanges Inodores à Vapeur de Paris," has been employed in Paris in emptying the cesspools with which that fair city abounds, by a novel, economical, and, in a sanitary point of view, a most admirable system, abolishing not only the filthy smells, but all the somewhat loathsome concomitants connected with night-soil men and their appliances. Anyone who has experienced the disgusting stench arising when cesspools are emptied in the ordinary way, must acknowledge that any plan which can effect the object with rapidity, cleanliness, and perfect immunity from smell of any description, is worthy of fair trial, and, if proving to do all it professes, of being regarded as a very great boon in sanitary reform. We had an opportunity last week, through the courtesy of the directors of the company, conveyed through T. Lawrie, Esq., of witnessing a practical test of the system at Kew. The process has been patented by M. Talard, one of the inventors, who was present at the trial, and who, with Mr. Lawrie, gave a clear explanation of the machinery and plant used in the system, before the experiment commenced. The following is a brief description of the apparatus used.

1. A small portable locomotive engine of five-horse power, fitted with a steam vacuum pump.
2. Receivers, made of light steel plates, barrel-shaped, and of a capacity of about three and a half cubic yards. They are mounted on four wheels, and are easily drawn by a pair of horses. A glass indicator is fitted at one side to show when the receiver is full, and at the lower end behind is a valve to which a flexible tube is attached.
3. A large covered waggon for stowing the pipes used in extracting the sewage; these pipes are partly flexible, partly galvanised iron, made in convenient lengths and fixed together by a remarkably ingenious lever joint, very simple and yet, with an india-rubber disc, quickly and hermetically sealing the end. The tubes are five inches in diameter; one of them is fitted with a protected glass box, so that the contents of the cesspool can be seen as they pass through. (It was stated that in Paris the body of an infant, a bunch of keys, a gold watch, and other articles had been detected passing through and recovered.)

The process of emptying the cesspits may be described as consisting of pumping the excreta by atmospheric pressure into the receivers, from which the air has been previously exhausted. So far the plant used. At Kew, a cesspit which was estimated to contain about five tons of sewage, and which had not been cleaned for twelve months, was selected for experiment. The engine was placed a short distance, some five or six yards, from the pit, which was in a garden close to an empty mansion; the pipes were taken from the waggon and connected together, one end fixed to a receiver, which was drawn up adjacent to the engine; the other plunged to the bottom of the cesspit; a canvas cover protecting the hole in the pit's mouth, and preventing the escape of any noxious gas. The pipes which connect the engine and receiver are flexible, two inches in diameter; these being attached, the engine was started. Should fetid gases exist, they are first extracted from the cesspits, passed through the furnace and burned. The receiver was then exhausted of air by the pump, and the valve opened; the contents of the cesspool rushed up, filling the vacuum in three minutes and a half; the valve was then closed, the pipes disconnected, and the receiver taken away, to be replaced by a second, until the pit was empty. Each receiver holds nearly four tons of matter, and the one under operation was full in less than the same number of minutes; two minutes more sufficed to clear the pit of its remaining contents. No smell of any kind was detected during the operation. The pipes were then sluiced with water and repacked in the waggon, the two receivers were drawn away by horses, and the trial, which was witnessed by a large number of scientific gentlemen, was finished, universal opinion being expressed that it was most satisfactory, and had thoroughly borne out the superiority claimed for the system by its inventors. It will be asked what is done with the receivers and their contents. In Paris they are discharged into closed barges, specially constructed, and which finally empty the sewage into the Seine. But they can equally be carried to farms and used for fertilising purposes, or discharge the sewage into filtering tanks, or taken to the coast for final disposal, according to local arrangements and requirements. It may be added that only four men are required to work the process, and the cost paid at present in Paris by the municipality to the company is five francs per cubic metre, or about 3*s.* 6*d.* per cubic yard; the cost in England is stated to be never less than 10*s.* per cubic yard. Another advantage claimed for the system is its workability by day. The trial we witnessed extracted, as before stated, five tons of sewage matter in about six minutes without dirt, smell, or annoyance of any kind. The pipes can be laid from a cesspool wherever situated, and, if necessary, could pass through a room without causing any disagreeable odour; the occupants unless told would be unaware that anything of an unpleasant nature was being done. The company, we understand, contemplate working their patent in this country, and from our observation at Kew, we cannot but think the process is worthy the attention of all interested in sanitary work.

THE SANDERS MEMORIAL.

AT a meeting of members of the medical profession held in the hall of the Royal College of Physicians of Edinburgh on the 23rd ult., resolutions were adopted to the effect that expression should be given to the esteem in which the memory of the late Professor Sanders is held, by the erection of a permanent monument; and that a committee, consisting of Dr. Haldane, Mr. Imlach, and Professor Maclagan, be appointed to consider in what manner this object may best be carried out, and to raise the necessary funds for doing so. This committee has now recommended that the memorial should consist of a monument, to be erected over the grave, and that drawings should be obtained from John Hutchison, Esq., R.S.A., of a monument, of which a bust, or medallion in high relief, of Professor Sanders should be a prominent feature. It has been ascertained that such a work would cost not less than £300 The drawings will be submitted to a general meeting of subscribers. Intimation of subscriptions may be made to the honorary treasurers and secretaries, Dr. J. Batty Tuke, 20, Charlotte-square, Edinburgh; and Dr. Blair Cunynghame, 6, Walker-street, Edinburgh.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons, held on Thursday last, the report of the Committee for the nomination and appointment of examiners was received and adopted, after some discussion relative to the appointment of *substitute* examiners. The report of the President and Vice-Presidents of the Erasmus Wilson Fund was received and adopted. Mr. Marshall was unanimously appointed representative of the College in the General Medical Council as successor to Sir James Paget, resigned. The present professors and lecturers were nominated for re-election in July. A letter from the General Medical Council, relating to a compulsory preliminary scientific examination, was referred to the committee on further preliminary examinations, to consider and report thereon to the Council. A letter from the secretary to the Royal Commission on the Medical Acts was read, and the President and Vice-presidents were requested to take such further steps as they might deem necessary to secure a proper representation of the interests and opinions of the Council. There was a strong expression of opinion that the secretary, Mr. Trimmer, should be one of the representatives of the College to give evidence before the Commission.

IRISH MEDICAL ASSOCIATION.

THE annual general meeting of this association was held in the Royal College of Surgeons in Ireland on Monday the 6th inst. The report stated that since the last annual meeting, the Registration of Births and Deaths Amendment (Ireland) Act had become law, and the Council, while regretting that some important clauses in the Bill were struck out, regard the Act, which affords a much more perfect system of registration, as a decided improvement in the law. The Bill to amend the law relating to medical charities in Ireland was not favourably received in the House of Commons, and it had been deemed better to have it withdrawn until the Legislature is more fully informed as to the nature and extent of the abuses to which the present system of Poor-law medical relief is subject. It was hoped that a measure would then be introduced which shall define clearly who are to be eligible to receive dispensary medical relief, the term "poor person" now adopted being too vague, and thus a stop may be put to well-to-do or comparatively wealthy ratepayers obtaining medicine and medical attendance gratuitously. The Council were gratified to report that the Bill for the amendment of the Vaccination Act was withdrawn. The question of superannuation had exercised the attention of the Council, and a deputation had an interview with the Chief Secretary for Ireland, and acting on his suggestion a Bill had been drawn up for presentation to Parliament, which had since been handed to Mr. Meldon and other members to introduce. The proposed Bill seeks that the provisions of the Superannuation Act of 1879 shall be extended in a slightly modified manner to the medical officers of the Poor-law services. The subject of the compulsory notification of infectious diseases had also occupied the Council, and last year a series of resolutions were adopted, which, while recognising the advantage of an efficient system of early and compulsory notification of infectious diseases, protested emphatically against the onus of such notification being imposed upon medical practitioners, and suggested that such duty should attach to the householders, for whose benefit the advantages of the proposition were intended. The Bill introduced by Messrs. Gray and Brookes was considered objectionable in some of the provisions, and measures were taken to endeavour to have the Bill modified, or rejected if necessary. Reference was also made in the report to the Lunacy Law Association (Ireland) Bill, and the Bill to amend the Coroners (Ireland) Act; and a scheme had been drafted proposing that all new entrants into the Poor-law medical service under the age of forty shall be obliged to contribute a small annual payment to a fund from which an annuity to each widow and orphan shall be payable, with an optional power to those at present holding office to become contributors to the fund on certain conditions. The report having been adopted, resolutions were carried to the effect that the Association is of opinion in reference to the Medical Act (1858) Amendment Bill now before Parliament, that no alteration of the existing law can be satisfactory which does not provide for a sufficient degree of professional competency, guaranteed by a uniform curriculum of study and examination, as well as by similarity of fees throughout the kingdom, a reconstitution of the General Medical Council, and adequate representation of the profession at large in that body; that poor-law medical officers are equitably entitled to superannuation as civil public servants; that the existing system under which medical relief tickets are granted has been productive of gross abuses, and that the Council be requested to seek a legislative remedy for the present system; that the scheme proposed for making provision for widows and orphans of poor-law medical officers is a desirable one; and that the extension to Ireland of the English system of inspection of vaccination, and the granting of rewards for excellence in results, is practicable and desirable, and would prove highly advantageous to the public interest.

The members, with some guests, dined together in the evening in the Albert Hall of the College of Surgeons.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Friday, June 3rd, petitions were presented from Joseph West, asking for inquiry to be made into the Vaccination Acts; also petitions from London and Devonport for the prevention of vivisection. An address was agreed to for a copy of a letter from the general commanding the forces in Ireland as to the expediency of extending the application of the Contagious Diseases Acts to Dublin, and the return was subsequently presented.

Correspondence.

"Audi alteram partem."

THE COLLEGES OF PHYSICIANS AND SURGEONS AND JOINT EXAMINATION.

To the Editor of THE LANCET.

SIR,—The feeling in England in favour of having some kind of joint board has its just root in the objection to the state of the law which permits registration on a partial qualification, and in the desire to see the Colleges of Physicians and Surgeons form a joint examination. The Colleges of Physicians and Surgeons of Edinburgh formed a joint examination twenty years ago; but, though thus far in advance of the London colleges, the weak point there is that the colleges continue to examine separately for their separate licences, on one of which registration may be effected. When I ask my friends of the Edinburgh corporations why they do not resolve to drop the separate examinations, the answer is they are afraid the London colleges would not follow their example; and when I ask friends of the London colleges why they do not voluntarily form a joint examination, and refuse the issue of partial qualifications, a like answer is made—that they are afraid the Edinburgh corporations would not do so. Each stands hesitating on the bank, afraid to take the plunge, though it must be now evident that the corporations must either take this step or be superseded.

Were such a junction for examination formed voluntarily, and a Registration Act passed requiring a complete qualification before registration, the licensing difficulty would be virtually at an end. I am satisfied, from what I have heard from members of the corporations of London and Edinburgh, that both are desirous of taking the step, and I am persuaded that if the mistrust were put aside an understanding might readily be come to by which both would feel free to proceed to form such a joint examination. No one who appreciates the value of these corporations to the profession, and who knows the honourable spirit which actuates their leaders, notwithstanding much that the public is asked to believe to the contrary, can wish to see the Colleges of Physicians and Surgeons put aside, if they will only move on with the times.

But if they still hesitate to resolve on the step before the Royal Commission has them in hand their fate seems inevitable. I am, Sir, your obedient servant,

Aberdeen, June 6th, 1881. JOHN STRUTHERS.

SOLDIERS WIVES AS NURSES.

To the Editor of THE LANCET.

SIR,—With reference to the annotation in your journal of last week, page 925, on the subject of the employment of soldiers' wives as nurses, you truly observe "this importtant step was taken by an army medical officer in Dublin a few years ago;" but the real origin of this movement—viz., providing each regiment with qualified nurses—was as follows, and as some little fuss has recently been made over the subject at Woolwich, it may not be uninteresting to your readers to know the exact facts.

Some thirty years ago I was the surgeon of H.M. 9th Regiment, not long returned from India, and at the time quartered in Ireland. The regiment contained a very large proportion of women married without leave, and as the assistant-surgeon was in delicate health, a considerable amount of very troublesome night work was thrown on my shoulders. It occurred to me that the employment of one or more soldiers' wives—if educated for the purpose, in the very legitimate work of attending on their own sex—would relieve the medical officers of much troublesome and unpleasant duty, and at the same time confer a benefit on these poor women and children. I therefore addressed a letter to the C.O., the late Col. Davis, C.B., for transmission to the Secretary of State for War, pointing out the advantages both to the officers and soldiers' wives of having an educated midwife in each regiment. The reply was not unfavourable to the suggestion, but it pointed out there were no funds available for such a purpose! Ultimately permission was obtained to take a small sum, £20, from the canteen fund. An intelligent sergeant's wife was selected by me, and, after a short preliminary training, sent to the Rotundo Lying-in Hospital for final training, and in six months returned to the regiment as a qualified nurse. Her services proved so eminently useful and satisfactory, that when the regiment was proceeding on foreign service it was deemed advisable to educate another woman for the same purpose; but the War Office declined to sanction a further appropriation from the canteen fund.

A subscription was then set on foot, to which the married officers cheerfully and liberally responded, and a second nurse was thus provided. Without entering into the subject of the Nightingale nursing controversy, I believe this to be the only legitimate and proper mode of utilising the services of soldiers' wives as nurses, considering their proper sphere of usefulness among the women and children of the regiment, and not in the wards of a military hospital.

I am, Sir, yours obediently,

J. MOUAT,

London, June 6th, 1881. Surgeon-General (retired).

A GENERAL MEDICAL INDEX.

To the Editor of THE LANCET.

SIR,—From Dr. Saundby's note on this subject, which appeared in THE LANCET of the 28th May, it would seem that some members, even of the literary portion of the profession, are not aware of the present position of the matter. Dr. Saundby suggests that international co-operation should be sought for in aid of the construction of a general index of medical periodical literature; but, fortunately, a scheme of this kind has become as unnecessary as it would have been impracticable, for the Index may be said to be in existence. Under the supervision of Dr. Billings the construction of a catalogue of the Library of the Surgeon-General's Office, United States Army, was commenced in 1873; and the first volume of the work (A—Ber) was, through the liberality and public spirit of Congress, published last year and widely distributed. Unfortunately, its title, "Index-Catalogue," by no means indicates the invaluable character of its contents. It not only supplies the list of books belonging to one of the largest medical libraries in existence, which, although itself a work of great interest, would prove so to only a limited number of persons beyond those who had access to the library, but it does far more than this; for it furnishes an index of the whole of the very large collection of periodical and serial publications contained in the library. It thus becomes a most valuable possession for the medical world at large; and if not exhaustive, is so comprehensive as to entitle it to be regarded as well-nigh complete. The second volume is now printing, and there can be no doubt that Congress, with its usual liberality, will provide the funds necessary for the publication of the remaining five or six volumes in rapid succession. The inexhaustible zeal and industry of Dr. Billings and his coadjutor, Dr. Fletcher, have thus succeeded in producing a work which will be as useful to the medical inquirer as the Catalogue of Scientific Papers of the Royal Society has proved to be to the man of science; indeed, it will be much more useful by being more detailed in its construction. How such an index will be valued and consulted can only be judged of by those who have observed the warm appreciation that has attended the publication of Neale's "Medical Digest," which yet embraces less than a dozen English periodicals. The periodical and serial publications of all times, and in all languages, which come within the grasp of the "Index-Catalogue," are numbered not by hundreds, but by thousands.

The Index-Catalogue thus renders the whole range of medical literature easily accessible down to the year 1878; and under the title "Index Medicus" its author has devised an annual supplemental volume, with the object of referring to all the articles which have appeared in each year. Two volumes of this Index have appeared, and that for 1880 is publishing in monthly parts; but although its price is moderate (25*s.*), there is great doubt whether it will be continued. For two years the spirited publisher, Mr. Leypoldt of New York, has lost considerable sums upon it, but has consented to try it for another year. With what success the appeal which was last year made to the profession has been responded to I have not heard; but if such a publication of signal utility to inquirers in all parts of the world is allowed to collapse for the want of the few hundreds necessary to secure its continuance, an opportunity will be lost not very likely to recur.

It will thus be seen that the great desideratum of a general index down to 1878 will soon be supplied, and all our energies should be turned towards securing the continuation of the Index Medicus. It is a subject well worthy of being brought before the approaching Medical Congress.

I am, Sir, yours obediently,

Royal College of Surgeons of England, JOHN CHATTO.
June, 1881.

DR. GEORGE HARLEY'S CACOGRAPHY.

To the Editor of THE LANCET.

SIR,—Many years have elapsed since my name has figured in your columns, and one reason for this has been that though I may have felt inclined to comment on communications addressed to you, I have generally found that by the exercise of a little patience some other correspondent has supplied the remarks I had to offer. Lest, however, I should be disappointed in the present instance, I lose no time in entering my protest against the singular display of unscholarly writing inserted in your last issue as the lucubrations of Dr. George Harley.

By your kind indulgence, Sir, the many have the opportunity of airing their crotchets in THE LANCET, but that now called in question is simply "out of all whooping." Reformed spelling, forsooth! Does not Dr. Harley perceive that his system entails also reformed pronunciation, and that, if ever we adopt the "Fonetik Nuz," we shall lose the derivation, and consequently the true meaning of our words?

It may be all very well for those who, from advancing years, may have forgotten much that they learned in their youth, among which orthography is perhaps one of the most notorious, to adopt that plan or licence which countenances spelling in any way that comes uppermost, and call it "reformed." But I hold that when a member of our profession addresses that body through your medium, he owes it that respect that he should solve his doubts by reference to some authorised source. I dare say I have woefully slipped behind the world, and that prepositions have come to be used differently than heretofore. Formerly we used to say "the solution *of* a cause," and not "the solution *to* a cause;" but, no doubt, *nous avons changé tout cela.*

I have been a reader of, and subscriber to, THE LANCET from its very commencement, but I candidly avow I never found in it anything that has given me so great a shock as Dr. Harley's ill-considered production.

Yours faithfully,
JOHN CHIPPENDALE, F.R.C.S.
Upper Phillimore-place, Kensington, W., June 6th, 1881.

SMALL-POX HOSPITALS.

To the Editor of THE LANCET.

SIR,—The *raison d'être* of the small-pox hospitals was to afford depôts for the segregation and isolation of all cases of that disease, and so prevent the spread of infection from individual to individual. How far such hospitals, as at present constructed and managed, have answered this purpose—how, as isolation depôts, they have proved themselves thorough shams—the following statistics of the neighbourhood of the Fulham Hospital will irrefutably show:—

Hospital receiving convalescent cases only, for three months up to Dec. 25th, 1880.		*Hospital fully opened for acute cases, for three months ending March 25th, 1881.*	
Kensington[1]	2	Kensington	87
Chelsea[1]	3	Chelsea	73
Fulham[1]	3	Fulham	97

Thus showing that since the opening of the hospital for acute cases small-pox has been more than thirty-two times as rife as before.

At the commencement of the present year every practitioner living within the mile radius of the Fulham Hospital was asked by the Local Government Board to send in a record of every case coming under his cognisance between Dec. 25th, 1880, and March 25th, 1881. In other words, the outbreak, if any should occur, after the re-opening of the hospital for acute cases should be regarded in the light of an experiment that would most decisively affirm or negative the contention that small-pox hospitals are in themselves the originators of the oft-recurring and irrepressible outbreaks in their neighbourhoods.

It is now more than two months over the date assigned for the ingathering of these statistics, and the Local Government Board has not thought fit (in a matter so vital to the health of the community) to publish, whether in their favour or not, the deductions they have drawn from them.

I am, Sir, your obedient servant,
ALFRED GODRICH, M.A., M.R.C.S., &c.
Fulham-road, June 6th, 1881.

CLINICAL TEACHING AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—In your issue of last week is a letter respecting clinical teaching at Addenbrooke's Hospital, Cambridge. It seems to me that requiring students, ignorant of anatomy and physiology, to attend, or, rather, to obtain benefit from attending, clinical lectures, is about on a par with expecting a man to appreciate the binomial theorem without a knowledge of the elementary facts of algebra and arithmetic. In any revision of the system of medical education, it seems to me that the first two years of student life should be spent in learning the scientific portion of a medical education, such as anatomy, physiology, chemistry and physics—if these two latter could not be learnt at school—materia medica and pharmacy; taking care these subjects are thoroughly learnt.

Then the next two years, or more if the student can spare time and money, would be devoted to medicine and surgery, medical jurisprudence and therapeutics (as something over and above materia medica). During these last two years clinical lectures and teaching would be thoroughly appreciated, especially if given by such accomplished professors as are at Cambridge. Then I would have each student, before he be allowed to practise on his own responsibility, be required to bring a certificate of having acted as assistant to a Poor-law medical officer, or to have had charge of patients at some dispensary where the sick are visited at their own homes. This period should last at least six months. Judging from my own personal experience and the effects produced on my brother, who is now at Addenbrooke's Hospital, no good results from clinical teaching before a knowledge of anatomy and physiology is obtained. During my own student life, now some eighteen years ago, I tried to carry out this system; and to show that it was not altogether unsuccessful, I may be allowed to sign myself

ONE WHO TOOK HONOURS IN ALL SUBJECTS AT THE SECOND M.B. EXAM., UNIV. OF LOND.
June 6th, 1881.

A NEW ANTISEPTIC.

To the Editor of THE LANCET.

SIR,—In your issue of May 21st you published some remarks upon the recent important proposal of Professor Lister relative to eucalyptus oil, and in view of the interest thus excited the following notes may be found to have some value.

Dr. Gimbert of Cannes used for many years the leaves of the Eucalyptus globulus, instead of lint, for dressing wounds, with excellent results. He also described many experiments illustrative of the anti-putrescent properties of the oil of eucalyptus.[1] M. Gubler[2] and M. Marc have also both testified to the same effect, and employed an aqueous infusion of the leaves with great success in purulent catarrhal affections of the urethra and vagina. Again, Mr. Stearus, in a report[3] upon the oil of eucalyptus, writes, "Its chief value, however, is as a sedative and antiseptic in asthma and throat diseases, nasal catarrhs, and affections of the mucous membranes." He used both the alcoholic tincture and the spray of the pure oil.

Further, a "Report of the United States Commissioner of Agriculture"[4] embodies a number of experiments bearing upon the antiseptic and oxidising properties of the oil of eucalyptus, and in explanation of these latter the reporter accepts the writer's investigations which have from time to time been communicated to the Chemical Society of London and elsewhere.

I think I may fairly claim to have placed the antiseptic and oxidising properties of all the essential oils upon a scientific basis; and those of your readers who may care to become acquainted with the whole history of the Eucalyptus globulus and the characters and chemistry of the essential oils, I beg to refer to my "Nature's Hygiene,"[5] in which volume I have incorporated the entire results of my investigations so far as these had extended up to the end of 1879.

I now come to another and more important matter, and that is to announce the discovery of what is, I believe, a better antiseptic than oil of eucalyptus for use in surgery; at the same time it is chemically allied to that substance, and but for economical considerations can be produced therefrom. The product to which I refer is an oxidised oil of turpentine; in other words, the product which I obtain by forcing a current of air through turpentine in the presence of water (or otherwise) during a prolonged period, lasting in practice from one to two hundred hours. By this process of air-oxidation the turpentine absorbs an enormous quantity of oxygen, increasing in density accordingly, and losing its very volatile character. Although the product is not strictly speaking soluble in water, it forms in contact therewith, or even in contact with any moist surface such as is presented by every wound, certain principles which pass into aqueous solution. These principles are strongly antiseptic, and amongst them peroxide of hydrogen is to be numbered.

My product is much cheaper than oil of eucalyptus, it is more intensely antiseptic, and is, as I have shown, free from the objections which you, Sir, have already pointed out to exist in the case of the eucalyptus oil. It is freely soluble in spirit, and is perfectly miscible with other oils, and with petroleum bases, &c. A gauze can be readily made from it which keeps its strength, so far as I can judge, very well; and what is of much importance, it is a very powerful oxidant as well as an antiseptic. Thus we have a quite new combination, which I earnestly trust will be found available for the purposes of antiseptic surgery.

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[1] These were sent from the three neighbouring parishes.

[1] See Pharm. Journ., vol. iv., p. 494.

[2] Journ. de Pharm. et de Chimie, Dec. 1871.

[3] Contributed to the Californian Academy of Science in July, 1872.

[4] An extract from which is given in the Pharmaceutical Journal, Jan. 12th, 1878.

[5] Published by Messrs. Baillière, Tindall, and Cox, 1880.

I should add that, beyond my own investigation of its anti-putrescent and other properties, these have also been examined and certified to by Professor Roscoe, LL.D., F.R.S., of the Owens College, Manchester, and President of the Chemical Society, and Professor T. E. Thorpe, F.R.S., of the Yorkshire College, Leeds.

Finally, I may, perhaps, mention that Professor Lister has very kindly undertaken to make trial of the product.

I am, Sir, yours faithfully,
C. T. KINGZETT, F.C.S., F.I.C.,
Author of "Animal Chemistry, or the Relations of Chemistry to Physiology and Pathology," &c.
Tottenham, N., June 4th, 1881.

MANCHESTER.

(From our own Correspondent.)

I AM glad to see that the Infirmary Board have at their last meeting instructed their secretary to write again to the Paving Committee of the Manchester Corporation, calling their attention to the subject of paving with wood, or other noiseless material, the thoroughfares round the Royal Infirmary. Doubtless this will be done at once; and while on this matter I would like to draw attention to the fact that St. John-street, in which the Eye Hospital and the Consumption Hospital are situated, is still unprovided with noiseless pavement, and that opposite St. Mary's Hospital only *one-half* of the breadth of the street is paved with wood. Now that the weather is hot and windows are kept open, the noise of the traffic over the granite setts is deafening and very detrimental to the welfare of the patients who have to lie on a bed of pain the livelong day, listening wearily to the grinding past of heavenly laden vehicles, longing for an interval of rest which never comes. I am sure this state of matters need only to be brought under the notice of the Corporation to be remedied at once.

It is reassuring to be told, now that we are on the brink of a possible epidemic of small-pox, that the accommodation at Monsal Fever Hospital is ample for at least ten times the number of infectious cases that have been received on an average during the last three or four months; and that, in addition to this, there is unoccupied land contiguous to the hospital, upon which temporary hospital accommodation could be provided sufficient for the needs of the whole population of Manchester and the surrounding neighbourhood. The Infirmary authorities deserve all credit for the manner in which they have dealt with the subject of provision for the treatment of infectious diseases in this city.

A very important meeting has just been held by the Medico-Ethical Association, to inquire into the present working and management of the Provident Dispensary scheme in Manchester. Several very remarkable revelations were made as to the management of the dispensaries and the method of obtaining members. The whole question was referred to a committee, which it is to be hoped will thoroughly investigate into the alleged abuses, and remedy them by an appeal to the committee of the Provident Dispensary Association—a body which is composed of gentlemen of standing in this city, and who would be the last in the world to put themselves in antagonism with the medical profession.

I observe that Dr. Glascott commences his summer course of ophthalmoscopic demonstrations at the Royal Eye Hospital next week. This course, which is given as a supplementary one to Dr. Little's systematic course of ophthalmology at Owens College, was well attended and much appreciated by the students last year, and owed much of its usefulness and interest to the large number of ophthalmoscopic cases examined by the class, each member being practically instructed in the use of the ophthalmoscope and allied methods of investigation of deep-seated eye disease.

GLASGOW.

(From our own Correspondent.)

THE new wing of the Western Infirmary, which gives two hundred beds additional, or, in fact, doubles the accommodation of the institution, was formally opened a few days ago. This new wing has been built with funds left by the late Mr. John Freeland, of Nice, whose family was one of the oldest in Glasgow, the name of his father's firm appearing in a directory of more than a century ago, and existing till within the last few years. In the course of a speech made at the opening ceremony, the Lord Provost stated that even yet there is a deficiency of hospital accommodation in Glasgow, and referred to the effort which is being made to have a hospital erected on the south side of the city. He showed that, as regards the number of available hospital beds, Glasgow is far behind other large cities, and expressed a hope that any further increase made would not be accomplished by adding to the two existing infirmaries, which are large enough already, but by the erection of a hospital elsewhere.

The Hon. John Ure, Lord Provost of Glasgow, has issued a pamphlet, full of sound practical suggestion, in support of a movement on the part of the cities and large towns of Scotland for the amendment of the Public Health (Scotland) Act, 1867. He advocates, in the first place, a reconstitution of the Central Health Authority, on the ground that its present constitution affords no guarantee that it will efficiently administer public health functions; and proposes either that the present Board of Supervision should be cast aside altogether, and that the care of the public health in Scotland should be entrusted to a separate State department, or that the existing Board of Supervision should be strengthened by the addition to its membership of some who have made sanitary science a special study. The vesting of the powers of local authority in the parochial boards is shown to result, in rural districts, in very lukewarm enforcing of the Act, sometimes in its complete neglect. The rural sanitary areas, therefore, should be enlarged, either on the basis of the county or by combination of parishes, so as to secure administration beyond local influence. The following are some of the changes which Mr. Ure proposes should be made in the scope of the Health Act itself: that enlarged powers over the erection of new buildings should be conferred on the sanitary authorities; that compulsory hospital accommodation be provided in every district; that the registration of infectious diseases within each district should be compulsory; that the milk trade be put under the supervision of the sanitary authorities; that the supervision and enforcement of the Vaccination Act be transferred to the sanitary authorities; that the medical officer and sanitary authorities obtain power to make inquiry into the cause of any uncertified death.

IRELAND.

(From our own Correspondent.)

THE annual meeting of the Fellows of the Royal College of Surgeons to receive and discuss the report of the Council for the past year was held on Saturday last, and was largely attended. The proceedings commenced with a resolution being proposed by Dr. Jacob and seconded by Dr. Martin, to the effect that the annual report was unsatisfactory, and that for the future a *précis* of the proceedings of Council should be sent quarterly to the Fellows for their information. It appears that a resolution had been adopted by the Council last year to carry out this arrangement, but in January last was rescinded, yet not the slightest reference to this important subject was included in the annual report—a convincing proof, if any were required, that the report sent to each Fellow excludes a large number of topics which those taking an interest in the proceedings of the College may never have an opportunity of becoming acquainted with. The only excuse given for not issuing a quarterly summary of the proceedings of Council appears to be the trouble of making an abstract and the expense. On a show of hands being called for, 26 voted for the resolution and 11 against, the result being that the recommendation that quarterly abstracts should be issued will be brought before the new Council at their next meeting. After some criticisms on the manner in which the financial part of the report was presented, Dr. Mapother, a member of Council and ex-president of the College, proposed a resolution that it be recommended to the Council that the Education Scheme as amended in committee should not be enforced until equivalent regulations had been adopted by a majority of the other licensing bodies, and that a scheme should be prepared in conformity with the recommendations of the General Medical Council. He paid a high compliment to the thought and labour given to the scheme, but believed that it would have a most prejudicial effect on the finances of the College by reducing the number of the candidates for the licence, and urged that its adoption should be deferred, more especially as the Royal Commission now sitting would most probably suggest a measure which could be generally adopted. Further, he showed the mistake of placing such subjects as the elements of chemistry and botany in the first professional examination without requiring certificates of having attended lectures in those branches of medicine, and was of opinion that the proposed scheme would be more expensive to the student than the existing regulations for the licence of the College. The resolution was seconded by Mr. Jolliffe Tufnell, who urged various reasons for deferring the adoption of the scheme. Drs. Kidd, Barton, Jacob, and others combated Dr. Mapother's statements, and were of opinion that if the new regulations were adopted they would add to the prestige of the College without diminishing its funds. The resolution was ultimately lost, the numbers being 27 against, as compared with 31 in favour of the scheme. On Whit-Monday the annual elections for president, vice-president, secretary, and council took place, when Mr. Samuel Chaplin was elected president, Mr. J. Kellock Barton vice-president, and Mr. Colles secretary. For the council the only alteration was the substitution of Mr. E. H. Bennett, professor of surgery in the University of Dublin, for Mr. F. Alcock Nixon.

At an adjourned meeting of the committee appointed to effect the establishment of a convalescent home in Dublin or neighbourhood, for the reception of persons suffering from infectious diseases, held last week, a communication was read from the authorities of the Cork-street Fever Hospital. The governors of that institution stated that they were willing to undertake the expenditure of the money obtained for the erection of the proposed home in improving and remodeling their accommodation for convalescent patients, which is at present unsuitable and inadequate; and to devote any beds not required for their own patients to similar cases sent in from other hospitals. It was resolved that a general meeting of the subscribers be held to take into consideration the offer of the governors of Cork-street Fever Hospital; and it is probable that the suggested arrangement will be adopted, as, in spite of every effort made for obtaining funds for a convalescent home for infectious diseases, the donations so far have been altogether inadequate for the purpose.

At the distribution of the Hudson Scholarship Prizes connected with the Adelaide Hospital, Dublin, last week, the first prize of £30 and a gold medal was awarded to Mr. E. Gordon Hull, and the second of £10 and a silver medal to Mr. F. W. Elsner. During the meeting Dr. James Little gave an interesting outline of the career of the late Dr. Alfred Hudson, in whose memory these scholarships have been founded.

Dr. Cameron, medical superintendent officer of health for Dublin, last week gave the second of the series of lectures on health, which are now being delivered under the auspices of the Ladies' Sanitary Association, in the theatre of the Royal Dublin Society. "Food" was the topic selected, and the lecturer described the composition of the different kinds of food and drink, illustrating his remarks by means of diagrams, specimens, and experiments. He referred also to the processes of digestion, and gave some valuable information on the subject of cookery.

Dr. Joseph E. Miller, J.P., of Derry, has been presented with an address and valuable piece of plate by the Derry Town Council and citizens, on resigning the office of alderman, which he has held for nearly half a century. Dr. Miller, I may add, has been elected Mayor of Derry on five successive occasions.

The June medical examinations of the Queen's University in Ireland commenced last Monday, and will terminate on the 20th inst. A meeting of the University to confer degrees will be held in Dublin Castle on the 20th inst.

The thirty-ninth annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held in the College of Surgeons last Monday, the chair being occupied by the President, Dr. McClintock, who regretted that the amount at their disposal for distribution for the present year fell short of the sum granted last year. It was therefore a matter of congratulation that the Society had about £17,000 invested, which returns an annual income of some £600. The committee in their report state that anticipatory grants to urgent cases had been given to the amount of £153; of the claimants three were medical men, and vouched to be in absolute distress. Further grants to the amount of £976 have been now allocated, making the total sum of the awards recommended since last report £1129, of which £340 was to medical men, £691 to widows, and £98 to orphans. The committee, in referring to the fact that there must be some 1500 medical practitioners in Ireland who do not contribute anything to the Fund, remark that the Society has to contend with deplorable apathy amongst those from whom it should naturally expect the warmest sympathy—namely, the provincial medical men. The office-bearers having been appointed for the ensuing year, a vote of thanks to the Chairman for presiding terminated the proceedings.

Obituary.

CHARLES HARRIOTT ROPER, M.R.C.S. ENG.

MR. ROPER, whose death, after a painful illness, took place on the 23rd ult., was the son of the Rev. R. Roper, Principal of Mount Radford House School, and Rector of St. Olave's. He pursued his professional studies at the Devon and Exeter Hospital, and afterwards at St. Bartholomew's, where he distinguished himself as a prize-winner. After obtaining his diploma as Member of the London College of Surgeons and his Apothecaries' licence, he commenced practice at Exeter, where he remained till his death. Mr. Roper was a Fellow of the Royal Microscopical Society, held the post of Senior Surgeon of the Devon and Exeter Hospital, and of the Lying-in Charity, besides other appointments in the neighbourhood. He had also at different times occupied important civic positions in Exeter. Such a man could not pass away without being greatly missed, and Mr. Roper's loss will for long be acutely felt by numerous patients and a large circle of friends.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members having passed the required examination for the Fellowship on May 26th, 27th, 28th, and 30th, were, at a meeting of the Council held on the 9th inst., duly admitted Fellows of the College.:—

Bowlby, Anthony Alfred, L.S.A., Warrington-crescent; diploma of Membership dated July, 1879.
Boyd, James Stanley Newton, M.B. Lond., Huntley-street, Bedford-square; July, 1878.
Burton, Samuel Herbert, M.B. Lond., St. Giles-Street, Norwich; January, 1876.
Carter, Fredk. Heales, L.S.A., Bellevue-road, Upper Tooting; July, 1875.
Crew, Wm. Thomas, L.R.C.P. Lond., Park-lane Macclesfield; July, 1879.
Heath, William Lenton, The Plains, Totnes; July, 1877.
Pollard, Bilton, M.B. Lond., West Dulwich; November, 1879.
Reid, Robert William, M.D. Aberdeen, Nottingham-place, Regent's-park. (Not a Member.)
Sheppard, Charles Edward, M.B. and L.R.C.P. Lond., Addison-gardens; July, 1877.
Symonds, Charters James, M.D. Lond., St. Thomas's-street, Southwark; July, 1875.
Turner, Edward Beadon, L.R.C.P. Lond., Sussex-gardens, Hyde-park; July, 1876.
Wadham, Frederick, L.R.C.P. Lond., Bayhorne, Horley; Nov. 1878.
Williams, William Roger, L.R.C.P. Lond., Bush Hill-park, Enfield; April, 1877.
Williamson, Robert Isherwood, M.B. Oxon., L.R.C.P. Lond., Ripon, Yorkshire; April, 1879.
Willis, William, M.D. Edin., Oak House, Monmouth; July, 1858.

Two other candidates passed the examination, but, being under the legal age (twenty-five years), will be admitted Fellows at a subsequent meeting; and ten candidates failed to reach the required standard, and were referred for one year's further professional study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 2nd:—

Cooney, John Edwin, Calcutta.
Sykes, Matthew Carrington, Barnsley.

The following gentlemen also on the same day passed the Primary Professional Examination:—

James B. Brewitt, St. Bartholomew's Hospital; Richd. Philip Samut, Guy's Hospital.

OVER fourteen tons of bad meat were seized last week in the Holborn district.

CAMBRIDGE UNIVERSITY.—At a congregation held on the 2nd inst., the degree of M.D. was conferred on Henry French Banham, St. John's College.

DR. ALFRED SANDERSON, Surgeon-Major, Madras Medical Establishment, has been placed on the Commission of the Peace for the county of Edinburgh.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination held by the above Institute on June 2nd and 3rd, six candidates presented themselves, and the Institute's certificate of competency as Local Surveyor was awarded to Samuel S. Grimley and to Arthur Whitcombe; and the Institute's certificate of competency as Inspector of Nuisances was awarded to John Tatem Cowderoy, to Joseph Rains, and to William Wilkinson.

DR. J. E. MILLER, lately Alderman of the East Ward of Londonderry, has, on severing his connexion with the corporation, received a testimonial from his former colleagues and fellow-citizens in the shape of a solid silver centre-piece. The presentation was accompanied by an address, signed by the Mayor and the Town Clerk, conveying in very flattering terms the sense of the members of the Town Council of Dr. Miller's worth.

A VERY flattering testimonial has been presented by the members of the Portland Lodge of the Nottingham Albion Order of Odd Fellows to their medical officer, Mr. E. J. O'Mullane, L.K.Q.C.P.I., &c. The testimonial consisted of an illuminated address, mounted in a gold frame, and expressive of the subscribers' high sense of the value of Mr. O'Mullane's professional services, and of the estimation in which they hold him as "a gentlemen, a scholar, and a philanthropist."

THE BRITISH ASSOCIATION.—The first general meeting of this Association is fixed for Wednesday evening, Aug. 31st, when Sir John Lubbock, M.P., will assume the presidency, and deliver an address. On Thursday evening a *soirée* will be held, and on the following Friday and Monday evenings addresses will be delivered by Professor Huxley and Dr. Spottiswoode, President of the Royal Society. On Tuesday another *soirée* will take place, and the concluding general meeting will be held on the Wednesday after. The Chemical Science section will be presided over by Professor A. W. Williamson. The Biology section will have as President Richard Owen; the Vice-Presidents being Professor W. H. Flower and Professor J. Burdon Sanderson; Professor Flower will preside over the department of Anthropology, and Professor Burdon Sanderson over that of Anatomy and Physiology.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the lates*

BARLOW, J., M.D., C.M., M.R.C.S.E., has been appointed Extra Surgeon to the Glasgow Royal Infirmary Dispensary.

BARNS, J. G., L.R.C.P.L., M.R.C.S.E., has been elected Assistant House-Surgeon to the Liverpool Dispensaries, vice P. O. Haynes, M.R.C.S.E., resigned.

COOPER, J. W., M.R.C.S.E., has been appointed Medical Officer of the Infirmary and Workhouse, St. George's-in-the-East, vice Belcher.

FISHER, W. W., M.A., has been appointed Public Analyst for the County of Oxford. Remuneration by fees.

GRUBB, P., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Warminster Urban Sanitary District.

HAMIL, R. J., M.R.C.S.E., has been appointed Assistant Medical Officer to the Infirmary and Workhouse, St. George's-in-the-East.

HITCHCOCK, Dr., has been appointed Medical Officer for the East District of the Gamrie Union, vice Collie, deceased.

KEMPE, C. M., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Shoreham Port and Urban Sanitary Districts.

MEESON, A., L.S.A.L., has been appointed Resident Medical Officer to the Workhouse of the Toxteth Union, vice M'Donnell, resigned.

NANCE, H. C., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary, vice W. E. Hoyle, resigned.

PRICE, W. H., M.R.C.S.E., has been appointed Medical Officer for the Western District of the Corwen Union.

RICHARDSON, J. H. H., has been elected Resident Medical Officer to the Wandsworth Provident Dispensary.

SYSON, E. J., L.R.C P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the St. Neots, Caxton, and Arrington Rural Sanitary District for one year.

WANKLYN, A. J., F.C.S., has been reappointed Public Analyst for the Borough of Peterborough.

WHITE, T. G., L. & M.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the Colar Gold Mining District, Mysore, India.

WILLIAMS, W. R., F.R.C.S., L.R.C.P., has been appointed House-Surgeon to St. Peter's Hospital for Stone &c., vice W. Neale, M.B., M.R.C.S.E., whose term of office has expired.

WILLS, J. P., M.B., has been appointed Medical Officer to the Metropolitan Convalescent Institution's new Home at Bexhill, Sussex.

WOODCOCK, R. F., L.R.C.P.L. & M.R.C S.E., has been appointed an Honorary Medical Officer to the Royal Albert Edward Infirmary and Dispensary, Wigan.

Births, Marriages, and Deaths.

BIRTHS.

CHURCHILL.—On the 1st inst., at Cranley-gardens, South Kensington, the wife of Frederick Churchill, M.D., F.R.C.S., of a son.

CROOM.—On the 3rd inst., at 25, Charlotte-square, Edinburgh, the wife of Dr. Halliday Croom, of a daughter.

DAVISON.—On the 8th inst., at Langton House, Battle, Sussex, the wife of Rashell Davison, M.B., M.R.C.S E., of a son.

DE BRENT.—On the 1st inst., at Church House, Aveley, Essex, the wife of Mortimer de Brent, M.R.C.S.E., L.S.A.L., of a daughter.

POTTER.—On the 6th inst., at George-street, Hanover-square, the wife of John B. Potter, M.D., F.R.C.P., of a daughter.

MARRIAGES.

BROWN—THORBURN.—On the 6th inst., at John's-place, Leith, J. Graham Brown, M.D., M.R.C.P.E., to Jane Pasley Hay, daughter of the Rev. David Thorburn.

KEMP—HALAHAN.—On the 1st inst., at St. James's, Piccadilly, by the Rev. Dyer Tovey, John R. Kemp, L.R.C.P.L., M.R.C.S.E., to Harriet, eldest daughter of Peter Halahan, Esq., of South Kensington.

OGG—VINCENT.—On the 2nd inst., at St. Philip and St. James's Church, Whitton, Hounslow, Surgeon-Major G. S. W. Ogg, Madras Medical Service, to Clara, widow of J. H. Vincent, Esq., of Southampton.

READ—GIBBS.—On the 1st inst., at Waltham Abbey, Charles Read, F.R.C.S., of Upper Wimpole-street, to Ethel, second daughter of W. A. Gibbs, of Gilwell-park, Sewardstone.

REEVE—TODD.—On the 1st inst., at Hollington Church, near Hastings, by the Rev. — Adams, Henry Reeve, son of the late Henry Reeve, of Victoria-park, to Barbara, youngest daughter of John Waterloo Todd, of 301, Mile-end-road.

TURTON—RUGG.—On the 8th inst., at Hove Parish Church, by the Rev. T. Peacey, M.A., Vicar, James Turton, M.R.C.S.E., of Heckmondwicke, to Ellen Bradley, fourth daughter of Richard Rugg, F.R.C.S.E., of Lansdowne-place, Brighton.

WILKINS—MANNING.—On the 8th inst., at St. Mary's Church, Carisbrooke, Isle of Wight, by the Vicar, the Rev. E. B. James, M.A., Robert Bird, second son of Dr. Wilkins, of Newport, Isle of Wight, to Rosalie, only child of J. L. Manning, Esq., of Alvington Manor, Carisbrooke, Isle of Wight. No cards.

DEATHS.

BIRD.—On the 1st inst., at St. Leonard's-place, York, William Bird, M.D., aged 49.

BISHOP.—On the 5th inst., at Tonbridge, Kent, Henry Bishop, M.R.C.S.E., aged 49.

CLOSE.—On the 5th inst., at Sorrento, Italy, Percy Close, M.R.C.S.E., youngest son of John Close, Esq., of Dringhouses, York, aged 24.

DOUGLAS.—On the 13th February, at Port Chalmers, New Zealand, Margaret Louise, younger daughter of T. Kennedy Douglas, M.B., C.M., Tapanui, Otago, New Zealand, aged 10 months.

LANG.—On the 1st inst., at Lansdowne, Southport, Phebe, widow of John Lang, M.D.

SHEPHERD.—On the 4th inst., at Swansea, James Shepherd, M.R.C.S.E., L.S.A.L.

WHITE.—On the 29th ult., at Ferryhill, Aberdeen, Robert White, M.D., aged 61.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 9th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 3	30·14	E.	67	58	108	82	56	..	Hazy
„ 4	30·00	W.	69	64	116	83	58	..	Bright
„ 5	29·44	S.W.	58	58	73	64	53	..	Overcast
„ 6	29·50	N.W.	51	50	86	60	46	·30	Raining
„ 7	29·57	N.	50	50	77	55	45	·64	Overcast
„ 8	29·90	N.E.	52	45	103	59	41	·05	Cloudy
„ 9	30·19	N.	49	43	92	56	39	..	Cloudy

Medical Diary for the ensuing Week.

Monday, June 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Tuesday, June 14.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. J. Park Harrison: Exhibition of Danish and French Photographs.—Major-General A. Pitt-Rivers, "On the Discovery of Flint Implements in the Gravel of the Nile Valley, near Thebes."—Mr. Alfred Tylor, "On the Human Fossil at Nice."—Mr. Gerrard A. Kinahan, "On Sepulchral Remains at Rathdown, Co. Wicklow."—Mr. J. H. Madge, "On Notes on some Excavations made in Tumuli, near Copiapó, Chili, in June, 1880."—Mr. F. E. im Thurn, "On some Stone Implements from British Guiana."—Mr. G. Bertin, "On the Origin of the Semites."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8.30 P.M. Mr. Morrant Baker, "On a Case of Urticaria Tuberosa."—Mr. John Croft, "On Immediate Treatment of Fractures of the Leg by Plaster of Paris Splints."—Mr. C. T. Dent, "On the Pathology of Acute Periostitis."—Mr. Clement Lucas will show a Case of Aneurism by Anastomosis of the Face and Orbit, and a successful Case of Nephrectomy.

Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Thursday, June 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, June 17.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Saturday, June 18.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A NEW MEDICINAL FISH OIL.

THE oil of the oolachan or boulican (*thaleichthys*), a fish inhabiting the waters of British Columbia and Vancouver's Island in enormous quantities, is (says *The Colonies and India*) finding its way into the English markets as a substitute for the cod-liver oil. This fish is of so oleaginous a nature that it is dried and used as a candle by the natives of British Columbia, being known by the name of the "candle-fish." The oil has long been valued for its medicinal virtues among the native Indians, but has only lately been prepared in such a form as to compete with cod-liver oil, for which, however, it is said to be a valuable substitute.

W. T.—We regret we cannot comply with our correspondent's request.

Dr. Robert Bell.—We are unable to devote space to the subject at present.

Fiat Justitia.—The question should have been addressed to the Local Government Board.

Dr. A. Harbinson.—If microscopical sections are prepared and forwarded they will be examined.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

SIR,—I cannot think that "M.B.'s" "facts" by any means explain my case, and I cannot believe that it is good pathology either to regard the "invasion" of small-pox as coincident with constitutional symptoms, or to look upon the incubatory period as one of absolute quiescence.

The authority of Section 86 of the "Medical Digest" notwithstanding, I venture to assert that the concurrence of confluent small-pox with vaccinia is extremely rare.

My case reached the period of greatest intensity four days after the appearance of the eruption. There was enormous swelling of the head and neck, obliteration of features, blindness, severe sore-throat, and partial delirium, which after about thirty-six hours rapidly abated, and the man has made a good recovery. Thus the case much resembles that of Mr. Box. As, however, out of thirty-eight cases of small-pox I have had under my care in the last month, two of the confluent kind have shown this quick abatement, I do not think it should be hastily assumed that the concurrence of vaccinia was the cause. "O. H.'s" case was one of revaccination; the other two, aged thirteen and twenty-six, of vaccination in infancy.

I must, I fear, still subscribe myself, Sir, yours,

June 7th, 1881. IN PERPLEXITY.

ERUPTIONS FOLLOWING VACCINATION.

To the Editor of THE LANCET.

SIR,—I would be glad to know, through the medium of your journal, if vaccinators are unfortunate occasionally in having eruptions follow their vaccinations. I have had a few only, although I vaccinate some hundreds in the year. The other day I had a case with eruptions, and four other babies vaccinated with the same lymph are perfectly well. I believe that in those cases that "break out" there must be a predisposition to have some form of skin disease, and that the vaccination acts as an excitant. If vaccinators will please give their opinion and the percentage of cases that have occurred with them they will oblige.

I am, Sir, yours truly,

June 6th, 1881. T V

A FREE PICTURE GALLERY.

RECOGNISING as we do the wholesome influence upon the general public and especially upon the industrial classes, of facilities for the study of works of art, we are glad to notice the liberality of the managers of the United Art Gallery, New Bond-street, in opening their exhibition free on every Saturday evening during the month of June. On Whit Monday gratuitous admission was accorded to the rooms, which were visited, we understand, by over 2000 people.

THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH

To the Editor of THE LANCET.

SIR,—With reference to the article in your last issue, I wish to point to what seems to me to be a probable cause of the inefficiency of lymph supplied by the National Vaccine Establishment. Tubes sent to the National Vaccine Establishment by public vaccinators are submitted to an examination at the National Vaccine Establishment, and it is this examination I believe to be the great source of feeble lymph being stored by the National Vaccine Establishment, for if the lymph in a tube under examination is opaque, it is invariably rejected. Now, I have repeatedly noticed that, after carefully selecting and opening what are designated as "true Jennerian vesicles," and collecting lymph as it exudes from vesicles in half a dozen or more tubes, the lymph collected in the first two or three tubes is more opaque than the lymph collected in the remaining half-dozen or more tubes; and likewise, after selecting an arm with other than "true Jennerian vesicles"—viz., one having vesicles with well developed areolæ—that very often perfectly clear and transparent lymph will flow from them and in great quantity. I have recently collected and vaccinated with lymph of this description, and have utterly failed in both primary and revaccinations. I also find that vaccinations performed with the first lymph that flows on opening "true Jennerian vesicles" are most successful both as regards number of vesicles and the small amount of attendant inflammation.

I am, Sir, yours obediently,
Woolwich, June 7th, 1881. J. GASCOIGNE WEBB, M.R.C.S.

To the Editor of THE LANCET.

SIR,—As an impression seems to be abroad that the lymph supplied by the National Vaccine Institution is more or less inert, permit me to state that on the 10th inst. I had but two tubes of lymph (received from that institution) wherewith to revaccinate eighteen boys, and that of the eighteen revaccinated fourteen resulted in a perfect vaccine vesicle, and four in a modified one, showing that the virus "took" in every case. Everyone of these boys bore the mark of a previous vaccination.

My mode of proceeding was as follows:—My supply of lymph being so scanty, I blew out the contents of the two tubes on to a piece of glass, and added an equal quantity of water. I then scratched the arm with a lancet, but not so deeply as to draw blood, making the skin tense with my left hand. I then charged the lancet, and "dabbed" the diluted lymph well into the abrased surface, with the results above stated.

I have practised various modes of vaccination, but find this the most effectual. I am, Sir, your obedient servant,
P. KEELAN, Fleet Surgeon.
H.M.S. *Ganges*, Falmouth, May 26th, 1881.

To the Editor of THE LANCET.

SIR,—Until lately I should have been disposed to have joined in the outcry against the lymph supplied by the National Vaccine Establishment, but during the last twelve months I have been driven to seek supplies twice from that establishment, and on those occasions I adopted the plan of touching the point of my lancet with a wet sponge before charging it with lymph, and my success was all that could be desired.

I am, Sir, yours faithfully,
June 7th, 1881. A PUBLIC VACCINATOR OF FORTY YEARS' STANDING.

To the Editor of THE LANCET.

SIR,—I think we could help our London friends in the way of vaccine in their present emergency very considerably. If they would write at once to their country friends many could keep up a stock for a time; but as we cannot procure points in the country, let it be understood that they return uncharged points at once, as a neglect of this part cripples one's action. I am, Sir, yours truly,
Bocking, June 7th, 1881. THOS. TAYLOR.

To the Editor of THE LANCET.

SIR,—It is not often that I require vaccine matter. The week before last I wrote to the National Vaccination Establishment and received three tubes; with one of these I revaccinated a boy whose parents required it to be done. Nothing could be more satisfactory than the result of the use of the vaccine matter supplied.

I am, Sir, yours truly,
Marlborough College, June 6th, 1881. WALTER FERGUS, M.D.

To the Editor of THE LANCET.

SIR,—With reference to the correspondence on the lymph of the National Vaccine Establishment, I have to say I have been supplied on some twenty occasions during the last dozen years from that establishment, and have had only two failures.

I am, Sir, yours faithfully,
Brentwood, June 4th, 1881. J. R. WHITE, M.B.

*** This discussion must now cease.—ED. L.

THE FALLACY OF HOMŒOPATHY.

To the Editor of THE LANCET.

SIR,—In your leader of last week you seem to invite a reply to your arguments. Had you been as familiar with the literature of homœopathy as I am obliged to be, you would have been aware that your argument that though the medicine be selected according to the rule *similia similibus* its action is on the principle *contraria contrariis*, has been advanced over and over again by partisans of the homœopathic school, so that we may adopt it and yet remain convinced of the truth of our homœopathic therapeutic rule.

With the exception, I think, of opium and alcohol, all the examples you give of the apparently opposite action of large and small doses are untenable, for the conditions under which they so act are not alike. Thus you rightly state that a full dose of aconite "will produce the local and general symptoms of fever and inflammation," but you should have added "on the healthy;" and, again, you are correct in stating that a smaller dose will "reduce the local and general symptoms characteristic of the state called 'feverish' and 'inflammatory.'" But, as you observe, this opposite action of the small dose is in disease, not in health. The same remarks apply to your illustration of the opposite effects of nux vomica in large and small doses. I cannot say anything about your illustration of the aperient action of cathartics in large and their constipating effects in small doses; the word "cathartics" comprises such an immense number of medicines that this opposite action may be true of some of them, but not of others; every "cathartic," besides an aperient, having other actions differing from those of other medicines placed by your school in the same category. I know nothing of the sedative or constipative action of calomel in large doses, and you do not mention whether this is an absolute or only a relative action. We are quite willing to grant that "as far as the action of remedies is concerned homœopathy is a misnomer," and I do not know of anyone in the homœopathic school who has even plausibly contended for the homœopathic action of the drugs he homœopathically selects, unless perhaps Hahnemann himself in one of his early theories regarding the mode of action of remedies. The theory to which I allude was never accepted by any of his disciples, and was tacitly abandoned by Hahnemann himself.

Thus you observe, as "honest men we must confess that you are right, and that the homœopathy of our system concerns only the mode of selecting drugs, not their action." But this is what we have held all along; so now that you know this we expect you to have a more favourable opinion of us and our system than you have hitherto had.

But you say that should we take this ground (which we have always held), you will then have to show that homœopathy is untenable, "because the selection of a drug by an inverse process of induction from its supposed effects can never be a sure or safe guide to its use." You add, "the effects are not located in the drug!" But no one ever said they were; the drug is the cause of the effects it produces in the organism. Again you say, "the only rational way to try a drug is first in health and then in disease." Here, too, we are at one; only you do not say how the effects observed from the preliminary trial of the drug in health are to guide us in trying it in disease. Our "rule" says try it in those diseases whose symptoms resemble the effects of the drugs we have tried on the healthy. What better—what other—rule have you to offer? for it is impossible you can wish us to try a drug in all possible diseases after having carefully tried it on the healthy. The results of our trials of a drug in health must surely give us some clue to its application in disease; if not, what was the use of our painful trials of it in health?

I must join issue with you when you say "the homœopathist does not choose his drugs on the principle *similia similibus*," for we do endeavour to choose our drugs on this therapeutic rule; but we certainly do not abandon experience; in fact, the only thing we have to show the truth of our rule is experience, and it is a curious fact that one of Hahnemann's earliest essays in which he announced the homœopathic therapeutic rule bears the title of "The Medicine of Experience."

I heartily agree with you when you say "so far as the homœopathist is a practitioner of medicine at all, he must and does employ drugs on rational and common-sense principles," and my earnest hope is that the great body of the medical profession will speedily adopt our rational and common-sense principles, and thus will be effected that reconcilement of the two schools "on grounds welcome to both parties."

I am, Sir, your obedient servant,
London, May 23rd, 1881. R. E. DUDGEON.

To the Editor of THE LANCET.

SIR,—It is with much interest that I have read your leader on the "Fallacy of Homœopathy" in your last week's issue. Allow a "reputed homœopath" to say that it affords the alone instance in ordinary medical literature—perhaps with the exception of certain articles by Dr. Ross in the *Practitioner*—in which the subject receives sober and dignified treatment; and the suggestion with which your article closes—viz., that this "regrettable alienation and controversy" be done away with for ever, will strike a chord in the heart of every honest thinking medical practitioner.

With most of the subject matter of the article I thoroughly agree, and should have agreed at any time since I studied homœopathy. Most "thinking homœopaths" heartily acknowledge the law of similars to be a phenomenal, indicative, law only; they maintain vigorously the apparently opposite actions of large and small doses, and believe with you that these opposite effects do not lie in the dose, but in the different action of the system under different doses; and many of us hold in consequence that though our selection of remedies is by the law of similars, the curative action of the small dose is by the law of contraries (antipathic).

On these points, then, THE LANCET and most "thinking homœopaths" (to our great surprise and joy, I own) are at one. Our points of difference are, therefore, narrowed to this—"Is the selection of a drug by an inverse process of induction from its supposed effects a sure and safe guide to its use?" I answer that it most undoubtedly is so. As a matter of fact, it has historically been so over and over again. Aconite, nux vomica, ipecacuanha, opium, cathartic remedies which you have instanced in your article, were all used by "reputed homœopathists" in the diseased conditions you roughly name, because it was known that they produced similar effects in health, and this years—ay, a generation and a half—before they passed empirically into the ordinary practice of physic. When Ringer's experiments elicited the diaphoretic action of jaborandi, I at once began to use it in the night-sweats of phthisis. When the emetic properties of apomorphia were discovered "homœopaths" at once suggested it as useful in emesis. Moreover, it is the coarse, semi-poisonous effect of the large or middling dose that alone can be noticed by the physician in the healthy. The finer therapeutical action, so noticeable in disease—as, for instance, the "tonic action" of ipecacuanha in emesis—cannot be, or very seldom can be, from the very nature of the case, discovered in a healthy subject.

Look at it how you will, if you are to utilise in any great measure at all the pathogenetic effects of drugs on the healthy, it must be done by recognising the apparently opposing actions of small and large doses, and by giving the small dose where the large dose is homœopathically indicated. This is what I, for one, understand by homœopathy, and how, so far as in me lies, I endeavour to use it in practice.

One word more. If this is all the difference between us, is it worth while for a great and learned and dignified profession to keep up, as it has for so long done, its ban against a small if "thinking" minority? If I and the writer of your article are to prescribe the same thing in nearly the same dose in similar cases, is it worth while for him to excommunicate me because I arrive at my treatment by a consideration of the effects in health of larger doses, and he at his by a consideration of the effects in disease of smaller doses?—I am, Sir, yours faithfully,

HERBERT NANKIVELL, M.D. Edin.

Penmellyn, Bournemouth, May 23rd, 1881.

To the Editor of THE LANCET.

SIR,—As there are some important points in your leader of May 21st with which the majority of homœopaths, and I among the number, agree, I request a short space in your columns, as you say "we shall be curious to see how the homœopathists attempt to answer this objection." This "objection" is that "homœopathy is a misnomer, and involves a fallacy," inasmuch as, according to your correct description, the drug symptoms correspond with those of the disease when the drug is given in large doses only, whereas for curative purposes, as it is given in a small dose, it produces the opposite effect, or acts by *contraria contrariis*, and that therefore the "homœopathy of their system concerns only the mode of selecting drugs, and not their action."

I answer this "objection" by perfectly agreeing with you; but your suggestion of the really contrary action of "homœopathic" remedies is not novel. In "Fletcher's Pathology," published in 1842, we find the author speaking of homœopathic medicines and their theory of action, and saying "They cure, not by the stronger, but by the opposite impression which they make; so that homœopathic medicines, after all, operate on the antipathic principle." Again, Dr. Dudgeon, in his able lectures on "The Theory and Practice of Homœopathy," delivered in 1852 (p. 111), says, "Whilst this (the law of similia) expresses only the rule for the selection of the remedy, the actual curative process is rather *contraria contrariis*, for the impression we effect with our remedial agent is the opposite of the existing condition of the diseased part." And if you will consult our periodical literature since this date, and especially within the last ten years, you will find the same view is maintained by the majority of homœopaths. The law or aphorism *similia similibus curentur* is simply one for the selection of the remedy, and involves no theory of the actual *modus operandi* of it. Theories on this point have been numerous, beginning with Hahnemann himself, whose theory, it is well to notice, and those of all since him, simply endeavours to explain facts; but, whether right or wrong, this theory in no way alters the facts.

But it is quite another matter to say that because the actual *modus operandi* of the small dose in cure is contrary, not similar, to the disease, therefore "the homœopath does not give his drugs on homœopathic principles, and cannot claim it as homœopathic, because he employs it in doses which do not produce effects like, but widely unlike, the symptoms of the disease he seeks to cure." This is simply to play upon the word. A medicine which produces in full doses symptoms closely like those of a given disease, and at the same time is found to cure it in a small dose, whatever the theory of the action may be, is in the fullest sense homœopathic to the disease. The fact of this double relation of the drug to the disease was the thing that was recognised by Hahnemann and his followers when the name "homœopathy" was adopted to express the treatment of disease in accordance with this relation, and before any theory was mooted as to the *modus operandi* of the drug.

Some word must have been used and must still be used to express treatment in accordance with this drug and disease relation, and as not only was the similarity of the effects of the large dose to the disease the prominent feature brought into notice, but the actual guide for the choice of the remedy, so is such treatment properly and correctly styled homœopathic. I hope, therefore, that as since 1852 it has been admitted that the real action of the small dose of a medicine which is homœopathic to a case of disease is that of contraries, any play upon the word or the correctness of it as applied to the small or curative dose only will be abandoned, as beside the main point at issue.

Next, Sir, you state that this explanation of the action of the small dose "explains the reiterated assertion made by homœopathists, to the effect that remedies which they believe to act homœopathically are recommended by accredited authors in standard works on therapy. It must be so. All remedies lie open to the charge or claim of being "homœopathic," if the homœopathist may class them by the effects they produce when given in one dose, while he employs them in another dose, of which the effect is totally different, and nearly always opposite. This is quite correct, but we never claim that "accredited authors in standard works on therapy" adopt homœopathic treatment, unless we find them recommending the treatment of a disease by a smaller than the usual pharmacopœial dose of a remedy which in a full dose will produce in the healthy body a similar state of disease. You correctly state that the curative dose must be smaller than that which will induce the disease symptoms, and wherein (1) the drug chosen is one which has produced a similar state in a larger dose, and (2) it is given in a smaller dose than will aggravate, the treatment, I maintain, is homœopathic. How small the best dose is is merely a question of experience. The illustrations you adduce are amply sufficient; but, may I ask, how much nearer are you towards settling the question by saying "Now, how do nux vomica and its preparations act in small doses? Why, as tonics to the muscular system." In the same way the late Dr. Anstie, when reviewing in the "Practitioner" Ringer's first edition of his "Therapeutics," says of the action of drop doses of ipecacuanha wine in sickness, that "it is not homœopathy, but only shows that these small doses of ipecacuanha wine have tonic effect upon the vaso-motor nerves of the stomach." This may be very true, but as far as the real question at issue is concerned, it is merely throwing dust in the eyes. Is it not much better to men philosophical simply to admit the fact that these medicines cure in small doses symptoms similar to those they produce in large ones, and are undoubted examples of "homœopathically" acting remedies?

3. You state that "the selection of a drug by an inverse process of induction from its supposed effects can never be a sure or safe guide to its use." This is a question for experiment to settle. Homœopaths maintain that it is a sure and safe guide.

4. You say "it is unscientific to speak of a drug as producing 'effects' or 'symptoms' in the organisms. . . . . The effects are not located in the drug." Who ever said they were? Is not this also mere play on words?

5. "It follows that the only rational way to try a drug is first in health and then in disease." Precisely so; this is what Hahnemann did, but he and his followers confined their trials in disease to those cases where a similar train of symptoms was present to those produced by the drug on the healthy body.

6. "In short, it is not possible to predict the 'effect' which will follow its use until we have actually tested it first on a healthy and then on a morbid organism. The pretence of selecting remedies on any principle or theory of their mode of action in health alone is manifestly an affectation of the impossible." On this point all homœopaths join issue with you. Hahnemann "predicted" that camphor, veratrum, and cuprum would be the leading remedies in cholera. Arsenic was added to the list afterwards by "prediction."

We "predicted" that apomorphia, when first brought out as an emetic, would cure sickness, as ipecacuanha does, that chloral would cure urticaria, &c.; all which "predictions," and many others, proved true, as was anticipated. In fact, it is one of the strong points of the use of *similia* as our guide in selecting the remedy that we can thus "predict" its curative sphere as soon as we know its effects in health.

Nothing would rejoice the homœopaths more than to see a reconciliation of both "schools," "on grounds welcome to both parties in this regrettable alienation and controversy," to quote your own courteous words. Apologising for the length of this communication,

I am, Sir, yours, &c.,

Seymour-street, Portman-square, D. DYCE BROWN.
May 23rd, 1881.

DREAMS.

To the Editor of THE LANCET.

SIR,—I shall feel obliged by an answer from some of the very influential subscribers to your valuable paper to the following vital and important subject—viz., what, so far as is known, are the causes of dreams in general, their effect, and the best known method of avoiding them? I am, Sir, yours obediently,

King's Bench-walk, Temple, June 2nd, 1881. GABAM.

"HYPODERMIC INJECTION OF MORPHIA."

To the Editor of THE LANCET.

SIR,—Your correspondent, "J.," asks how best to ward off sickness following subcutaneous injection of morphia. I have extensively used the hypodermic method for twenty years. I would suggest nervine tonics both as food and drugs: as forming part of food malt extract and cod-liver oil; as medicine Fellows's syrup of hypophosphites, three times a day, given an hour before the injection; to persevere for some time. Electricity should also be tried to the painful part.

I am, Sir, yours faithfully,

Dinorwic Hospital, Llanberis, June 6th, 1881. T. HUGHES, M.D.

Medico.—Our correspondent is mistaken as to the relative rank of acting surgeons. The regulation on the subject is very clear. "The relative rank of medical officers in the volunteer force is determined by the same rule as that prescribed for medical officers of the army, except that acting surgeons always rank as lieutenants irrespective of their length of service. Surgeons appointed before October 1st, 1877, under previous regulations, will continue to hold the relative rank of major." We do not suppose that acting surgeons will get a step of rank on retirement, as no provision seems to be made for such a case.

Dr. Dale will see that we have gained the point in view, and the discussion will now cease. We are obliged for his letter.

Mr. W. B. Hunter's letter must stand over till next week.

So. Bong.—The law requires that the holder of an inspectorship of factories should be free from any personal interest in a factory or workshop he may be called upon to inspect.

"LICENSING BODIES AND THEIR DIPLOMAS."

To the Editor of THE LANCET.

SIR,—Many persons object to part with diplomas of deceased relatives If documents of the kind were sent to headquarters, accompanied by a certificate of death, there to have "Deceased" punched into their substance, no amount of after-manipulation could render them available for illegitimate purposes.—I am, Sir, yours faithfully,

June 6th, 1881. J. B. GILL, M.D.

VACCINATION REVIVED.

To the Editor of THE LANCET.

SIR,—On the 15th of last month I vaccinated a nurse who had been vaccinated on the right arm in four places without result four years ago. I vaccinated her on the left arm in four places, producing one fairly well marked secondary vaccine vesicle, with the usual inflammatory blush extending down the arm, and somewhat affecting the lymphatic glands of the axilla, chest, and neck.

Now occurred what was to me the extraordinary part of the case. The four places on her right arm where she had been vaccinated four years ago, without any apparent effect, became distinctly visible, exuded an appreciable amount of lymph, threw out a distinct areola, and became, in fact, tolerably characteristic of secondary vaccination. I can only account for the above facts by supposing that the vaccine virus inserted in these places four years ago had been revived and stimulated into action by the effects of the virus I inserted into the other arm on the 15th of last month. It seems to me that this affords a pretty strong proof of the capability of animal poisons to lie dormant, but perhaps a better explanation may be given.

I am, Sir, yours obediently,

F. A. J. SHEPHERD.

St. Olave's Union Infirmary, Rotherhithe, S.E.,
June 7th, 1881.

P.S.—I have thought of the possible bearing of this case on latent cases of hydrophobia. Is it possible that other diseases may exist for an indefinite period in a state of latency, and be called into action by their appropriate stimuli?

Messrs. J. & C. Lloyd & Co.—The controversy had better be confined to the journal of the Society in connexion with which the charge complained of was made.

F. R.—The L.R.C.P. qualification does not confer on the holder the right to style himself "Dr."

Mr. Crespi's letter arrived too late for insertion in our present number.

Mr. Eddowes (Stamford).—If the Licentiate of a College of Surgeons is admitted to be a surgeon it would be difficult to show that the Licentiate of a College of Physicians is not a physician. The possessor of such qualifications is a doctor in the vulgar sense of being a medical man, but not in the sense of being a graduate of a university, nor is he entitled to use the prefix "Dr."

Appetitus Rationi Pareat.—The appointment is legal.

Questioner should apply to the secretary, Mr. Blackett, 28, Green-street, Grosvenor-square, W.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Struthers, Aberdeen; Mr. Larkin, London; Dr. Hughes, Dinorwic; Mr. W. B. Hunter, Matlock; Dr. J. B. Tuke, Edinburgh; Mr. Webb, Woolwich; The Lord Mayor; Mr. T. A. J. Shepherd, London; Dr. Stephenson, Bradwinch; Dr. G. W. Potter, London; Mr. Henry Smith, London; Dr. Whishaw, Lucknow; Mr. Whittaker Hulke, London; Mr. John Wood, London; Mr. J. F. West, Birmingham; Messrs. Tillotson and Son, Bolton; Dr. Taylor, Bocking; Dr. Robert Bell, Glasgow; Mr. Mansell, Melton Mowbray; Dr. Shingleton Smith, Clifton; Mr. P. L. Booth, Barrow-in-Furness; Dr. Sheen, Cardiff; Dr. Ligertwood; Dr. Barclay, London; Dr. Dale, Lynn; Mr. W. Lake, Walthamstow; Dr. Whittaker, Glasgow; Dr. Curran, Ashton-under-Lyne; Dr. Anningson, Cambridge; Dr. Mosse; Mr. Philpot, London; Dr. White, Brentwood; Dr. Hooper, London; Mr. Kingzett, Tottenham; Mr. Godrich, Fulham; Surgeon-General J. Mouat, London; Mr. Denham, Southsea; Mr. W. H. Brown, Leeds; Dr. Harbinson, Lancaster; Mr. Heather, Dundrum; Mr. Clutton, London; Dr. Gill, Canterbury; Mr. Chippendale, London; Dr. Fergus; Mr. J. Chatto, London; Dr. Taylor, Trowbridge; Mr. Underwood, Liverpool; Dr. Macewen, Glasgow; Mr. Edmett, Liverpool; Mr. Salmond, London; Mr. M. Morris, London; Mr. Baird; Mr. Moody, Wandsworth; Mr. Dornan; Mr. Crespi, Wimborne; Mr. F. Page, Newcastle-on-Tyne; Dr. Gourley, West Hartlepool; Dr. J. C. O. Will, Aberdeen; Mr. Dolan, Halifax; Dr. Goyder, Bradford; Mr. Elrod, Vandalia Dr. Hood, London; The Managing Director of the United Arts Gallery; Medicus, York; So. Bong; W. T.; Gabam; Another Public Vaccinator; A Cambridge Graduate; Surgeon; Alpha, Howden; A Public Vaccinator of Forty Years' Standing; Bristolian; M.D.; &c., &c.

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ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

By FREDERIC J. MOUAT, M.D., F.R.C.S.,

FORMERLY PROFESSOR OF MEDICINE, CLINICAL MEDICINE, AND MEDICAL JURISPRUDENCE IN THE MEDICAL COLLEGE OF CALCUTTA, AND FIRST PHYSICIAN OF THE HOSPITAL ATTACHED TO THE COLLEGE; DEPUTY INSPECTOR-GENERAL OF HOSPITALS (RETIRED); VICE-PRESIDENT AND FOREIGN SECRETARY TO THE STATISTICAL SOCIETY OF LONDON, ETC.

II.—THE CONSTRUCTION AND ARRANGEMENTS OF HOSPITALS.

FOR more than a century past the subject of the construction of hospitals has attracted attention, and been discussed and re-discussed by a multitude of able men. Sometimes with scientific precision uninfluenced by personal feeling; often with anger and acrimony; and not unseldom with the profoundest sentiments of sympathy with the sick and suffering, and the most earnest desire to place them in the position best calculated to afford them the fairest chances of life, and restoration to health.

The labours of John Howard in this field are well known; but the first serious attempt to treat the subject with scientific accuracy was that of MM. Tenon and Bailly, when considering the grave defects of the old Hôtel Dieu, and the best means of remedying them. The classical work of the former laid the foundations of the system now being adopted, and is the most valuable contribution ever offered on the question. It is somewhat singular, that after the lapse of nearly a century, the question of the entire removal of the same Hôtel Dieu should again have given rise to prolonged discussions in the Academy of Medicine and the Surgical Society of Paris, and of the official commission appointed to consider and carry it into effect. The conclusions arrived at by the Société de Chirurgie have since guided the action of the most advanced reformers in this direction, as I shall endeavour to show further on.

The Crimean war, the contest between Prussia and Austria after the Schleswig-Holstein conflict, the great war of secession in the United States, and the Franco-German war, again strongly directed the attention of the public and of the profession to the best means of dealing with accidents, injuries, and disease in large bodies of men suddenly collected in overwhelming numbers, so as to avoid the fearful destruction of human life, inseparable from the old methods of managing such matters. The successful application of the arts of peace to the operations of war, was shown in the adoption of the principles so long ago advocated by Tenon.

The removal of St. Thomas's Hospital, the building of the Herbert and Netley Hospitals, the reconstruction of the Edinburgh and the building of the Western Glasgow Infirmaries, and the building of several new hospitals in different parts of England, attest the practical interest in the subject taken by ourselves.

The detailed, elaborate, and excellent report of Messrs. Bristowe and Holmes, with the remarks of the distinguished medical officer of the Privy Council, published as a parliamentary paper, with the writings of Miss Nightingale and Captain Douglas Galton, are still authorities of great value on this important and vexed question.

To attempt to take note of the ground covered by the various contentions in this century of conflict of opinion, would be as unprofitable, as it is impracticable, in a reasonable compass. It is, however, unnecessary. It will be sufficient for my purpose to state the conclusions arrived at, after prolonged discussion in Paris in 1864, inasmuch as they have in the main been observed in the latest hospitals built on the Continent of Europe, and in some of those recently constructed elsewhere, the chief exceptions being the costly failures of the new Hôtel Dieu and St. Thomas's Hospital, the former from a deliberate and intentional disregard of the true principles which have taken so long to establish, the latter from a singular, and not very intelligible misapplication of those principles. With us the deathblow to the aggregate or palatial plan was given by the late Sir James Simpson and Mr. Erichsen; for although the accuracy of the basis of the arguments of the former has been disputed, and the views of both have not obtained the same acceptance with us that they have done in other countries, their practical adoption in the most recent hospitals of Germany, France, and the United States, affords the best possible proof of their accuracy.

It was well said by Léon Lefort, one of the most competent authorities on the subject, that it is sometimes supposed that the question of hospital construction is an easy one, that architectural considerations should predominate, that hospitals should serve for the ornamentation of towns, that they are as easily planned as streets, and that the science of health or hygiene has little to do with them. He disputes the correctness of this view, inasmuch as the best authorities on health and disease have shown, that it demands the application of the most profound knowledge of medicine in all its branches, for its correct understanding.

The celebrated Philibert Delorme, the *protégé* of Catherine de' Medicis, and first architect of the Tuileries, now in ruins, in his "Traité Complète d'Architecture," published three centuries ago, foreshadowed the true principles involved in the construction of hospitals. "It would be better," he wrote, "for the architect to fail in ornamentation, such as columns and facettes, which all study most, than in those rules of nature which tend to the convenience, use, and profit of the inhabitants, and not the decoration, beauty, and enriching of buildings, which are only for the contentment of the eye, and bring no advantage to the *life and health of man.*"

Compelled by the exigency of time and space, I pass over other authorities, some of considerable eminence, to come to one who will, I believe, exercise a more permanent influence on the whole question of collective dwellings, than most of his predecessors or contemporaries. I refer to Monsieur C. Tollet, a French civil engineer and architect.

In 1876 M. Tollet presented to the Academy of Sciences in Paris, a memoir concerning the principles which should regulate the construction of collective buildings for both men and animals. In it he states that he was thus inspired by views formulated for more than a century by the most competent hygienists, views which have remained sterile by the united influence of routine and vanity, and by the irrational opinion that the potential voice was that of the constructor in a question of health, touching which the only profession competent to deal thoroughly with it was scarcely considered, and when consulted, disregarded.

M. Tollet has applied his system successfully to barracks, schools, and hospitals. That system, which bears his name, is one of single-storied pavilions, raised on plinths and built in separate blocks on a peculiar form of construction, which, in my opinion, unites in the greatest degree the best sanitary conditions, with the most moderate cost, and the greatest permanent retention of healthy attributes. I shall refer more at length to them when I come to the description of the St. Eloi Hospital at Montpellier, and other institutions of a like character, constructed, or in progress, by him.

I shall not attempt to discuss the difficult and still undetermined problems connected with the causes of the vitiation of the air of a hospital, [together with the conditions under which septicæmia and blood-poisoning occur in wounds, and in some constitutional diseases. The existence of such influences cannot be denied. Whether they be due to putrefactive fermentation, the development of germs and living organisms, or any more subtle and less easily detected general agency, is comparatively of little importance in the determination of the question under consideration. The end to be sought is the best means of depriving these agencies of their power of mischief; and this is now admitted to be by placing all institutions in which many persons are congregated under the same roof, whether in health or in disease, in the best possible state to secure the utmost attainable purity of all the essentials of health and life, such as air, soil, water, and the agencies which affect an individual, or may from him extend to other persons, and ultimately infect whole communities. Hence I shall reproduce, *in extenso*, the conclusions arrived at in Paris, for reasons already stated; and after considering the leading features connected with hospital construction, briefly describe such of the most recent, as appear to be best fitted to fulfil their purposes.

The conclusions of the Surgical Society of Paris, after ten prolonged sittings, were as follows:—

1. A hospital should be placed in an open space, upon a dry soil, with an inclined surface. This space should be large. A superficial area of thirty square metres (about thirty-five square yards) for each sick person is the minimum space that should be allowed, and this should be increased as much as possible, and should be augmented progressively with the increase in the number of sick.

2. The air of a hospital will be pure in proportion to its distance from thickly populated places. In the centre of cities hospitals for urgent cases alone, which are necessarily restricted in numbers, and for clinical purposes, should be retained. This measure of health will be at the same time one of economy, as it will allow large towns like Paris, to instal their hospitals on large areas at less cost.

3. Good hygienic conditions are easy to obtain in hospitals of from 200 to 250 sick. These conditions are impossible to obtain, in large towns, if double the amount of these figures is exceeded. Within these limits of numbers, the expense for all purposes, is not in excess of that of hospitals containing larger numbers.

4. The constituents of the atmosphere intermingle chiefly in a horizontal direction; hence the necessity of combating, by increased space, the effects of contact, and of the proximity which constitutes crowding, and the influence of which is communicated from patient to patient, ward to ward, and from one building to another.

5. To strive successfully against contagious influences not only needs an increase of the cubic space allowed to each sick person, but in addition, and above all, demands an increase of superficial area, which is at present insufficient in all our civil hospitals. For similar reasons the multiplication of stories is contra-indicated, as each of them generates a more or less vitiated atmosphere. From a rigorous hygienic stand-point the superposition of stories should be limited to two.

6. It is illusory to believe that a large cubical capacity in wards can replace an absence of external space and aeration, or to suppose that an abundant artificial ventilation can supply the place of either of those conditions. Nothing can compensate for the insufficiency or absence of natural aeration.

7. Buildings completely isolated, and all having the same aspect, freely exposed to light, and to the action of wind and rain, should be placed in a single, or in parallel lines, at intervals of from 80 to 100 metres (rather more than from 85 to 109 yards), so as to secure effective separation and external aeration.

8. Small wards of from fifteen to twenty beds are easy to superintend with care. In them the mutual discomfort of patients, and the chances of direct contagion, are diminished, and the rapid removal of all impurities is increased. They are preferable for the ordinary care of the sick, and do not affect prejudicially the special arrangements required for certain classes of disease, which need more space and the isolation of separate rooms.

9. The furniture of wards should interpose no obstacle to the free circulation of air. Bed curtains should be suppressed whenever it is considered necessary.

10. Wards should be separated by partitions, or rooms devoted to common service. One of them should be used as a day and dining-room for the benefit of all patients able to get up, and thus cause a daily incomplete emptying of the sick-room.

11. The periodical and regular evacuation of all sick wards, and their complete rest for months at a time, have produced such good effects in the military hospitals of France, and in the hospitals of other countries, as to be deserving of general adoption, which is a pressing necessity in times of epidemics.

12. Arrangements should be made to secure that all odorous and infectious matters, dejections, dressings, water used in cleansing, &c., should be rapidly destroyed or removed, and never be allowed to remain within or near the rooms occupied by the sick, or be permitted to cause any perceptible smell.

13. The central administration of the hospitals should be supplemented and assisted by a permanent consulting [advising] committee of health, holding periodical meetings. This committee should consist of physicians, surgeons, administrators, architects, and engineers, with power to call into council all the heads of hospitals, who are not members of the commission. The periodical meetings of the physicians, surgeons, and administrators of each hospital could furnish valuable advice to the central administration, to enable it to deal efficiently with all measures of progress."

Bearing these conclusions in mind, and knowing that, although susceptible of modification in some circumstances, they were based on a careful examination of the hospital systems of all countries at that time, and of our own in particular, I shall now proceed to consider the chief points which require examination, in any proposal for the building of the hospitals of the future.

These are (*a*) site and surroundings, (*b*) ventilation and warming, (*c*) water-supply, (*d*) the dimensions and distribution of buildings and wards, (*e*) size of hospitals, together with (*f*) furnishing and fitting.

(*a*) SITE AND SURROUNDINGS.

An ideal site for a hospital would be where the conditions of soil, subsoil, drainage, water-supply, and all surroundings were most free from local causes of impurity, and where there were fewest buildings and habitations to exclude or intercept air and light, or to be themselves active agents in the creation of causes of unhealthiness, such as factories, workshops, &c.

Sufficient practical experience and knowledge of the subject have been acquired to show that gravel and sand are more likely to be healthy than clay or any impermeable medium, which needs costly artificial contrivances to get rid of surface moisture and soluble impurities; that a hillside would in most, but not in all, circumstances be preferable to the base of a hill; that an elevated plateau or plain would, in temperate climates, be more advantageous than a bottom or valley, and so on.

But the necessities of the times in which we live, particularly in great cities and centres of industry, compel us to select, not that which is best in itself, but what is procurable at least cost, and the most accessible proximity to those who need it.

In London, for example, most of the older hospitals, which are now in densely crowded, or in unhealthy localities, were, when they were originally built, either in open fields, or so far removed from buildings of all kinds as to be free from most of the reproaches which now attach to them. Each recurring census return in Europe and in the United States shows with what startling rapidity manufacturing and other industrial towns and cities are expanding, and how quickly the centres of population in them are shifting. A glance at the Map which will accompany this paper will bring out in startling relief this fact as respects London. The census of 1871 gave it a population of 3,254,260 inhabitants, occupying an area of 125 square miles, in which the density of the population of the whole area was forty persons to an acre, and in its most crowded and least healthy localities range from 205 per acre in Whitechapel, to 325 per acre in St. Anne's, Soho. The census of 1881 has somewhat changed these figures, as I shall show hereafter. Now, Switzerland, with a population of 3,000,000, is spread over 15,980 square miles; Sweden, with a little more than four and a half millions, occupies 171,000 square miles; Holland, with about four millions, 12,730 square miles; and Denmark, with scarcely half the population of London, 14,760 square miles.

In addition to this extreme pressure of population upon space and the means of subsistence, the Map indicates the present provision of all kinds in the metropolis for sickness in all its forms, and how very unequally it is now distributed, as I shall endeavour to explain when treating of the organisation of its medical relief. The Map will appear in the issue of July the 16th. The same fact is witnessed, although in a diminished degree, in the sixteen towns of the United Kingdom which have a population of more than 100,000, and in the half dozen others which have probably by this time reached that number. This condition must be carefully borne in mind in all discussions on the relative merits of town and country sites, as proper places for hospitals for the use of town populations.

Wherever practicable, general hospitals should undoubtedly be placed in the outskirts of towns, as near as possible to the bulk of the population who require to resort to them; and all convalescent hospitals, imbecile asylums, hospitals for incurables, and similar institutions, should invariably be placed well clear of the town. But, hospitals attached to schools of medicine, and those which are intended for accidents, injuries, and acute cases which will not bear distant carriage, must still be in towns; hence their construction and arrangements should be so managed, as to minimise the evils inseparable from their position.

Every hospital, wherever placed, should be surrounded by a zone of aeration, unencumbered with buildings or any other cause of obstruction of light and air, to a distance of at least double the height of the buildings.

The interspaces, which should be found in all hospitals in town or country, should not be paved or concreted yards shut in by buildings, but open cultivated gardens, accessible to the convalescent, with shelter from the weather, so as to enable them to be as much in the open air as possible, whenever it is prudent or proper for them to be out of doors.

The aspect of a site, which will determine that of the buildings, should, wherever there is a choice in the matter, be such as to command the greatest amount of sunlight at all seasons. The duration, force, and other conditions of the prevailing winds should also be closely studied, as they now are in France and Germany, and the greatest care should be taken not to place hospitals where those winds blow over parts of country unhealthy, from whatever cause, natural or artificial.

The natural drainage and watershed of the locality should also be noted, together with its geological formation, where there is any choice of position.

(*b*) VENTILATION AND WARMING.

Some authorities seem to think that the healthiness, or otherwise, of hospitals is more a question of ventilation than of any other condition—that, so long as you give to each occupant of a sick-bed an adequate amount of space, cubical and superficial, and renew the atmosphere in which he lives and breathes, to such extent as to remove with sufficient frequency, all obvious and perceptible causes of impurity, without making this admission of itself a source of danger or annoyance—it matters little how many you place in each ward, to what extent you pile story upon story, or whether your hospital be placed in town or country. Some, again, appear to be satisfied that artificial systems of ventilation are of little or no use, and that what is termed natural ventilation is the only sound and efficient means of procuring a sufficient current of pure air, to counteract the unavoidably unwholesome influences of a sick ward. Others believe that dilution of the septic poison is sufficient to rob it of its power of mischief, provided it be carried to a sufficient extent.

I take leave to differ somewhat from all these views. Although not susceptible of strict mathematical proof from any statistical data at our command, there is an abundance of evidence on record, of an adequately exact nature, as regards prisons, barracks, factories, schools, and other institutions in which large numbers of human beings are congregated under one roof, to prove that their healthiness, or the reverse, bears a direct and definite ratio to the numbers aggregated upon a given surface, each having a sufficiency of air for healthy respiration in ordinary circumstances. So true is this, that in many examples known to me personally, in India and elsewhere, a hygeiometric scale of their salubrity might almost have been constructed, based upon the increase or decrease of the number of persons contained in them, all other conditions remaining unchanged.

It is tolerably certain that any one person can bear his own exhalations with comparative impunity, but, that he is liable to be poisoned by those of his neighbours, in an increasing ratio proportionate to their number. To such an extent is this correct, that if it were possible to place every sick or wounded person in a separate cell, and isolate him strictly from all others, the extension of all infectious diseases dependent upon a specific contagium, and all the ordinary forms of septicæmia, might be checked, and possibly extinguished.

The beneficial influence of such separation, was remarkably illustrated by an involuntary experiment performed in one of the prisons under my supervision in Bengal. Towards the end of the Orissa famine, a large number of half-starved, sickly men were sent to a district gaol, on account of certain grain robberies of which they were convicted. When that prison became dangerously overcrowded, they were transferred to another prison in a different district, which had spare room. The majority of these prisoners were placed in fairly ventilated wards, with ample room for each, according to the standard measurement allowed. About 120, however, for whom there was no spare room elsewhere, were put in as many separate cells, having 480 cubic feet of space each, and practically without ventilation, for, although they had open grated iron doors, they were situated in long corridors at right angles to the prevailing winds. A considerable number of the former died from different diseases, but chiefly from diarrhœa; while there was not a single casualty among the latter, who were said to have been the sickliest of the lot on admission, and who were on this account placed in the cells, which had long been known as the healthiest part of the prison in question.

A remarkable paper has recently been published in the *Annales d'Hygiène et de Médecine Légale*,[1] by Dr. Layet, Professor in the Faculty of Medicine at Bordeaux, on what he terms "the co-efficients of aeration, or the renewal of air necessary to prevent the effects of overcrowding in inhabited spaces." The professor contends that the quantity of air to be renewed for a person breathing in a space of 20 cubic metres differs from that required for the same person breathing in a space of 100 cubic metres. In the same manner if three, four, five, or six persons breathe in the same space, the figure of ventilation would not be the same, as if each of them breathed in the whole extent of this space. There is, therefore, no uniform, unvarying figure of ventilation, without reference to the size of the room, and the number of persons breathing in it. He has accordingly prepared a table of the co-efficients of aeration, to show at once the amount of air required to be renewed, in the different conditions of space and number. This is of importance where large numbers of people are assembled in a given space, and shows the considerable amount of air needed for renewal in such circumstances—a fact in harmony with the necessity at all times to counteract the ill effects of overcrowding. The professor has been good enough to send me his table, and the question has been discussed at a recent meeting of the Society of Public and Professional Hygiene in Paris, where it was objected that the method was defective in taking note only of the amount of carbonic acid and aqueous vapour present in an atmosphere breathed by many persons, whereas it is the presence of organic matters, that is really most injurious in such circumstances. True as this may be, the impurity caused by carbonic acid is a factor of sufficient importance to be able to determine in all circumstances, for it is chiefly upon this, that most of the practical rules adopted in ventilation are based, and upon it is founded the doctrine of the amount of cubic feet of air necessary for healthy respiration in all circumstances. Professor Tyndall's lecture on dust, and the labours of Pasteur and others on the nature of organic impurities, are gradually throwing a flood of light upon the whole question, and prove that the fewer the number of sick persons collected in a given space, however perfect the ventilation and other physical conditions, the better, and the more likely they are to escape the consequences of the particular vitiation of the atmosphere which causes blood-poisoning in most of its forms.

The problem, then, to be solved in all questions of ventilation is somewhat complex; hence the difficulty of dealing with it in such manner as to establish a general law applicable to all places and circumstances, as well as to all seasons and climates. From this cause, doubtless, arise the very different plans recommended by the highest authorities, engineering and medical.

The conditions to be secured are the utmost purity of air obtainable; as uniform a temperature as is found to be consistent with the maintenance of health at different seasons, and as rapid a renewal consistent with the above conditions, as will secure that as little vitiated air as possible, shall enter the lungs in each act of respiration. Physiology and chemistry have dealt decisively with the first two factors; and pathology is still engaged in determining what amount and kind of organic impurity are prejudicial to persons in health and injurious in disease, not only in relation to the individual, but to his becoming in turn a focus of infection to others; for it is in this manner that zymotic diseases arise and extend.

The measure of the purity of the atmosphere surrounding a building of any kind, will be that of the air finding its way into it, and its temperature will stand in very much the same relation. Hence the necessity of artificial contrivances to regulate it, in the extremes of heat and cold. But, in so mild and equable a climate as ours, expensive and complex contrivances for artificial ventilation do not appear to me to be needed, as they are in the hospitals of the northern parts of the United States, and in Central and Northern Europe.

All mechanical arrangements for ventilation should include warming, as a measure of economy as well as of comfort. Not only does the air of a sick ward need to be pure and of uniform temperature, but the floors ought equally to be warmed as they were in old Roman buildings and are in China. There are many ingenious and efficient contrivances for effecting this.

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[1] No. 25, 4me Série, Jan. 1881.

The union, then, of natural and artificial ventilation, the former by means of sash windows, Tobin's tubes, and a multiplicity of simple means of admitting and removing air, the latter by open fires, acting as ventilating shafts, supplemented by the moderate and judicious use of warm water coils, will usually accomplish all that is desired.

To attempt to enumerate the infinite mechanical devices by which all this can be accomplished, is impossible. They may safely be left to the architect and the engineer, for whose guidance there is an abundant literature on the subject, both as to the end to be attained, and the means of securing it.

A point generally disregarded in all discussions on the subject of ventilation, is the purification of the air itself in sick rooms, which constantly contain the elements of their own corruption. These septic agencies may be diluted, and, to a certain extent, removed, by constant and rapid renewal of the hospital atmosphere; but they have a tendency to attach themselves to walls, bedding, &c., and their entire removal is a matter of much importance—so subtle is their action, so difficult their detection, and so imperfect our knowledge of the exact mode of their operation.

The Hindus of every part of India with which I am acquainted have from time immemorial possessed a means of purifying the atmosphere of their rooms and huts, by spreading a light coating of a mixture of earth, containing organic matters, on their walls and floors, which enables them to dispense, to a considerable degree, with ordinary ventilation. The process is called "leoping," and is usually performed by the women of the household. With a view to submit this proceeding to a practical test, I had four cells in the Presidency gaol of Calcutta, each containing 480 cubic feet of air and practically unventilated, carefully prepared. Two of them were limewashed throughout, and the two others "leoped." I had four healthy prisoners locked up in them at night, one in each cell. On opening the cells next morning, the two which were limewashed were stuffy and offensive, redolent of the peculiar animal odour exhaled by native prisoners in such circumstances. The two others were as fresh and as pure, as if no one had slept in them. This led me, as head of the prison department, to direct the application of the principle generally in all the gaols under my administrative control, so far as it was susceptible of direct application to walls, floors, and earthen beds. I also employed charcoal extensively for the same purpose, the purification of the air of prison wards from animal exhalations, and, I had reason to believe, with success. This seems to me to be deserving of careful trial in Europe.

In crowded cities, and in all positions in which the external air is likely to be contaminated by organic matters and malarious emanations, in winter especially, it might be subjected to a certain appreciable amount of purification by being passed through cotton-wool or charcoal.

Some writers have recommended that the walls of all masonry hospitals should be porous, to admit of the penetration of air at all times. This would, however, be attended with the grave disadvantage of their intercepting and retaining septic poisons. Masonry walls should therefore, I am of opinion, not only be absolutely impenetrable, but be coated with some hardened substance capable of being thoroughly cleansed without injury, whenever such a proceeding is desirable or necessary.

In some great hospitals, in addition to the effete air of the buildings generally, that of all waterclosets, sinks, and fireplaces, and all other sources of noxious exhalations, are passed through a great central ventilating shaft, represented by a tall, towering chimney. This does not appear to me to be a safe proceeding, and it may possibly explain the cause of the origin of the sickness, which is said to find its way into houses situated in the immediate vicinity of some of the great hospitals in Paris.

I have dwelt thus at length upon the subject of ventilation because, as I have already mentioned, some eminent authorities regard the whole matter of the unhealthiness or otherwise of hospitals to be mainly a question of this character. Hence also the coining of the barbarous term "hospitalism," which has led to much of the "logomachy" and differences of opinion which have arisen on the hospital question.

The French term "*malaria nosocomiale*" is both more correct and expressive, and if it could be condensed into a single word, such as "nosocom-aër," would be preferable to Sir James Simpson's invention, which is liable to considerable misapprehension, and includes other conditions which have no real connexion with the atmosphere of hospitals.

I assume that the best adjunct of all schemes of ventilation—scrupulous cleanliness—is observed, as it undeniably is in every well-regulated hospital in this country, particularly since the introduction of a higher class of nurses, for it is upon their intelligent and incessant care and attention, that the absence of all noxious agencies from impurities of any kind, of person, place, or appliances, is dependent. Associated with the purity of person and place is that of the disinfection and cleansing of all clothing and bedding, and the immediate destruction of all dressings &c., for which, as a rule, due and proper provision is or requires to be made.

(c) WATER-SUPPLY AND DRAINAGE.

The question of water-supply is one of the greatest importance in relation to the healthiness of hospitals, for if soluble impurities be dangerous to persons in health, their ingestion into the systems of the sick is still more injurious, from their diminished power of resisting disease. The great attention now paid to the subject, and the improved supply and distribution in all our larger towns, secure an abundant, and it rests with the hospital authorities to make it a wholesome, allowance. When hard it should be rendered soft by the Porter-Clark process, and the supply should be constant and practically unlimited, for at least double the quantity needed for the healthy is required for the sick.

Connected with water-supply is that of baths, and in this respect the French and German hospitals are, as a rule, much better furnished than our own. Every large hospital should have a complete system of baths for cleansing and therapeutic use, such as are now found in the University College Hospital of London; and all smaller institutions throughout the country, should be supplied with both fixed and movable baths.

Should the water-supply in country places be obtained from wells, or from storing of rain water, the greatest attention to its purity should be paid. The drainage in towns must be connected with the general drainage of the locality, and exceptional care be taken for the disconnexion of the drains and pipes of all kinds with the wards, by means which are now well known to all architects and engineers. To cause the ventilation of closets, sinks, and lavatories to be connected with great chimneys in crowded localities I hold to be erroneous, and likely to be mischievous, as they are now believed to be. When hospitals of any kind or class are isolated, and unconnected with any general system of drainage, all excretory matters should be strictly dealt with on one of the dry systems in use, and on no account should connexion with cesspools or tanks, or any scheme of sewage utilisation with water, be allowed, unless all such matters are previously disinfected. The more carefully they are deodorised, and, if necessary, as in typhoid dejections, disinfected, the less liable they will be to prove injurious before they are returned to the great natural purifier—the earth—aided by rapid vegetation.

In the construction of all hospitals proper provision for the above purposes should never be neglected, or sacrificed to any false economy, as too often obtains at present.

(To be continued.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.—During the year ending April 5th, 14 candidates were admitted to the Fellowship, 103 received the surgical licence of the College, and 10 the diploma in midwifery. Of the candidates for the Junior Class Examination 94 were rejected, and 40 at the Final Examination. The diploma in dental surgery was conferred on 111 candidates. Among the donations to the Museum may be mentioned that of Mr. Allen, which comprised a valuable collection of forty-eight objects, principally illustrative of the ethnology and natural history of South-west Africa; and a collection of specimens and photographs from Mr. Hillis, on the subject of leprosy. A sum of £25 has been contributed by the College towards the fund now being raised to defray the expenses of the proposed International Medical Congress.

THE PATHOLOGY AND TREATMENT OF DIARRHŒA IN PHTHISIS.

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(Concluded from p. 946.)

Clinical symptoms.—When ulceration is proceeding on a large scale in the intestines the patient complains of thirst and anorexia, the pulse is quick, and there is generally great prostration; the tongue passes from furred through various stages: first it is red at the edges, and furred in the centre; then red all over and glazed; then red with a brown streak in the centre; and, lastly, aphtha appears on it. The diarrhœa is remarkable for its persistency; the motions, especially towards the end of life, are very frequent—sometimes twenty in the twenty-four hours, but this is not always the case, and there may be only three or four daily, the characteristic feature being their steady persistency. They may be checked by treatment, but directly this is omitted, and often in spite of its action, the symptom returns; the stools themselves are very loose and ochrey-coloured, often tinged with blood, and towards the end of life contain small sloughs from the large intestine. They are exceedingly fetid, and the patient appears much exhausted after each action.

The aspect in these advanced cases is well-marked. Owing to the terrible emaciation the face is drawn, the malar bones appear prominent, a hectic spot is generally seen on each cheek, and the expression of the countenance is that of pain, and pain there generally is in the region of the ulceration, or else in the centre of the abdomen. Tenderness is generally to be found if carefully sought for; this of course varies in different cases. The right iliac fossa is the common seat of it in many, and especially in early, instances; but later on it may be detected in the right lumbar, right hypochondriac, epigastric, left hypochondriac, left lumbar and left iliac regions, showing clearly that the whole of the colon and sigmoid flexure are involved as well as the cæcum and lower ileum. Often, too, the detection is rendered more easy by the bowel being distended by flatus. The sigmoid flexure is, in my experience, as often the seat of ulceration as the cæcum, and I have frequently detected this during life, and verified it after death. The wasting arising from the diarrhœa is much greater than in ordinary pulmonary phthisis, and a few days of its persistence will reduce a consumptive, who has previously been gaining flesh, by several pounds.

The question arises, In what part of the intestinal canal does ulceration commence? The experience of post-mortems rather indicates that it commences in the small intestine near the ileo-cæcal valve; but how comes it then that we usually find the process more extensive and advanced in the large intestine? which will, I think, be generally admitted. The answer is to be found in (1) the long retention of the contents of the large intestine, (2) in the disengagement of foul gases in this region, and (3) in the enormous variations in calibre to which this part of the intestine is subject, all of which circumstances favour the spread of destructive or ulcerative inflammation, if once set up. Ulcers in the large intestine may be considered to be placed under most unfavourable conditions for healing.

The temperature varies according to the amount of the ulceration, provided there are no special exciting phenomena in the pulmonary or other lesions. Where the amount of ulceration is small and not advanced in stage, the temperature is not materially affected, as will be shown presently (Case 4); where, however, it is extensive, involving both small and large intestines, there is generally marked pyrexia, often alternated by great collapse. The chief feature, however, is its fitfulness; for one day at 11 o'clock the record may be 97° F., and on the following day, at the same hour, it may show 103° F.; these cases being the least of all amenable to the laws governing the pyrexia of phthisis. It is possible, however, to have extensive ulceration without any diarrhœa, for Dr. Douglas Powell gives a case in the Pathological Transactions, Vol. xix., where ulcers an inch and a half long were discovered in the ileum, and during life the patient had no diarrhœa. Dr. Pollock also mentions some exceptional cases of this sort.

Let us now take two instances of the influence of ulceration on temperature.

CASE 4.—Emma K——, aged twenty-nine, married, was admitted into the Brompton Hospital, Oct. 5th, 1875, with a history of cough and expectoration for one year, and of emaciation and night sweats for nine months. On admission she was much emaciated. Cough very troublesome; expectoration abundant. Yellow tongue, furred. Bowels costive. Weight 8 st. 5 lb. The physical signs were: crepitation sounds over the whole right lung, with dulness over the lower third; tubular sounds audible in the scapular region. During the first three weeks of her stay this patient improved, and gained 2 lb., but at the beginning of November diarrhœa came on, which persisted up to her death on Dec. 17th, the physical signs indicating that cavities had formed in both lungs. The temperature was taken five times a day from Nov. 26th to Dec. 16th, a period of three weeks, and only on five occasions did it reach or exceed 100° F. The following are the averages:—At 8 A.M. 98·2° F.; 11 A.M. 97·9° F.; 2 P.M. 98·5° F.; 5 P.M. 98·8° F.; 8 P.M. 99° F. Maximum, 100·6° F.; minimum, 96° F.

The diarrhœa varied in amount from three to six stools a day, and did not appear to be greatly influenced by treatment, which consisted of astringents applied by mouth and rectum. The patient died Dec. 17th.

Autopsy, twenty-four hours after death.—Lungs: Right had apex adherent, and a large cavity in the upper lobe. The rest of the lung was riddled with vomicæ containing purulent matter. In the middle of the lower lobe was a small well-defined band of miliary tubercle. The left lung contained several small cavities full of purulent matter, and a large quantity of transparent miliary tubercle of recent formation. The small intestine for the distance of three feet above the ileo-cæcal valve was very much congested. A small ulcer existed a few inches above the valve, and several small ones in the cæcum. Here some miliary tubercle was also seen. The liver and kidneys were fatty, and the other organs healthy.

Remarks.—This case shows convincingly two things: 1st, that a small amount of ulceration need not cause pyrexia; 2nd, that tubercle may form in more than one organ, without giving rise to any marked rise of temperature, and in fact with a persistence of subnormal records. There is no doubt that in this case acute tuberculisation as well as suppurative processes were proceeding in the lungs, and tuberculisation in the intestines, but they only served to depress the temperature, and not to raise it. The next case shows the effects of extensive ulceration on the temperature.

CASE 5.—Herbert N. M——, aged nineteen, a clerk, was admitted into the Brompton Hospital on Dec. 3rd, 1878. His father and mother died of consumption; he had suffered from cough and yellow expectoration, loss of flesh, and strength for two years. For the last ten months he had had continuous diarrhœa, accompanied by some pain in the epigastrium, after food. Had night sweats for three months. At present cough troublesome, expectoration abundant and muco-purulent, tongue furred, bowels open two or three times daily, appetite poor; urine acid, containing no albumen or sugar, sp. gr. 1035; weight 6 st. 4 lb. Physical signs: Flattening under both clavicles, dulness and crepitation above the right scapula, and tubular sounds in the first interspace. The diarrhœa persisted, in spite of a variety of astringents and diet having been tried, and on the 25th of January, 1879, well-marked tenderness was noted in the umbilical region. Cavernous sounds were audible at each apex, with crepitation in the lower left lung. The tongue had become red at the edges; the number of stools varied from two to four daily, and were loose and ochrey. On the 30th there was much tenderness in the lower portion of the abdomen, most marked in the left iliac fossa in the region of the sigmoid flexure, and to a less degree in the right iliac fossa. There was still some tenderness, quite separate from the rest, in the umbilical region. From these signs and the persistent diarrhœa I diagnosed ulceration of the cæcum and large intestine, most marked in the sigmoid flexure, with enlargement of the mesenteric glands from secondary absorption. The patient gradually wasted away under the influence of the pulmonary and intestinal lesions, and sank on February 7th.

The temperature was carefully taken five times a day during the last fortnight of his life, and the chart showed records nearly normal in the mornings, with a persistent pyrexia after 2 P.M. The highest recorded was 103·8° F. This chart, however, proves, as Lebert has shown in other cases, the fitfulness of the temperature in intestinal ulceration. There are several records of 101·5° F. at 8 A.M., once followed by a fall at 11 A.M., and a second rise at 2 P.M. During the last day of the patient's life the temperature fell from 102° F. to 96·8° F., indicating collapse of the vital powers. The following are the averages: At 8 A.M. 99° F.; at 11 A.M. 99·9° F.; at 2 P.M. 100° F.; at 5 P.M. 101° F.; at 8 P.M. 101·1° F. Maximum, 103·8° F.; minimum, 96·8° F.

Autopsy, on the following day.—Lungs: The right had pleura adherent, and contained a large cavity at the apex, surrounded by nodules of tubercle; the lower and middle lobes were congested. The left contained a cavity, with less congestion than the right. Intestines: The small intestine was thin, and the vessels full. Three small ulcers were detected, each about one-third of an inch in diameter, about an inch above the ileo-cæcal valve. The large intestine showed extensive ulceration, chiefly in the lower portions, and most marked of all in the sigmoid flexure, where several ragged ulcers with thin edges were found. The mesenteric glands, especially those lying in the folds of the meso-colon and meso-rectum, were much enlarged. Liver fatty. The other organs were healthy.

This case shows well the effect of extensive intestinal ulceration on the temperature chart, for it is probable the state of the pulmonary lesions was not sufficiently active to have greatly influenced it. The ulcerations were found in the exact positions predicted before death by the physical examination.

The diarrhœa proceeding from lardaceous degeneration of the intestines is not so marked in its characters as that arising from ulcerations. Its clinical features have not as yet been completely drawn, but it may be said to correspond with the colliquative diarrhœa of M. Peter and other French authors. It prevails in the late stages of the disease, is not very profuse, but is persistent, and seems to have some correspondence with the drenching night sweats. The stools are much more watery, and diminish after a profuse night perspiration, the tongue is more furred than red, there is less pain and no tenderness at all in the track of the intestines, but the liver is often enlarged and tender, being affected by the same kind of disease. Diarrhœa from lardaceous disease of the intestines is only to be found (in phthisis) in connexion with great discharge from some mucous surface, or with the profuse expectoration from a large vomica, or from several smaller ones. Protracted diarrhœa, as that due to ulceration, may give rise to lardaceous degeneration of the intestines, so that in many post-mortem examinations we find both ulceration and lardaceous disease present; and the question arises as to which of the lesions the diarrhœa may be attributable. This question is only to be solved by a very careful revision of the clinical history. In a fair proportion of phthisical cases lardaceous disease is present without ulceration, and here we have no difficulty in referring the effect to the proper cause. After death the appearance of the intestinal mucous membrane, especially of that of the small intestine, is pale, and sometimes there is œdema. There is no marked distinction between it and other mucous membranes until iodine is applied, when a number of small reddish-brown points appear. These correspond to the villi whose capillaries and arteries are infiltrated with the lardaceous deposit, and Dr. Green considers that the diarrhœa is due to an increased permeability of the infiltrated vascular walls, which thus allows of a flux. Usually the pancreas, spleen, liver, kidneys, and mesenteric glands are found in the same condition.

The following is an example of diarrhœa arising from lardaceous disease:—

CASE 6.—Kate H——, aged sixteen, was admitted into the Brompton Hospital on Aug. 13th, 1878. History: Chilled by sleeping in a damp bed in December, 1877, and has had cough and expectoration ever since, accompanied by great prostration and marked inanition and night sweats. Had hæmoptysis, a quarter of a pint in amount, in March, and streaked expectoration occasionally since. Diarrhœa has prevailed for the last month. Cough is very troublesome, expectoration abundant and yellow; appetite indifferent; bowels open three times a day; pulse 110. Physical signs: Crepitation is heard over the whole chest, anteriorly and posteriorly; on the right side loud tubular sounds are audible from the clavicle to the third rib; on the left side amphoric breathing and tinkling sounds as low as the fourth rib. The diarrhœa persisted in spite of a variety of treatment, the stools being loose and three to four in number; the cough persisted and the patient gradually lost flesh and died on Oct. 27th. On the 2nd of October a careful record was commenced of the temperature five times a day, and was continued up to the death on the 28th, a period of twenty-five days. During the first fortnight the temperatures were high, even in the morning; in the second period there was a tendency to fall, and in the last two days, which I have omitted as the records were only those of collapse, the temperature fell to 95·8° F., though the diarrhœa did not increase.

Averages.	8 A.M.	11 A.M.	2 P.M.	5 P.M.	8 P.M.
1st period (14 days) ..	99·2° F.	99·6° F.	100° F.	100·7° F.	101·3° F.
2nd ,, (10 days) ..	98·5° F.	98·3° F.	99° F.	99·2° F.	100·2° F.

Maximum .. 102·4° F. Minimum .. 96·8° F.

The autopsy showed that both lungs contained numerous cavities secreting puriform matter, and in the left was some fresh arborescent tubercle following the line of the bronchioles, some yellow matter filling the lumen of the small bronchi. The intestines, small and large, were intensely lardaceous, giving strong reaction with the iodine; the liver was enlarged, and both it and the spleen and kidneys were all markedly lardaceous.

Remarks.—This is a fair instance of diarrhœa arising from lardaceous degeneration of the intestine, as no ulceration could be detected, and the whole intestinal tract, in common with other organs, was infiltrated with the material.

Treatment.—The treatment of the first form of diarrhœa need not detain us long, as it consists of simply correcting the dietary and ordering a few doses of alterative and purgative medicine, with some alkali to reduce the acidity. The second form—that arising from ulceration—requires very careful attention. The great point to be kept in view is the healing of the ulcers, and this can only be attained by shielding them from all irritable substances, and by promoting a healthy granulating action. The treatment, in fact, resolves itself into three sets of measures.

1st. Rest in bed and the administration of only such food as can be quickly and easily assimilated without causing much distension of the intestine or accumulation of flatus. Such are chicken-broth, beef and veal tea, milk gruel, blancmange, always combined with liquor pancreaticus, and prepared after the admirable methods of Dr. Wm. Roberts of Manchester. Dr. Jagielski recommends koumiss specially in these cases.

2nd. Warm applications to the abdomen in the form of linseed poultices, turpentine stupes, or hot water fomentations, to reduce the pain and promote a certain degree of derivation to the skin. If the pain be severe, I have found the application of a small blister over the area of tenderness on pressure, as recommended by Dr. J. E. Pollock, very advantageous. I have noticed in some obstinate cases that when the blister has risen, the diarrhœa has been considerably reduced, and pain existing in the abdomen at the time has subsided.

3rd. Internal medicines: When we have reason to believe that the ulceration is slight and confined to the small intestine, the diarrhœa may be treated by bismuth and opium, or by some astringents. The liquor bismuthi et ammoniæ citratis (B. P.) is a convenient form, but not always so effective as the powdered carbonate or the nitrate of bismuth in ten to twenty-grain doses. Dover's powder combined with it in ten-grain doses is often effective. The most powerful astringent is the sulphate of copper in a quarter to half-grain doses combined with half grain to a grain of solid opium. Of the various vegetable astringents I have found tannic acid in four-grain doses to answer best, far better than rhatany and catechu, but in all cases I combine it with a certain amount of opium to reduce the irritability of the ulcers. Indian bael, especially a preparation of the fresh fruit, is often efficacious in checking the diarrhœa if the ulceration be limited. If, however the ulceration attack the large intestine as well as the small, it is obvious that more local treatment is advisable, and recourse should be had to injections or suppositories. The enema opii (B. P.) administered twice a day is sometimes sufficient, and may be strengthened by the addition of acetate of lead, four grains to an injection, or of tannic acid, five grains. This is a small injection, and it is doubtful how far its local effect reaches. Where the ulceration is very extensive, and involves the greater part of the large intestine, an attempt ought to be made to apply the remedies more thoroughly to the mucous membrane; and for this purpose injections of larger amount—from a pint to a pint and a half—may be used, consisting of gruel or of starch, or, best of all, of linseed-tea, and all containing a certain quantity of opium (thirty to forty minims of the tincture). I would specially recommend the linseed-tea, as it appears to exercise the same beneficial effect on the ulcers of the large intestine as it does in follicular ulceration of the throat. One of the most obstinate cases of intestinal tubercular ulceration I ever witnessed yielded to linseed-tea injections, after almost every other treatment had been vainly tried, the ulcers apparently healing, the diarrhœa ceasing, and the patient living for two years afterwards, and dying of pulmonary lesions. In cases where the stools are very fetid, I have added glycerine of carbolic acid to the injection with advantage. In many cases, however, it is desirable to give the large intestine as much rest as possible, and not to stretch the ulcerated mucous membrane through any distension by fluids; in these cases suppositories of morphia (from half a grain to a grain), or of the compound lead one, or of those of tannic acid are indicated, and the treatment of the diarrhœa arising from lardaceous degeneration of the intestine is not very hopeful. Where the very channels of assimilation—viz., the villi—have undergone degeneration, as well as the various structures from which the succus entericus is poured out, it is difficult to see how treatment can restore the lost tissues. Dr. Dickinson's researches show that the loss of alkali is the chief characteristic of the disease. Dr. Marcet's analyses show that the chief chemical feature is deficiency of phosphoric acid and potash, and excess of soda and chlorine, and on this principle we should give phosphates of potash. When, however, the disease has so far advanced as to reach the intestine, it may be considered beyond any effective general treatment. We must be content to restrain the diarrhœa if we can by astringents, the more powerful the better. Tannic acid in from two to four grain doses, with dilute sulphuric acid, sulphate of copper or sulphate of zinc are the most useful, and injections of these substances do some good.

Upper Brook-street, W.

TREATMENT OF COMPOUND FRACTURES AND WOUNDS OF JOINTS BY GLYCERINE AND CARBOLIC ACID.

By F. C. G. GRIFFIN, M.A., M.B. OXON., M.R.C.S. ENG.,
SURGEON TO THE WEYMOUTH ROYAL HOSPITAL.

AS various modes of antiseptic treatment continue to be brought forward, and the most opposite opinions are still held as to their merits, I have thought an account of a few cases that I have treated with the glycerinum acidi carbolici of the British Pharmacopœia, without antiseptic spray or any very elaborate precautions, would be of general interest. And although the number of cases is not large, still the fact that they have all got well has produced a strong impression on my mind of the value of this mode of treatment.

A pipe manufacturer of intemperate habits, who had failed in business and taken to fishing, was engaged in hauling in a net, with others, after dark, when he got his leg caught by a loop of rope and was thrown down, and found himself unable to rise. The fishermen carried him home, but handled him rather roughly, as they thought he was not seriously hurt. When I saw him I found he had sustained a compound fracture of the tibia, at the junction of the lower and middle thirds, and had lost a large quantity of blood from a small wound caused by the upper fragment of the tibia having been driven through the skin. I bound it up temporarily, to arrest the bleeding. After about twelve hours, when the bleeding had at length quite stopped, the temporary dressing was removed, and a pad of lint soaked in collodion applied. This pad remained on for two days, when it became partly detached, and free oozing of bloody fluid commenced from the wound. I now applied a pad of four thicknesses of lint saturated with glycerinum acidi carbolici to the wound, and a few turns of bandage over it, so as to keep it in its proper position. The lint became firmly adherent to the wound, and the next day I applied a larger pad of four thicknesses of lint soaked in the same way over the original pad, so as to keep it still saturated. On the third day afterwards I cut the edges of the two outer layers of the pad next the wound, and removed and soaked them with glycerinum acidi carbolici, and then reapplied them, and then the bandage as before. I will here state that I regard it as of much importance to the success of this plan of treatment not to disturb the layers of lint immediately covering and generally attached to the wound. After this treatment had been continued about ten days, a large blister containing dark fluid formed under the pads and showed at their edges. I now cautiously tried whether the under pad was still adherent, and finding it was not, I removed it and found that the wound had healed. I left the blister exposed to the air, and it dried up in a few days. The remaining progress of the case in no way differed from that of one of simple fracture, and the man ultimately completely recovered. I was informed by this man's wife that previous to the accident he lived almost entirely on beer, and took scarcely any solid food except a little bread, and that if she provided him with a good dinner he used to sell or exchange it for more beer. While he was under my treatment I limited him to a pint of stout daily.

The next patient treated in this way was a boy of about ten years of age, with compound fracture of the tibia, the upper fragment of the bone having been driven through the skin. The glycerinum acidi carbolici was applied on four thicknesses of lint about two hours after the accident, and covered with cotton-wool, and fresh glycerine and acid was applied to the lint daily, without disturbing the layers next the wound. After about ten days the lint was removed, and the wound found to have healed. A speedy recovery followed. The fracture apparatus used was of the same kind as in the following case.

The next patient was a tradesman who had jumped out of a cart while his horse was running away. He in consequence sustained a simple fracture of the fibula and a compound dislocation of the foot outwards, the lower extremity of the tibia being driven through the skin, the sock, and the elastic of his boot against the ground, and the internal malleolus broken off. When he had been conveyed home the bone was still protruding, and the wound could not be got at until his boot and sock had been cut away. The bone, being covered with dirt from the road, was now carefully cleansed, and with the aid of two other surgeons, who had been sent for at the same time as myself, and arrived soon after, an attempt to reduce the dislocation was made. We did not, however, succeed in effecting the reduction until a slice of bone had been sawn off the projecting end of the tibia. After the reduction the limb was placed on an iron back splint, with two wooden slide splints duly padded and suspended from a cradle, the apparatus being of the kind used at St. Bartholomew's Hospital, in the wards of Sir James Paget when he was surgeon there, and supplied by Ferguson, the surgical instrument-maker. About three hours after the accident I syringed out the ankle-joint with a solution of carbolic acid in thirty-nine parts of recently boiled water, and then, after cleaning round the wound, applied a pad of lint of six or eight thicknesses, saturated with glycerinum acidi carbolici, taking care that the upper layers were of sufficient size to project some little way beyond the wound, so as to exclude air effectually, in case of the patient becoming restless. This was then secured by a bandage. The next day all the upper layers of lint were removed, soaked as before, and then reapplied, except the three next the wound, which were left undisturbed. Then over the lint I put a large piece of carbolic acid plaster, and secured it with a bandage. This mode of dressing was repeated night and morning for several weeks, during the whole of which time not more than about a tablespoonful of discharge escaped from beneath the pad of lint. This discharge was of a pink colour, opaque, and nearly solid. The bowels were confined, and pain and starting relieved with tincture of opium, for about a fortnight. After this the patient, who ate heartily his ordinary diet of meat, &c., the whole time, used to sit up in bed and write letters, and keep the accounts relating to his business. After six weeks I gradually reduced the amount of the carbolic acid by adding more glycerine, and when the wound was nearly healed I used spermaceti ointment. He ultimately made a good recovery, and can walk considerable distances with the aid of two sticks.

The next patient was a cabdriver, aged about fifty years. His horse fell down as he was driving, and while endeavouring to hold him up, he was pulled off his seat, and broke his leg. He was then taken to the Weymouth Royal Hospital, distant seven miles from the scene of the accident. On his arrival there, I found that he had a lacerated wound about three inches long, through which the end of the upper half of the tibia was protruding. After the fracture had been set, and the edges of the wound drawn together, except over the seat of fracture, where, in consequence of the swelling of the leg, the skin would not meet without more force being used than appeared desirable, a pad of lint of about four thicknesses was saturated with carbolic acid and glycerine, and lightly bandaged on. The fracture apparatus used consisted of an iron back-splint, with two wooden side-splints, padded and suspended from a cradle, as in the previous case. Over the pad a piece of carbolic-acid plaster was placed. The next day a fresh pad of about four thicknesses was soaked as before mentioned, and applied over the previous one, and the plaster over them both. This dressing was repeated night and morning for about a fortnight, after which it was reduced to once a day. The man was on ordinary diet throughout, and there was no constitutional disturbance. About a month after the accident the lint next the wound was for the first time removed, and the wound found to have healed, except over the end of the bone, where there was a wound about an inch long, with bare bone exposed. The special treatment was now discontinued, and poultices were used. A little later a thin layer of bone came away, and the wound then soon healed, and the man recovered with a useful leg.

The next patient was a brewer's drayman, a large made and very fat man, accustomed to the free use of the beverages he supplied. His horses started off while he was in a public house, and when he ran to their heads and endeavoured to stop them he was knocked down, and before they could be stopped the front wheel of the dray going over the inner side of his knee, turned back a large flap of skin, and made a lacerated wound that extended into the knee-joint. A surgeon was called, who dressed the wound, put in some stitches at suitable points, and gave the foregoing account on resigning charge of the case. When I saw him a large pad of four thicknesses of lint, saturated with the glycerinum acidi carbolici, was applied over the wound, and kept saturated by fresh supplies on its outer surface renewed daily. For a week or ten days all went well, and no trouble connected with the joint occurred afterwards, but at the end of that time the lint came off and poultices were used instead, the edges of the skin flap being found to be sloughing, and erysipelas of the leg commencing. The erysipelas followed a severe course, as it did also in several other cases that occurred about the same time, but in the end he recovered and returned to his occupation as drayman.

The next patient was a builder's workman, who fell from a scaffold eighteen feet high, thereby sustaining a severe compound fracture of the lower jaw, while another man falling upon him broke his thigh, and the bone coming through the skin wounded the internal saphenous vein, and caused such copious bleeding that the man appeared in danger of immediate death from loss of blood. Under these circumstances a large sponge was bound tightly over the wound, and the bleeding thus arrested. The fracture was then set, a long splint and bandages being used in the ordinary way. The treatment having reached this stage when I first saw the man, who was cold, perspiring profusely, with livid face, and evidently almost dying from loss of blood, I applied the glycerinum acidi carbolici freely to the bandages over the sponge, and then lightly bound over them four thicknesses of lint saturated with it. The next day I removed the lint, cut slits at short intervals in the bandages, and injected the glycerine through them with a syringe and along the upper edge of the sponge, and then reapplied the pad of lint freshly saturated as before. This treatment was continued for a fortnight without disturbing the sponge, after which the sponge was removed, and the wound found to have healed. The man's health improved throughout, and he recovered in about the same time as if it had been a simple fracture of the thigh.

Weymouth.

MR. HUTCHINSON commenced his course of lectures on "The Laws of Inheritance in relation to Disease," in the theatre of the Royal College of Surgeons, on Monday last. This lecture, as well as that delivered on Wednesday, was attended by an unusually large and appreciative audience, the President of the College in the chair. Sir J. R. Bennett, late President of the Royal College of Physicians, several members of his College, and other distinguished visitors were at the first lecture.

ON SOME

RARE FORMS OF DISEASE, ACCOMPANIED BY LESIONS OF TROPHIC NERVES OR TROPHIC CENTRES, AND ILLUSTRATIVE OF TROPHIC CHANGES.

BY WILLIAM ALEXANDER, M.D., F.R.C.S.

DURING the past two years the surgical practice of the Liverpool Workhouse has presented for observation some rare and interesting forms of disease, all probably dependent upon changes in the nerve centres, and all accompanied by changes that are commonly referred to the disordered action of trophic nerves. The first case seems to be unique in the combination of symptoms. It is similar to no other disease described in our best text-books, and its publication is necessary to ascertain whether it has been described before, or if it may be looked upon as an indigenous form of true leprosy.

CASE 1. *Irregular symmetrical pigmentation of the body, accompanied by anæsthesia of the pigmented patches.*—A delicate girl, eighteen years of age, was admitted into hospital in November, 1879, suffering from endo-cervicitis and metritis of gonorrhœal origin. The canal of the os uteri was much contracted, and the disease very intractable. This necessitated a prolonged stay in hospital, and enabled us to test thoroughly the truth of the statements about to be made. Shortly after admission a considerable portion of the patient's body was found to be covered by a yellowish-brown pigmentation. The upper extremities were almost covered by it, with the exception of some white spots at the flexures of the elbows, that by contrast with the skin around appeared almost pearly in hue. The thighs were much less stained, and below the knees only a few fugitive spots could be seen. On each cheek there was a small faint spot. Below the lower lip, and beneath the chin, were distinct median patches, and these two were the only median patches on the body. On the right side the lateral regions of the body were more affected than on the left. On the right the mamma and scapular regions were covered with pigmentations, whilst on the left the same regions were scarcely touched upon. Over the anterior part of the abdomen, at the inner part of the junction of the lumbar and iliac regions, were two deeply pigmented sickle-shaped patches, perfectly alike in hue, shape, size, and location on their respective sides of the body. On the dorsal region a few spots existed between the inferior angle of the scapula and the iliac crest. Across the centre of the left iliac crest lay a long crescent-shaped patch that was just saved from being asymmetrical by some scattered spots on the opposite side of the body. Like the next disease the pigmentation was symmetrical, and did not affect the median line except on the face and neck.

The discolouration might be described as brown, brownish-yellow, or yellowish-brown. There was no infiltration of the skin, no elevation of the affected surface, and no evidence of papillary or fungoid growth. Her dark hair had recently become dashed with about one-sixth of grey. The most important feature of the case remains to be mentioned—viz., an easily appreciable and constant amount of anæsthesia in the discoloured skin. This was tested by numerous observers again and again, and though some patches were more anæsthetic than others it was estimated that sensation to touch was one-third less than normal. The anæsthesia was in some parts not quite coincident with the pigmented areas, but more extensive, and in other places the derangement was more paræsthetic than anæsthetic.

Present condition (Sept. 1880).—The pigmentation has increased considerably, and encroached still further upon the median region of the body. The anæsthesia has also spread with the pigmentation, but is not more intense than when admitted. Patient has during the last three months passed through an attack of secondary syphilis, including a scaly rash on the skin, sore-throat, &c., complicated with ovaritis and metritis.

Previous history.—Patient had (up to a few months before admission) always been an active healthy girl until she caught the disease for which she came into hospital. She had never been out of England, and never had syphilis. When she was five years of age the brownish marks appeared on the back of the left hand, then spread up that arm, and subsequently showed themselves on the right hand and arm. The subsequent progress of the disease she did not particularly notice, and could not give the chronological order of the appearances of the other spots.

Before making any remarks on this peculiar case, it will be well to compare with it the following example of a disease sufficiently rare in this country to excite much interest on that account alone.

CASE 2.—*Elephantiasis Græcorum relieved by the administration of chaulmoogra oil.* Henry O——, aged forty, a sailor, was admitted into the hospital on September 28th, 1878, with what appeared to be chronic indurated erythematous œdema of the face, and with blisters on the right foot and on both hands. The patient was rather amused at our attention to his face, the redness of which he thought arose from the hot sun and would soon pass away. Simple applications cured the blisters by November 7th, when he was discharged. He was readmitted on November 19th with another and more severe crop of blisters on the feet and hands, and with the skin of his face raised in red shining tubercles. These tubercles only affected the naked (not the hairy) part of his face. Arsenic was at first prescribed without any benefit. On February 25th, 1879, he complained of pains and numbness in the hands, and on stripping the patient the arms, thighs, and lateral regions of his body were found to be covered with dark brown pigmented patches which were distinctly and in some places completely anæsthetic. On admission to the hospital he had no discolourations anywhere. Since his admission he observed them coming, but did not call attention to them as similar spots came three years ago and disappeared without any treatment. As leprosy was now for the first time suspected, a more pertinent inquiry was made into the history of the case, when we found that he had sailed for many years to Australia, India, and other Eastern and leprosy-infected places; that he began to suffer pains in the extremities three years ago, when in Australia; that these pains increased during visits to Calcutta and Rangoon; that at Calcutta he was told his disease was latent leprosy; and that on his last voyage from India to Liverpool, previous to his admission here, the skin of his face became reddened and thickened. He has always been a healthy man, and never had syphilis. The pigmentation on the arms is of a dark or greyish-brown colour, and the pigmented skin is here raised into tubercles, especially over the area of the cutaneous distribution of the ulnar nerves. These nerves can be felt as rounded cords at the elbow, where slight pressure produces a tingling sensation similar to that produced by a sudden and unexpected shock on the "funny-bone." On the rest of his body the anæsthesia and discolouration very closely coincide in appearance, amount, and cutaneous distribution with the case of the girl previously described. The face has a peculiar appearance, the nose, cheeks, forehead, and eyelids being the seat of crimson tubercles, which are streaked with branching purple-coloured vessels, so that his features have at a distance an intense hot glow like that temporarily produced on some people by strenuous exercise on a hot day. Any doubt of the true nature of the disease was removed by a visit from Dr. Henderson of Shanghai, who at once pronounced it "a typical case of true leprosy in the early stage." Gurjun oil was prescribed and persevered in for nearly four months, during which time the disease continued to spread. Cod-liver oil was then tried for two months with the same result. He has now taken chaulmoogra oil for more than a year, and the result has been that the redness and induration have to a great extent disappeared from the face. Anæsthesia is now nowhere to be found; the tuberculisation of the ulnar regions has almost gone, and his pains have long vanished. Blisters have showed themselves once or twice during the year, but they were small. He is now taking eighty drops of the oil daily, which is as much as his stomach will bear. The patient is a very intelligent man, and being aware of the serious nature of the disease co-operates in every way in the carrying out of the treatment. When he gets sick of taking the medicine in one form, he tries it in another, and up to the present time his stomach has borne the drug very well.

Remarks.—Temporary irregularity in the distribution of pigment in the body is a comparatively frequent phenomenon. When anæsthesia accompanies this irregularity the irregularity is almost always one of deficiency rather than of excessive pigmentation. When the irregularity in the distribution of pigment is permanent the same statement is true, except in leprosy, where there is a deepening of the normal pigmentation. In that disease, however, there are also induration and tuberculisation of the skin. Chloasma, vitiligoidea of various kinds, melasma, pityriasis versicolor, and morbus Addisonii resemble the disease in Case 1, as far as the discolouration is concerned; but I am not aware that anæsthesia has ever been mentioned as an accompanying symptom of these diseases. The location of the pigmentation in the girl's case does not correspond with the area of distribution of any of the cerebro-spinal nerves, thus excluding disease of the nerve-trunks after their emergence from the central nerve-substance. There is no evidence of a local cutaneous cause for the anæsthesia. We are, therefore, driven to the central nervous system as the most probable seat of the affection. That the distribution of pigment is under the control of the nerve-centres the rapid blanching of the hair in cerebral disease and by mental anxiety fully testify. G. Pouchet (*Journal de l'Anatomie et de la Physiologie*, 1876–77) has shown by experiments on fishes that the change of pigmentation that often takes place so as to assimilate the hue of the fish to that of its habitat is brought about by reflex action through the optic nerves, and when both eyes are removed the change does not take place. His experiments show that other reflexes than visual may affect the distribution of pigment. But trophic changes and pigmental lesions are supposed to be under the direct control of the trophic and vaso-motor nerves, which are supposed to arise from the grey matter of the cord close to the origin of the sensory nerves. This tract has never been satisfactorily defined, but the almost perfect coincidence of the anæsthetic and pigmented areas in this girl point to an identity of origin; and the reason why pigmentation does not always accompany anæsthesia probably is that the nature of the disease that can produce both symptoms is different from the common degenerations that are accompanied by anæsthesia alone. Case 1 is therefore probably caused by an ascending and descending degeneration of a region in the cord, but the exact position of that region is uncertain. The similarity of this disease with leprosy, as described in Case 2, is so striking, that, having formed my opinion as to the spinal origin of the first, I looked to see if authorities on leprosy had mentioned a nervous origin for that disease. Nothing is said upon the subject in such books as I have had access to; but in THE LANCET of May last there is a report of the condition of the spinal cord in leprosy by S. Tschirew. Danielssen and Boeck in 1848 described a rarefaction of the ganglionic cells of the grey matter with altered consistence and volume of the cord. Tschirew found thickenings, hæmorrhages, infiltrations, and nuclear growths in the cervical region, and throughout the cord lesions, more or less severe, of the posterior roots.

(To be concluded.)

CASE OF RABIES IN A DEAF-MUTE.

BY JOHN TAYLOR, L.R.C.P. EDIN., L.F.P.S. GLASG.

ROBERT H——, aged six, deaf-mute, a bright, agile, healthy boy, was bitten by a stray dog on the 6th of March, 1880. I saw him a few minutes after the occurrence and found two wounds—one two inches long over the right eyebrow, slightly exposing the pericranium, and the other three-quarters of an inch long, over the left eyebrow. They were promptly washed and cauterised, and healed rapidly. The dog was lost sight of, and the meagre information that could be obtained respecting it left the hideous suspicion that it was not in a good state.

Nothing unusual was observed in the boy's demeanour until the 5th of August. On that day there was an absence of his wonted eagerness for play, and a marked increase of his natural timidity. This was followed by a restless night. Next morning I found him in a fitful condition. Seized with sudden terror he would cling as if for protection to some one in the room, or rush off to hide behind the furniture. Being soothed he would sit down quietly and respond with his customary smile and interested look.

August 8th.—Pulse 153; pupils dilated; paroxysms of terror more severe; slight hesitancy in swallowing; remarkable hyperæsthesia—the slightest current of air producing a gasp, a shudder, a shriek, and a struggle, reminding the onlooker of a timid bather who suddenly gets out of his depth. Any attempt to sponge his face is resented with the utmost fury. Half a grain of acetate of morphia gave uneasy slumber for three-quarters of an hour. Its subsequent administration was ineffectual.

11th.—Pulse 123; distressing dysphagia. He willingly offers to take some beef-tea, but in doing so he suspends it in the mouth, compresses the lips, sucks in the cheeks, raises the shoulders, and moves the entire body in his efforts to swallow. Suspecting the liquid, he wishes others to partake of it, watches them narrowly, and tries the same dish and spoon he has seen them use. Signing for cold water, he clutches the vessel in his own tremulous grasp, spasmodically bites the edge of it at each mouthful, and holds it aloof till the act of swallowing is accomplished. Hallucinations of sight and feeling. Micturition frequent and difficult. Former symptoms aggravated. Half a grain of morphia injected hypodermically gave three hours' restless unconsciousness. Its subsequent administration produced no appreciable effect.

14th.—Pulse 168; great muscular weakness; features contracted; eyes unsteady. Upper part of the face covered with nail-scratches from spasmodic endeavours to protect the eyes from imaginary danger. Expectoration of viscid saliva. Vomiting of small quantities of frothy cream-like fluid. Persistent grinding of the teeth, with occasional dropping of the lower jaw, thus giving the appearance of "biting the air." The patient afterwards sank into a writhing semi-conscious condition, which was varied by convulsive seizures, and short lucid intervals of consciousness. Death from exhaustion.

Besides the evident peculiarities of the absence of disturbance from sound, and the long duration of both the incubative and active stages, it may be worthy of note that the patient could have no suspicion whatever of the nature of his complaint, and that he did not exhibit the slightest symptom of approaching asphyxia.

Cleland, New Zealand.

EXTRAORDINARY CASE OF SUICIDE.

By ROBERT JAMES MORICE, M.D.,
COLONIAL SURGEON FOR THE NORTHERN TERRITORY OF SOUTH AUSTRALIA.

THE following case of suicide which lately came under my notice is so remarkable that I think it ought to be recorded, although I did not myself see the body, and only obtained my information from non-medical witnesses.

E. B——, aged forty-five, gold miner, was a man of somewhat intemperate habits; he would have occasional "bursts," as they are called here—that is, he would be drunk for a week or so, and would then keep sober for a few months. Such had been his habits for some years. For a few days previous to his death it was noticed that he was not drinking, having just finished one of these periodical bouts. On the morning of June 22nd, 1880, his body was found lying dead outside the tent in which he lived. His throat had an incised wound across it two or three inches long, but not deep, the windpipe being uninjured. This wound appears to have been inflicted with a blunt table-knife, which was found, covered with blood and short hairs resembling those of his beard, in a box in the tent. There was a good deal of blood on the floor of the tent. The left hand and forearm were completely severed from the body, and lying beside it outside the tent. Here I shall quote from my informant:—"There were several wounds in the upper part of the ball of the thumb; then the wrist was nearly cut through, only a piece of skin connecting the hand with the arm. Then the arm was cut through an inch or so above the wrist; both bones were cut through, and the hand and wrist separated from the arm. There was a deep ragged wound in the wrist, all the bones of which appeared to be smashed. I counted several distinct wounds on the thumb, wrist, and arm; there must have been over twenty; I counted seventeen separate ones. I imagine he rested his wrist on a piece of wood, and then chopped it, as there were several distinct cuts on the piece of wood, and marks of the blood having spouted out, the cause of death apparently being the loss of blood from the wounds inflicted." The "deep ragged wound" in the wrist is believed to have been a stab with a pointed instrument used for opening preserved-meat tins. The other wounds were evidently caused by a small tomahawk which deceased kept for chopping firewood. The tent where this happened is situated within a few hundred yards of two other tents, but no noise was heard during the night before the body was found, except some slight moans, which one of his neighbours said he heard, but the direction of which he mistook.

At the inquest one witness said that on a previous occasion deceased showed symptoms of mental derangement, but all the witnesses who had seen him shortly before his death declared that he then appeared quite sane.

I have since learned that whenever he was drunk he had a way of repeating the text: "An eye for an eye, and a tooth for a tooth; if thy right hand offend thee, cut it off." But, if it was attempting to carry out too literally this Divine behest that caused his death, we see that he made a mistake and cut off the wrong hand. Also why did he make the attempt to cut his throat, and then stab himself on the wrist? My own impression is that the desire for self-destruction came first, and then, after two ineffectual attempts, his favourite text occurred to him. What makes it more strange that he should have resorted to such a painful mode of suicide is that he must have had a loaded revolver in his tent, in accordance with the invariable custom in this country.

Port Darwin, South Australia.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

WESTMINSTER HOSPITAL.

CASE OF INTESTINAL OBSTRUCTION; ABDOMINAL SECTION; RECOVERY.

(Under the care of Dr. FINCHAM and Mr. MACNAMARA.)

FOR the notes of this interesting case we are indebted to Dr. W. Gristock.

H. L——, aged fifty-two, a cab-driver, was admitted on March 18th, 1881. He stated that he had always been a healthy man. He remembered no previous illness except rheumatism, for which he was treated at a temperance hospital three years ago. He had had occasional rheumatic pains since, but had never been laid up. He was a teetotaler for twenty-six years, but gave this up about a year ago, and had since been a somewhat free drinker, mainly of whisky. He drank rather more than usual on March 16th. He has been married two years, and had one child, three months old, healthy. He had felt slight indigestion for about a week, but was practically well till the morning of March 18th, when after an ordinary breakfast at 9 A.M. he was driving his cab at 10.30, and suddenly felt a severe pain in the lower part of his abdomen and vomited four times. He took some brandy to relieve the pain, and then came to the hospital.

On admission he was a strong, healthy-looking man, but had a somewhat anxious and depressed expression. He complained of pain in the hypogastric region in severe and frequent paroxysms, and also of tenesmus. He vomited frequently. His abdomen was full and tender. There was no external hernia. Temperature 102·4°; pulse 120. His urine was diminished in quantity, but no accumulation in the bladder was found by catheter. The urine was of sp. gr. 1028, and contained no albumen. He was ordered one grain of opium every three hours, which in the evening was altered to one grain every six hours. The abdomen was fomented. Next day patient was no better. The abdomen was tense, full, and excessively tender. The bowels had not been opened. Temperature varied from normal to 101°.

On March 20th he seemed rather quieter, and the vomiting subsided in the morning for some hours, but again came on about midday. The vomit was now stercoraceous. The bowels were not moved, although the patient was put under chloroform, and a warm-water enema was administered (the tube being passed nine inches up the bowel). In the evening the patient was collapsed, and evidently in an alarming condition. At 8.30 P.M. ether was administered, and Mr. Macnamara made an incision about four inches long in the linea alba, and carefully examined the intestines coil by coil. A knot of intestine was found in the ileum (about two yards from its junction with the cæcum), which gave way with a perceptible slip as the intestines were handled. There was marked evidence of peritonitis, and the intestines were much injected and streaked with lymph. The cavity of the abdomen was cleansed and the wound closed. The operation was performed with strict antiseptic precautions. After the operation the patient was a good deal collapsed, cold and clammy, and he vomited twice. The temperature, which had risen during the day from 98° to 102·6°, fell after the operation to 97·4°. Pulse was 140, very weak and compressible.

On the 21st patient still felt cold, and his skin was covered with cold sweat. He vomited almost continuously, the vomit consisting of clear fluid with curdled milk. Twelve ounces of urine were passed in the twenty-four hours. All food by the mouth was stopped, and nutrient enemata with pepsine were ordered. He passed a slightly better night, but did not sleep more than a few minutes at a time. Vomiting continued urgent. On the 22nd he looked a little brighter. He vomited eleven times during the day. The tongue was rather less dry and somewhat furred. He was still entirely supported by nutrient enemata. Champagne was tried by the mouth, but caused immediate vomiting. Ten ounces of urine were passed, but the bowels had not moved. Next day he was decidedly better, and able to take champagne and Brand's essence by the mouth. He passed forty-five ounces and a half of urine, and after one of the nutrient enemata a small quantity of slightly fæcal fluid returned. He slept pretty well, and on the 24th was better. Tongue red and irritable. The patient had a troublesome cough, and in the evening twice vomited some thick mucus. Bowels not opened, but much flatus passed. Twenty-six ounces of urine passed in the twenty-four hours. Temperature 98·4° and 100·4°; pulse 104. The wound was dressed, and its edges were found rather red and inflamed. The abdomen was flaccid. On the 25th the patient was free from pain and sickness. The bowels were freely opened, large extremely offensive motions being passed. From this time the man made a rapid recovery. He was allowed to take bread-and-milk on the 29th, but this had to be again stopped for a day or two on April 1st, owing to a slight recurrence of vomiting with diarrhœa. There was again a little diarrhœa on April 17th and 18th, which, however, was readily controlled. The wound after the first few days gaped, and the stitches cut through the skin, and after one further attempt to close the wound by harelip pins it was allowed to heal by granulations, tension being relieved, and the edges kept in apposition by strips of plaster. The patient was sent to a convalescent home on April 23rd.

LONDON HOSPITAL.

LACERATED WOUND OF KNEE-JOINT; LISTERISM; RECOVERY WITH MOVABLE JOINT.

(Under the care of Mr. RIVINGTON.)

THE following case further exemplifies the value of Lister's method in wounds of joints.

J. W——, aged sixty, a dock labourer, was admitted into the hospital on the 22nd of March, 1881, with a lacerated wound on the inner side of the right knee, caused by a blow from a plank. On examination, under the carbolic spray, Mr. English, the house-surgeon, found that the soft parts were much bruised, and that the lacerated wound, which was two inches and a half long, extended from the condyle of the femur to the inner tuberosity of the tibia downwards and forwards, and communicated with the cavity of the knee-joint, allowing the finger to pass under the patella. The wound and joint were thoroughly syringed out with carbolic solution (1 in 20) and dressed antiseptically after Lister's method. A back splint was applied to the limb.

March 23rd: Knee redressed; bruising and swelling more marked; temperature 101°; not much discharge; patient comfortable.

24th: Discharge still aseptic; some effusion into the joint, best felt on either side of the patella; patient doing well. From this date the patient progressed most favourably. The temperature rose to 102° during the evening of the 25th, and afterwards fell gradually to normal. The patient remained free from constitutional disturbance and local complication.

On April 11th the wound was nearly healed, and the patient was able to flex the knee without difficulty.

On the 30th there remained only a very small superficial surface presenting healthy granulations, remains for cicatrisation. The knee-joint was freely movable. Patient was discharged a few days later.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

TREPHINING FOR EPILEPSY.

(Under the care of Mr. J. F. WEST.)

AT a meeting of the Royal Medical and Chirurgical Society, held Nov. 25th, 1879, Mr. West read a paper on Trephining for Traumatic Epilepsy, which the Society published in Vol. lxiii. of the Medico-Chirurgical Transactions.

The girl, whose case was there reported, has had no fit since then, nor in fact any since Nov. 25th, 1879, the date of the operation. She was recently brought before the members of the Midland Medical Society, in order that they might judge for themselves how much her mental condition had improved, and how well she was able to answer any questions that were addressed to her. The undoubted success which attended the use of the trephine in that apparently idiotic, epileptic patient induced Mr. West to resort to it again in a second case; and although the result has not been so satisfactory, Mr. West thinks it would be unfair to place the success on record and to omit all mention of the failure. The traumatic origin of the epilepsy in this case was very doubtful, and operation was consequently less likely to have a curative effect. Mr. West brings this second case of trephining for epilepsy under the notice of the profession, merely because it illustrates the good results of antiseptic treatment in this operation, even when trephining does not cure epilepsy.

Eliza P——, aged twenty-five, single, was admitted into the hospital on March 4th, 1880, under the care of Dr. Heslop. She had one fit when five years old, four days after having a burn on her head. About nine years since she had enteric fever, and during convalescence rheumatic fever. Two years after this she had another fit. Since then she had had a succession of fits, never at a longer interval than twelve weeks. For the last twelve months they have come on every week. Since she was under medical treatment the fits had diminished in severity, but not in number. The fits were worse at her menstrual periods. At the age of nine she had a severe injury (a cut) on the upper part of the forehead, which was some weeks suppurating. She had passed several tapeworms during the last two years.

On admission she was a stupid-looking girl, whose stupidity was confirmed when she spoke. Over the upper part of the forehead and a little to the right of the middle line was a transverse cicatrix, which was adherent to the bone, and at the right end of the cicatrix there was a slight elevation of bone, as though at that point the periosteum had been thickened. There was no loss or impairment of motor power. The general health was fairly good. She was ordered thirty grains of bromide of potassium, with ten of bromide of ammonium, twice a day, and this treatment was pursued, though without benefit, until March 27th, when she was transferred to Mr. West's care. Although the case seemed to be rather one of idiopathic than of traumatic epilepsy, Mr. West decided to resort to trephining, being induced to do so by the fact that various methods of internal treatment had been adopted prior to her admission into the hospital without success, and also that the treatment by the bromide of potassium ordered by Dr. Heslop had not diminished the epileptic attacks while at the same time there was some thickening of the periosteum over the frontal bone at the seat of a severe injury. Moreover, it was thought that possibly the mere relief of intracranial pressure might at any rate diminish the epileptic attacks, as it had done in Eleanor H——'s case.

On March 27th, 1880, Mr. West trephined antiseptically at the site of the cicatrix, about an inch and a half above the middle of the right eyebrow, removing a disc of bone, which appeared in every respect normal, the periosteum alone being thickened, as large as a shilling. The crucial incision in the skin was brought together with silver, and that in the periosteum by catgut sutures; a small drainage-tube was inserted at the bottom of the vertical incision, and the usual Listerian antiseptic dressing applied. The wound was dressed the following day, when it was found to be free from redness or swelling. Temperature 100·8°; pulse 104; respiration 20.

On the 29th the silver sutures were removed and the edges supported by plaster straps. Slight serous discharge; wound nearly healed. Pulse 120; temperature 101·8°; respiration 22.

On the 31st the wound, which was sound except at the angles, was again dressed antiseptically. She had the epileptic aura, but no fit. Temperature 99·8°; pulse 88; respiration 20.

On April 7th the wound was all but healed. Antiseptic dressing was discontinued, and boracic ointment was applied. Temperature 98°; pulse 90; respiration 16. She had a slight fit at 4 P.M. for the first time since the operation, an interval of ten days.

On the 10th she was ordered thirty grains of bromide of potassium with twenty drops of tincture of hyoscyamus three times a day. She had a recurrence of fits on the 16th, 21st, and 30th of April, and on the 2nd, 6th, and 15th of May. The wound healed, practically without any constitutional disturbance, in twelve days. No benefit, however, resulted from the operation; the fits were no less frequent, and the mental condition of the patient became more impaired. A sort of religious monomania possessed her, and, no further treatment appearing likely to benefit her, she was discharged on May 20th.

On Oct. 28th, 1880, she was sent to the Borough Lunatic Asylum, her condition being considered dangerous. She had evinced strong homicidal impulse on various ocasions, at one time having taken up a knife and thrown it at her mother, while on another occasion she tried to put a younger sister into a tub of water. She said that the impulse to do something of the sort came upon her suddenly, and without her being excited or annoyed in any way, and that she was unable to control it. In the intervals between these attacks she was grieved at what she had done, and was rational, but had gloomy and morbid views about religion. The mother stated that the fits had been less frequent and less violent since the operation, but that the symptoms of mental alienation which had existed prior to it had been in no way benefited, and that she had at last come to the conclusion that she ought to place her daughter under restraint.

On Dec. 12th, in company with Dr. Lyle, Mr. West visited the patient, who was then at the Borough Lunatic Asylum, but found her in no way improved. She had fits badly about the menstrual period, and also at intervals of a week or ten days at other times. Dr. Lyle had given her bromide of potassium in large doses since she had been under his care, but without benefit, and he entertained no hope of her recovery.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Urticaria Tuberosa.—Treatment of Simple Fractures and Dislocations of the Bones of the Leg by the immediate application of Plaster-of-Paris Splints.—The Pathology of Acute Periostitis.—Vascular Tumour of the Face.

THE final meeting of this Society for the session was held on the 14th inst., Timothy Holmes, Esq., vice-president, in the chair. In contrast to the condition of things a month ago, when no meeting was held owing to the absence of any papers, there was more material before the Society than could be dealt with in the allotted time, and one paper had to be read in abstract. The chief subject debated was the immediate treatment of fractures of the leg by plaster-of-Paris splints, the plan being strongly advocated by Mr. Croft in a paper on the subject, in which he described a new form of applying the method, which he practically demonstrated at the close of the meeting.

The first paper read was by Mr. MORRANT BAKER, on "A Case of Urticaria Tuberosa, with Unusual Symptoms," of which the following is an abstract:—The case related is that of a man, thirty-three years old, who had suffered from a peculiar disease of the skin for about two years, and for nearly a year had been under the care of the author at St. Bartholomew's Hospital, both in the out-patient department for diseases of the skin, and as an in-patient. The general symptoms from which the patient suffered were those of factitious urticaria, to which were added those of so-called urticaria tuberosa. The most peculiar feature of the case, however, and one which in the author's experience was unique, was the presence of persistent yellowish-red tubercles in various parts of the body, which proceeded to ulceration, the parts most affected being the knuckles, elbows, and ears. These tubercles are said to have begun in a manner similar to that which characterised the onset of the evanescent urticaria wheals and tubercles. The patient's general health was good, and he had not suffered from syphilis or other serious malady. Under the influence of treatment as an in-patient the disease became rapidly better, but soon relapsed when the patient left the hospital. The author considers briefly the doubtful relationship of the disease to others less rare, which in some respects resemble it, and comes to the conclusion that the case is one of so-called urticaria tuberosa, and that the persistency of some of the tubercles and their ulceration may be due in part to the unfavourable circumstances in which the man was placed from the loss of his occupation. A drawing of the case was shown.—Dr. CAVAFY suggested that the permanent ulcerating lesions might be due to chilblain complicating the urticarial condition, for these lesions existed mainly on the knuckles, elbows, and ears, the seats for chilblain, which they resembled in many respects.—Mr. MORRANT BAKER, in reply, said that he was glad of the suggestion, but the tubercles in question were at their worst in the month of July, and had, moreover, existed for two years. This persistence was against the view that they were of the nature of chilblains.

A paper was then read on the "Treatment of Simple Fractures and Dislocations of the Bones of the Leg and Foot by the immediate application of plaster-of-Paris Splints (lateral)," by Mr. JOHN CROFT. Opportunity is taken by this paper and demonstration to, first, reaffirm that it is not only safe, but beneficial, to apply plaster-of-Paris splints (lateral) immediately for simple fractures of the bones of the leg and foot; second, to demonstrate the particular method of applying these splints, and how quickly and easily they may be put on; and, third, to elicit observations on the practice at the various hospitals with regard to the immediate treatment of fractures of the leg and foot. The author's experience, of five years' duration, is decidedly in favour of covering the injured or swollen part immediately; only the most severe cases of contusion and subcutaneous laceration are excepted. The special advantages claimed for these splints, as made and used for the author at St. Thomas's Hospital (for particular description of which see THE LANCET for June 8th, 1878), are uniform pressure; complete fixation of the broken bones and injured muscles; perfect adaptation to the limb and maintenance of extension; diminution of risks of pressure, sores, pains, or excoriations; diminution of risks of delayed union; facilities for quick removal and reapplication; comfort to the patient; freedom of movement allowed to the patient; simplicity and cheapness; economy of time and trouble. The author desires to popularise the use of these splints, because he has found them during five years' constant experience of great benefit to patients, attendants, and surgeons.—Sir JOSEPH FAYRER said that in the previous week he had seen the Army Hospital Corps at work at Aldershot, and had been struck with the rapid and efficacious manner in which the Bavarian splint-bandage was applied. Two pieces of flannel were moulded to the leg, the inner layer secured by pins, and the plaster spread between the layers. In five minutes a perfect splint was obtained, the pins, temporarily securing the inner layer of flannel, being removed. This splint could be opened out so that the leg could be inspected, and it seemed to him most convenient for the purpose.—Mr. HOLMES questioned the accuracy of the inferences drawn from the tables accompanying the paper, with the view to show the practice in vogue at various hospitals in treatment of fractures. The return from St. George's Hospital was not accurate, so far as his own practice was concerned, for he was constantly in the habit of having such fractures put up in immovable splints, the patients going out in a few days instead of weeks after admission. He agreed with Mr. Croft as to the general benefit derived from immediate treatment, and did not think this was so little recognised as the author inferred.—Mr. HEATH asked if Mr. Croft deemed the practice a novel one. It was the same plan as that adopted many years ago by American surgeons, and the Bavarian method was well known to be a good one. As the author had said, the principle was adopted at the University College Hospital, and at other hospitals too. He himself preferred the plaster-of-Paris bandage, which took a shorter time and gave better results than other measures. The great point was to swathe the limb in cotton wadding (preferable to cotton-wool, which adheres to the plaster) before applying the bandage. This method is strongly upheld in a small but very practical book by the late Mr. Cowling of Louisville, entitled "Aphorisms on Fractures." Mr. Heath said that he invariably treats fractures of the thigh in children with this bandage, which has the further advantage of being able to be varnished when dry. Again, in fractures of the patella he found the best results to follow the application of this bandage, the effused blood in the knee-joint being first withdrawn by the aspirator. In that way good and firm union was ensured.—Mr. HOLMES said that the form of immovable apparatus he employed was composed of splints of thick pasteboard, over which a starched bandage was applied. He preferred this to the heavier plaster-of-Paris bandage, and it was quite as efficacious.—Mr. GANT pointed out that the closed immovable bandages were only applicable to cases which were seen very shortly after the injury; when (as usually happens) the case is not seen till a few hours after the fracture has occurred, the pain, swelling, spasm, &c. rendered such fixed bandages unbearable; but they could be borne later in the case.—Mr. WALTER PYE thought it would be generally conceded that simple fractures of the leg could be treated as out-patients by the use of stiffened bandages; and he preferred the old-fashioned gum-and-chalk bandage for this purpose. It was elastic as well as stiff, so that it yielded slightly; whereas the plaster-of-Paris was heavy, and liable to become brittle. The use of gum and chalk was much advocated by the late Mr. Smee, and its advantages did not seem to be sufficiently appreciated.—Mr. WILLETT said there was no novelty in the principle, although there was in the particular method adopted by Mr. Croft. When he was a pupil at the Brighton Hospital, twenty-five years ago, it was customary to treat simple fractures of the leg by splints, composed of interlacing bandages, stiffened on each side of the limb by a mixture of white of egg and flour. In two or three days a layer of wool and starched bandage was substituted. There were two points which should be carefully considered by those who were in the habit of putting up the bulk of cases of fracture on this principle. He had seen a case where gangrene had resulted, and quite recently had met with a badly set Pott's fracture with considerable deformity in a patient who had been so treated. The great difficulty in this treatment was in some cases of Pott's fracture, or in cases where there was much mobility, where it was not easy to secure such apposition of the fragments as to justify the permanent putting-up of the limb. The same difficulty occurred in oblique fractures, with great tendency to displacement. He asked whether Mr. Croft, in saying that the fractures were put up on the "first visit of the surgeon," implied that he himself applied the splints, or whether this was done in his absence by the house-surgeon.—Mr. ARTHUR DURHAM said it was a great mistake to treat all fractures in the same way; the plan which was best in one case was not the best for another. In some cases the immediate application of plaster-of-Paris was the best, but in others it was the reverse—as in a case, now in Guy's Hospital, of extreme deformity from a badly set fracture which had been put up in another hospital in plaster. Referring to Mr. Heath's remarks about the immediate treatment of fracture of the patella, he himself had excellent results from the use of back splints and plaster. Good results are not due to any particular method, but to the degree of skill and judgment with which the method is applied. A great objection to the immovable permanent bandages was that the surgeon could not see what was taking place during the process of union; and he had often seen this objection practically exemplified when such bandages had been opened. As a general rule, it was a good plan to keep the fractured limb under view until one was sure that firm union had taken place.—Mr. HENRY MORRIS asked Mr. Croft whether the plaster splints were only applied as high as the tubercle of the tibia; for it was generally believed, especially in cases of oblique fracture in the upper and middle part of the leg, to be important that both knee and ankle-joints should be fixed.—Mr. CROFT, in commencing his reply, read a letter from Mr. MacCormac (who was unavoidably absent), in which he said that he had found the plaster-of-Paris splints so satisfactory that he had been in the habit of using them for years. He uses narrow strips anteriorly and posteriorly, secured by a bandage soaked in the plaster, which bandage is cut if the limb has to be unpacked. When the swelling subsides he opens the splint and applies another bandage round it. He advocates the application of the plaster next to the skin. Dr. Yandell of Louisville had also written to the same effect, and spoke emphatically in favour of the immediate treatment by plaster splints. Mr. Croft said that there had been less objection to the immediate application of the splints than he had expected. He apologised if he had erred in basing his inferences as to the treatment in other hospitals from returns published by the registrars. He claimed no novelty for the principle, but he claimed that since its introduction it had been the means of revolutionising the practice at St. Thomas's Hospital. It mattered little whether flannel or cotton wadding was used underneath the plaster. He had adopted with advantage the plan referred to by Mr. Heath of a preliminary aspiration of the knee-joint of serum and blood in fracture of the patella. The house-surgeons put up the fractures, and they had always been sufficiently enthusiastic and intelligent to carry the method out without mistakes. By the aid of chloroform there was no excuse for the surgeon not putting up a Pott's fracture or an oblique fracture at once, and whether the limb were swollen or not it should be put up in the plaster material, which would soon set. If the fracture were properly set it could not be disturbed, and the surgeon would be perfectly confident that when viewing the limb six weeks later it would be in the same position as when first put up. Unfortunately, accidents will happen; because there is good surgery and bad surgery. Some men, with every material at their disposal, can do nothing; for much depends on individual skill. The apparatus he advocated was perfectly simple, cheap, easy of application and efficient, and it gave absolute rest to the limb from the time it was first put on until it was taken off. In reply to Mr. Morris, he said that practically the splint was often carried above the knee; for it is good practice to fix both joints. The Bavarian splint described by Sir Joseph Fayrer was admirable; it was one of the stones in the foundation of the splint he had described.

A paper by Mr. C. T. DENT, on the "Pathology of Acute Periostitis," was read in abstract. The exact relation which acute periostitis and osteomyelitis bear to each other, as well as to the articular affections with which they are so often associated, have long been matters of dispute, so also have their effects with regard to the extent of necrosis, which usually follows. French and German writers hold generally that total necrosis of the shaft will not take place unless osteomyelitis has been present as well as periostitis. This view is not shared for the most part by writers in this country, and cases are on record where the removal of the entire diaphysis has been performed for the results of acute periostitis alone. The exact tissue where the changes commence in acute periostitis is also a subject of difference of opinion; some German writers especially hold that it commences in the outer cellular layer of the periosteum, and destroys the fibrous layer by suppuration. This is, however, but one form of the disease frequently seen about the lower third of the femur, and also in true whitlow (panaritium periostale). More commonly it begins in the deeper osteogenetic layer, and raises up the periosteum from the bone. This may lead to osteomyelitis, and is sometimes, though not commonly, associated with affections of the neighbouring joints. Acute idiopathic osteomyelitis as a primary affection is rare in this country. In examining microscopically the periosteum in a case of acute periostitis, unaccompanied by osteomyelitis, the author found that the inflammatory changes were chiefly situated in the deeper parts; the fibrous layer was intact, though infiltrated, and new bone was developing in it. There was no active inflammation of bone or medulla; the changes observed in the latter the author considered to be due to disintegration and breaking down of the tissues, owing to the cutting off of the vascular supply. The leg, in this case, had been amputated on the nineteenth day. Other specimens showed that the inflammation spreads from the outer to the deeper parts, chiefly around the smaller vessels. The author remarks that usually, no doubt, when these cases are met with it is not uncommon to find periostitis, ostitis, and osteomyelitis all existing together, yet it is none the less important to distinguish them from each other as far as possible, and also from the form of disease attacking the outer cellular layer of the periosteum, for when modified by early treatment the ultimate results are very different.

Mr. CLEMENT LUCAS exhibited a remarkable case of Vascular Tumour of the Face, which had been under treatment for three years, and was gradually increasing. The patient, a man twenty-eight years of age, was healthy up to the age of eighteen, when the swelling began on the right cheek, beneath the eye, with much pain, attributed to carious teeth, which were extracted. Three years ago a pulsating tumour reached from the ear to the side of the nose and upper lip, and from the orbit to the jaw. A harsh bruit was heard over it. Mr. Lucas tied the external carotid (with difficulty owing to the large size of the veins), and the pulsation ceased for some weeks, then recurred, and the tumour increased in size. Electrolysis was then tried —first with one pole within and the other outside the tumour, and then both inside. Some consolidation followed, but was not permanent. Then galvano-puncture, which produced considerable bleeding. Then he tried excision of some portion; but most profuse hæmorrhage, to the extent of two pints, occurred, and fourteen or fifteen ligatures had to be used. The coronary artery had been tied, and the galvanic cautery used, and altogether he had operated fourteen times. The eyeball is now projecting, and the whole side of the face is occupied by the vascular mass. He had brought the case to have suggestions from the Fellows as to further treatment. He had not tried injections, fearing ill results, for he had seen a child die suddenly after the injection of a nævus.—Mr. HOLMES would shrink from the dangers of injecting any material to promote coagulation in a growth so closely connected with large veins, and suggested that some of the larger vessels, veins as well as arteries, entering the mass, might be ligatured, and that in the rapidly growing portions the galvanic wire might be passed into and beneath the tumour in various directions, so as to produce cicatrices in all parts. The late Mr. Travers, jun., once brought such a case to St. George's Hospital, and treated it on this plan, hæmorrhage having taken place. The patient remained well for some years, then the bleeding recurred, and the carotid was ligatured to check this; but the man died of hæmorrhage whilst the ligature was still on.—Mr. H. MORRIS saw the case eighteen months ago, and suggested that, in addition to tying a large vessel entering the growth, the left external carotid should also be tied, owing to the free anastomoses which exist between the two sides. If at the same time continuous cold was applied by means of Leiter's tubes, coagulation might be promoted. The efficiency of these tubes was well seen in a case of a vascular thyroid tumour now in the Middlesex Hospital, under the care of Dr. Douglas Powell, and the same application had caused remarkable reduction of a lymphadenomatous mass in the axilla and above the clavicle in a patient under Mr. Morris's care.—Mr. LUCAS asked whether ligature of the common carotid would be advisable, seeing that the chief supply seems to be from the ophthalmic artery.—Mr. HOLMES thought it better to wait for more decided evidence of the implication of the ophthalmic artery.—Dr. POWELL suggested that the condition might be largely one of dilatation of the superficial vessels from some nerve derangement. It would be worth while to try the effect of continuous cold, which had proved so effectual in the case alluded to by Mr. Morris.—Mr. LUCAS had not yet tried the application of cold, nor the plan of dividing the mass in various directions by the galvanic cautery, as suggested by Mr. Holmes. Certainly the growth began with extreme pain—thought to be toothache.

The Society then adjourned till October.

MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of the Society, held at 1, Adam-street, Adelphi, on May 20th, the President, Dr. Bristowe, in the chair,

Dr. B. W. RICHARDSON read a paper on "A Study of the Periods of Incubation of the Communicable Diseases," of which the following is an abstract. The author brought forward the five following points:—1. What is the precise application of the term "incubation," and to what diseases should it be applied? 2. What is the state of absolute knowledge of the periods of incubation of the more common communicable diseases? 3. In respect of differences of opinion on this subject do they depend on fault of observation, or on the circumstance that there are in the same diseases varying periods of incubation, the variations being under no as yet defined law? 4. If it be found that there are differences of periods in the same diseases, upon what do such differences depend? 5. What are the practical lessons which arise from the facts we at present possess, and to what extent may our knowledge be rendered available in the prevention and treatment of disease? On the first of these points Dr. Richardson said that, simple as the question seemed to be at first sight, it was by no means simple. We reduced the difficulty by limiting the term to those instances of disease in which, after a certain specific poisonous particle had been taken into the living body, certain indications of the action of that specific poisonous matter have been manifested—i.e., the period between the introduction of the poison and the manifestation of its action is the period of incubation. We fail, however, to be unanimous in the question, What is the accepted first sign of such manifestation? After citing several illustrations of this diversity of view, Dr. Richardson, by exclusion threw out local symptoms as insufficient proof, together with pain and fever, but accepted as the safest phenomenon indicating that the incubation is declared that sudden vibration between cold and heat which tells the break of continuous action between the nervous and the vascular systems to which we give the name of chill or rigor. The author next added the list of diseases, twenty-five in number, which present a stage of incubation. Under the second head, the range of period of incubation in the different diseases, the diseases were classified into five groups, according to the time of incubation in each case. The classification ran as follows:—(*a*) Shortest incubations, period one to four days: Malignant cholera, malignant pustule, plague, dissection wound disease, catarrh, if it be communicable. (*b*) Short incubations, period two to six days: Scarlet fever, rosalia idiopathica, diphtheria, croup, influenza, pertussis, erysipelas, glanders, yellow fever, grease, farcy, pyæmia, puerperal fever, dengue. (*c*) Medium incubations, period five to eight days: Relapsing fever, vaccinia, variola by inoculation, gonorrhœa. (*d*) Long incubations, period ten to fifteen days: Small-pox, varicella, measles, rötheln, mumps, typhus, typhoid, or enteric fever, malarial fever. (*e*) Longest incubations, period forty days or longer: Syphilis, hydrophobia, in which the range may be from seven days to months, or even years. From these general rules Dr. Richardson proceeded to state the exceptions to them in detail, the variations being most marked in class *b*, where the periods of incubation are short. Under the third head of his discourse, on the reason of differences of opinion as to the periods of incubation, the author held that such differences are traceable to four sets of causes. First, that we have not been, up to this time, agreed as to the full symptoms that indicate the stage when incubation is complete; secondly, that until lately we have not tried to classify diseases according to the test of incubation; thirdly, that we have attached too much importance to the exceptional phenomena of incubation; fourthly, that we have been too prone to connect diseases together which are in some respects similar, but which in regard to incubation are most dissimilar. Now that we are approaching nearer to the truth we may soon be able to classify and understand the exceptions from the ordinary or natural rule of incubation. After paying a warm tribute of respect to Dr. Squire for his important labours in this field of research, the author proceeded to consider the circumstances which may lead to differences in periods of inoculation in the same affections. He suggested that as it was not known that inoculation of a poisonous particle shortened the period of incubation, so it was possible that in some cases where the poison was absorbed an accidental inoculation might account for variation of time of incubation. Again, the poison might be absorbed in one case in a form of diffusion readier for absorption in some cases than in others. But the great cause of difference was traceable to individual susceptibility, together with physiological peculiarities dependent on season and the meteorological conditions which so modify the action of the organic poisonous material. The paper was brought to a close by a review of the practical lessons which spring from the study of incubation. The points here advanced may be briefly stated as follows:—If we could arrive at definite evidence on which we could all rest, that the incubation of a disease is proved by the occurrence of a certain symptom or definite class of symptoms, we could account for much that is mysterious. For example, in vaccinia can it be that, trusting entirely to the local phenomena, we sometimes have an apparently good vaccination which never has inoculated at all? If that be so, there is a reason why the occurrence of small-pox in a person who seems to have been thoroughly vaccinated should still remain susceptible to small-pox. The suggestion, though it stand alone, is all-sufficient to indicate the practical importance of proving inoculation before pronouncing it as the protection afforded by some but not all the symptoms of a communicable affection. The division of diseases of the communicable type into different classes or groups according to the stage of incubation which is presented is a practical acquirement of the most important every day value, both in curative and preventive science. Dr. Squire has not in the least degree over-estimated this part of modern knowledge. It is quite true, as he shows, that to know when to retain at home a sick person labouring under communicable disease, when to send him from home, and when to separate him from the actual or presumably unaffected, is a direction of practical skill as eminently creditable to the profession of medicine as it is useful to the public. To remove the healthy from the affected is good practice in the case of all the diseases of the first and second of the groups of the quick and short incubation series. To remove in the third series may be sound practice. To remove the fourth or long incubation class is less important and may be a practice that is quite at fault and prejudicial. Lastly, from the study of the incubation period we learn how to assign the best means of disposing of the affected during convalescence. It seems to be a true reading of natural phenomena that the diseases of short incubation have a prolonged convalescence, and remain long sources of communication, while the diseases which show a long incubation give a quicker convalescence, and a more rapid freedom from danger as a centre of communication of disease. Here there is a practical lesson that cannot well be over-estimated. Keep the cases of short incubation at home. They will infect others and be injured themselves by removal.

In the discussion which followed, the President, Dr. Squire, Dr. Tripe, Mr. Shirley Murphy, Dr. Bate, Dr. Dixon, Dr. Heron, and Dr. Dudfield took part.

Reviews and Notices of Books.

Report on the Scientific Results of the Voyage of H.M.S. "Challenger" during the Years 1873–76. Prepared under the superintendence of Sir C. WYVILLE THOMSON, F.R.S. Zoology. Vol. II. 1881.

THE second volume of the Report of the *Challenger* expedition contains an immense amount of new and valuable information in the departments of Zoology to which it is devoted. The lively interest that is taken in the scientific results of this very important expedition is sufficiently shown by the statement made by authority in *The Times* of the 16th ult., that the sale of the parts already published by Her Majesty's Stationery Office has been so extensive that the number of copies necessary to be reserved to make up even a limited edition of the work in its complete form will allow little if any margin from which persons who begin by purchasing the later volumes can rely upon being able to complete them hereafter with the earlier numbers. The moral therefore is that those who desire to obtain complete copies of this work should at once secure the volumes that have already been issued.

The present volume contains two reports. The first is a report on certain Hydroid, Alcyonarian, and Madreporian Corals, by H. N. Moseley, M.A., F.R.S.; and the second is a report on the Birds collected during the voyage, by Philip Lutley Sclater, M.A.

Mr. Moseley commences his report with a carefully drawn-up description of Milleporidæ in general, and of Millepora nodosa in particular. The hard tissue, by him christened Cœnosteum, consisting of a widely spread basis, rises in a series of projecting, short, irregular tubercles. These present pores on their surface and canals in their interior, occupied by the cœnosarc or soft part of the coral; the cœnosteum and the cœnosarc together constituting the hydrophyton. The growth of the coral commences by the formation of a thin film, which is exactly moulded to the adjacent surface. In homology with this continuous layer other parallel layers are gradually formed, and certain transverse laminæ or tabulæ which divide the cavities of the calicles into a series of chambers, shutting off the living tissue from the abandoned dead structures beneath. The pores of Millepora are occupied by two kinds of zooids. In each system of calicles the central larger one is occupied by a short and broad "gastrozooid," provided with a mouth; whilst the surrounding smaller calicles lodge longer and more slender "dactylozooids," which have no trace of mouth. The gastrozooids are short, thick cylinders, about half a millimetre in height, with a short conical hypostome, and four, five, or six tentacles arranged equidistantly in one whorl just below the extremity of the hypostome. At the summit of the hypostome is the mouth, which in the living expanded animal has a conspicuous glistening white appearance, owing apparently to the presence of large gastric cells around the aperture, which strongly reflect the light. The dactylozooids are about three times the length of the gastrozooids; they are cylindrical and tapering; they have no trace of a mouth, but bear tentacles at irregular intervals from base to summit, the number of tentacles varying from five to twenty; they seldom carry their bodies expanded straight, but usually bent in several curves, and appear to bend over towards their gastrozooid from time to time as if to convey food. When a portion of the coral has been placed living in reagents, it is found, after becoming hardened, to be bristling all over with sheaves of threads shot from the nematocyst around the mouths of the calicles. The body of the zooids, when seen in transverse section, is found to consist of an ectodermal layer of cells, beneath which is a layer of membrane and an internal mass of endodermal cells; their bodies contain muscular fibres arranged longitudinally. The canals and spaces in the calcareous cœnosteum are occupied by a network of soft tissue, which with the external layer of ectoderm constitutes the cœnosarc. Only a thin layer of about 0 5 mm., or one-fiftieth of an inch in thickness, is living. Two forms of nematocysts were observed: One which appears to be confined to Hydrozoa, and not to occur at all in Anthozoa—viz., that in which a bladder-like enlargement of the thread occurs at that part of it which is in immediate proximity to the mouth of the cell, the bladder being armed near its summit by three spines set in one whorl. The other form is large and ovoidal, with a thread beset in part of its length with recurved spines; these also occur in hydroid polypes, but are not of so characteristic a form as the three-spined kind. It is a subject for regret that no trace of generative organs could be detected in connexion with any of the zooids. Mr. Moseley, however, is perfectly satisfied that the Milleporidæ are true hydroids, as maintained by Agassiz in 1859. He is also convinced that the Stylasteridæ, the second great division of the Hydrocorallinæ, are Hydroids, and not Anthozoans, and he gives an elaborate description of the hard and soft parts of the several genera of these animals, which he divides into twelve genera, named respectively, Sporadopora, Pliobothrus, Errina, Distichopora, Labiopora, Spinipora, Allopora, Stylaster, Stenohelia, Conopora, Cryptohelia, and Astylus.

Part II. of Mr. Moseley's report is devoted to the Helioporidæ, Part III. to the Deep-sea Madreporaria. The number of these was comparatively small, but all are described, and the new forms are all shown in woodcuts, and in the plates, which are most beautifully executed, and do great credit to Mr. Moseley's skill in delineation.

The second section of the volume is occupied with a Report on the Birds collected during the voyage of the *Challenger* by Philip Lutley Sclater, which comprises also a report on those collected in the Philippine Islands by the Marquis of Tweeddale, and other reports on the birds collected in special regions by Dr. Fuisch, M. Salvadori, Mr. Forbes, Mr. Saunders, and Mr. Salvin. Mr. Sclater also contributes a list of the eggs collected during the expedition, and there is a short note by Mr. A. H. Garrod on the gizzard and other organs of Carpophaga latrans. Thirty coloured plates illustrate the more important new birds that have been found, some of which are most gorgeously coloured.

A Treatise on Foreign Bodies in Surgical Practice. By ALFRED POULET, M.D., Adjutant Surgeon-Major, Inspector of the School for Military Medicine at Val-de-Grâce. Two Vols. New York: W. Wood and Co. London: Sampson Low and Co. 1880.

THESE volumes are issued as a portion of "Wood's Library of Standard Medical Authors." They are the result of a very great amount of labour on Dr. Poulet's part, and are a valuable storehouse of useful and curious information on a subject from its very nature rich in remarkable details and incidents. Ancient and modern literature in many languages has been ransacked for all kinds of cases of foreign bodies, and anyone desirous of acquainting himself with the history of foreign bodies in any situation will find these volumes a necessary and very valuable help. But having said this much we are not able to speak any further words of praise. It is a wearisome book to read, and every page bears evidence of the author's painful efforts to be very complete, and very systematic, and very theoretical. All extraneous matters that can possibly be dragged in are made to swell the amount of information given; and the author appears not to be able so to group the facts bearing on his subject as to present all their points in their due proportion, and so he seems to us to fail in giving clear pictures of the different states he tries to delineate, and still more do we find wanting precise practical indications for treatment. Indeed we have the impression that the book is the outcome of wide and careful reading—what has been called paste and scissors—not backed up by extensive practical experience. In the preface one of the reasons why the book has been written is stated to be the ignorance of students and young practitioners on the subject of the treatment of foreign bodies. We will not attempt to dispute the fact now and here, but we feel sure no such student would ever think of going to Dr. Poulet's work for help in time of difficulty, for he would soon be lost in the maze of bewildering details. It must form a feature in all college and public scientific libraries, and no doubt it will be often quoted by other writers who will reap advantage from Dr. Poulet's labours.

New Inventions.

DISARTICULATING STETHOSCOPE.

THIS instrument, designed by Dr. Whittaker, is contrived chiefly for convenience in carrying. One half the stem is contained within the other half, the screw-thread keeping it fixed. For use, the smaller tube is unscrewed and applied the reverse way to the larger, and fixed by the screw, forming a stem similar to the ordinary stem of a stethoscope. Fig. 2 represents the ear- and chest-pieces as arranged for carrying; one fits within the other. When required for use, they are separated, and the "fitting" joints enable them to be fixed firmly and instantaneously to their respective ends of the stem, ground accurately to receive them. The chest- and ear-pieces, when arranged for carrying, take up no more room than a medal or a couple of coins, while the stem takes up the same room as an ordinary pencil; both may be carried in the waistcoat-pocket, and never noticed. The advantages will at once be obvious, since it is difficult to conceive an awkwarder instrument than the stethoscope for carrying; and if the instrument can be made to equal the ordinary stethoscope in its acoustic properties, this ingenious device is sure to meet with approval. A comparative trial with this invention shows that (possibly owing to the necessarily flat surface of the chest-piece) in the latter respect it hardly comes up to the awkward but reliable wooden stethoscope. It is made by Hilliard of Glasgow.

Fig. 1.

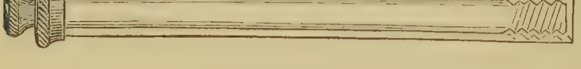
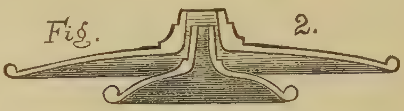


Fig. 2.



THE EXAMINATIONS FOR THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I am glad to see that the results of the recent examinations at the Royal College of Surgeons of England are of sufficient importance and gravity to demand a leading article in THE LANCET.

With the examinations for the membership you deal fully, the Fellowship Examinations you merely characterise as "peculiar," and dismiss with a very short notice. As a member of the profession deeply interested in all that concerns medical education, I beg to call your further attention to the examinations for the Fellowship, about which "the schools" are just now deeply exercised, and I fear not without some reason. The feeling abroad is, that however well prepared the candidates may be, only a certain proportion are allowed to pass, and that the process of elimination is attended with so much uncertainty that men who have already distinguished themselves as demonstrators of anatomy, senior house-surgeons, &c., frequently "fail to satisfy the examiners," while men of a very inferior status as frequently manage to get through.

When it is remembered, moreover, that each rejection brings a fee of five pounds to the College exchequer, the money question is, to say the least of it, not satisfactory. I venture to think that the fee ought not to be redemanded every time an unfortunate candidate presents himself for re-examination (it is not so, I believe, at the London University examinations), and that a severe and very searching examination might be possible, with results less at variance with the judgments of those who, having known the candidates and their work for long periods, are not likely to err in their opinions regarding them.

The present uncertainties and peculiarities which lead our best men to expect one or more mishaps almost as a matter of course, and to accept a pass, if it falls to their lot, as a happy piece of luck, will not tend to raise the standard of the examination, or add to the dignity and value of the Fellowship of the Royal College of Surgeons of England.

I am, Sir, yours obediently,

June, 1881. CHIRURGUS.

⁂ If our correspondent will consult the last balance-sheet of the College, he will find that the two examinations for the Fellowship entailed, last year, a total loss of £217 18*s.* 4*d.*—ED. L.

THE LANCET.

LONDON: SATURDAY, JUNE 18, 1881.

IT is not easy to put aside all doubts as to the expediency of the publication of Dr. BUCHANAN'S Memorandum on the estimated relative incidence of the present epidemic of small-pox upon the vaccinated and unvaccinated in the London population, although it must be freely admitted that the statistics are dealt with in an effective, if not an entirely novel manner. Supposing that the small class which is opposed to vaccination were open to conviction through the medium of arguments based upon statistics, we might fairly expect that the publication of this Memorandum would have some effect upon this opposition. Those, however, who know best the weapons used by the leading anti-vaccinationists, and the method of their use, will find it difficult to be sanguine as to the effect of Dr. BUCHANAN'S Memorandum. To the believers in vaccination, and in the expediency of compulsory vaccination, the Memorandum will be readily accepted as a clear and logical arrangement of facts which afford the strongest evidence of the protective power of vaccination against small-pox fatality.

The Memorandum is based entirely upon the 1532 fatal cases of small-pox registered in London during the fifty-two weeks ending 28th May last, and upon the information respecting the vaccination or non-vaccination of these cases, recorded by certifying medical practitioners, and published by the Registrar-General in his Weekly Return. This information was unfortunately not given in 570, or 37 per cent., of the 1532 fatal cases; and Dr. BUCHANAN has had to base his calculations and conclusions on the 962 cases in which the information was furnished, and of necessity to assume that the proportion of vaccinated and unvaccinated among the "not stated" cases was the same as that found to prevail among the stated cases. It is this very assumption on the part of Dr. FARR and the Registrar-General which has, during the past ten years, subjected them to the virulent abuse of anti-vaccinationists. Therefore, while we fully accept as trustworthy the grounds, so well explained by Dr. BUCHANAN, for making this assumption, we fail to see the expediency of its reassertion. When we come to the second stage of Dr. BUCHANAN'S calculations, we are still upon debateable ground—namely, the estimation of the numbers of vaccinated and of unvaccinated persons in the London population. On the basis of an estimate which has been frequently used, and as frequently attacked, it is calculated that the London population contains only 190,000 unvaccinated persons. Dr. BUCHANAN further assumes that 105,000 of this number are of persons under twenty years of age, and only 41,000 of children under five years of age. Anti-vaccinationsts have urged again and again that the estimates of the numbers of the unvaccinated are far too low, and we cannot feel sanguine as to their acceptance of them now. However, when Dr. BUCHANAN shows that during the past year the death-rate per million from small-pox in London has been only 90 among the vaccinated, against 3350 among the unvaccinated, it is impossible to deny that the figures, after full allowance for possible errors of estimate, afford overwhelming testimony in favour of vaccination. Similar statistics, based upon similar calculations, show that under five years of age the proportional mortality from small-pox in the past year was 40½ per million among the vaccinated and 5950 among the unvaccinated class. These figures, however, understate the true relative proportion of mortality from small-pox among these two classes of the population, as among infants under one year of age in epidemic seasons many are vaccinated while under the influence of infection, and if fatal small-pox afterwards occur the cases are improperly described as vaccinated. It would have been better to have left the infant population out of the calculation, and to have dealt with children aged one year and under five. It is not surprising to find that the protective power of vaccination, tested by Dr. BUCHANAN'S figures, decreases at more advanced ages. However, among all persons aged under twenty years, the relative mortality is shown to be 61 and 4520 per million of the vaccinated and unvaccinated classes respectively. Considering that one of the important features of recent small-pox epidemics is the large and increasing proportion of adults, we regret that Dr. BUCHANAN has not dealt in his Memorandum with the relative mortality during last year among persons aged upwards of twenty years. There is undoubted difficulty in the way of estimating the numbers of vaccinated and unvaccinated adults in the population; from Dr. BUCHANAN'S figures, however, he appears to estimate that there are only 85,000 unvaccinated adults in London. We rather doubt the probability of there being in London fewer unvaccinated adults than unvaccinated persons under twenty years of age; but accepting these figures, it follows that during last year the proportional rate of mortality among adults was respectively 111 and 1906 per million living of each class.

These facts, after full allowance for all errors in the estimates used for the calculations, afford grounds for the strongest special pleading in favour of vaccination. We doubt, however, the expediency of any such special pleading. *It is beyond dispute that efficient infant vaccination, followed by efficient revaccination at adolescence, practically confer immunity from fatal small-pox.* It is wiser, we think, for the Department having the control of vaccination simply to take its stand upon this ground, and to accept the recent small-pox epidemic in London, so far as regards the deaths of children, as evidence of a failure of the vaccination system as at present carried out. Vaccination requires no defence or apology at the hands of its administrators, and this Memorandum suggests an admission that the President of the Local Government Board considered vaccination itself to be on its trial, instead of the system and efficiency of vaccination administration.

From our point of view the most satisfactory part of Dr. BUCHANAN'S Memorandum is that in which he says, "I am now engaged, with Dr. STEVENS' assistance, in some inquiries into the relative protective influence of one and another sort of vaccination." With regard to the ninety-four registered cases of fatal small-pox after vaccination in London during the past year, under twenty years of age, it is of the first importance to have some information. Were those ninety-four young persons ever really vaccinated, and if so were the vaccinations performed by public or private vaccinators? It is no secret that much of the so-called vaccination in London and elsewhere, although certified as successful, is really of none effect. It is this which tends to discredit vaccination, and it is this which calls for searching investigation and exposure. According to the most recent official returns little more than six per cent. of the children in Bethnal-green escape successful vaccination; and yet it appears from a report based upon a house-to-house visitation made by the vaccination officer of that parish during the past three weeks, that out of a total of 6018 children under fourteen years of age, respecting whom inquiries had been made, no less than *828, or 13·8 per cent.*, were *unvaccinated.* Such a failure of our vaccination system calls for explanation, and at the same time throws considerable light upon the cause of the recent fatal prevalence of small-pox in East London, especially in Bethnal-green and Shoreditch.

We have fortunately now arrived at the season when the small-pox epidemic in London will inevitably subside; indeed the decline has already set in. Before the season for its revival comes round it is not unreasonable to hope that we may know more of the causes of the comparative failure of the vaccination system in London, in order that measures may be taken for increasing its efficiency.

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TO the credit of our common philanthropy, Hospital Sunday is as much an institution now in London as hospitals themselves are. Towards the close of 1872 it was proposed that collections for the benefit of hospitals and dispensaries in London should be annually made on one Sunday in the year at all places of worship. THE LANCET was the original promoter of the movement, and has supported it with signal success. The prosperity of the enterprise has varied since then with the varying prosperity of the country, but there is good reason to believe that the institution itself, and the Council by which it is carried on, enjoy increasingly, year by year, the confidence of the churches. In 1880 the largest sum yet raised for the purpose was collected. Last year we were careful to go into some detail to stimulate sympathy with sickness; and we have the pleasure to remember that our statements were extensively read, and that the resulting collection was the largest in any year since the foundation of Hospital Sunday. We will not repeat our arguments for a good collection on Sunday next. There is no doubt that it will be most acceptable to both the hospitals and dispensaries. Depression of trade, or something else, still continues to affect hospital finances so as to make the administration of hospitals and dispensaries anxious work. It is within our knowledge that many of them are only kept going by selling out scanty stock, that gives little sense of security and comfort to those who are responsible. Nearly every hospital report that we take up has some such burden to disclose. There are signs of revival of trade according to the admission of critics. It is certain that there is trade enough to supply funds to enable the committees to fill every bed in every London hospital, and pay off the debt of every London hospital and dispensary. With a little more charity and consideration of the case of the inmates of our hospitals, the last collection might be easily exceeded by £10,000. We suggested last year that ministers should visit the hospitals on the Saturday preceding the day of collection. We are sure of two things: first, that they would be well received; and, secondly, that, in the sight of so much sickness and of the many "lenient arts" by which it is sought to mitigate it, they would find the truest inspiration for an appeal to Christian charity. The hospitals were never more worthy of benevolent help than they are to-day. They never did more good or less harm. They never were administered more wisely or economically, or with better precautions against abuse. It is not the least claim of Hospital Sunday that it has brought the hospitals and the churches, irrespective of creed, into close contact, and made hospital relief and help much more accessible to really deserving cases.

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SINCE VIERORDT first introduced the method of counting the corpuscles in a given volume of blood as a source of information regarding its pathological states, several observers have applied the method to the investigation of the effect of loss of blood on that which remains in the circulation. The latest, and one of the most valuable, of these investigations has been carried out at Heidelberg by an American physician, Dr. LYON.

Before trustworthy conclusions could be drawn from the results of experiments in producing traumatic anæmia, it was necessary to ascertain the spontaneous variations in the corpuscular richness of the blood. Observations for seven days on a dog, and for twenty-one days on himself, led Dr. LYON to the conclusion that the variations in a single day are so slight that they may be disregarded, but that during a series of days variations do occur which cannot be accredited to errors of observation. In the dog there was a steady slight decrease, amounting to about 6 per cent.; in the experimenter there was a gradual increase in the number of corpuscles per cubic millimetre, amounting to about 2 per cent. It is of great importance that the occurrence of such variations should not be lost sight of in drawing inferences from observations in pathological conditions. The observations on the effect of hæmorrhage were made upon dogs which were fed once daily, and the corpuscles were counted just before the daily feeding. At least 5000 red and 200 white were counted on each numeration. Previous experiments had shown that the error in observation, if 5000 corpuscles are counted, does not amount to more than 1 per cent., and if 200 are counted it amounts to about 5 per cent., but in taking the blood from the ear of an animal it was probable that the amount of error would be nearly twice this. The hæmorrhage was effected in most cases by opening the jugular or some other large vein, the animals being at the time under the influence of morphia. The amount of blood taken varied from 700 to 1350 cubic centimetres, being from 3·5 to 4·5 per cent. of the body weight. Observations made during and directly after the hæmorrhage showed an immediate diminution in the corpuscular richness of the blood, which agrees with the result obtained by other observers. The fall is, however, far greater in the case of guinea-pigs than in dogs. In the latter, even a very large hæmorrhage (equal to 4 per cent. of the body weight) does not reduce the number of corpuscles below 80 per cent. of the normal, while in the former a loss of blood amounting to only

2 per cent. of the body weight has reduced the number almost to one-half of the normal. A possible explanation of this may be found in some observations of VON LESSER, who found that the variations in the amount of hæmoglobin in the blood, after slight and considerable hæmorrhages, corresponded closely to the variations in the blood-pressure. The greater the fall in the blood-pressure, the greater is the diminution in the amount of hæmoglobin. It seems necessary to assume that in the guinea-pigs there is a greater fall in blood-pressure than in dogs, and a correspondingly greater quantity of serum passes into the blood from the tissues.

The observations corroborate the statements of HUNERFAUTH and BUNTZEN that the proportion of corpuscles in the blood falls still further during the first days after the loss of blood, and only regains the normal at a later period. The time at which the minimum is reached varies from a few hours to several days. It is roughly proportioned to the amount of blood lost, the interval being the longer the greater is the loss; but this relation, although generally to be observed, is not exact. The normal—i.e., the amount of corpuscles before the hæmorrhage—is usually regained in rather less than three weeks after the operation.

A very different effect is, however, manifested by the white corpuscles. In a few hours, and for a few days after the hæmorrhage, their number per cubic millimetre of blood is found to exceed considerably the number previous to the operation. The maximum is usually attained within a few hours, rarely not until the next day. It may amount at the maximum to two, four, or even five times the normal average. The duration of the excess is about four days, and then it gradually passes away. This change of the two kinds of corpuscles in different directions explains the great alteration in their relative proportion which has been known, since the time of REMAK, to follow loss of blood.

The attempt to ascertain the facts in the case of man is beset with many difficulties. Alike in the case of injuries and operations, it is difficult or impossible to ascertain exactly the amount of blood lost, and it is equally difficult to ascertain the normal state of the blood in the individual for purposes of comparison. Some interesting facts observed with great care by Dr. LYON show clearly, however, that the same effect occurs in man as in the dog. The white corpuscles are immediately increased in number, and this increase lasts for several days. The diminution in the number of red corpuscles also lasts for several days, and the minimum occurs sooner the slighter the hæmorrhage. In one case, in which great loss of blood occurred, on an attempt to remove a fibroma from the posterior nares, the pulse could scarcely be felt, and artificial respiration was needed; the minimum amounted to a reduction of one-half the corpuscular richness of the blood before the operation, and this was reached, as in the case of animals, on the fourth day. The length of time needed for the return of the blood to the normal varies greatly in different cases, being, in some, increased by secondary hæmorrhage, as in the case just mentioned. In others the increase in corpuscles was apparently accelerated by the occurrence of diarrhœa, which, as BROUARDEL has shown, renders the number of corpuscles, in a given volume of the blood, greater, no doubt, by withdrawing some of the serum. In some cases the fall which was observed was actually greater than the amount of blood taken would account for, and for these cases the explanation is offered that the phenomenon is really the result of the effect of the small hæmorrhage on the blood-pressure.

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PROFESSOR STRUTHERS is as much entitled to be heard as most men on the feeling in favour of having some kind of Joint Examination Board. His letter of last week will be read with interest by a large number of persons, in and out of the profession, who are studying the present state of the law of Medical Registration, and watching the action of the Royal Commission charged to investigate the working of that and other parts of the Medical Act of 1858. There is something captivating in the very simplicity of the problem of Medical Reform, as it is presented in Professor STRUTHERS' letter. The feeling in favour of it is located in England; it has its "just" root in the state of the law which permits registration on a partial qualification, and in the desire to see the Colleges of Physicians and Surgeons form a joint examination. Were such a junction formed voluntarily and a Registration Act passed requiring "a complete qualification before registration, the licensing difficulty would be virtually at an end." The Corporations are all anxious to form such boards, and to discontinue their separate action in granting diplomas, but mutual distrust hinders. Edinburgh has set the good example of a joint examination, but there is still the weak point of separate action and a one-sided diploma, and she fears to discontinue this lest London should not follow suit. And as Edinburgh distrusts London, London distrusts Edinburgh, and each goes on its own way.

There is some truth in this mode of putting the question; but it has one fatal defect—it is a thoroughly inadequate statement of a large and complicated evil. It has been a favourite representation of our Scotch friends that all that was wanted was to stop single qualifications being granted, and to make only complete or double qualifications registrable. But a very little consideration will convince our readers, and, we would fain hope, convince Dr. STRUTHERS, that his simple remedy bears no proportion to the evil to be remedied. The real evil is not now so much in the existence of one-sided examinations, for under the influence of public opinion examinations have become far less one-sided than they used to be, and embrace, as a rule, all branches of general practice. It is in the inequality of the examinations. The Corporations themselves disparage each other. We shall not decide which Corporation has the better right to be satisfied with its own examination, and to disparage that of the sister college in the other division of the kingdom. But there is inequality. Men rejected at one Board over and over again go confidently to another, and come back with a title to registration which had been denied them at the first institution to which they applied. We shall not attempt to prove that this inequality exists; it is notorious. If this is true of the lowest qualifications, it is still more true of the highest ones. So that whereas a Fellowship of one college must be gained by long study and the severest examinations, that of another may be had practically for money. Then, again, not only are the examinations for corresponding qualifications unequal, but the diploma-granting bodies are, on all hands, allowed to be too numerous. When diplomas had only a local value numerous and local attesting bodies might be required. But now, when a diploma granted in one division of the kingdom qualifies in all, and in all parts of the empire, imperial precautions to secure equality should be taken. They are not even hinted at in Dr. STRUTHERS' letter. The very number of the bodies claiming to enter into conjoint schemes makes such schemes dear and difficult to work, and we shall be grievously disappointed if the Royal Commission does not see this. We are not concerned to deny the honourable spirit which actuates the leaders of the Corporations. Corporations are all "honourable," but there are too many of them, and their mutual competition has not always been honourable to the profession or advantageous to the public. Professor STRUTHERS' representation is surely inadequate in another point. It locates the dissatisfaction with the existing system "in England." We believe it to be far more general. It certainly obtains largely in Ireland and, we believe, in Scotland too. Scotland can well afford to favour a thorough reform. In her universities she educates English practitioners on a large scale, and she is indeed deeply interested in every improvement of the tests by which medical education is proved. Her University system and interests are well represented on the Royal Commission by Professor TURNER; but we shall be surprised if he fails to recognise that the interest of Scotland—of her universities at least, if not of her Corporations—is to say, as Professor GAIRDNER virtually said before the Select Committee, "give us legislation that will satisfy a General Medical Council that our education is good and that our examinations are efficient." Professor STRUTHERS seems to think the institution of voluntary Conjoint Boards by the Colleges of Surgeons and Physicians will leave nothing to be done by the Royal Commission. We differ from him. It is too late now to arrest an investigation into arrangements which are costly, complicated, inefficient, and altogether out of time.

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THE subject of lunacy law reform would seem to have been again shelved by the second reading of Mr. DILLWYN'S Bill. This is to be regretted, although, perhaps, the result was inevitable. If the Government had rejected the measure the agitation would have been increased rather than appeased by the opposition offered. What has happened is a hollow compromise, a concession sulkily made to the effect that the Bill should be read a second time on the understanding that the Government would not be further troubled in the matter. A hope prevails among distinguished personages and in official circles, from the Lord Chancellor, the Home Secretary, the Commissioners in Lunacy, the proprietors of private asylums, down to the classes or individuals supposed to be interested in perpetuating the existing state of matters, that now the member for Swansea has had his say the question will rest and its promoters be silenced. It is not worth while to discuss the probabilities that this hope may be realised. Its fruition would not surprise us. There is no more successful mode of dealing with a question of this character than that adopted. Mr. COURTNEY was put up to champion the worn-out policy of resistance, and very awkwardly did that gentleman acquit himself of the task. The Home Secretary broached the alternative method of getting rid of the question, albeit, with less than his usual grace and sagacity, and the measure fell to the ground; and that was the end which, so far as the Government was concerned, it was desired to compass.

Mr. DILLWYN is probably satisfied with the result he has obtained. He has embodied in the re-amended draft of his Bill, the one now formally before the House of Commons, some half-dozen of the proposals which have from time to time been made in these columns: for example, the purchase of private asylums by the creation of State bonds, the requirement of an *official* medical signature to every certificate, the creation of a local inspectorship, with a system of printed reports to be made directly to the Commissioners in Lunacy, the establishment of a practical supervision of cases by an official who will know the patients personally, and a provision by which the insane can be promptly placed under treatment without the delay and excitement caused by formal certifying, an examination being made by an independent officer *after* the patient has been removed to an asylum. In so far as the Bill which has now been read a second time embodies these reforms, we, of course, approve it, though we shall hereafter—if it should be revived—have something to say as to the manner in which the proposals adopted agree or disagree with other parts of the Bill. Before the introduction of the provisions taken from the columns of THE LANCET, we were only able to give the measure a very guarded support. Our feeling towards it is still only so far favourable as it may be susceptible of modification to meet our views. The subject of lunacy law reform is one which we have urged on the consideration of the Legislature and the profession continually for many years past; and we shall never grow weary of pressing it until private asylums are placed on an entirely new footing, being in fact, if not in name, converted into public institutions, their proprietors no longer deriving direct benefit from the retention of patients, and their executive staff being armed with public and official, instead of private and personal, authority over their inmates, and until measures are taken to prevent the sane but excitable from being hurried into asylums, and to secure that the convalescent may find an easy way of escape. In short, we cannot, so far as our appeal is concerned, allow the matter to drop until a large and liberal measure of reform has been passed—whether by some enlightened Government or an enterprising member we care not, so that the law be amended as justice and public safety demand.

We discussed the principal clauses of Mr. DILLWYN'S Bill at some length on the 5th of February last, and there is nothing further to say on the subject at the present moment. The comments which have appeared in the press on the measure, and the brief discussion which was raised on the second reading, point almost unanimously to the conclusion that the member for Swansea would have done better to adopt our proposals in their entirety than in part only. The *Saturday Review* and other thoughtful contemporaries have indicated the defects of the Bill as it stands, and these are, with scarcely an exception, due to the omission of some integral part of our proposal. For example, the *Saturday Review* says:—

"What is really needed—so long as private asylums are allowed to exist—is that every alleged lunatic confined in them shall be personally examined, at reasonably short intervals, by a competent Medical Inspector, who shall in each case make an order, either for the discharge or for the continued confinement of the patient, according to the opinion he has formed of his mental state at the time. This Medical Inspector should be an officer of the Government, and so be above any possibility of being influenced either by the proprietor of the asylum or by the friends of the patient."

This is but a paraphrase of the following specific suggestion for dealing with the cases of patients on removal to an asylum. "Within eighteen hours of admission, notice should be sent to the office of the Commissioners in Lunacy, and an order be issued from the Board to an *official* medical examiner, duly appointed by the Board, and not engaged in private practice, either as medical attendant or medical witness, who should at once proceed to the asylum, and report *directly to the Commissioners* as to the nature of the case, and the expediency of detaining it. If residence in the asylum were deemed desirable, the Commissioners could make an order to that effect—such order to have the force of a certificate of insanity—and by the visits of these inspectors provide for *the continuous watching of the case.* In this way, for twelve months at least, every new patient would be *kept under official observation*, a measure which could scarcely fail to exert a satisfactory influence on the treatment." The parallelism of thought, if not the origin of the suggestion, is obvious. In short, the Bill is weak where our proposals were discarded, and strong only where they have been adopted. We shall look with interest to the form in which this measure may survive, or be introduced at another opportunity. If its author is well-advised he will embody the scheme we have laid before the public without modification or abatement.

THE International Congress dates from a meeting of the French Medical Association in Bordeaux in 1865. The idea there ventilated was first realised in Paris in 1867, under the presidency of M. BOUILLAUD, during the time of the International Exhibition. The next meeting was held in Florence in 1869, and subsequently the Congress assembled in Vienna (1873), in Brussels (1875), in Geneva (1877), and in Amsterdam (1879). An International Medical Congress held in Philadelphia at the time of the Great Exhibition there, was not one of this series. At each of the meetings in the continental capitals large numbers of delegates and members attended. But the meeting shortly to be held in London is looked forward to by those most interested in the Congress as marking a new era in its history, and as a venture of a far bolder character. Hitherto the business has been transacted in one or, at most, two languages. In the London meeting three languages will be spoken, and while before only the attendants at one meeting had invitations addressed to them for the next, the London Executive have issued an invitation in his own language to nearly every medical man in the world. An effort has thus been made to ensure its being in fact, and not in name only, an International Congress. It is a matter of just pride to us that such a change in the scope of the Congress should be connected with its meeting in London, which we call the metropolis of the world. And, although we have not the right to assume superiority in matters medical and scientific, we have yet such a history, with its records of HUNTER, HARVEY, JENNER, and the BELLS, and in more recent times of COOPER, LISTON, SYME, SIMPSON, BRIGHT, ADDISON, GRAVES, STOKES, and FERGUSSON, not to mention many others, that, whether on the ground of great historic discoveries, or on that of successful practice of our art, we can bear comparison with any country, and with no lack of propriety ask the medical profession of the world to meet us in scientific discussion. In America and all the countries of Europe great interest has been awakened in the ensuing meeting, and very high expectations are being held of its importance and usefulness. Thus early more than 300 foreigners have intimated their intention of attending, including men of world-wide reputation, such as ALBANESE, ALBERTIS, ANGELUCCI, BILLINGS, BROWN, BARDELEBEN, BIGELOW, CHARCOT, CHAUVEAU, DONDERS, ESMARCH, HALLÉ, HARDY, HEBRA, KÜSTER, LANGENBECK, SNELLEN, VERNEUIL, and VOLKMANN. Several foreign Governments and learned Societies have expressed their desire to send representatives to report on the meeting. The medical profession in England has already to a large extent shown its interest by monetary subscriptions and by the labours of the secretaries and executive officials of the various sections and committees. But it rests with the whole constituency to make the Congress such a thorough success as it ought to be. And every one must feel, apart from other perhaps more worthy motives, that national pride and generous hospitality alike compel us each to do his utmost to make not only the visit of our foreign friends pleasant, but the meeting of so many leaders in medical science useful to the world at large. Intelligent interest and sympathy will greatly aid the executive, and will enable them to carry to a successful issue schemes which otherwise must prove futile. We have no doubt that this support will be forthcoming. Some, however, may ask, What possible good can come out of the Congress?—whether it will not be a very busy week, with crowded meetings at which the business will be hurried over, followed by pleasant entertainments in the evening; in fact, an excuse for a holiday with a semblance of work? No doubt some Congresses are such and but little else. But surely more is to be hoped for from our August gathering. To meet face to face those who are now but celebrated names to many of us, and to form friendships with fellow-workers in other lands, will not only add a zest to our own work, but will greatly enlarge our interest in that of others. With the rapid strides science and the medical art are making in almost all countries, it becomes impossible for practitioners, especially those who are themselves the most active, to keep *au courant* with all the details of the general advance, and it is a labour of a life to acquire thoroughly the knowledge that has been and still is being accumulated on even the subdivisions that are now universally made. But when the leading workers from all lands meet together, knowledge is very rapidly imparted and interchanged; views that perhaps would never otherwise reach us are expressed, and opinions well cherished and supported may quickly receive their quietus. It must be evident to all that no one really desirous of learning may not in the one short week gain large stores of information from those best qualified to give it—first hand, not filtered through text-books and reviews. Among the large number of papers that will be read we may certainly count upon many of permanent value; and the more formal addresses to be delivered by Sir JAMES PAGET, MAURICE RAYNAUD, Dr. BILLINGS, Professor VOLKMANN, and Professor HUXLEY, are each and all of them sure to be worthy of the great occasions on which they will be delivered, and lasting memorials to the scientific fame of the orators. It has been well said that a visitor to Rome sees in that unrivalled city only what he is already acquainted with; so those who look upon Congresses as holidays will find this particular one a holiday of unequalled interest, while those who come to it desiring to learn will have an unexampled opportunity of doing so. Indeed it is too obvious to require any argument that a meeting of several hundreds of medical men, to a large extent unacquainted with each other's opinions and practice, must be productive of most valuable results.

Annotations.

"Ne quid nimis."

COLLEGE ELECTIONS.

THE time for nominating candidates for seats in the Council of the Royal College of Surgeons at the annual meeting to be held on Thursday, the 7th prox., expired on Monday last, the 13th inst. The following gentlemen have been nominated:—Sir James Paget and Mr. Walton for re-election; and the following for election in the order of seniority: Mr. John Whitaker Hulke, May 23rd, 1857; Mr. John Croft, Nov. 24th, 1859; Mr. Christopher Heath, May 31st, 1860; Mr. Reginald Harrison, Dec. 13th, 1866. The new candidates are all Fellows of the College by examination. Mr. Hulke is also a Fellow of the Royal Society, surgeon to the Middlesex Hospital, and obtained the Jacksonian prize, in the year 1859, for his essay on the morbid changes of the retina, as seen in the eye of the living person, and after removal from the body, together with the symptoms associated with the several morbid conditions; he is, besides, a member of the Court of Examiners. Mr. John Croft is surgeon to, and lecturer on surgery at, St. Thomas's Hospital, and late examiner in surgery at the Royal College of Physicians. Mr. Christopher Heath is surgeon to University College Hospital, Holme professor of clinical surgery in University College, late chairman of the Board of Examiners of the College of Surgeons, and, like Mr. Hulke, a Jacksonian prizeman for an essay on injuries and diseases of the jaws, including those of the antrum, with the treatment by operation or otherwise. Mr. Reginald Harrison is surgeon to the Liverpool Royal Infirmary. Mr. Sydney Jones is not a candidate, as we incorrectly stated last week. There are, therefore, seven candidates for the three vacant seats. No doubt can be entertained about the re-election of Sir James Paget, who has served the College well for many years. For the two other seats there will be the keenest competition. It is commonly felt that two, at least, of the candidates, are of conspicuous merit, and possess exceptional claims upon the suffrages of the Fellows. Both Mr. Hulke and Mr. Heath have rendered long and important services to the College as examiners, and they have both had extended experience as teachers in large metropolitan schools. It is satisfactory to find that not one of the candidates this year possesses an overwhelming reputation as an exponent or practitioner of a particular department of surgery. A story is current—it must refer to a long past epoch—of a gentleman, who had been elected a member of the Council solely on his reputation as a champion of special pathological doctrines, but took so little interest in the affairs of the College and attended so few meetings of the Council, that he was unable at the end of his first year to give the names of the president and vice-presidents of the College. Such candidates are out of date now. The affairs of the College are of growing importance, and need the close and unremitting attention of all the members of its Council, whose chief qualifications should be personal experience of all matters relating to medical education and capacity and inclination to deal fairly and honestly with all questions of medical reform. It may be added that this year red pencils will be used instead of *pen and ink* to mark the voting papers on the day of election.

PROFESSOR SKODA.

WITH the lamented death, on the 13th inst., of Joseph Skoda, after a prolonged and painful illness, the last of the great men whose names made Vienna famous a generation ago, has passed away. Oppolzer, Rokitansky, Hebra, and now Skoda, have departed—men who, devoting their lives to scientific medicine, may be said to have created a school which had hardly its equal at the time. Doubtless the University of Vienna will continue to hold high rank in medical education and research, but it can never be higher than it was when strangers flocked from all parts to sit at the feet of that famous band of masters. The records of the lives of such teachers are not usually eventful; they are to be found in the memories of those who have learned of them and loved them. Skoda was no exception to this. Born at Pilson, in Bohemia, on Dec. 10th, 1805, he began to study medicine at Vienna when twenty years old. He received the doctor's degree in 1831, and returned to Bohemia to practise. He was destined, however, for a wider sphere, and after doing good work in his native country during a cholera epidemic, he returned to Vienna in 1833, and was appointed second physician to the Allgemeine Krankenhaus. About fifteen years before Laennec had introduced auscultation to the medical world attention was being ardently fixed upon this method, and exaggerated ideas were formed of its scope. The kindred subject of percussion as applied to the physical diagnosis of thoracic disease had, more than a century before (viz., in 1716), been discovered by Auenbrugger in Vienna itself, but had received little attention until it was taken up by Corvisart in 1808. To the study of these subjects, in which he had been instructed by Heine and Gutbrod, young Skoda devoted himself with ardour, and in 1839 published the first edition of his famous "Abhandlung über Percussion und Auskultation"—a work which was well received on all sides, passed through many editions (the last edition, the sixth, was published in 1864), and was translated (fourth edition) into our language by Dr. Markham in 1853. In this work—considering the circumstances under which it was written, when many unwarrantable and extravagant doctrines as to the interpretation to be placed upon physical signs were in vogue, and when explanations more or less fanciful were being given to account for auscultatory phenomena—Skoda showed the first qualities of a scientific mind. He was not sparing in his criticism of some of Laennec's assumptions, and showed the utter fallacy of Piorry's pretensions; but he gave his reasons where he dissented, and endeavoured to explain all the phenomena upon the known laws of sound. The influence of Skoda's teaching has been very wide; and he would have been the first to resent any imputation of disloyalty to Laennec, for he served by his own expositions to enhance the fame of the discoverer of auscultation. In the present day these teachings, having undergone many modifications, form the essential foundation of our knowledge; and, as a testimony that in the land of Laennec the merits of the Vienna physician were well recognised, we have the "bruit skodique," familiar to all auscultators in the subtympanitic note elicited on percussion over the compressed lung; and here we use the term "skodic resonance" with equal significance. In his preface to the translation of the work Dr. Markham says: "I would almost venture to assert that it is the most valuable treatise on auscultation which has appeared since the time of Laennec; it contains a philosophic investigation of many of the leading facts connected with the study of auscultation and percussion, and is something more than a mere manual. The reader feels that he is in the hands of a deep and original thinker, and of a most cautious and a clear-seeing observer—of one, indeed, who has had vast experience, and who manifests the rare quality of a will and a power to subject theory to the results of practice and experiment." This is not the place to show how many of Skoda's doctrines have stood the test of time. Some of them have been abandoned or modified—e.g., his theory of "consonance," and his view that both sounds of the heart were produced in the ventricles, aorta, and pulmonary artery severally (a view which Stokes also held); also his denial that muscular contraction could produce a sound. It is enough to testify that his teaching gave an impulse to the study of physical diagnosis, which continues to be felt even to this day. In 1835 Skoda commenced his courses of practical instruction in the subject he had chosen for his life-study, and in 1840 was appointed physician to the division of Chest Diseases in the great Vienna Hospital, becoming in the following year (1841) physician in chief. In 1846 he was appointed Professor of Clinical Medicine, which he held to old age, resigning the office eight years ago; and in the performance of the duties of the office he enhanced a reputation already high, and added in no small degree to the fame of the Vienna school. Contributions on clinical and pathological subjects appeared from time to time in medical journals, but he does not seem to have written much—no larger work, indeed, than the treatise above-mentioned appearing from his pen. He preferred to trust to the influence of his practical example spread over many generations of students rather than to the medium of literature as the means of obtaining fame; and he has died in the knowledge that his memory will be treasured by numberless personal pupils. About six years ago, on the occasion of attaining his seventieth year—when even then his strength was failing—he received the congratulations of delegates from all the learned bodies in Vienna. A medal was "struck to commemorate the event; and seldom have professors and students been so unanimous in paying respect to the man who, many years ago, commenced by his work and lectures to impress the world with his complete familiarity with all matters regarding internal disease, especially complaints of the chest." (THE LANCET, Jan. 1st, 1876.) The final years of his life were spent in lingering pain; and in closing this imperfect notice it may be well to repeat the eloquent words of Dr. West, when speaking of the death of Rokitansky, in his presidential address to the Royal Medical and Chirurgical Society in 1879. He said, "At the grave there befel an incident of most touching pathos. The dying Skoda had himself lifted from his bed of anguish and brought in his carriage to the graveyard, where he sat watching the last of the friend whom he had loved all life long. And as he watched he envied him the great rest which that friend had found, while bodily suffering wrung from him the cry, 'I cannot die, and yet is my pain no less than his.' Skoda still lives and still suffers. We can form for him, whose services, in a different department of our art, were scarcely less eminent than Rokitanksy's, no better wish than this, that the lesson which pain was meant to teach was well learnt; he too may enter into rest." At last the time has come; he has been released from his long suffering, and with his death the last link between the present and the past of the Vienna school has been severed.

NAVAL MEDICAL DEPARTMENT.

AFTER a lapse of nearly two months the Admiralty Instructions on the Order in Council reorganising the Medica Department of the Navy have been issued. For the most part they consist of a mere republication of the Orders of April 1st, which we noticed fully when promulgated (THE LANCET, April 16th, 1881). On a few points only they differ; and the first we notice is, that when a surgeon's promotion to the rank of staff-surgeon has been retarded by his failing to pass the qualifying examination, he is to be granted, when he does pass it, the seniority he would have enjoyed had he been successful in the first instance; but he is to reckon service for increase of pay and half-pay only from the date of passing. It is stated, however, that when the delay in passing has been due to unavoidable circumstances "special consideration will be given." Again, it is provided that increased rates of pay dependent on length of service are not to be paid until receipt of the requisite authority from the Accountant-General of the Navy. This, we presume, is necessary to admit of the claim for increase being verified, and cannot be a subject of complaint unless undue delay occurs in the transmission of the requisite authority. It is stated that applications from officers not entitled to retire or withdraw, to resign their commissions, will receive every consideration. Some assurance of this nature was necessary, as we have heard of medical officers being refused this permission within the last few years, thus establishing a species of compulsory service. Retired officers are promised "special consideration, as regards appointments on shore, connected with the Admiralty, now filled by civilians." Although Mr. Trevelyan stated in the House that it had been determined to frame the new regulations for the navy on the principles laid down in the report of the committee on which the recent changes in the Army Medical Service had been based, he has omitted to follow the important precedent, established by Lord Cranbrook, of granting compensation to those senior officers who are placed on half-pay at fifty-five instead of sixty years of age. A careful consideration of the provisions of the Warrant, as modified by these instructions, has failed to change the opinion we expressed when it was promulgated, that it will scarcely prove successful in inducing well qualified candidates to come forward in sufficient numbers to fill up vacancies. We do not expect that the teachers in the medical schools will consider the conditions of the Warrant so satisfactory as to induce them to recommend their students to join the Naval Service, nor that the students will be disposed to do so when the Army and Indian Medical Services are so much more attractive. The removal of the medical school for naval surgeons from Netley is a very serious drawback; the retention of the examination prior to promotion, which has been abolished in the army, will prove most unpopular; and the absence of any assurance that the rules regarding choice of cabins will in future be carried out cannot fail to keep up the feeling of uncertainty and consequent dissatisfaction which has been long prevalent in the service on that subject.

ORANGE-COLOURED PUS.

THE common variations in the colour of pus are readily and in all probability quite correctly explained by admixture with various secretions, such as the bile, coloured elements of the inflamed tissues themselves, as the pigment of the bronchial glands, or with minute or larger quantities of the colouring matter of the blood. But there are certain other cases of which this is hardly a sufficient explanation, such as those of blue suppuration (to which Dr. Gibb drew special attention some years ago, and which he attributed to the presence of cyanide of iron) and of orange-coloured pus. Surgeons who practise Listerism will be quite familiar with a bright yellow colouration of the saturated carbolic gauze; we do not, however, refer to that, but to a condition in which, without any special external application, orange-coloured pus is *secreted.* The cases are by no means common, and the peculiar colour is usually of only short duration. M. Verneuil, in referring to his experience of them, states in the *Archiv. Gén.* that they were unusually common in the Paris hospitals during the Commune in 1871, when the wards were filled with the intemperate and half-starved victims of that insurrection. And this fact leads him to regard the condition as epidemic. It appears to M. Verneuil to depend upon the condition of the wound, and the constitutional state of the patient. Thus, it did not occur in clean, healthy wounds, but nearly always in contused wounds, with adherent sloughs. The constitutional conditions with which it was associated in his cases were diabetes mellitus, phosphaturia, alcoholism, and morphinism. As a rule it was temporary, but was continuous in some very bad cases. He regards it as a sign of danger, but has seen no reason to hold that it is usually associated with pyæmia, or invariably fatal, as Delore taught. The question naturally suggests itself whether the specific cause of this suppuration be not a peculiar fungus or "germ." M. Verneuil has no direct evidence to give on this head, and the late M. Broca failed in some cultivation-experiments undertaken to throw light on this point.

EMIGRANT SHIPS.

COMPLAINTS have recently been made as to the treatment experienced by emigrants on board many of the vessels engaged in the transatlantic trade. Several of the leading English companies have written to clear themselves of the charges of neglect, overcrowding, and inadequate supply of provisions, which have been, we think, somewhat recklessly brought against them. It is well known that, so far as emigration from English ports is concerned, strict Government supervision is exercised, and we believe that on the whole the business is well conducted and the emigrants are fairly and even liberally treated. But this may not be the case with ships sailing from foreign ports. Thus we find that, whilst the English liners sailing from Liverpool do not charge less than £6 per steerage passenger, there are continental lines which advertise to supply a berth of the same class for less than that amount, although the passage to New York from a continental port must take at least two days longer than from Liverpool. It is probable that the cheaper fare tempts many to take their passage in the vessels of these foreign companies, whilst there is reason to fear that many pay their money to agents in London under the idea that the vessels they are about to sail in are under the supervision of our Government, whereas they are shipped across to some continental port to be embarked in the vessel of some foreign company. This supposition is borne out by a letter addressed to the *Bristol Mercury* of the 10th inst., by an emigrant whose experience, as described by himself, was as follows. In common with a number of other Englishmen, he was attracted by an advertisement offering a cheap passage across the Atlantic by a vessel starting from London, as was supposed, but afterwards found had Antwerp as the port of departure. The accommodation at Antwerp pending the ship's departure was filthy in the extreme. Properly filled, the steerage would accommodate about 250 persons, whereas nearly 500 where crowded into it. The living on board was wretched, and for the tea and coffee water was used which was foul beyond description. The sanitary arrangements may be judged by this one fact—the closets for the males and females respectively (nearly 500) were on either side of the steward's cabin where the food stood before being served out at each meal! We would defy even Mark Tapley to have been "jolly" under such circumstances. This is not the first time that complaints of a similar nature have reached us, and it appears to be quite time that Government, through our consuls, should make inquiries as to the condition of the emigrant ships sailing with British subjects on board from foreign ports. If it be found that by means of agents employed in London, and through advertisements in the London papers, English emigrants are induced to embark in vessels in which the salutary regulations enforced on English ships are neglected, Government should at once take steps to put a stop to the evil, at least so far as concerns the interests of British subjects. No booking of emigrants should be allowed at any office in England unless the agent be prepared to show that the vessel in which they were to be conveyed had fully complied with all the Government regulations.

THE OSSEOUS LESIONS IN LOCOMOTOR ATAXY.

AN account of a fresh investigation into the minute changes in the bones in ataxy has been published by M. R. Blanchard, in the *Gazette Médicale de Paris.* It had been previously ascertained that the essential change is absorption of the bony tissue around the Haversian canals, most marked in the neighbourhood of the medullary canal, and that the disappearance of the bony structure is preceded by a localised decalcification. The present investigation has been undertaken to compare this change with the clinical symptoms, and to ascertain whether it is the same in the cases which present fracture of the long bones or atrophy of the epiphyses, phenomena which are not commonly associated in the same patient. The examination has been made on the bones contained in the Salpétrière museum the history of which was well known. The result has shown that the lesions are exactly the same in the two sets of cases. The only differences found are those of degree, and do not explain the difference in the symptoms. M. Blanchard is inclined to explain the fact that patients with disease of the head of the bone do not suffer from fractures of the shaft by the impairment of movement which the former causes, which prevents the limbs being used with sufficient force to cause the spontaneous fractures. Whenever the heads of the bones are eroded, the shafts present the same change as in those which have broken. The converse, however, is not true; the change in the shaft may be met with, and yet the ends of the bone may present no erosion.

MANAGEMENT OF PRISONS.

AN influential deputation met the Home Secretary a few days ago, to lay before him resolutions passed at the Conference of the Prison Visiting Committees, held at the Westminster Palace Hotel on the 31st ult. The Home Secretary, after the resolutions had been brought forward, promised that they should at once receive the attention they deserved. Among some of the more important recommendations to which he promised especial attention would be paid we notice the following: better provision for the isolated treatment of prisoners suffering from fever; all post-mortem examinations of bodies of prisoners to be conducted by independent medical men; the punishment of female prisoners in dark cells to be abolished; the discontinuance altogether of the use of plank-beds in the case of women, and the modification of this kind of punishment in the case of men. These are matters to which THE LANCET has repeatedly drawn attention, and we hope the much-needed reforms in this direction will ere long be effected. We should also be pleased to learn that the effect the new prison dietaries had on the health of the prisoners generally had not been overlooked. We have frequently pointed out the severe character of the diet for short-termed prisoners, and that, taking the diets of all classes, the punishment falls very unequally; for while the agricultural criminal would only feel the reduction in quantity, the town convict would be affected by the alteration in quality as well as by the lessened quantity. Most of the mishaps that have occurred during the last three years, since the introduction of the new diets, have arisen among short-termed prisoners, or during the early period of the confinement of those sentenced for a longer term.

STORED ELECTRICITY.

THE public attention directed to the importance of the possibility of storing force and using it economically when needed cannot but bring about results of the greatest importance. The practical mind of M. Faure and the genius of Professor Thomson have attained results from the important discovery made some three or four years since by M. Planté of which the original inventor possibly scarcely dreamt. The Planté polarisation cell, of which M. Faure's battery is a modification, is composed of two sheets of lead wrapped spirally round each other, kept separate by the interposition of slips of vulcanite, and immersed in dilute acid. The cell is charged by being included in the circuit either of an ordinary electric battery or one of the modern electrical machines — Gramme's or Siemen's. As a result of this, the lead-plate in connexion with the positive pole of the battery or machine becomes oxidised on the surface. The cell is then disconnected, having, by the chemical electrolytic process induced in it, become itself a powerful battery capable of manifesting energy in proportion to the size of its plates and the amount of oxidation of one of them. The public is likely to be misled as to the originality of using a polarisation cell for medical purposes. This was done long ago, and indeed the polarisation cells made by Trouvé of Paris have been already found of great service, not only on the Continent, but in this country and in America. These (Trouvé's) elements have been used as a convenient source of light for medical and surgical purposes and for laryngeal and other kinds of mirrors. Endoscopes have also been made whose illumination is brought about by a platinum wire rendered incandescent by means of a Planté cell. The incandescent wire has also been employed as a cautery for minor surgical operations.

THE CONTAGIOUS DISEASES ACTS.

WE are glad to observe the satisfactory result of Sir W. Harcourt's inquiries into the charge, implied in a question by Mr. Hopwood, that the surgeons appointed under the Contagious Diseases Acts for the boroughs of Portsmouth, Windsor, and Southampton "had been made justices of the peace in order that they might carry out the Acts in a two-fold capacity — administering and executing the law." Sir W. Harcourt stated that he "found that the three gentlemen in question were justices of the peace; but they had assured him in the most explicit way that they did not act in any case connected with the Contagious Diseases Acts, and that they would think it highly improper to do so." In this view everyone must concur. The Acts are of great importance, and, as we have repeatedly pointed out, have effected much practical good; but it would be intolerable if those who are entrusted with the duty of putting them in force were to be permitted to sit in judgment upon any of the unfortunates who might be accused, rightly or wrongly, of contravening the police regulations. There can be no possible objection to the gentlemen referred to remaining on the commission of the peace so long as they adhere to their judicious determination to avoid adjudicating in any cases occurring under the Acts.

MAKING A RIOT.

IT is always with regret we feel compelled to draw attention to what may seem to be misconduct on the part of the police; but unless some more satisfactory explanation than has yet appeared is forthcoming of the "Riot in Southwark" on Sunday evening last, it will be impossible not to think that the force has been discredited by some of its members. It may be conceded that policemen have much to try their tempers. This, however, is no reason why they should first rush into an act of official folly and then lose their heads with excitement when they find the popular sympathy is against them. A young man, said to have lost his brother by drowning, became greatly excited, and, stripping off his clothes, was about to plunge into the water to recover the body. It was a silly and indecorous thing to do; though the time was evening, and but that a police-constable *happened* to spy the offender, nothing would have come of the affair. As it turned out, the policeman pounced on the young man, and he resisted. A struggle ensued, and assistance was procured. The roughs sided with the wrongdoer, and the police were badly treated. A magistrate has since sent the young man to prison for three months. It would be well if the Home Secretary ordered an inquiry into the matter. If the police were only half as zealous in protecting the public from the real and intentional or vicious offences committed against decency, even in "respectable" neighbourhoods, as they have shown themselves in this instance, and are wont to show themselves in pursuing little boys who try to pick up an honest penny by selling matches, there would be more order in our streets, and less frequent occasions for popular complaining.

EXPERIMENTS ON NERVE-STRETCHING.

SOME interesting experimental results of nerve-stretching have been obtained by M. Quinquaud. He lately showed to the Société de Biologie two guinea-pigs in which the sciatics had been stretched, and in which the operation had been followed by a spontaneous amputation of the two outer toes, innervated by the sciatic, while the inner toe, innervated by the crural nerve, was intact. The trophic changes resemble closely those which follow division of the nerve. On another guinea-pig he observed a very curious phenomenon. He stretched the sciatic on the right side, just enough to cause anæsthesia; then he stretched the other sciatic much more violently, so as to cause a strong excitation. The effect of the latter was to cause the sensibility in the right leg to return, and to be replaced, a few hours later, by hyperæsthesia. The experiment succeeds best in young guinea-pigs. This phenomenon, which he terms "mechanical transfer on irritation," shows that across the spinal cord there must be produced a modification in the action of the nerve-cells analogous to that which has been studied by Dr. Brown-Séquard. If the anæsthesia on the right side is of old standing it is not removed by stretching the left nerve. M. Marcus has found that if a stretched nerve is treated immediately with osmic acid, and transverse sections are examined, the axis-cylinder is seen to be no longer immediately enclosed by the myelin-sheath, but a zone, colouring yellow, intervenes between the two. At subsequent periods the signs of degeneration in the nerve are found. The third day after the operation numerous fibres appear intact, but in others the myelin has become segmented, and the axis-cylinder has disappeared. In some the latter persists, and the outer sheath is closely applied to it, the myelin having gone. The nuclei of the neurilemma are increased in size and number. These changes are much more marked in guinea-pigs than in cats, even when care is taken to render the operation as nearly as possible similar in the two animals. In the cat, however, the spot stretched becomes distinctly swollen, and the lesions above described have been found in the central, and not in the peripheral, part of the nerve. In some cases the lesions are very slight. In one cat, in which the sciatic was stretched so as to cause complete anæsthesia, no histological changes could be found either in the nerve-trunk or the posterior spinal roots.

THE SANITARY CONDITION OF THE HOTELS OF ROME.

We are glad to learn that a proposition to discuss, by the Italian Medical Association, with reference to the *Italian Times*' Sanitary Commission, the "measures to be taken in view of the arbitrary interference of certain foreign medical practitioners with the hygienic condition of the Roman hotels," has been suffered to lapse. But an Italian physician has addressed an article to the *Popolo Romano* questioning the right of foreign physicians to interfere with Roman sanitary questions. It would appear, however, from this article, that other than structural arrangements in the hotels should enter into the consideration of the commission, and be borne in mind by visitors. This Italian physician relates the following story:—"A short time since a Protestant clergyman attended a lady, one of his co-religionists, who died of typhoid fever in one of the principal hotels of Rome. The next day the same clergyman called on a bishop, who had just come to Rome, and had gone to lodge in the same hotel. To his great surprise he found him occupying the very room in which the lady had died of typhoid fever the day before." "The Italian physician," the *Italian Times* remarks, "sees nothing disquieting or improper in this." We apprehend that English visitors to Rome, at least, will see much to disquiet them, and it is well to have the assurance of our contemporary that the Roman hotel-keepers are welcoming the Sanitary Commission which it has established.

RHABDITIS GENITALIS.

The above is the name given by Schreiber to a microscopic round worm of the genus Rhabditis, that he has found in the urine of a female patient. The woman was thirty-five years of age, and suffering from advanced pulmonary disease. The urine contained pus, was feebly acid, and quickly became alkaline. On examination of the sediment, large quantities of peculiar worms were found in it. The smaller ones were asexual, mostly dead, and only one-fourth or one-fifth of a millimetre in length; the larger were sexually mature and alive. Of these the males were about one millimetre long, with expanded wing-like tails; the females were rather longer, had conical heads, and narrow, pointed caudal extremities, and contained eggs in various stages of cleavage. The external genital organs and the vagina were thoroughly cleansed, with the result of completely freeing the urine from the parasite. It was thus made abundantly clear that the worm was not a urinary, but a genital parasite, and only accidentally mixed with the renal excretion. This adds another to the known list of animal parasites.

HEALTH OF THE FRENCH TROOPS IN TUNIS.

Various reports have been current for some time concerning the unsatisfactory sanitary condition of the French army in Tunis; but from an official statement, emanating from the Minister of War, it would appear that these are incorrect. From the 25th to the 31st of May the proportion of sick, including those suffering from fever, was two per cent. of the whole strength, whereas the mean proportion of sick for the whole of France was four per cent. It is also stated that the medical department is prepared to meet any emergency, having sixteen hundred vacant beds at its disposal in the hospitals of the province of Constantine, and in the ambulances of Tunis. The evening papers of Tuesday (*Le Temps, La Liberté, La France, L'Estafette,* and probably also others) publish a note communicated by the Havas Agency, contradicting a statement which appeared in *The Times*, concerning the prevalence of typhoid fever amongst the French troops. It runs as follows:—"*The Times* has published, on the sanitary condition of the troops in Tunis, and on the supposed ravages made by typhoid fever, information which is entirely untrue [*inexact*]. We are in a position to rectify it. In reality, the number of sick or wounded of the expeditionary corps at present in the hospitals of the Regency and of the province of Constantine (Boue, La Calle, Guelma, Soukahrrhas), where the sick of the different columns have been evacuated, amounts to 486, which for a total of 26,300 men gives a proportion of two per cent."

TRICHINA-LIKE PARASITES.

To microscopists who are endeavouring to ascertain the various habitats of trichinæ, a useful word of warning has been given by M. Mégnin in a paper read before the Société de Biologie, in which he points out that many minute encysted worms are met with which are not trichinæ, although so closely resembling them as to have deceived many observers. The supposed discovery of trichinæ in the rootlets of beetroot, proved to be a mistake by Virchow and Kuhn, is a striking instance of this sort. Langenbeck described trichinæ in the intestines of earth worms, but Kuhn showed that the parasite is quite distinct from the trichina spiralis. Merlan and Tigri thought they had found trichinæ in the lungs of sheep, but Delpech showed that these were merely the embryos of strongylus filaria. Cobbold has stated that the trichina is common in the hedgehog. Mégnin is convinced that this is an error, and that the worms described are merely the encysted larvæ of the spiroptera clausa. He showed preparations of an encysted nematoid worm, which might easily be mistaken for the trichina, but pointed out that the former differs in having a papilla at its mouth, and the anus is not terminal. Siebold described as a trichina a worm found in cysts in the peritoneum of the grey lizard and other creatures, but Mégnin asserts that this also is the larva of a spiroptera (S. abbreviata), the adult individuals of which are abundant in the intestines of the same animal. An encysted spiroptera still more strikingly resembling the trichina has been found in the muscles of the frog. Very similar, but larger, encysted worms of the same genus have also been discovered in the subcutaneous tissues of a bird, the manchetes pugnax.

THE NEW EXHILARANT.

Our readers probably observed with some surprise the announcement in *The Times* of the remarkable exhilarating effect stated by M. Luton of Rheims to be produced by a not very unusual combination of drugs, ergot of rye and phosphate of soda. In case they may desire to make some observations on the point, we give the doses alleged to produce the extraordinary effect. Tincture of ergot of rye five grammes (about eighty-five minims); phosphate of soda twenty-two grains: dissolved in a small quantity of water, and taken in a single dose, fasting. The effect on the first patient was manifested in three-quarters of an hour. She laughed continuously for half an hour, and each dose was followed by similar effects. Another patient in the same ward begged to take so delightful a drug, and manifested similar effects, and so also did an old woman of seventy-one. In a chlorotic girl it caused at first some nausea, then flushing of the face; an agreeable warmth spread over the body, and shouts of laughter burst forth and continued during the greater part of the day. In men, however, no such effects were produced—merely slight giddiness and headache.

MEDICAL WORTHIES OF BRADFORD.

THE *Bradford Observer* of May 17th contains a paper by Dr. J. H. Bell, entitled "Fragments of Local Medical History," which we have read with much interest. The sketches of medical men associated by birth, connexion, or practice with Bradford are very well drawn, and supply many social and professional data of real historic value. The list begins with Dr. Bartlett, F.R.S., born in Bradford in 1718, and includes the great and good Dr. John Fothergill, who was a friend of Bartlett. A medical man is not badly employed in reviving in a community the memory of men of his own profession; and that Dr. Bell should have found time to do this at a moment when he is so honourably distinguished in connexion with a piece of good medical and pathological research, is a new proof of an old truth—that the study of the old and the new often go well together, and that one kind of work serves as recreation in respect to another.

THE PIROGOW JUBILEE.

M. PIROGOW'S jubilee, celebrated at Moscow on the 6th inst., was made the occasion of an extraordinary demonstration in honour of the distinguished Russian surgeon. The State, scholastic, literary, and scientific circles, and the people generally, all crowded to do honour to the jubilee, and the detailed accounts of what transpired fill much space in the Russian journals. Addresses were read in honour of the occasion from all parts of the empire, and from numerous foreign universities.

THE Throat and Ear Hospital, Newcastle-on-Tyne, was last week visited by Dr. Yong Ton Wong, the native physician on board the *Hae Shin*, accompanied by his assistant and interpreter. The doctor, who is about forty years of age, studied at Canton, of which city he is a native. The visitors were received by the honorary secretary, and Mr. Ellis, the senior-surgeon, and appeared to be much interested in the examination of the out-patients. They showed good acquaintance with the use of electricity and galvanism in the treatment of disease, and stated incidentally that Chinese medicine aimed at prevention rather than cure, and that they preferred to save a limb rather than to sacrifice it by an operation.

DR. GEE, physician to St. Bartholomew's Hospital, has recently had under care in the wards a girl, fourteen years of age, suffering from chorea. About ten days after chloral hydrate was prescribed for her in frequently-repeated doses, a characteristic eruption, now known to be due to the administration of this drug, appeared upon the upper part of the chest, elbows, and buttocks. Consisting essentially of a lichenous type, the papules were generally large, of a dusky hue, and surrounded by much cutaneous redness. An example of this interesting skin lesion—also under Dr. Gee's care—was noticed in THE LANCET of January 1st.

AN accident, which at one time caused serious alarm, occurred in the Anatomical Schools of Cambridge University last week. By the ignition of some spirit the preparation room caught fire, to which apartment, however, it was, by the exertions of the servants of the museum and of the fire brigade, fortunately confined. No specimen of value appears to have been destroyed, though the room was much damaged.

ON Monday last, the Bishop of Gloucester and Bristol distributed the prizes to the successful students of the Bristol Medical School. The report read by Dr. Markham Skerritt referred to the facts that the building in which the work of the school is carried on is a temporary one, and that, owing to the increase in the number of students, additional accommodation is urgently required. The Bishop, in the course of his address, deprecated specialism, and spoke forcibly on the need, in medical practitioners, of a broad and general knowledge of the human frame and its diseases.

THE suit instituted by a Mrs. Morgan in the Supreme Court of the United States against Dr. Lewis H. Sayre, in which the plaintiff demanded 25,000 dollars damages for alleged injuries to her constitution from the improper administration of nux vomica, has, as was to be expected, resulted in a verdict for the defendant.

MR. JOHN TWEEDY, F.R.C.S., has been elected Professor of Ophthalmic Medicine and Surgery at University College, on the retirement of Professor Wharton Jones, F.R.S. Mr. Tweedy has also been appointed Assistant Ophthalmic Surgeon to University College Hospital.

THE Boylston Prize of Harvard College, U.S., for 1881, has been awarded to Mr. Herbert Page, of St. Mary's Hospital, for the best essay on "Injuries of the Back, without apparent Mechanical Lesion, in their Surgical and Medicolegal Aspects."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Holsworthy, Rural (Devonshire).—Population, 1871, 9427; area 81,810 acres. Mr. Linnington Ash reports for 1880 a birth-rate of 29·17 per 1000 living, and a death-rate of 19·62. Of this death-rate he remarks that although somewhat lower than the average of all England, it is a high rate for an extensive, high, moorland, and sparsely populated district—higher, indeed, than ought to exist. An exceptional prevalence of certain zymotic diseases appears to have contributed largely to the comparatively high mortality, especially measles and scarlet fever. The sanitary organisation of the district is still so imperfect as to place successful attempts to limit the prevalence of infectious diseases out of the question. There are no public means of isolating patients, and isolation in the cottages of the poor is practically impossible; disinfection, too, as practised in the district, is described by Mr. Ash as "perfectly useless and illusory. It is done in a desultory, unmethodical, and unscientific manner, as might be expected in the absence of proper public means for the purpose being provided by the authority." In respect to the closure of schools, Mr. Ash observes, in regard to measles: "Schools were temporarily closed in nearly every parish, but always too late to be of use, for the most infectious stage of measles is the commencement, even as soon as, or before, the characteristic rash appears. More than a dozen children attending one of the schools in Holsworthy were struck down with the disorder during one afternoon." Scarlet fever, it appears, spread from village to village, "chiefly through the means of elementary schools for combined districts." The present report is the sixth annual one which Mr. Ash has been called upon to make for this district. He comments upon the fact that no systematic records are yet kept of the work done by the inspector of nuisances, and that no systematic survey for sanitary purposes has been made. Much has been done in respect to sanitary work since the district was formed, and progress is being made; but it is obvious that much remains to be done, and that from the want of the work which has been done, and is now being done, not being carried out in the orderly way which Mr. Ash advises the full utility it should have for the district is not obtained.

Cambridge (*Urban*).—Dr. Bushell Anningson reports for this university town and district for 1880 a death-rate of 16·4 per 1000 living, but he thinks it desirable to repeat a caution that a low general death-rate should not be taken by itself as an expression of healthful conditions of a town, and he further says of Cambridge that, "like a weakly creature, she 'catches any complaint that is going.'" The complaint "going" in 1880 was diarrhœa, and Cambridge did not escape; and, in consequence, came in for the polite attentions of the Local Government Board inviting contribution to the investigation as to diarrhœa, which is now being carried out by Dr. Ballard. The cream of the contribution which Cambridge will make to Dr. Ballard we may assume is given in this report. Dr. Anningson describes the meteorological conditions under which the considerable prevalence of diarrhœa among infants and young children occurred in the town, but shows that such influence as they exerted in the production of the disease was manifested not generally over the town and district, but was confined to certain limited localities. He then proceeds to examine into the peculiar conditions which might determine these localisations, and particularly of the district upon which the incidence of the diarrhœa most markedly fell. He observes:—"That focus comprises not only the courts and alleys and yards where the air stagnates, undisturbed except by a breeze from the sewer, but even streets that might be considered fairly ventilated. The conclusion to which I am rather unwillingly led (I say unwillingly, because if I am right the remedy is difficult of application), is that the infected area lies along the line of sewers of low rate of inclination in poor neighbourhoods, where less heed is paid to traps. So slight, indeed, is the inclination, that the sewage is practically stagnant, and ferments, producing gases which press with great force, as I know by direct experiment, upon the traps in some of the scullery sinks. The evil, doubtless, would be palliated by ventilation of the sewer all along its line (a matter to which I called attention in my first report—viz., that for 1875). There would even then be foul gas in the streets, but in a less concentrated state."

Fulham.—Mr. Collier, in his report for the first quarter of the present year, gives the rate of mortality as equal to 20·0 per 1000 of the population of the district, as compared with 23·3 for the whole of the metropolis. He has the following observations upon small-pox in the district:—"In my last quarterly report, attention was called to the fact, that a large number of cases of small-pox were being removed from other districts of the metropolis to the Metropolitan Asylum Hospital at Fulham, for the purpose of isolation. An opinion was expressed that an outbreak of small-pox would occur in the parish of Fulham, as a result of the course that was then being adopted. At the time of the presenting of that report, there had been no case of small-pox reported in the parish of Fulham for a period of over three months. During last quarter, 97 cases were reported in this district, against 3 cases in the previous quarter, and against 33 in the corresponding quarter of the previous year. Of the 97 cases reported last quarter, 75 occurred in the parish of Fulham and 22 in the parish of Hammersmith, against none in the parish of Fulham, and 3 in the parish of Hammersmith reported the previous quarter; 58 of the patients were males and 39 females. The ages varied from two weeks to sixty-three years. The average ages was 21·7 years. Eighty-two of the patients had been once vaccinated; 8 had not been vaccinated. In the remaining 7 cases, no information as to vaccination was obtained. These 97 cases occurred in seventy-two houses in fifty-nine streets. In forty-seven streets the outbreak was confined to one house in each street; 40 cases occurred singly in different houses in different streets; in twelve streets there was more than one house attacked in each street. In one street, there were three houses attacked in the same street, and in eleven streets there were two houses attacked in each street. In sixty-three houses, there was only 1 case in each house. In nine houses, there was more than 1 case in each house. Thus, in one house there were 8 cases in the same house; in one house there were 5 cases in the same house; in three houses there were 4 cases in each house; in one house there were 3 cases in each house, and in three houses there were 2 cases in each house. Of the 97 cases, 5 deaths have as yet been registered, which equals a mortality of 5·1 per cent. 91·8 per cent. of the cases were removed to a hospital and properly isolated; 89 cases were removed to the Metropolitan Asylum Hospital at Fulham—88 by your board and one by St. Thomas's Hospital authorities. The patient applied there for medical advice, not knowing the nature of his complaint. One case was not reported till after the death of the patient; 5 cases were not reported till after the recovery of the patients, and in 2 cases the removal was objected to. The accommodation in these latter two cases was by no means satisfactory for the effectual isolation of the patients, but was not sufficiently bad within the meaning of the thirty-eighth section of the Sanitary Act, 1866, to justify an application to the magistrate to enforce removal. Only 12 of the cases were within a half-mile radius of the Fulham Small-pox Hospital, while 85 were without about a half-mile radius. These facts are opposed to the theory that the disease is caught by the germs being carried through the air from the hospital. Under such circumstances, the houses that are in the nearest proximity to the hospital would be most affected by the disease. The very large number of cases that have occurred in the *three parishes* that are in the nearest proximity to the hospital, as compared with those parishes that are more distant, is, on the other hand, the strongest evidence *that the presence of the hospital in the locality is the cause of the disease being more prevalent in that locality.*" In his observations upon the diffusion of "germs," Mr. Collier gives no clue to the respective populations living within and without the half-mile area from the hospital, and among whom the cases to which he refers occurred.

ALLEGED DEATH FROM REVACCINATION.

With regard to the reported death of a lady at Sittingbourne from revaccination, to which we referred a fortnight ago, we learn from the medical gentleman in attendance (Dr. C. H. Fisher), that there was not the least connexion between the revaccination and the cause of death. The revaccination failed, and the erysipelatous affection from which she afterwards died had no connexion with the spot where the vaccine lymph had been inserted.

MISTAKING SMALL-POX FOR CHICKEN-POX.

Dr. Orme Dudfield, in his report for May, directs attention to the extension of small-pox from the lower classes in the social scale to the higher; and he gives a curious instance of a succession of cases of presumed chicken-pox proving to be modified small-pox, and the error leading to a regrettable diffusion of the malady.

It would appear from the last meeting of the Metropolitan Asylums Board that the second ship asked for from the Admiralty, the *Endymion* frigate, is to be used for the administrative staff attached to the *Atlas*, and that it is contemplated to fit up the latter ship for 250 patients. The Admiralty have also lent to the Board a steam pinnace to facilitate its arrangements. It would seem probable that the *Atlas* and *Endymion* will be moored off Greenhithe, but the riverside authorities, the Port of London Sanitary Authority, and the Thames Conservators are all throwing difficulties in the way of the Asylums Board establishing a floating small-pox hospital in the river, and it is to be surmised that the Board have been at no pains to remove these difficulties before they started their scheme. One of the members during the meeting, with reference to certain communications made to the Asylums Board by the Local Government Board, and the little help they received from the latter body, aptly said that the Board desired the managers "to pull the chestnuts out of the fire."

The Manchester Corporation, in view of the annual deficit in the receipts as contrasted with the expenditure of the Monsall Fever Hospital, belonging to the Royal Infirmary, has agreed to pay an increased sum for the maintenance and treatment of each case sent there under their authority. Doubtless other sanitary authorities making use of the hospital will follow a similar course.

If the medical officer is permitted to keep a dog in a workhouse, why not the matron, or, indeed, any other officer? This question has been occupying the serious attention of the Shoreditch guardians, and has been decided by conceding the same privilege to the matron as to dog-keeping as the medical officer.

Dr. Bristowe, the medical officer of health for Camberwell, has been delivering a series of lectures on sanitary matters in the Vestry Hall of the parish. The lectures were largely attended and highly appreciated.

The medical officer of health for Peterborough city, Dr. W. Sinclair Thomson, has resigned his post, which he had held since 1873. The thanks of the Town Council were voted to Dr. Thomson for the efficient manner in which he had performed the duties of his office.

The sanitary inspectors of Holborn and Clerkenwell, it is reported, have been giving attention to the probability of small-pox being spread by the sale of second-hand clothes, and are endeavouring to avert danger from this source.

The Cambridge Urban Sanitary Authority have determined to erect an infectious disease hospital, and to take measures for diverting the sewage of the town from the Cam.

The vaccination officer for Bethnal Green recently reported that a three weeks' house-to-house visitation of his district had led to the discovery of about 600 unvaccinated children.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a marked decline, and was exceptionally low last week. In twenty of the largest English towns, estimated by the Registrar-General to contain in the middle of this year a population somewhat exceeding seven and a half millions of persons, 4718 births and 2737 deaths were registered last week. The births were 458, and the deaths so many as 520, below the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 20·0 and 20·3 per 1000 in the two preceding weeks, declined last week to 18·8; this is the lowest rate that has prevailed in these towns in any week since the end of September last. The lowest rates in the twenty towns last week were 14·0 in Brighton, 14·6 in Portsmouth, 15·1 in Wolverhampton, 15·3 in Plymouth, and 15·4 in Newcastle-upon-Tyne. The rates in the other towns ranged upwards to 21·4 in Salford, 21·7 in Manchester, 22·7 in Liverpool, and 23·0 in Sheffield. During the first ten weeks of the current quarter the death-rates in the twenty towns averaged 20·9 per 1000, against 23·0, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 452 and 446 in the two preceding weeks, declined to 401 last week; these included 106 from measles, 91 from whooping-cough, 63 from small-pox, 55 from scarlet fever, 45 from diarrhœa, 27 from fever (principally enteric), and 14 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 2·7 per 1000 in the twenty towns, and ranged from 0·0 and 0·5 in Newcastle-upon-Tyne and Brighton, to 4·1 and 5·9 Liverpool and Leicester. Measles showed the largest proportional fatality in Bristol, Sheffield, and Liverpool; scarlet fever in Norwich, Oldham, and Birmingham; and whooping-cough in Leicester, Portsmouth, and Birmingham. Of the 14 deaths from diphtheria in the twenty towns, no less than 11 occurred in London. The death-rate from fever, principally enteric, was exceptionally low in the twenty towns last week; it was highest in Portsmouth and Hull. The fatal cases of diarrhœa, principally infantile, showed an increase last week, but were below the average for the season. Small-pox caused 67 more deaths in London and its outer ring of suburban districts, 2 in Liverpool, and 1 each in Brighton and Hull; no fatal case of this disease, however, was registered in any of the sixteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 942 to 1644 during the five preceding weeks, was 1633 on Saturday last, including 621 inmates of the Convalescent Camp Hospital at Darenth. The new cases admitted to these hospitals, which had been 402 and 359 in the two previous weeks, declined to 293 last week. The Highgate Small-pox Hospital contained 83 patients on Saturday last, against 84 and 86 at the end of each of the two previous weeks respectively; 19 new cases were admitted to this hospital during the week. These figures afford evidence that the decline of small-pox fatality, which is usual at this time of the year, has now set in.

The deaths referred to diseases of the respiratory organs in London, which had been 241 and 249 in the two preceding weeks, fell to 216 last week, and were 25 below the corrected average weekly number; they included 120 from bronchitis and 70 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, did not exceed 2·9 per 1000 in London last week; while the rate from the same diseases was 4·8 in Liverpool and 4·2 in Salford.

The causes of 69, or 2·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 1·5 per cent., whereas it averaged 3·5 in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth, Norwich, or Birmingham; whereas the proportions of such deaths were largest in Sunderland, Leeds, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week declined to 18·7 per 1000, from 20·6 in the previous week; this rate was 0·1 below the average rate last week in the aggregate of the twenty large English towns. The rates in these eight Scotch towns ranged last week from 15·7 and 17·9 in Dundee and Glasgow, to 21·2 and 21·7 in Paisley and Leith. The rates of mortality in the Scotch weekly return are not yet calculated upon estimates of population based upon recently enumerated numbers; it is said to be probable that the rates in some of the towns are over-stated through an under-estimate of their present population. The deaths referred to the principal zymotic diseases in the eight towns were 65 last week, against 72 and 62 in the two preceding weeks; they included 19 from diarrhœa, 17 from whooping-cough, 11 from "fever," 6 from measles, 6 from scarlet fever, 5 from diphtheria, and one from small-pox. The annual death-rate from these zymotic diseases averaged 2·6 per 1000 in the eight towns, and was 0·1 below the average rate from the same diseases in the twenty large English towns. This zymotic death-rate ranged in the eight Scotch towns from 0·0 and 1·9 in Perth and Aberdeen, to 3·2 and 5·2 in Greenock and Leith. The 19 deaths referred to diarrhœa showed an increase of 5 upon those returned in the previous week, and included 8 in Glasgow, 4 in Greenock, and 2 each in Dundee, Aberdeen, and Leith. The fatality of this disorder was more than twice as great as that which occurred last week in the large English towns; 17 fatal cases of whooping-cough showed an increase of 3 upon the number in the previous week; they included 11 in Glasgow and 4 in Edinburgh. The 11 deaths referred to "fever" (including typhus, enteric, and simple) showed a further slight increase upon recent weekly numbers; 5 occurred in Glasgow and 3 in Edinburgh. The annual death-rate from this cause in the eight towns was equal to 0·44 per 1000, and was more than twice as high as the average fever rate in the twenty English towns. The 6 deaths from scarlet fever showed a decline of 7 from those in the previous week, and included 4 in Edinburgh. Four of the 6 deaths from measles were returned in Glasgow. The fatal case of small-pox was of an unvaccinated infant, aged four months, in Glasgow. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 89 and 106 in the two preceding weeks, declined again to 95 last week, and were equal to an annual rate of 3·8 per 1000; the rate from the same diseases in London did not exceed 2·6.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

HEALTH OF CALCUTTA.

Dr. K. McLeod's report for the first quarter of the present year on the health of Calcutta shows an unusually low mean temperature of the period, a quarterly total of deaths exceeding the decennial mean by 362, and, with the exception of bowel complaints, a decrease in the mortality from specific diseases below the mean of the preceding ten years. The mortality from cholera was below the mean, although higher than in either of the two preceding years. "An outbreak of considerable severity occurred in a bustee to the north of Sakea's-street, which subsided when the use of the water of a tank in the middle of the village was prevented by putting a police guard over it. A similar result happened in Parsee bazaar, a bustee near Machua Bazaar-street, where the people of their own motion discontinued the use of the water of a large tank situated in that village." The deaths from diarrhœa and dysentery were slightly in excess of the decennial mean; those from small-pox below; but the number of deaths from "other causes" (convulsions, tetanus, phthisis, liver and spleen diseases, &c.) was unprecedentedly large. A very general prevalence of measles interfered with the progress of vaccination, but it is hoped that next season the new law and arrangements will be in efficient working order.

THE ADULTERATION ACT IN GLASGOW.

The difficulty of dealing with adulteration, especially as regards such an article as milk, has again been shown in a case recently decided in the High Court of Justiciary. Mr. James Morton, once of City Bank notoriety, now a milk-dealer, near Paisley, was convicted a few months ago in the Sheriff's Court of having sold cream which consisted to the extent of 34 per cent. of skim-milk, and a fine was inflicted. Mr. Morton appealed to the higher court, however, and not in vain, his defence being that the cream sold was intentionally a cream of inferior quality, such as he knew his customers wanted and could pay for, and that he was quite willing to supply a better quality of cream at double or treble the price; it was all a question of price. The judges supported him in his contention, upset the standard of cream adopted in the lower court, and, apparently holding that the true end of the Sale of Food Act would be served if it prevented adulteration in the proper sense of the word—the addition of any foreign ingredients,—quashed the sheriff's decision. Inferiority in the quality of food sold, therefore, does not expose the seller to the penalties set forth in the Act.

TYPHUS IN ST. PETERSBURG.

It would appear from the *Medical Gazette* of St. Petersburg that that city is experiencing almost as great a difficulty as to hospital accommodation for cases of typhus as London is now experiencing in regard to cases of small-pox. Typhus has so largely increased in the northern city during the past three months that the hospitals prepared for its reception no longer suffice for the hosts of applications, and considerable numbers of patients have to be treated in their own homes. The demands of the epidemic in respect to bed accommodation in the special hospitals have been under estimated, and it is intimated that the failure of the municipality to provide a permanent hospital for typhus, which prevails more or less in St. Petersburg every year, must be held accountable in part for the great development which the malady has recently undergone. The mortality from the disease is also stated to be exceptionally great.

On Tuesday last Mr. Burt, M.P. for Morpeth, was summoned for non-compliance with a vaccination order made in April last, respecting one of his children. Mrs. Burt, who appeared for her husband, admitted the charge. The Bench inflicted a fine of 20*s.*, and suggested to Mrs. Burt that she should read the evidence recently published, showing the great liability of unvaccinated persons to small-pox.

The purification of the river Yarra-Yarra, Melbourne, is a question that appears to be coming to the front in the colony. The water-supply of the capital of Victoria is beginning to excite great dissatisfaction.

We hear that Mr. John Vance, L.R.C.P., and his wife, are suffering from the evil effects of diphtheria, contracted by him in the discharge of his professional duties in the West Ham district.

A camp hospital for the reception of cases of infectious disease has been opened at Finchley by the vestry of St. Mary's, Islington.

Diphtheria is reported to be prevailing extensively at Stockdale, Ontario.

THE SERVICES.

EXCHANGES OF MEDICAL OFFICERS SERVING IN INDIA.

The following appears in Army Circulars, June 1st, 1881.—Clause 129: medical officers serving in India who may wish to exchange to England, under the provisions of General Order 43 of 1881, will be required to forfeit their pay for the interval between their departure and their successors' arrival.

Brigade Surgeon F. R. Wilson, M.B., half-pay, Army Medical Department, has been appointed to the medical charge of the Brigade Depôt, Perth.

Surgeon-Major William Niven, M.D., of the Bombay Army, and Surgeon Henry Ogilvie Stuart, of the Bengal Army, have retired from the service.

Surgeon-General William Munro, C.B., has arrived in England from Gibraltar, on leave of absence.

Brigade Surgeon Wm. Cattell has embarked for Malta for duty, vice Brigade Surgeon Hiffernan, deceased.

Surgeon-Major A. F. Bradshaw, late Surgeon to the Commander-in-Chief in India, has been ordered to Devonport for duty in the South Western District.

ADMIRALTY.—Fleet Surgeons Charles Strickland, to the *Minotaur*, vice Francis T. Toms; Samuel Campbell, to the *Northumberland*, vice Gordon Jackson; Gerald Molloy, to the Plymouth Division of the Royal Marines, vice Henry Loney. Staff-Surgeon Alexander M'Donald, to the *Achilles*, vice Gerald Molloy. Surgeon and Agent Daniel Maguire, to Portavad, vice Robert M'Munn.

ROYAL COLLEGE OF PHYSICIANS.

THE adjourned meeting of the Comitia of the Royal College of Physicians to continue the consideration of the communications from the Secretary of the Medical Acts Commission, was held on Wednesday last, the President, Sir W. Jenner, Bart., in the chair.

Notice had been given to move the following resolutions:—

1. "That the College would regard with strong disapproval any proposal to establish a new licensing board or body which would practically supersede the power to grant licences conferred on the College by charter of King Henry VIII., which licence is the only one granted in this kingdom that confers on its holder a complete qualification to practise medicine, surgery, and midwifery, in all their branches." 2. "That the College could not consent to any interference with the mode in which it confers the distinction of Fellowship on its members." 3. "That the above resolutions be forwarded to the Secretary of the Medical Acts Commission, with an expression of the readiness of the College to depute one or more of its Fellows to give information on the above, or on any other subject named in the circular letter of May 23rd, which the Medical Acts Commission may consider that the College can supply."

The first of these resolutions was moved by Dr. Sieveking, seconded by Dr. Russell Reynolds, but withdrawn in favour of the following, which was proposed by Dr. Wilson Fox, seconded by Dr. Hermann Weber, and adopted after much discussion, in which Drs. Priestley, Barclay, Buchanan, and Greenhow took part. As to the wording of the resolution, it ran as follows:—"That this College feels it right to submit to the Medical Acts Commission that the appointment of a new licensing board, independent of the Royal Colleges of Physicians and Surgeons, is not only unnecessary, but would be likely to be prejudicial to the interests of the public, and to injure the profession, by lowering the number of licentiates of this College, and creating a body of licensed practitioners over whom neither the College of Physicians nor the College of Surgeons could exert any control. The College believes that the qualifications implied in the possession of its licence are adequate evidences of professional knowledge, and that its licence is esteemed alike by those holding it, by the whole of the medical profession, and by the public."

In the place of the above second resolution (the adoption of which was urged by Dr. Stewart) the following was moved by Dr. Sieveking and carried:—"That the College is of opinion that any material change in the manner in which the distinction of the Fellowship is conferred on its members would be highly prejudicial to the honour and dignity of the College, and would lower the estimation in which its Fellowship is now held by the profession and by the public."

It was also resolved (in lieu of the above No. 3 Resolution):—"That the Royal Commission be informed that the College has considered the letter sent to the College by the Secretary of the Medical Acts Commission, and has authorised its Registrar, Dr. Pitman, to attend and give information to the Commission on matters connected with the position, powers, and objects of the Royal College of Physicians;" and, on the motion of Dr. Maudsley, "That the Resolutions adopted at this meeting be entrusted to Dr. Pitman, as instructions for his guidance in the evidence which he may give before the Royal Commission."

The President then nominated Dr. Poore to deliver the Bradshaw Lecture in August next, and the Comitia adjourned.

THE INTERNATIONAL MEDICAL CONGRESS.

SINCE we published the first list of officers nominated for election at the forthcoming meeting of the Congress only few changes have occurred. *Ex officio* Sir William Jenner, as President of the College of Physicians, presides over the Council; Dr. Burdon Sanderson is to take the place of Vice-president of the Pathological Section, rendered vacant by the death of Dr. Sanders; one of the Vice-presidents of the Congress, Dr. Hudson, has died, and a third secretary in the Surgical Section, Mr. Rickman J. Godlee, has been appointed. Sir William Jenner is to preside at a meeting of the General Council on June 23rd, and, afterwards, Sir James Paget, President elect of the Congress, will give a reception to the members of the Council. Application has been made to the various European railway companies to give special facilities to members of the Congress, and Lord Granville requested the British ambassadors to the foreign Courts to interest themselves in obtaining concessions. All the French railways, and the South Eastern, and the London, Chatham, and Dover Railways, will give return tickets at single fares. As already announced, the offices of the Reception Committee of the Honorary Secretary-General and of the Editors of the Daily Programme are at the Royal College of Physicians, where a reading and writing room will be provided for members of the Congress. We would draw special attention to the facts that the Reception Committee will be glad to receive the names of any persons desirous of entertaining members for the week; and a book has been provided for registering the private engagements of foreign visitors, which is already being rapidly filled up. The following daily programme has been issued as a provisional scheme :—

Tuesday, August 2nd, 10 a.m. to 6 p.m.: Registration of members and issue of tickets at the office of the Reception Committee in the Royal College of Physicians, Pall-mall East. *3 to 6 p.m.:* Reception of the members of the Congress by the Executive and Reception Committees at the Royal College of Physicians.

Wednesday, August 3rd, 8 a.m. to 6 p.m.: Registration of members and issue of tickets at the Royal College of Physicians. *11 a.m.:* First general meeting, St. James's Great Hall; address of welcome by the chairman of the Executive Committee; Secretary-General's Report; election of officers and constitution of the Congress; election of Honorary Presidents of the Congress; election of Honorary Presidents of the Sections; Inaugural address by the President of the Congress. *3 p.m.:* Meeting of the Sections; constitution of the Sections; and other business. *9 p.m.:* Conversazione at South Kensington Museum (entrance Exhibition-road), given by the English members of the Congress to the foreign members.

Thursday, August 4th, 10 a.m. to 1 p.m.: Sectional meetings. *1.30 to 3.30 p.m.:* Visits to hospitals—Guy's Hospital, London Hospital, St. George's Hospital, St. Mary's Hospital, St. Thomas's Hospital, Westminster Hospital. The medical officers and lecturers will be prepared to receive such members of the Congress as may desire to visit these hospitals, and to inspect their schools and museums. *2 to 3.30 p.m.:* Additional meeting time for the sections. *4 to 5.30. p.m.:* Second general meeting, theatre of the University of London; address by Prof. Maurice Raynaud, Paris, "Le Scepticisme en Médecine, au temps passé et au temps présent." *6.30 p.m.:* Banquet given to a certain number of the members of the Congress by the Lord Mayor of London, at the Mansion House.

Friday, August 5th, 10 a.m. to 1 p.m: Sectional meetings. *1.30 to 3.30 p.m.:* Visits to hospitals—Bethlem Hospital, Charing-cross Hospital, King's College Hospital, Middlesex Hospital, St. Bartholomew's Hospital, University College Hospital. The medical officers and lecturers will be prepared to receive such members of the Congress as may desire to visit these hospitals and to inspect their schools and museums. *2 to 3.30 p.m.:* Additional meeting time for the sections. *4 to 5.30 p.m.:* Third general meeting, theatre of the University of London. Address by Dr. Billings, Washington, U.S., on "Our Medical Literature." *9 p.m.:* Conversazione at the Royal College of Surgeons.

Saturday, August 6th, 10 a.m. to 1 p.m.: Sectional meetings. *4 to 7 p.m.:* Reception of a certain number of the members at Kew Gardens by Sir J. D. Hooker. *4 to 7 p.m.:* A garden party will be given by Mr. and Mrs. Spencer Wells, at Golder's-hill, Hampstead. *6.30 p.m.:* The United Hospitals Club will entertain a party of the members of the Congress at dinner at the "Star and Garter," Richmond-hill.

Sunday, August 7th, 10 a.m.: A service will be held in Westminster Abbey; sermon by the Very Rev. Dean Stanley, D.D., F.R.S. *3.15 p.m.:* A service will be held in St. Paul's Cathedral; sermon by the Rev. Canon Liddon, D.D., D.C.L. *2 p.m.:* The Royal Botanic Society's Gardens and the Gardens of the Zoological Society, in the Regent's-park, will be open free to members on this and on every day of the week on presentation of their tickets. The Royal Gardens at Kew may be visited on Sunday from 9 A.M. till sunset, and Hampton Court Palace and Gardens from 2 P.M. till sunset.

Monday, August 8th, 10 a.m. to 1 p.m.: Sectional meetings. *2 to 3.30 p.m.:* Additional meeting time for sections. *4 to 5.30 p.m.:* Fourth general meeting, theatre of the University of London; address by Professor Volkmann, Halle. *6.30 p.m.:* Dinner given to a certain number of the foreign members of the Congress by the worshipful master and wardens of the Society of Apothecaries in their hall in Blackfriars. *9 p.m.:* Soirée in the Albert Hall, and the International Medical and Sanitary Exhibition, South Kensington.

Tuesday, August 9th, 10 a.m. to 1 p.m.: Sectional meetings. *2 p.m. to 3 p.m.:* Fifth general meeting, theatre of the University of London. Address by Professor Huxley, F.R.S., D.C.L., London, "The Connexion of the Biological Sciences with Medicine." *3 p.m.:* Concluding meeting of the Congress.

After the concluding meeting the members, accompanied by their friends, will proceed to Victoria Station, for High Level Station (London, Chatham, and Dover Railway), where special trains will be in waiting at four o'clock, to convey them to the Crystal Palace. After a visit to the palace and grounds, an informal dinner will take place in the concert room about seven o'clock.

Places of interest may be visited by members of the Congress, on conditions which can be ascertained at the office of the Reception Committee.

EXCURSIONS.

Friday, August 5th, 12.45 p.m.: Mr. John Penn will receive a certain number of the members of the Congress on board a special steamer at Charing-cross pier, in order to proceed down the river to Greenwich, and after luncheon there with Mr. Penn to visit the engine works of the Messrs. Penn, returning either by water or rail to Charing-cross.

Saturday, August 6th, 2 p.m.: Excursion to Folkestone. A certain number of members will leave Charing-cross Station by special train, provided free of cost by the South Eastern Railway Company, to witness the unveiling of the Harvey memorial-statue. After the ceremony the Mayor and Corporation of Folkestone will entertain the visitors at a banquet in the Town-hall. *2 p.m.:* Excursion to Hampton Court. Under the guidance of Dr. Langdon Down a party will visit Hampton Court Palace and Gardens, proceeding thence by river to Hampton Wick, where they will be entertained by Dr. Down at a garden-party at his residence, Normansfield. The members can reach Hampton Court either by the road, the river, or the rail. A special train will leave Waterloo Station (South Western Railway) at 2 o'clock.

Sunday, August 7th, 1.30 p.m.: Excursion to Boxhill. A special train will leave Victoria Station (Brighton and South Coast Railway) for Boxhill. At Burford Lodge, close to the station, Sir Trevor Lawrence, Bart., M.P., will receive a party of the members of the Congress at luncheon. The train will return from Boxhill to London at 6 P.M.

Monday, August 8th, 11 a.m.: Visit to the Docks, under the guidance and hospitality of Sir George Chambers, chairman of the London, St. Katherine's, and Victoria Dock Company. A limited number of members will proceed to St. Katherine's Dock House on Tower-hill at 11 A.M., where the indigo and tobacco floors will be inspected, and, in the adjoining London Dock, the ivory, drug, spice, and wool floors, and also the largest wine vault. From the Shadwell basin a steamboat will then take the party, for whom Sir George Chambers will provide luncheon on board, down the river to the Victoria Docks. Having passed through the Royal Victoria and Royal Albert Docks, the party will return by the river to Charing-cross pier.

WILLIAM MAC CORMAC, Honorary Secretary-General.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday several petitions were presented on the subject of vivisection, some praying for an alteration of the law regulating the practice, others for its total abolition.

In the House of Commons on Thursday, the 9th inst., on the motion of Mr. Dodson, a copy was presented of the memorandum of Dr. Buchanan, medical officer of the Local Government Board, on the present prevalence of small-pox in London among vaccinated and unvaccinated persons respectively.

The Artisans' Dwellings Acts.

On the motion of Sir R. Cross, the Select Committee on the working of these Acts was appointed as follows:—Mr. Courtney, Sir Sydney Waterlow, Sir Matthew Ridley, Mr. William Holms, Mr. Brodrick, Mr. Torrens, Sir Henry Holland, Mr. Bryce, Sir James M'Garel Hogg, Mr. Cropper, Viscount Emlyn, Mr. Francis Buxton, Mr. Arthur Balfour, Mr. Hastings, Mr. Rankin, Mr. Brand, Mr. Leamy, The O'Donoghue, and Sir Richard Cross.

Prevention of Floods.

On Friday the Select Committee on the Rivers Conservancy and Prevention of Floods Bill was nominated as follows:—Mr. Dodson, Mr. Sclater-Booth, Mr. Peel, Mr. Harcourt, Sir Andrew Fairbairn, Mr. Reginald Yorke, Mr. Arthur Arnold, Mr. Fellowes, Sir Robert Cunliffe, Mr. Compton Lawrance, Lord Edward Cavendish, Mr. Pell, Mr. Arnold Morley, Sir Rainald Knightley, Mr. Magniac, Mr. Stanhope, Lord Edmond Fitzmaurice, Mr. Levett, Mr. Hibbert, Mr. Pugh, and Mr. Arthur Balfour. Mr. Stanhope moved that the Committee have power to take evidence, but this was opposed by the Government on the ground that it would prevent the Bill passing this session, and on a division the motion was rejected by 116 to 63. The River Floods Prevention Bill was referred to the same Committee, as also were all petitions for or against either Bill.

London Fish Supply.

The following question was put down for Thursday:—Mr. Firth, to ask the Secretary of State for the Home Department whether he has yet received a reply to the letter addressed by him to the Lord Mayor in reference to London fish supply; whether he is able to communicate the tenor of such reply to the House; and whether, in case such reply is not satisfactory, he is prepared to initiate or suggest any measures for the improvement of the facilities and increase of supply of this important article of food.

Overworking Telegraph Clerks.

Lord Randolph Churchill will on Monday ask the Postmaster-General whether his attention has been called to the case of a telegraph clerk in the western district, who, in consequence of overwork, has become temporarily incapacitated from duty owing to mental derangement.

Dr. Cameron has secured the first place on the paper for Friday evening, July 8th, to call attention to the lack of capacity and resource displayed by the Local Government Board in dealing with the small-pox epidemic in London.

Dr. Farquharson will move the rejection of the Vivisection Abolition Bill, which stands for reading on Wednesday, July 13th.

The Contagious Diseases Acts.

Mr. Hopwood asked the Secretary of State for the Home Department whether it was the fact that three surgeons, acting under the Contagious Diseases Acts in the examination of prostitutes, had been appointed justices of the peace for the boroughs of Portsmouth, Windsor, and Southampton, respectively; would he give the dates of appointment; did these persons act as magistrates to enforce the Acts which they administered as officers; did they so act in court, or by private order; if so, was the right of appeal to a justice of the peace, which is given by the Acts in question to unfortunate women, secured to them; and would he intimate to these persons that they must make election between the duties of examining surgeons and justices.—Sir W. Harcourt said he had inquired into the matter, and received letters from the gentlemen in question. They were surgeons and justices of the peace. He would not trouble the House with the letters; but all three gentlemen stated in the most explicit way that they did not act as justices of the peace in any case connected with the Contagious Diseases Acts, and that they would think it highly improper on their part to do so.—In reply to Mr. O'Kelly, Mr. Forster stated that it was not intended to apply the Contagious Diseases Acts to Dublin.

Small-pox at Gravesend.

Mr. Findlater asked the Secretary of State for the Home Department if his attention had been called to the fact that small-pox having broken out in a street of small tenements in the borough of Gravesend, the medical officer of health made an application to the Mayor to get a magistrate's order for the removal of several fresh cases to certain huts which were last year built in an isolated country locality for the reception of those suffering from any contagious disease, which application was refused by his worship; and if the chief magistrate was justified in such refusal; and, if not, whether the Government would take steps to prevent a repetition of such refusal.—Sir W. Harcourt said he had received a telegram from the Mayor of Gravesend stating that an application was made under the 12th section of the Act of 1875, which only authorised the removal of children when they were without proper lodging and accommodation, and the magistrates, after considering the circumstances, did not think the case came within that section.

Mr. Warton has given notice of his intention to move the rejection of the Lunacy Law Assimilation (Ireland) Bill. On the order for going into Committee on the Infectious Diseases Notification (Ireland) Bill, Dr. Lyons will move to refer the Bill to a Select Committee.

On Monday, a petition was presented from the vestry of St. Pancras in favour of the Lunacy Law Amendment Bill.

The Alkali Bill.

In Committee on the Alkali &c. Works Regulation Bill, Major Nolan moved to exempt Ireland from the Bill, except as regards Dublin and other towns of 50,000 inhabitants. This was rejected by 140 to 16. Mr. Boord moved to include tar works in the schedule. Mr. Dodson replied that the Royal Commission indicated no means of dealing with tar works except simple inspection, and therefore they were not included in the Bill. Neither were some other kinds of works, in connexion with which no remedy had been discovered; but he hoped and believed that, in process of time, as remedies were discovered, the proprietors of those works would request that they should be added to the schedule of the Act. This answer being deemed unsatisfactory, a division was taken. Mr. Boord was followed into the lobby by 40 members, but the Government had 68 supporters, and the motion was consequently defeated. Earl Percy subsequently moved to include works for the manufacture of coke, lead, spelter, cobalt, &c., urging that they should be brought within the scope of the Bill, in anticipation of remedies being discovered; but the motion was negatived without a division, and the Bill passed the stage of committee, and was reported to the House amidst cheers. Mr. Callan and Mr. Biggar subsequently put down notices hostile to the Bill for the next stage.

Fines for Non-Vaccination.

On Tuesday, on the motion of Mr. Courtney, an address was agreed to for "an amended return to the Address of the Honourable the House of Commons, dated the 1st day of August, 1879, for 'returns showing the number of persons who have been imprisoned or fined for non-compliance with the provisions of the Act relating to the Vaccination of Children, distinguishing imprisonments and fines, the length of imprisonment undergone by such persons, the number of times any person has been imprisoned being more than once;

and of the number and amount of fines paid by any person who has been fined more than once for the above-mentioned offence.'"

Small-pox Hospitals.

On the motion of Mr. H. H. Fowler, a return was ordered showing the number of hospitals, whether temporary or permanent, provided for small-pox patients, under Section 37 of "The Sanitary Act, 1866," by the vestries and district boards in the metropolis, the situation of such hospitals, the year in which they were established, the number of patients which they are capable of accommodating, and the actual number of patients therein on the 13th day of June, 1881.

The Case of Thomas Titley.

Mr. H. B. Sheridan, put down for Tuesday, July 12th, his motion with regard to this case, as follows :—"That, in the interests of public morality, and for the protection of the constitutional rights of the people of this country, it is desirable that the police constables and all who aided and abetted them in the conspiracy to induce Thomas Titley, chemist, to commit the offence for which he is now suffering imprisonment, be forthwith prosecuted by the Public Prosecutor."

On Wednesday, a batch of petitions were presented in favour of the repeal of the Contagious Diseases Acts. Mr. Stansfeld's Bill, however, which stood for second reading to-day, was withdrawn, pending the report of the Select Committee.

Maintenance of Irish Lunatics.

The following notice was given for Thursday, 23rd inst. :—Mr. O'Shaughnessy, to ask the Chief Secretary to the Lord Lieutenant of Ireland, if he can hold out any hope that in allocating the cost of non-paying lunatics in Irish Lunatic Asylums the executive will, in cases where the district of the Asylum includes a county and a county of a city, so exercise the powers given it by statute as to avoid throwing on either portion of the district, exclusively of the other, the cost of non-paying lunatics who have been but a short time residing in such first-mentioned portion of the district ; and whether he will consider the advisability of so exercising the aforesaid powers as to follow, between such portions of such district, the analogy of the law regulating the liability of different electoral divisions in the same union for the cost of the relief of in-door paupers.

Correspondence.

"Audi alteram partem."

WHO'S RIGHT, AND WHO'S WRONG?

To the Editor of THE LANCET.

SIR,—The old saying that there are even educated men who live in the world and not with the world, from failing alike to perceive the tendency of the age in which they live, and to apreciate the changes ocuring around them, apears to me to be admirably ilustrated by a leter which apeared in your journal of to-day from Mr. John Chippendale, headed "Dr. George Harley's Cacography," in which he biterly complains of the "great shock" I caused to his feelings by my having had my article on the "Germ Theory of Disease" printed without encumbering its words with useles duplicated consonants.

When Mr. Chippendale's leter is carefuly read, however, it becomes aparent that he is unaware of the fact that Speling Reform Asociations are rapidly springing up, both at home and abroad; that bishops and archbishops countenance them; that we are already on the eve of a great national speling reform movement; that what we were taught at school about English words being, as a rule, spelt upon etymological principles has been discovered to be contrary to fact, except in the case of technical terms, &c. In spite of the risk of giving a stil greater shock to Mr. Chippendale's sensitive nature, I wil venture to give him one or two glaring instances where English speling is not consonant with, *but contrary* to, etymological principles. Let me tel him, for example, that a "Jerusalem artichoke" has nothing whatever to do with the Holy Land, but gets its name—though certainly not its speling—from the Italian girasole! That Pegwel Bay Sandfire is even not corectly etymologicaly spelt when writen as Sampire, as it is a mere English coruption of the French noun for it—St. Piere. That his friend, the old lady's wig, has no conexion whatever with the "wigings" of his school days; but has actualy the marvelous audacity to be derived from "pileus," the Roman freeman's hairy cap. That the tawdry of his sculery maid comes directly from the dignified St. Aubrey; and so I might go on with endles variety of comon words to disprove Mr. Chippendale's asertion, but I wil merely recomend him to send 5*s.* to the Speling Reform Asociation, 20, John-street, Adelphi, and get the last year's number of its Journal, and also procure a copy of my book on the "Simplification of English Speling," published by Trübner & Co. at 2*s.* 6*d.*, as wel as the leter on "National Speling Reform" I adresed to the late Prime Minister, which Hodgson & Co. published in the shape of a sixpeny pamphlet; for I think it is a pity that when Mr. Chippendale feels himself reluctantly forced to break his wise resolution not to rush into print every time his eyes fal upon views not in exact acordance with his own, he should be so unfortunate as to do more injury to his own literary reputation than to his oponent's. I should advise him to console himself in future with the reflection that there is sound wisdom in the old German proverb which says, "Speech is silver; *silence* is gold."

In conclusion, although I dare not say that I feel pleased at having had the trouble forced upon me of replying to an inconsiderate leter, in order to prove that I bear no malice to its *wel meaning* author, I shal give him, as a parting gift, a piece of information which wil probably act as a sort of soothing plaster to his iritated feelings—namely, that the omision of duplicated consonants, while it in no wise detracts from the beauty of our language, has the imense advantage of saving much manual labour to literary men, and money to publishers. In proof of this I may tel him that it has been calculated—not by me, however—that by omiting duplicated consonants *The Times* newspaper would, in space, labor, and materials, efect a saving equal in amount to £10,000 a year!—Yours faithfully,

Harley-street, W., June, 1881. GEORGE HARLEY.

PHTHISIS AND HYDROPATHIC ESTABLISHMENTS.

To the Editor of THE LANCET.

SIR,—Struck by the singular heading to a letter in your issue of May 28th, I read and ultimately was able to identify the case referred to, and would now, with your permission, make a few additions from my case book to its clinical history.

W. O—— came on June 19th, 1880. A commercial traveller, aged twenty-five, but looking older, well developed, but yellow and tremulous. Had slight pain at the sternum ever since a fall while skating in January last, but paid no attention to it, until two or three weeks before a swelling appeared to the right of the sternum, and was the size of a hen's egg and pointing. For some time he had been perspiring excessively and losing weight, as much as 4 lb. in one week a fortnight ago; pulse 76; tongue flabby and covered with a whitish-yellow fur, bowels costive, urine frequently loaded with lithates; appetite good, but often bilious. Beer makes him ill, but he takes wines and spirits freely and smokes to excess. Treated as Dr. Williamson relates, improvement is recorded at each weekly consultation, until on July 23rd—in five weeks, not ten—he left "cured," according to the entry in the register of cases.

On September 22nd he returned, reporting himself as very well in health, with the exception of a small fistulous opening at the lower end of the manubrium sterni, discharging a little serum. In a few days he left again, not returning for three months, when (November 20th) he came with an abscess pointing rather higher; the tongue coated as at first; bowels costive; pulse 88, and weak; and much reduced in condition. This relapse, so far from showing a too faithful an adherence to dietetic restrictions, as Dr. Williamson would suggest, had followed on a return to the free living of "the road," the patient having meanwhile become strong and well enough to resume travelling. The liberal use of beer, wines, and spirits was owned to, also smoking to excess and taking late suppers. This visit was brief.

These particulars must be allowed to detract somewhat from the typical character Dr. Williamson would attribute to the case, admitting as they do of a very different interpretation or moral from that advanced in his letter.

To keep up the strength under such circumstances is, of course, of great importance, but not less so is it to get the digestive organs right and the blood pure; and that the free exhibition of fat and oily foods was here contra-indicated, appears plainly from the improvement coincident with their restriction (not total prohibition). I regret much to find that through a mischance to the records of weight for that period, I cannot give the details of the improvement in nutrition implied in the result recorded.

Had the patient got worse during those five weeks of dieting and treatment instead of better, and had he improved on resuming a "liberal diet" later on, instead of relapsing, or had the result under Dr. Williamson's care been the opposite of that he unhappily has to record, the grounds of his conclusions would have been much better and the opposite opinion less tenable.

The case in some important particulars is unsatisfactory, and the absence of evidence of syphilis, or hereditary tuberculosis, may justly be held to lay increased responsibility on its management in the endeavour to account for the final result; but it is not unreasonable to suppose in view of its earlier history that the mode of management which answered so well at first might, if persevered in, have continued to do so, and permanent recovery secured. Errors there may have been—at Matlock or even at Ventnor, as elsewhere,—but when one undertakes to expose the shortcomings of another, he should at least be careful to ascertain all the facts, and should not let the sweep of his censure, if censure is meet, be wider than the facts warrant.

I am, Sir, yours faithfully,

Matlock, June 6th, 1881. W. B. HUNTER.

REMOVAL OF THE KIDNEY.

To the Editor of THE LANCET.

SIR,—In your issue of June 4th I observe the interesting account of "Removal of the Kidney for Nephrolithiasis." As you observe, this is not the first operation of its kind. The object of my present communication is twofold.

1st. To modestly point out that I believe I had the honour of first bringing this subject forward in England in an original paper, based upon experiment on rabbits, and read before the Pupils' Physical Society of Guy's Hospital, and for which I was awarded the first prize in 1869. The preparation for that paper (experiments, &c.) had occupied a great deal of my time for about eighteen months previously.

2nd. To notice its bearing upon vivisection. Now, throughout all those experiments (they were many, and all successful) I always placed the animal under chloroform, and spared no trouble to avoid pain. When the evening arrived for my paper I had many of my "victims" present to prove, if necessary, the success of the operation, but in deference to the expressed wish of the great number of my fellow students, who were assembled there at the time, I killed only *one* rabbit for a post-mortem demonstration, and yet in the face of this and other humane sentiments the public is apt to look upon the medical student as a hard-hearted wretch. I never found one to be so. But "good-bye" to experiments unless you happen to be one of the few privileged and licensed operators. Had the law for vivisection been in force at the time I should not, in all probability, be commenting on my paper on "Nephrotomy and Excision of the Kidney" now. Yours faithfully,

Trinity-square, S.E., June 7th, 1881. F. G. LARKIN.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 9th:—

Barton, Wm. Edwin, Shogswell Manor, Etchingham.
Bate, Henry Hele, Plymouth.
Braga, Joas Francisca, Bernard-street.
Prentice, Zacharia, Canterbury.
Smith, Gilbert Thomas Smith, Richmond-crescent.

The following gentlemen also on the same day passed the Primary Professional Examination:—

William Hamilton Hart, Guy's Hospital; Arthur Thos. Holdsworth, Queen's Hospital, Birmingham; Richard Pritchard Roberts, University College; Edward Tull Trevor, Guy's Hospital.

THE salary of Dr. Reid, Assistant Physician to the Royal Lunatic Asylum, Aberdeen, has been increased from £120 to £150 per annum.

THE BRITISH ASSOCIATION.—It has been resolved at a meeting of representatives of various educational institutions held in Birmingham, to invite the British Association to hold their annual meeting for 1883 in that town.

DR. SAMUEL CROMPTON, Consulting Physician to the Salford Royal Hospital and Dispensary, has presented a valuable collection of medical books to the committee of the Bolton Infirmary.

A MOVEMENT has been started to obtain subscriptions for the purpose of erecting a suitable memorial stone over the grave, in Allenvale Cemetery, of the late Dr. James Simpson, of Aberdeen.

THE proceeds of "Ye Old English Fayre," held last week at the Albert Hall, will, it is stated, enrich the funds of the Chelsea Hospital for Women to the extent of about £7540. The fair was revived by Mr. J. S. Wood, the secretary, under the title of "A graunde Fantesie Fayre and Olde Englysh Cheape," at Bolingbroke House, Wandsworth-common, on the 16th, 17th, and 18th inst., for the Bolingbroke House Pay Hospital.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. H. W. Eyres, late of Grosvenor-street, bequeathed £250 to the Leeds General Infirmary. Mr. James Farrar, late of Halifax, Yorkshire, bequeathed £500 to the Halifax Infirmary and Dispensary. The National Hospital for Consumption, Ventnor, has received a legacy of £1000, free of duty, from the late Major C. S. Barron, and one of £300, less duty, from the late Miss Martha Relfe.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—On Whit-Monday the following office-bearers were elected for the ensuing year:—President: Samuel Chaplin. Vice-President: John Kellock Barton. Secretary: William Colles. Council: Wm. Colles, Alfred H. McClintock, George H. Porter, George H. Kidd, William A. Elliott, T. Jolliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert McDonnell, Edward D. Mapother, Archibald H. Jacob, Edward Hallaran Bennett, Philip Crampton Smyly, John Denham, Anthony H. Corley, William Stokes, Henry R. Swanzy, W. T. Stoker, and William J. Wheeler. One hundred and six Fellows voted at the election.

IRISH MEDICAL ASSOCIATION.—The following office-bearers have been elected for the ensuing year:—President: John T. Banks. Vice-Presidents: Parsons Berry, Bellew Kelly, William Miller, and H. O'Farrell. Council: J. Wallace Boyce, Robert Browne, J. H. Chapman, H. G. Croly, Thomas Darby, Thomas Drapes, Alexander Filson, R. Gray, J. R. Harvey, Robert Hayes, A. Jacob, David Jacob, George H. Kidd, Richard John Kinkead, James Martin, R. McDonnell, F. V. McDowell, James Maloney, G. Morrogh, Andrew Nolan, C. Norman, William Perceval, James F. Pollock, George H. Porter, Thomas Purcell, J. Ridley, Edmund P. Sharkey, H. J. Smith, John Spencer, Robert Tagert, W. Thomson, and John Lennon Walshe. Auditors: Albert Croly and H. C. Tweedy. Hon. Secretary: Albert O. Speedy.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BARKER, H. M., M.B., M.R.C.S.E., L.R.C.P., has been appointed Medical Officer and Public Vaccinator to the Brading District of the Isle of Wight Union, vice C. Meeres, resigned.

BIRCH, G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Hackney Union, vice Long, resigned.

CHESHIRE, Mr. H. F., has been appointed Public Analyst for the Borough of Rye.

COOKE, E. M., M.B., M.R.C.S.E., has been appointed Medical Superintendent of the County and City of Worcester Lunatic Asylum, Powick, vice Sherlock.

COOPER, W., M.R.C.S.E., L.S.A.L., has been elected House-Surgeon to the Croydon General Hospital, vice T. T. Newman, L.R.C.P.L., M.R.C.S.E., resigned.

DEANE, E., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer to the Second District of the Shepton Mallet Union.

EADON, W. F. B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Fifth District of the Barton Regis Union.

FOSTER, N. S., M.D., C.M., has been appointed Medical Officer to the Stoke Lyne District of the Bicester Union.

GAMGEE, J. S., F.R.S.Ed., M.R.C.S.E., has been appointed Consulting Surgeon to the Queen's Hospital, Birmingham.

HAMILTON, R., M.B., C.M., has been appointed Medical Officer for the Rytherwith Ozendike District of the Tadcaster Union.

HILLIARD, H. C., M.D., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Caterham District of the Godstone Union.

HOPE, E. W., M.B., B.Sc., L.R.C.P.L., has been appointed Resident Medical Officer to the Netherfield Fever Hospital, Liverpool, vice W. Rushton Parker, B.A., M.B., M.R.C.S.E., resigned.

JACK, J. S., M.B., C.M., has been appointed Medical Officer to the Rothbury East District of the Rothbury Union.

JONES, J. D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Shebbear District of the Torrington Union.

MARSH, T. A. P., M.R.C.S.E., L.R.C.P.L., has been appointed House-Surgeon to the Weston-super-Mare Hospital, vice Rowlands, resigned.

MAY, B., M.B., F.R.C.S.E., has been appointed Honorary Surgeon to the Queen's Hospital, Birmingham, vice Gamgee, resigned.

MOORE, Mr. E. H., has been reappointed Public Analyst for the Western Division of the County of Sussex.

SHEMILT, G. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Third District of the Highworth and Swindon Union.

SMITH, C. R., M.B., M.R.C.S.E., has been appointed Surgeon to the Eye Infirmary, Wolverhampton.

THOMSON, A., M.B., C.M., has been appointed Assistant Medical Officer to the Montrose Royal Lunatic Asylum, vice W. J. Dodds, M.D., resigned.

WATTS, T. F., M.B., C.M., has been appointed Assistant Medical Officer to Her Majesty's Prison *Walton*, Liverpool.

Births, Marriages, and Deaths.

BIRTHS.

BIRCH.—On the 8th inst., at Sussex House, Downs-road, Lower Clapton, the wife of George Birch, Esq., M.R.C.S.E., of a daughter.

CHARLES.—On the 7th inst., at West Cromwell-road, South Kensington, the wife of T. Cranstoun Charles, M.D., of a son.

DUKE.—On the 15th inst., at 1, Cavendish-terrace, Clapham-common, the wife of Benjamin Duke, M.R.C.S.E., of a daughter.

EAGER.—On the 14th inst., at the County Asylum, Melton, Suffolk, the wife of Wilson Eager, Medical Superintendent, of a son.

IRONSIDE.—On the 7th inst., at Highbury New Park, the wife of R. A. Ironside, M.B., of a son.

NICHOLLS.—On the 2nd ult., at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a daughter.

RICE.—On the 5th inst., at Friar-gate, Derby, the wife of George Rice, M.R.C.S.E., of a son.

MARRIAGES.

BIRD—FREELAND.—On the 9th inst., at All Saints', Paddington, Peter Hinckes Bird, F.R.C.S., F.L.S., of Norfolk-square, W., to Rosa M. Freeland, of Ovington-gardens, South Kensington.

CLARKE—ALEXANDER.—On the 8th inst., at Glasgow, Henry J. Clarke, M.B., C.M., M.R.C.S.E., of Doncaster, to Isabella Margaret, youngest daughter of T. Alexander, Esq., of Glasgow.

FORSYTH—RAYNER.—On the 8th inst., at the Parish Church, Birstall, by the Rev. John Kemp, M.A., Vicar, assisted by the Rev. F. T. White, M.A., Curate, Robert Adam Forsyth, M.D., to Annie Marguerita, younger daughter of Robert Rayner, Esq., M.R.C.S.E., of Newstall, Birstall.

MORGENROOD—REID.—On the 8th inst., at Anerley Congregational Church, William George Morgenrood, M.B., C.M., L.R.C.S., &c., second son of Philip D. Morgenrood, of Wynberg, Cape of Good Hope, to Jessie Wardlaw, second daughter of William Wardlaw Reid, of Selhouse Park, South Norwood.

MUIR—BOSCAWEN.—On the 8th inst., at Marchwiel Church, Denbighshire, James Claudius Pollock Muir, L.R.C.P.Ed., L.R.C.S.Ed., to Isabella Nina, eldest daughter of the Rev. W. H. Boscawen, Rector of Marchwiel, and Rural Dean.

DEATHS.

GIBBON.—On the 2nd inst., at Pevensey-road, St. Leonards-on-Sea, Anne, widow of the late James Gibbon, M.D., of Windsor Lodge, Swansea, and daughter of the late Rev. Robert Wynter, Rector of Penderyn, Breconshire, aged 86.

JONES.—On the 15th inst., at his residence, Sydenham-park, Edward Jones, M.D., aged 66.

MATTHEWS.—On the 3rd inst., at his residence, The Acacias, Dovercourt, Arthur Matthews, M.R.C.S.E. (formerly of Robertsbridge, Sussex), aged 75.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths*

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

NOMINATION COMMITTEE.—Sir JAMES PAGET, Bart., Chairman.

THE Committee, consisting of Messrs. Birkett, Savory, Marshall, Wood, Forster, Hutchinson, the President, and the Vice-Presidents, in pursuance of the resolution of the Council of the 13th ultimo, have taken into consideration the regulations under which the committee shall act in nominating candidates for election to College Examinerships, and have agreed to the following recommendations :—

I. Constitution and Duties of the "Nomination Committee."—1. The Nomination Committee shall consist of seven members of the Council, together with the president and vice-presidents, and not less than three members of the committee shall be, or shall have been, members of the Court of Examiners. 2. The duties of the Nomination Committee shall be as follows :—(*a*) To consider applications from candidates for the offices of Examiner in Anatomy and in Physiology, in Medicine, in Midwifery, and for the Dental Section of the Board of Examiners in Dental Surgery ; to report thereon to the Council ; and to recommend the candidates deemed fittest for election. (*b*) To be visitors of the examinations in Anatomy and Physiology, in Medicine, in Midwifery, and in Dental Surgery. (*c*) To make representations and recommendations to the Council respecting the aforesaid examinations. 3. The members of the Council appointed members of the Nomination Committee shall be ineligible for any of the before-mentioned examinerships.

II. Notices respecting Elections, and Mode of Election of Examiners.—1. Notice of intending elections to the examinerships shall be advertised in medical journals not less than one month prior to the date of those elections ; and candidates shall be invited to send in their applications to the secretary not less than fourteen days prior to the date of election. 2. The secretary shall forward to each member of the Council a list of all the candidates applying for the office of examiner within seven days of the expiration of the period to which the application of candidates has been limited. 3. Every member of the Council shall receive notice of each meeting of the Nomination Committee for considering applications for the office of examiner, and shall be at liberty to nominate in writing to the secretary, before or at each such meeting, others than those applying as candidates for the said office. 4. The names of all candidates for the office of examiner, and the names of the candidates recommended by the Nomination Committee for the said office shall be inserted in the notice issued to the Council for the meeting appointed for the election.

III. Absence of Examiners.—1. In the event of any examiner being, through illness or any other unavoidable cause, unable to take part in any examination, the Nomination Committee shall be authorised, on behalf of the Council, to appoint a substitute for such examiner, reporting thereon to the next meeting of the Council.

IV. Number, Qualifications, and Duration of Office of Examiners.—1. The Board of Examiners in Anatomy and Physiology shall consist of nine members, to be appointed by the Council, to conduct the examinations in Anatomy and Physiology for the Membership and the Fellowship of the College. 2. The examiners in Anatomy and Physiology shall be elected annually from the Fellows of the College. 3. An examiner in Anatomy or in Physiology shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election. 4. The chairman of the Board shall be elected annually by the members of the Board, and shall be chosen from that section of the Board, either Anatomical or Physiological, of which the members shall at the time constitute the majority of the Board. 5. The four examiners in Medicine shall be chosen from the Fellows of the Royal College of Physicians, and shall be elected annually at the Quarterly Council in July. 6. An examiner in Medicine shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election. 7. The two examiners in Midwifery shall be chosen either from the Fellows of the College or from the Fellows of the Royal College of Physicians, and shall be elected annually at the Quarterly Council in July. 8. An examiner in Midwifery shall not hold office for more than five consecutive years, but after an interval of one or more years shall again be eligible for election. (N.B.—The regulation limiting the period of office for any examinership to five consecutive years may, upon special recommendation of the Nomination Committee and the approval of the Council, be suspended.) 9. A member or members of the Dental Section of the Board of Examiners in Dental Surgery shall, as provided by the by-laws, be elected from "persons skilled in dental surgery," and shall hold office "for the period of five years."

ERASMUS WILSON TRUST.

In pursuance of the resolution of the Council of March 10th, 1881, the president and vice-presidents have to report to the Council that they have taken into consideration the changes proposed in the Erasmus Wilson Trust, so as to provide that the proceeds of the fund shall be more advantageously employed than at present by appropriating them, in such proportion as the Council may from time to time determine, in part towards the payment of the salary of a pathological curator of the museum and in part for the payment of lectures or demonstrations on the pathological contents of the museum, to be given either by the pathological curator or some other person duly appointed for the purpose ; that they have consulted the legal adviser of the College on the subject, and, in accordance with his opinion, have instructed him to prepare a new deed, setting forth the objects of the Trust in its altered conditions, releasing the existing trustees from their obligations under the present Trust, and transferring to the College in its corporate capacity the observance of the conditions of the Trust so altered ; and that the new deed will shortly be ready for execution. The president and vice-presidents have further to report that, in view of the proposed changes, they recommend to the Council that all regulations at present in force relating to the Erasmus Wilson Trust be rescinded ; and that it be referred to the Museum Committee to inquire and report to the Council on candidates for the office of pathological curator of the museum, and on the regulations under which that office shall be held.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, June 16th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 10	30·21	N.E.	52	47	96	63	43	..	Bright
" 11	30·00	S.W.	56	49	92	67	47	..	Cloudy
" 12	30·18	W.	62	57	110	73	52	..	Cloudy
" 13	30·06	N.W.	60	53	106	73	52	..	Hazy
" 14	30·06	E.	58	52	94	69	51	..	Hazy
" 15	29·99	W.	62	55	94	72	50	..	Hazy
" 16	29·97	S.W.	63	57	98	73	55	..	Cloudy

Medical Diary for the ensuing Week.

Monday, June 20.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ A.M. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ P.M. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 P.M.

Royal Orthopædic Hospital.—Operations, 2 P.M.

St. Mark's Hospital.—Operations, 2 P.M. ; on Tuesday, 9 A.M.

Royal College of Surgeons of England. — 4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Tuesday, June 21.

Guy's Hospital.—Operations, 1½ P.M., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 P.M.

West London Hospital.—Operations, 3 P.M.

Sanitary Institute of Great Britain.—8 P.M. Professor W. H. Corfield, "On the Present State of the Sewage Question."

Wednesday, June 22.

National Orthopædic Hospital.—Operations, 10 A.M.

Middlesex Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ P.M., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ P.M.

King's College Hospital. — Operations, 2 P.M., and on Saturday at 1 P.M.

London Hospital.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 P.M.

University College Hospital. — Operations, 2 P.M., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations, 2½ P.M.

Royal College of Surgeons of England.—4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Epidemiological Society.—8 P.M. Mr. H. V. Carter, "Contribution to the History of the Epidemic Fever prevailing in the Country Districts of the Bombay Presidency during the Famine Period of 1876-78."—Mr. J. Mackie, "Report on Dengue Fever."—Mr. V. B. Barrington-Kennett, "On a System of Detached Floating Barracks for the Formation of a Small-pox or Fever Hospital."

Thursday, June 23.

St. George's Hospital.—Operations, 1 P.M.

St. Bartholomew's Hospital.—1½ P.M. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 P.M.

Central London Ophthalmic Hospital. — Operations, 2 P.M., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 P.M.

North-West London Hospital.—Operations, 2½ P.M.

Friday, June 24.

St. George's Hospital.—Ophthalmic Operations, 1½ P.M.

St. Thomas's Hospital.—Ophthalmic Operations, 2 P.M.

Royal South London Ophthalmic Hospital.—Operations, 2 P.M.

Quekett Microscopical Club.—8 P.M. Mr. B. W. Priest, "On a New Species of Sponge from Honduras."

Royal College of Surgeons of England. — 4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

Saturday, June 25.

Royal Free Hospital.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of The Lancet *to be addressed "To the Publisher."*

Quacks in Japan.

There are, it appears (says the *Japan Weekly Mail*), no less than 65,200 doctors practising in Japan, of whom 504 only have received legitimate diplomas, and of these latter 50 are denizens of Tokiyo. It follows, therefore, that there are 64,696 individuals playing fast and loose with the lives of their fellow-creatures throughout the country—that is to say, an average of one quack to 470 quacked.

M. E.—We have no recollection of the paper.

A Fellow.—If our correspondent has not signed the by-laws he will not be allowed to record his vote. No opportunity will be afforded before the annual meeting.

Inquirer.—We should recommend our correspondent to address one of the professors at Netley.

DEATH FROM ETHER.

To the Editor of The Lancet.

Sir,—In view of the recent controversy, "Ether v. Chloroform," I think it specially desirable that untoward results should be published. I therefore send the account of a case of death from ether administration that recently came under my notice.

On the evening of March 8th I was requested by my colleague, Mr. Brummitt, to visit with him a case of diphtheria, he having tracheotomy in view for the urgent dyspnœa that was threatening life. We decided that the only chance was in operation, and I proceeded to administer ether. The patient, a girl of six years, somewhat mentally deficient and of delicate habit, was labouring for breath. The pulse was fair. I used a cage inhaler, putting into it about half an ounce of ether. The inhaler was at first held some three inches from the face, so as to gradually accustom the child to the vapour. It was by degrees approached closer, and then placed over the nose and mouth. There was a good deal of struggling, but the patient soon became quiet, and seemed to be getting comfortably under its influence. I reported her as nearly ready, and my colleague placed her in tracheotomy position. Having replenished the inhaler, I was proceeding with the administration when the breathing, which, though not very satisfactory, had been tolerably regular up to this moment, suddenly ceased. Artificial respiration was at once resorted to. The patient gave one gasp, and all efforts for restoration, though persevered in for some time, were unavailing; the heart could be felt feebly flickering for some two minutes after the breathing failed.

Having either administered or witnessed the administration of anæsthetics in several similar cases, it seems conclusive that their use in such is attended with more than ordinary risk. In one in which chloroform was used the patient died as soon as the operation was completed; but as the child was almost comatose at the commencement, it is perhaps hardly fair to attribute the result to the anæsthetic. In two others ether was used, and the danger appeared imminent.

Should I again have to produce anæsthesia in similar cases, I think I should give chloroform the preference. Ether is supposed to cause death by paralysing the respiratory powers. In laryngeal diphtheria these are greatly overtaxed, consequently is not the danger increased by this anæsthetic? Another thing in favour of chloroform is that there is usually less struggling when it is used. In employing these agents in cases where there is any respiratory obstruction it seems to me a good precaution to give the minimum quantity required to produce narcosis. In this particular instance the ether was from a sample which I have used a good many times without any unpleasant symptoms arising, and it seems remarkable that such a result should occur from so small a quantity.

I am, Sir, yours, &c.,

John J. Sangster, M.R.C.S., &c.

Burra, S. Australia, April 9th, 1881.

GOYDER'S CLINICAL STENCIL PLATES.

To the Editor of THE LANCET.

SIR,—I beg to thank you for the honour you have done me in noticing the above. Before the issue of the number for June 4th I was quite unaware of the fact that anyone had contemplated the use of stencilling in clinical work. The novelty I claim, however, is the combination of diagrams, and the plan of obtaining outlines of opposite bones and limbs by reversing the plate. May I be allowed to state also that the woodcuts published are one-half the actual size? I regret that in consequence of absence I have been unable to write this note sooner.—Apologising to you for the delay, I have the honour to be, Sir, yours very truly,

C. M. GOYDER,
Senior House-Surgeon,
June 14th, 1881. Newcastle-on-Tyne Infirmary.

SIMPLE METHOD FOR REDUCTION OF DISLOCATION OF SHOULDER-JOINT.

To the Editor of THE LANCET.

SIR,—In your issue of May 28th, Dr. S. R. Macphail calls attention to the ease with which dislocation of the humerus can, in most cases, be reduced by manipulation, and in doing so speaks of this method as if it were new, stating that although he "does not claim originality for it," it is a method "to which he has never seen any reference in the ordinary text-books." This is remarkable, when we notice that the method described by him is almost—if not altogether—identical with that described by Abernethy many years ago, called "Reduction by Stratagem," and the first-mentioned mode of treatment for luxation of the humerus, given in Bryant's "Practice of Surgery," second edition (1876). Mr. Bryant, however, here accompanies his description of reduction by this means with the remark, "To reduce a dislocation of the humerus by manipulation chloroform is essential." Whether this erroneous sentence is retained in the later edition of Mr. Bryant's admirable work I cannot say, not having it within reach.

Your correspondent will also find that Mr. Holmes, in his "Principles and Practice of Surgery," gives a short account of reduction by manipulation without mentioning chloroform in connexion therewith.

Reduction of the dislocated humerus by manipulation was—if my memory serves me aright—described in a minute and exhaustive manner by Professor Gordon of Belfast in a small work published six, eight, or more years since, entitled "Fractures of the Radius, &c."

Dr. Gordon describes different methods of procedure for the different forms of displacement, in order to avoid the ligamentous structures surrounding the joint, just as Bigelow does for the various dislocations of the hip, and teaches that the great majority of recent cases may be reduced by this method without the aid of an anæsthetic, and certainly in his hands it is almost always successful.

I have not Mr. Erichsen's work to hand, but would venture to say from memory that he also clearly describes manipulation as a frequently successful mode of reduction of the shoulder.

I am, Sir, yours very truly,
S. A. K. STRAHAN, M.D.
East Riding Asylum, June 1st, 1881.

Mr. Collier.—The list published by us last week is correct. Our correspondent had better communicate with the secretary of the College on the subject.

Messrs. Findlay and Co.—Curling or Allingham (Churchill) for diseases of the rectum; for intestines generally, Habershon.

"TEMPERANCE AND THE DOCTORS."

To the Editor of THE LANCET.

SIR,—This afternoon, in reading the current number of THE LANCET, I found a note bearing the above heading. Now, you will, I am sure, permit me to say that the short and imperfect reports of speeches and lectures found in newspapers sometimes convey the very reverse of what was really said, and the comments you are good enough to make on some speech attributed to me are very remotely applicable to anything I have ever said on the public platform, nor do they apply in any measure to anything I have ever said at Yeovil, seeing that I never in my life spoke at Yeovil, nor do I even know the name of the vicar of that town.

In justice to myself, I may surely add that I have on many occasions maintained that medical men have done much to check intemperance—more, indeed, than any other profession; and I have several times attempted to show that the members of the profession have not the comparative leisure of the clergy, nor the commanding authority and independent position of bishops, judges, and Ministers of State. This I think no one will deny; nor do so many men of rank and large fortune enter our profession as are found in one or two others.

Lastly, any remarks I may have made on three or four recent occasions that medical men are overworked and often underpaid, and not treated generally with the respect to which I have contended they are entitled, seem to me a defence of the profession, and in no sense an attack upon it. If the report of the speech in any way justified your comments, it certainly bears very small resemblance to any utterance of mine.—I have the honour to be, Sir, yours faithfully,

Wimborne, June 8th, 1881. ALFRED J. H. CRESPI.

⁂ We gladly insert our correspondent's letter. It would be well if he would write in correction of the report of his speech to the editor of the *Western Gazette*.—ED. L.

"ATTENDANCE ON CASES OF SUDDEN ILLNESS."

To the Editor of THE LANCET.

SIR,—People of all classes frequently labour under the delusion that a medical man can be compelled to attend at any time, especially in chance cases of midwifery. My experience has taught me that if he goes he will have to trust to providence for his fee.

People who take their sick to the hospital, &c., as out-patients, when they perceive danger, rush off at any hour to the nearest medical man, as they know a death certificate cannot be obtained from the officers of the institution, and probably they are too late to get an order from the parochial relieving officer.

Would it not be very satisfactory if people could have the privilege of calling in the aid of the first policeman to be found, and for him to give an order for immediate medical attendance, payable by the authorities as at present in cases of accident or sudden illness in the streets, and subsequently for the police to find out whether it was a case for the parochial medical officer?

I think such an order would be the means of preventing many unnecessary inquests, prevent many medical men from annoyance and low abuse, and, at the same time, a fair remuneration would be certain.

I am, Sir, yours faithfully,
G. D. HARDING, M.R.C.S., &c.
Lorrimore-street, S.E., May 28th, 1881.

THE HEADS OF THE PEOPLE.

To the Editor of THE LANCET.

SIR,—Hatters have discovered that the human head is decreasing in size. From practical experience they can testify that hats are made of a much smaller size at the present day than they were twenty-five or fifty years ago.

In a body of men like our soldiers and police the sizes run very small in many instances, although in these cases the men are often tall and well proportioned. The sizes of the heads of professors, doctors, &c., are always larger than those of the general public. Burns had a head 7¼ in. in size. Formerly the size of the hats sold was frequently from 7¼ to 7⅜ in., whereas now the average demand is for hats from 6¼ to 6⅝ in. What is the cause of this? Perhaps some members of the medical profession may be able to throw some light upon this important question. I am, Sir, yours truly,

Wolsey-road, N., June, 1881. W. H. SMITH.

Query.—1. Assuredly not.—2. The offices of the Medical Defence Association are in Colebrooke-row, Islington, N.

Kestrel.—On application, personally or by letter, to the National Vaccine Institution, Local Government Board, Whitehall. No charge is made.

C. A. L.—12, Colebrooke-row, N.

Mr. G. A. Wright (Pendlebury).—The paper will appear shortly.

A Young Practitioner.—1. Bristowe, Roberts, Tanner.—2. Barnes, Lombe Atthill.

CHLORAL v. STRYCHNIA.

To the Editor of THE LANCET.

SIR,—The following facts may be of some interest to your readers. On May 25th I found a pet fox-terrier bitch suffering from severe symptoms of strychnia poisoning. There were well-marked risus sardonicus and opisthotonos, with much rigidity of the limbs. She was lying on her side, totally unable to get up, and the respiration was 90 to the minute. I gave her immediately a draught of bromide of potassium and chloral (thirty grains of each), but owing to the spasmodic movements of the head, I failed to get it all down. I then gave her sixty grains of chloral (in crystals) on the tongue, and held her mouth until it was dissolved. She gradually went to sleep, and three hours after was able to walk, although with a good deal of weakness about the hind legs, and she has since gone on slowly to recovery.—I am, Sir, yours obediently,

Melton Mowbray, June 2nd, 1881. E. R. MANSELL.

A HINT TO CHLOROFORMISTS.

To the Editor of THE LANCET.

SIR,—When in Paris I was invited by Dr. Labbé to assist in a case of ovariotomy at a private hospital. The patient was given chloroform. When the anæsthesia was complete, the surgeon made his incision in the linea alba, through the skin and circular tissue. Suddenly the respiration stopped, and the heart ceased to beat, as clearly shown by the cessation of bleeding and the bloodless appearance of the lips of the wound. The mouth was cleansed from mucus, the tongue drawn forwards, the patient's head thrown well back, and artificial respiration was practised for quite ten minutes, but without result. The case appeared desperate, when Dr. Labbé put a large cloth in boiling water and applied it to the cardiac region. Instantly the heart commenced to beat and the patient to respire. She was saved. The operation was not terminated.

The cloth which had been applied was of such a heat that a large blister was raised at the seat of its application. Such simple and ever at hand means, which has succeeded several times with Dr. Labbé, may be unknown to a few of your readers, and possibly useful to all.

I am, Sir, yours &c.,
Great Russell-street, W.C., June 1881. ADOLFO PAGGI, M.D.

Dr. Davis.—The festival of the Fellows will take place the same evening at the Albion Tavern, when Mr. William Cadge of Norwich, a member of the Council of the College of Surgeons, will take the chair. Mr. B. T. Lowne is the honorary secretary.

Dr. M. W. Taylor (Penrith).—We shall be glad to receive the paper.

"THE COMMISSIONERS IN LUNACY AND ASYLUM REPORTS."

To the Editor of THE LANCET.

SIR,—No one of the leading men amongst asylum superintendents having noticed your annotation in THE LANCET of June 4th on the above subject, I venture to claim the favour of a little space for a few remarks.

The annotation in question indicates an extraordinary misapprehension of the case, and, with regard to private asylums at any rate, completely inverts the facts. The reports, it says, "have come to be nothing more or less than testimonials left with the authorities of asylums in return for the courtesy shown during an inspection." So far is this from fact that the key-note is rather that of blame than praise. The Commissioners have enormous power under the Lunacy Acts. They are apt to exercise it in framing their reports in a harsh, arbitrary, and capricious way. Proprietors of asylums are accused, convicted, sentenced, and punished without being arraigned, without means of defence, without opportunity of stating their case or rebutting unjust charges. It happens thus. The reports to which your annotation refers are crammed with frivolous complaints. These complaints are published in the Annual Blue Books. They become public property; newspapers extract them, and found upon them virulent attacks on private asylums. Authors quote them for the same purpose, as, for instance, Dr. Bucknill. This writer, eminent indeed, but *inops humanitatis atque inurbanus*, has in the sixth chapter of his work, entitled "The Care of the Insane," culled, without any attempt at comparison or contrast, a crop of these complaints from the Blue Book of 1875. He nowhere stops to inquire into the possible justice or injustice of the complaints. It is a clear case of the *argumentum ad populum*. However, let that pass. The point to be observed is that the use made in this and other instances of the complaints in question well illustrates the nature of the hardship which proprietors of asylums suffer. They are punished on mere accusation, without inquiry or proof. It is surely a punishment, and a very severe one, to be thus spitted in official documents, and to have the accusations published and ready to hand for anyone to extract and use at pleasure, and to cite as if they were fair and judicial condemnations.

The complaints, it must be remembered, are *ex parte* statements of visiting commissioners, prone by the nature of their office to fault-finding. When the statements get into the Blue Books there is no redress. The Board in Whitehall-place is inexorable, and there is no appeal. Asylum proprietors are far more harshly treated than the commonest and lowest publicans. Even they can claim to have their case heard. They may defend themselves in court. Before their licences are endorsed they are duly warned. Asylum proprietors' licences are endorsed without warning upon the mere *ipse dixit* of a couple of visiting commissioners, who may be by disposition capricious and harsh, or who may be suffering from indigestion or fatigue, or other causes of irritability, ruffled temper, and warped judgment. Surely no other class of men in the kingdom is placed under so arbitrary a rule as private asylum proprietors, or one so severely administered. Your annotation, therefore, as far as regards them, is erroneous and misleading.

These remarks are strictly limited to private asylums. The superintendents of public asylums have perhaps a good answer to give. If so, let them give it themselves; let them state their own case.

"Herr gib Regen und auch Sonnenschein
Für Reitz, Kreitz, und Lobenstein
Woll'n die Andern auch was ha'n
Soll'n sie dir es selber sa'n."

I am, Sir, yours, &c.,
June 14th, 1881. G. F. BODINGTON.

"THE BLOOD OF SAINT JANUARIUS."

To the Editor of THE LANCET.

SIR,—In vol. i., p. 301, of Salverte's "Philosophy of Magic, Prodigie and Apparent Miracles," translated by Anthony Todd Thompson, M. Lond., is given the following account of the apparent miracle :—"In th present day, at an annual public ceremony at Naples, some of the blo of St. Januarius, collected and dried centuries ago, becomes spont neously liquefied, and rises in a boiling state to the top of the phial tha encloses it. These phenomena may be produced by reddening sulphur ether with orcanette [alkanet root] (*onosma*, Linn.), and mixing the tin ture with spermaceti. This preparation, at ten degrees above the free ing point (*Centigrade*) [F. 50°] remains condensed, but melts and boils a twenty [F. 68°]. To raise it to this temperature it is only necessary t hold the phial which contains it in the hand [or near a lighted lamp] fo some time. If a little simple jugglery be combined with this philoso phical experiment, the apparent miracle is complete."

I am, Sir, yours, &c.,
Dublin, June 11th, 1881. A. S.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Balfou Leven; Dr. Delorme, Paris; Dr. Beard, New York; Mr. J. Alle Bollington; Dr. Watson, Penistone; Mr. J. M. Scott; Mr. J. Starti London; Dr. Galton, Anerley; Mr. Collier, Weybridge; Mr. Goyde Newcastle-on-Tyne; Mr. Dolan, Halifax; Mr. Owens, Leamington Mr. Butler, London; Mr. F. Moor, Ventnor; Mr. Ellis, Newcastle-o Tyne; Mr. Ikin, Leeds; Mr. Wood; Dr. Bodington, Kingswinford Dr. W. H. White, London; Dr. Thorowgood, London; Mr. Sydne Jones, London; Mr. Agar, London; Dr. Macnaughton Jones, Cork Dr. Taylor, Penrith; Dr. Morgan, London; Mr. F. Treves, London Mr. Marx, Baden-Baden; Mr. Horley, Hoddesdon; Mr. C. Jones Dr. Grieve; Dr. Clarke, Leicester; Dr. W. Fergus, Marlboroug College; Mr. Cotgreave, Richmond; Dr. Fisher, Sittingbourne Mr. Wright, Pendlebury; Mr. T. Laffan, Cashel; Dr. Gillespie London; Dr. Coombs, Castle Cary; Mr. B. S. Ringer, London Dr. Althaus, London; Mr. Hyatt, Shepton Mallet; Dr. G. Harley London; Dr. Diver, Kenley; Colonel Hodson, Cheltenham; A. Woo Cranbrook; Mr. Anderson, Nottingham; Mr. Croft, London; Mr. T. Vivian; Surgeon-Major Adsetts, Lincoln; A Governor of S George's Hospital; Medicus; J. D. R.; A Lover of Good English Kestrel; Dr. V.; M.B.; A. S.; The Director-General of the Nav Medical Department; C. A. L.; M.R.S., Sowerby-bridge; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Pollard Bayswater; Mr. Hobson, Berkhampstead; Mrs. Rutey, Wandsworth Mr. Gravat, London; Mr. Eager, Melton; Messrs. Drinkwater and Co. Bicester; Dr. Jones, Cork; Dr. Chesshall, Horley; Messrs. Ryott an Birch, Newbury; Mr. Beckton, London; Miss Dickinson, Croydon Mr. Bedford, Sheffield; Mr. White; Dr. Witz, Horncastle; Mr. Dov Sherburn; Mr. Starkey, Reading; Mr. Dutton, Dursley; Mr. Sawye Darlington; Mr. Gath, Salford; Mr. Walker, Spondon; Dr. M'Kelvi Cromer; Miss Robinson, Sandwich; Mr. Coxon, Burton-on-Trent Dr. Wathe, Glenbucket; Mr. Sullivan, Leicester; Mr. Johnsto Wymondham; Mr. Roper, Exeter; Mr. Alleyne, Glasgow; D Forsyth, Birmingham; Mr. Trapnel, Clifton; Mr. Scripps; W. H. J. W. F.; M. G. L., Newcastle; M.D.; Medicus, Haydock; M. E. Twickenham; Surgeon, London; Surgeon, Manchester; M. C. Southampton; Medicus, Blackburn; X.; W., Plymouth; Scalpel A. B. C., Eastbourne; Medicus, Dewsbury; M.R.C.S., Grantham H. J. H.; Surgeon, Swinton; Davis, Bowdon; L. W., Birmingham M. L. W., Billericay; G., Lin Dowel, J., M.R.C.S.;

The Asylum Journal (Berbice), Morningside Mirror, Italian Time Warehousemen and Drapers' Trade Journal Courier, Western Dail Press, Barnsley Chronicle, Evesham Journal, Barnsley Times, Glasgo Herald, &c., have been received.

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ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

By FREDERIC J. MOUAT, M.D., F.R.C.S.,

FORMERLY PROFESSOR OF MEDICINE, CLINICAL MEDICINE, AND MEDICAL JURISPRUDENCE IN THE MEDICAL COLLEGE OF CALCUTTA, AND FIRST PHYSICIAN OF THE HOSPITAL ATTACHED TO THE COLLEGE; DEPUTY INSPECTOR-GENERAL OF HOSPITALS (RETIRED); VICE-PRESIDENT AND FOREIGN SECRETARY TO THE STATISTICAL SOCIETY OF LONDON, ETC.

(*d*) DISTRIBUTION AND DIMENSIONS OF BUILDINGS AND WARDS.

In all the most recent hospitals of Germany, France, the United States, and Scotland, and in several of our great Poor-law infirmaries, the pavilion plan has been adopted for the sick wards, and all accessory and administrative buildings are more or less completely separate from them. In some the blocks of all kinds are absolutely detached, without connecting corridors of any kind (Friedrickshain in Berlin, the Johns Hopkins Hospital at Baltimore, the Fever and Small-pox Hospitals at Glasgow). In others the separation is nearly as complete, having external open covered passages for intercommunication (the Heidelberg Hospital, the St. Eloi Hospital at Montpellier, and other similar buildings on the Tollet system in France). In a third arrangement the intercommunication is by means of closed corridors and stair cases run up to the first floor, leaving the sick wards as respects their aeration and lighting practically detached (the Menilmontant Hospital in Paris, the Royal Infirmary in Edinburgh, the Western Infirmary in Glasgow, and several Poor-law Infirmaries).

I omit all reference to such institutions as the new Hôtel Dieu in Paris and St. Thomas's Hospital in London, as their cost alone prohibits their being accepted as examples for imitation, even if they were not, as I believe them to be, defective in other respects. Some recent Poor-law institutions, well constructed and otherwise not badly arranged, are made to contain from one to two thousand inmates—an aggregation of sick, in mind and body, universally condemned by the medical authorities of all countries, and therefore not to be quoted for instruction or guidance, for in them the cardinal principles which should regulate all such matters, are sacrificed to administrative convenience and economic reasons. As a rule, in all the above forms of arrangement the administrative buildings are centrally situated; and the out-patients' departments, pharmacies, laundries, kitchens, nurses' and servants' quarters, &c., are grouped in the manner most convenient for the general administration of the whole institution. They will of necessity vary very considerably, according to the uses and size of the hospital, and its connexion or otherwise with a medical school.

It is obvious that if kitchens, laundries, and store rooms have any tendency, as some of them must have, to create an atmosphere likely to be prejudicial to the sick, their complete separation is the only perfect plan of dealing with them. The exact arrangements will be mentioned in connexion with the institutions which I intend to describe, as illustrating the most recent forms of hospital construction which have found acceptance—viz., the Menilmontant Hospital in Paris; the St. Eloi Hospital, about to be erected at Montpellier, in France; the Friedrickshain Hospital at Berlin; the Western Infirmary at Glasgow; the St. Marylebone Infirmary just completed, and an example of a town hospital in New York on the many-storeyed plan, which is a remarkable and successful attempt to adapt old principles of construction to modern sanitary requirements.

The number of beds a hospital should contain must depend so much on its nature and position, coupled with the needs of the population in whose midst it is placed, that no fixed rule can be adopted, such as the Chirurgical Society of Paris hinted at, in its third conclusion. Sanitary conditions, subordinated in a limited degree to administrative and economical convenience, are alone entitled to consideration in the determination of the question.

If economy of administration alone were consulted, or in combination with a decrease in the cost of the ground on which a hospital is placed, the number of beds might practically be unlimited, as it was in that pest-house, the old Hôtel Dieu; and as it is in a lesser degree in some of the older general, and more recent Poor-law, hospitals. The number of stories on the same base and covered by the same roof might in such circumstances be as many as could be occupied with safety, by means of lifts and similar contrivances. But, supposing these conditions to be correct, which they assuredly are not, the limit of the sick who may safely be congregated on a given area is soon reached, and would long since have been determined with absolute accuracy, had proper hospital records been kept. The problem to be solved has been well put by M. Trélat. He said: "It is now an undisputed fact that great collections of men and animals generate a condition of health which is injurious to all exposed to it. Whether these aggregations are temporary or permanent, accidental or periodic, much or little crowded, in a close or an open space, consisting of healthy or sick, the result is always of the same character. The effects of aggregation soon make themselves felt, varying only in their intensity and gravity according to their internal conditions."

Dr. Farr, in the 24th Annual Report of the Registrar-General (p. 230), constructed a table to show the relative mortality of hospitals, based upon the number of their inmates.

Principal General Hospitals in England and Wales, 1861.
(*Special Hospitals excluded from this table.*)

——	Number of Hosps.	Inmates.	Average number of Inmates in each Hospital.	Deaths.	Mortality per ct.
Hosps. containing 300 inmates and upwds.	5	2090	418	2101	100·53
200 and under 300 . .	4	913	239	838	91·78
100 and under 200 . .	22	2898	132	2041	70·43
Under 100	49	2634	54	1240	47·08
Total . . .	80	8535	107	6220	72·88

It is obvious that there are so many sources of fallacy underlying such a statement, so many conditions necessary to be understood are not mentioned, so much difference in the classes of sick admitted to such institutions, and the period over which the inquiry extends is itself so extremely limited, that the table is of no further scientific value than as embodying a rough approximation to what may prove to be a truth on a more extended and strictly scientific examination.

Again, although I at one time accepted and acted upon the doctrine of averages as the surest basis for determining mortality rates in public institutions, I am now disposed to think that a more correct comparative estimate of the healthiness or unhealthiness of hospitals would be obtained by calculating the number of deaths on the actual number treated, and by determining the actual risk to life of a day's residence in each institution. From a statement of this kind recently published by Monsieur Loua in the *Journal de la Société de Statistique* of Paris, it appears that in the hospitals of the whole of France the mortality rate from 1871–76 oscillated between 8·5 and 10·5 per cent. of the actual number treated, and the risk to life of a day's residence in hospital from 0·00237 to 0·00327. In 1876 it was 0 00268, while the daily risk to life of each individual of the entire population was 0·000063, from which it follows that the chances of death in a hospital were forty-two times greater than in the ordinary conditions of life. The sick, however, are only subject to this increased risk during their actual stay in hospital. All such modes of calculation must, however, of necessity be incomplete and fallacious, and no plan will afford even an approximation to accuracy until the whole of the factors involved—age, sex, hereditary tendencies, actual disease, accident or injury, position in life, &c.,—are carefully collected and collated. All this has not yet been done, even in relation to amputations and obstetrics.

A curious experience of the superior value of the pavilion to the block system of hospital construction was acquired during the occupation of Paris by the allied armies in 1814. The sick and wounded soldiers, French and foreign, were treated in the hospitals until no more room could be found for them, when they were placed in the slaughter-houses, vacated for the purpose. In the great hospitals, the Hôtel Dieu, Pitié, and St. Louis, the mortality of wounded French soldiers ranged from 1 in 5, to 1 in 8. In the abattoirs of the Roule, Montmartre, and Menilmontant, the number of deaths among the French varied from 1 in 7 to 1 in 13. Of the foreign soldiers wounded, the deaths in the hospitals were from 1 in 7 to 1 in 13; and in the slaughter-houses, 1 in 10, 1 in 11, and 1 in 19. So struck was the Conseil-Général des Hôpitaux by these results, that they reported, "That the use made of the buildings (abattoirs) for the treatment of the sick, had made it manifest that their distribution was better fitted for their new use, than any of the existing hospitals. That experience had thus proved the correctness of the views of Tenon and Bailly in their reports on the [old] Hôtel Dieu, and the utility of the division of hospitals into separate pavilions—an idea which should be followed in the construction of all hospitals, in which should be united conditions of health and convenience."

It is now beginning to be ascertained that the accumulation of large numbers of sick in hospitals, in addition to being detrimental to themselves, is a source of danger to those dwelling in their immediate vicinity; and that this is especially true of fever, and all other hospitals in great cities or well peopled localities.

Nearly a century since, Sir Wm. Blizard wrote:—"Hospitals are too much crowded with patients. Parade of numbers blinds the judgment, and diverts attention from simple principles, and clearly deduced rules of conduct. The system of hospitals in respect of numbers is founded on a glaring error. By curing, relieving, and dismissing in a shorter time, the sum of patients admitted in a given period, may be even greater from a less than from a larger number of inhabitants. However airy, then, the situation of a hospital, of whatever amplitude and number its wards, still its happy effects will be governed by the proportion of sick persons within its walls. It may be admitted, upon the whole, that the limitation of number in hospitals should be far below what it generally stands." The late Dr. Rumsey, in one of his excellent papers on "Some of the Fallacies of the Statistics of Health and Disease," sums up the general results of the discussion on hospital mortality in the following words:—"(1) That the disease in hospitals and other large institutions, especially the mortality following operations (and universally that after childbirth), are greatly increased by the mere aggregation of patients and, *cœteris paribus*, in proportion to the density of that aggregation, apart from all other circumstances which might affect success or endanger life; (2) that the death-rate calculated, as it should be, on the number of patients, and not on the number of beds, increases with the size of the establishment and the number of its inmates; and (3) that wherever this assemblage of the sick and hurt occurs in the centre of a crowded population, the rate of mortality attains its maximum."

In strict relation to its uses, the number in a hospital may range from the few beds in a cottage hospital, through every stage of increase, to the large hospitals required for town populations, which, in turn, will each fulfil its functions by restriction of its beds to a maximum of 200 or 300; whilst in the vicinity of great cities, where ample ground is procurable at reasonable cost, and the pressure on space is minimised by subdivision, there may be 600 beds, which number should never, in my opinion, be exceeded on any pretext whatever.

As to the number of beds in a ward, however ample and complete the ventilation and healthy the surroundings, they ought never to exceed thirty-two, with annexes containing one, two, or three beds for the separation of cases which need them. Each pavilion in which they are placed should be self-contained, with provision for nurses, baths, water-closets, lavatories, small kitchen, and all other accessories. The minimum of cubic space allowed should be 1200 feet, and of floor space ninety-six square feet for ordinary cases of sickness, these quantities being increased for surgical cases, and all diseases causing exceptional deterioration of the air of a ward. But one bed should be placed in the interspace or piers of windows, and two rows of beds should never be exceeded in a ward, of which the width should vary from twenty-four to thirty feet, the latter in clinical wards only, and all beds should, if possible, be nine feet apart, as wisely obtains in the new Royal Infirmary at Edinburgh.

As to the number of storeys of which the portions of hospital buildings devoted to the sick should consist, I entirely agree with the views of the Chirurgical Society of Paris, and in the manner in which they are now being carried out in Germany, in the United States generally, and by M. Tollet in France. Professor Lister is reported to have said to a distinguished surgeon of New York, in reply to a question as to how far the construction of a hospital would be likely to influence the results of antiseptic surgery—a question suggested by the four storeys of superposed wards at Blackwell Island, which he was then visiting—"It is immaterial how many storeys of wards there may be in a hospital, provided that the details of the antiseptic method are accurately carried out in them all. If these details are faithfully observed, hospitalism can be prevented." That antiseptic surgery has worked marvels in counteracting the evil effects of septic poisons in some classes of surgical cases is undoubted; but, all other conditions being unchanged, I do not understand how it can exert the smallest influence in preventing the evil effects of an atmosphere laden with the exhalations of a large number of sick in other wards, placed in several storeys under the same roof. The cases to which the antiseptic method is strictly applicable are a minority of those admitted to most general hospitals, and the majority, particularly of fevers, lung diseases, &c., demand a purity of atmosphere on their own account, which is difficult to obtain in a multiplication of storeys.

In the United States, in Germany, and in M. Tollet's plans in France, single storeys are preferred for surgical wards on good and sufficient grounds, and two storeys are not exceeded for medical cases.

(*f*) FURNITURE AND FITTINGS OF HOSPITALS.

These should be of the plainest and most simple description, consistent with their fitness for their special uses, and should interfere as little as possible with the free circulation and purity of the air in the wards. Hence all curtains, shelves, cupboards to contain medicines or dressings, and everything else not absolutely necessary for the comfort of the sick, should be prohibited. Foreign observers have remarked upon the cheerless and comfortless look of our hospital wards, but have admitted, after careful examination, that combined with their scrupulous cleanliness, they were, after all, best adapted to secure the successful treatment of disease. The introduction of flowers, pictures, and other amenities to a moderate extent is not only permissible, but beneficial, yet, even in this matter care requires to be taken that they do not diminish the purity of the air in the wards.

To attempt to enumerate the numberless articles of furniture for the sick room now existing, would be a hopeless task. It is sufficient to state generally that all contrivances calculated to secure the most scrupulous purity and cleanliness of place and person, to give ease and comfort to the sick, to arm the surgeon with the instruments best fitted for his work, and to provide the physician with the agencies he needs, should be found in all well regulated hospitals. Those who desire further information on the subject should consult M. Husson's great work, notwithstanding its being now nearly out of date, and should visit the Parkes Museum, in which it is hoped will ultimately be found all the most recent contributions of art and science to this important branch of hospital arrangements.

TYPES OF THE MOST RECENT FORMS OF HOSPITAL CONSTRUCTION AND ARRANGEMENTS.

The great work of M. Husson, the reports of Messrs. Bristowe and Holmes, the treatise of Dr. Oppert, the excellent monograph of Capt. Douglas Galton on the Herbert Hospital, together with many others scattered through our medical and architectural publications, particularly in the *Builder*, under the able direction of Mr. George Godwin, contain detailed and valuable information on the subject of hospital construction and arrangement, up to a late period. In Germany, in Italy, and in the United States of America, there is also a wealth of information for those who seek for further instruction. I must, therefore, content myself with a very few typical examples, bringing the question up to date, to show how far the principles now accepted, are being carried into effect.

Some authorities who have written wisely and well, after long practical acquaintance with hospitals, have doubted whether they were blessings or the reverse to the sick poor from the heavy, and in some cases lamentable, risks to life incurred by those resorting to them. One of them, apparently despairing of their ever being so constructed and managed as to diminish those risks adequately, has even recommended their entire abolition. More than one other, of the greatest eminence amongst authorities, is of opinion that the hospitals of the future should be constructed of temporary materials, so as to be destroyed and renewed every ten years without undue cost, and that no more money should be squandered in building palaces which rapidly become abodes of disease and death. The celebrated Paul Dubois in 1855 declared before the Academy of Medicine in Paris that a woman would incur less danger to life in being confined unaided in the streets, than in being delivered in the Maternity or the Clinique.

The perverse and persistent disregard of the true principles involved, which have been pointed out for more than a century, justified this gloomy view, particularly in Paris, where some of the practices still pursued would be a reproach to the heads of the profession in that city, were they really responsible for it. The recent changes made in some of our metropolitan hospitals, in the vain attempt to bring them up to a higher standard than their original defects will admit of, show that those principles are far from being accepted among ourselves; while the enormous cost, and other objections to the new Hôtel Dieu and St. Thomas's Hospital, make it impossible to refer to them otherwise than as examples to avoid.

It is not so with those which I have selected for illustration, from a very wide field. I have purposely taken such as have not as yet, so far as I know, been made known to the profession in England, while they contain the latest expression of opinion on the question. Some of them are costly, and do not wholly adopt the conclusions of the Chirurgical Society of Paris, but they are all essentially advances on the *status quo ante*, as described by Husson, Holmes, and Bristowe, and Oppert, the authorities best known in England. Two of them carry the conclusions above referred to, to their logical result—the Friedrickshain and St. Eloi hospitals.

(To be continued.)

MEMORANDUM
ON

THE RESULTS OF A TRIAL OF CHIAN TURPENTINE

AS A REPUTED REMEDY FOR CANCER OF THE FEMALE GENITAL ORGANS, MADE DURING SEVERAL MONTHS IN THE YEAR 1880, IN WHITBREAD WARD, MIDDLESEX HOSPITAL.

BY J. W. HULKE, F.R.C.S.,
SURGEON TO THE HOSPITAL.

THE Middlesex Hospital has a specially endowed department, founded in 1792, for the reception of patients suffering from cancer. It is open to all applicants, without governor's letter. Once placed on the Cancer Foundation patients acquire the privilege of remaining in the hospital until, as one of the rules quaintly expresses it, "they are relieved by art or released by death." Another rule requires that a record be kept of each patient so admitted, a trial be made of every reputed remedy which on the face of it does not appear likely to prove hurtful, and the results of such trial be made public. It is therefore obligatory on the surgeons in charge of the cancer wards to examine into the claims of all alleged remedies for cancer brought before the profession; and during my tenure of office I have made trial of several escharotics, of condurango, of Beneke's dietetic method, of arsenic applied topically and also exhibited internally, as recommended by Esmarch; and lastly, of Chian turpentine, introduced to our notice as a new remedy for the treatment of cancer of the female generative organs by Professor John Clay in a very remarkable article published in THE LANCET of March, 1880, vol. i., p. 477.

After narrating four most striking instances of its apparent efficiency Professor Clay added the following remarkable words:—"The Chian turpentine appears to act upon the periphery of the growth with great vigour, causing the speedy disappearance of what is called the cancerous infiltration, and thereby arresting the further development of the tumour. It produces equally efficient results on the whole mass, destroying its vitality, but more slowly. It appears to dissolve all the cancer cells, leaving the vessels to become subsequently atrophied, and the firmer structures to gradually gain a comparatively normal condition." Professor Clay found Chian turpentine "an efficient anodyne, causing an entire cessation of pain in a few days," and, as prescribed by him, it appears to have been no less efficient as a hæmostatic. The idea of its selective action upon the cancer cells appears to have been suggested by the copious, thick, ropy vaginal discharge which, concurrently with wasting of the cancer, he found attended its use. Recommended by a surgeon of position in an article in a leading medical journal, supported by the narrative of cases showing rapid improvement, not to say cure, setting forth such a plausible hypothesis of its *modus medendi*, I could not hestitate to try it.

The result of this trial completely demonstrated to my own mind, and convinced all who watched the practice, that Chian turpentine is thoroughly useless as a remedy for cancer, whether of the female generative organs or of other parts. It was administered during several months to several women suffering from uterine cancer. It was not found to check the progress of the cancer, which in spite of it continued its fatal course. In not one instance did the vaginal discharge assume the thick ropy character mentioned by Professor Clay. As a reputed anodyne it quite failed to lull pain, and during its use opium was found indispensable. With respect to its alleged hæmostatic powers, hæmorrhages occurred as frequently and as copiously in women whilst taking the turpentine as in others to whom it was not given.

The trial was begun with some Chian turpentine which had been long in the hospital drug-store. When this was exhausted other Chian turpentine was obtained of a first-class drug firm. The characteristics of the latter agreed closely with those given by Pereira. I was informed that the genuineness of this turpentine was questioned by Professor Clay, who asked for and received a sample of it, and who very courteously forwarded to the hospital a sample of what he considered the genuine article. Upon comparison it appeared that Professor Clay's pure specimen agreed very closely with the turpentine with which our trial had been begun. A fresh supply of Chian turpentine agreeing with Professor Clay's sample was procured, and the trial was continued with this. The formula first employed was that given by Professor Clay, but later the sulphur was omitted. After trying it in uterine cancer it was given to a woman with an epithelioma of the vulva and of the inner side of the thigh at the junction with the trunk, and to another woman with an epithelioma of the back of the thigh. These cancers being open to ocular inspection appeared very suitable for the recognition of its influence, if any, upon the cancerous tissue. It was also exhibited in cases of scirrhus of the female breast, unbroken, and also ulcerated. In not a single instance could any curative influence be discerned. In conclusion it may be added that mastic, the resinous product of another pistacia, has proved in my hands equally valueless as a remedy for cancer.

The following cases are adduced in support of the above opinion. If it should be objected that these and similar cases were too advanced to admit of cure by the Chian turpentine, the objection would hold if by cure is understood restoration of the cancerously affected parts to relatively normal integrity, but if cure is taken to mean arrested growth and waning of the cancerous tissue, and cicatrisation of the ulcer, the objection falls to the ground in face of the explanation offered by the introducer of the reputed remedy, that it acts in an elective manner, seizing on and destroying the cancer cells, since throughout the duration of the tumour cells of every age, from mere germs beginning life to those advanced in senile decay, are to be found.

CASE 1. *Cancer of uterus, fatal, notwithstanding the internal exhibition of Chian turpentine during about three months.*—A wizen-faced little woman, aged sixty, was taken into Whitbread ward on the 12th March, 1880. The uterus was enlarged and fixed; it was so low as nearly to touch the vulva; the cervix was hard, knotty, and ulcerated.

There was a copious ichorous very fetid discharge. The first indication of uterine disorder—pain—was noticed about two years previously. On April 8th she began to take the Chian turpentine mixture, which she continued until July. The discharge was always copious and stinking, occasionally more puriform and less ichorous. Her suffering was so great as to need the free use of opium. She became feebler and thinner, and died on August 14th.

At the necropsy the uterus was found infiltrated throughout with cancerous growth, and the interior converted into a large sloughy cavity filled with stinking pulpy débris. No secondary cancerous growths were detected in any lymphatic glands or other viscera.

In this case the cancer was still limited to the uterus. In the next case it had infected the lymphatics. In neither was there any evidence suggestive of a retrogression of the local disorder.

Case 2.—A very thin, shrivelled, little blonde, aged fifty-eight, was admitted into Whitbread ward on June 3rd, 1880. Her womb was low, fixed, its cervix tuberously swollen and ulcerated. The anterior wall of the vagina was similarly implicated by infiltration spreading into it from the uterus. She had an extremely fetid ichorous discharge, and she suffered very great pain, which was principally referred to the sacrum. In the preceding November she had begun to occasionally lose blood and to feel pain in the womb. (Menstruation had ceased in her forty-ninth year.) Chian turpentine (without sulphur) was ordered to be taken three times daily, and as the severity of the pain continued in spite of this, she had opium at night to procure sleep. The disease continued unchecked, and death ended her sufferings on August 9th. At the necropsy the uterus and other pelvic viscera were found agglutinated. The uterus itself, and structures immediately about it, were involved in cancerous growth, which on section was found in several places broken down and puriformly softened. The iliac and lumbar lymphatic glands were cancerously enlarged and centrally puriformly deliquescent. Cystitis, suppurative pyelitis, and abscesses in the tissue of the left kidney were noted.

Case 3. *Cancer of uterus, treated with Chian turpentine during about three months.*—A cartridge-bag maker, aged fifty, was admitted into Whitbread ward in April, 1880. Her womb was very low in the pelvis, fixed and enlarged. Its cervix was tuberously swollen and ulcerated, and from this a knotty ulcerating infiltration extended into the vaginal walls. She had considerable pain in the sacrum and thighs, and a thin dirty fetid vaginal discharge. The Chian turpentine mixture was ordered to be taken three times daily. This was continued until July without any obvious influence on the progress of the disorder. The free use of morphia was necessary. Circumstances compelled her removal to a parochial infirmary, where she soon after died. Chian turpentine was taken here about three months.

Case 4. *Cancer of womb treated during several months with Chian turpentine; frequent hæmorrhages.*—A patient, aged forty-nine, was admitted in August, 1879, into Whitbread ward. Her womb was low down in the pelvis, and fixed; its cervix was an ulcerated nodular mass, from which a knotty infiltration spread along the vaginal walls, especially the upper wall. She had a copious fetid ichorous discharge, with occasional large losses of blood; and she suffered much pain in the bottom of the belly and thighs; her bladder was irritable. The disorder progressed, and stillicidium urinæ followed destruction of the vesico-vaginal septum. On April 1st, 1880, she began to take Chian turpentine mixture, and continued this until the end of July. The disease progressed, her sufferings increased, she had frequent hæmorrhages, grew feebler, and at length died on Aug. 4th, the immediate cause of death being hæmorrhage. Her relatives would not sanction an examination of the body.

Case 5. *Cancer of womb; frequent and great hæmorrhages; partial removal with scoop; temporary improvement; Chian turpentine given during several months; fatal termination.*—The patient, aged thirty-three, whose raven black hair heightened the ghastly pallor of her face, was admitted into Whitbread ward on March 25th, 1880. Since the preceding November she had had large and frequent losses of blood from the womb. The cervix uteri was a large cauliflower-like mass which bled freely on the slightest touch. The body of the uterus was enlarged, but still movable. She said the hæmorrhages had begun about ten months after the birth of her last and seventh child two years before. As she was plainly dying of hæmorrhage, and the removal of the cauliflower-like mass offered a prospect of checking the loss, it was removed with a Volckman's scoop, with which also the body of the uterus was hollowed out until it was reduced to a thin shell of firm tissue. This large cavity thus made was filled with a plug of absorbent cotton-wool, dusted over with powdered persulphate of iron, with the double object of checking bleeding and causing a superficial eschar. When the latter was thrown off the surface of the wound appeared healthy, and cicatrisation made such quick progress that at the end of a month a small, firm, puckered bluntly conical knob was all that could be felt of the womb. Before long, however, ulceration recurred, and she again began to lose blood. On April 1st she was placed on the Chian turpentine mixture, and she took this with occasional interruptions of a few days until the end of July. In spite of this the disorder progressed and terminated fatally. No examination of the body was permitted.

Case 6. *Cancer of the vulva and thigh; extensive secondary infection.*—Here, the cancer being in part of its extent open to ocular inspection, the case offered an unusually favourable opportunity for studying the influence, if any, of the Chian turpentine on the disorder. A thin, tall, white-haired monthly nurse, aged seventy, was admitted into Whitbread ward on April 10th, 1880. Her left greater labium, the vagina to a height which precluded excision, and the neighbouring parts of the inner surface of the thigh were involved in an ulcerated epithelioma. She had first become aware of the disorder about two years previously, and through false shame had only lately sought assistance for it. Chian turpentine was ordered, and she continued to take it until late in the autumn. The disease progressed, and she lingered on till Feb. 18th, 1881, extensive implication of the lymphatic glands having occurred.

At the necropsy, in addition to the cancerous growth and ulceration in the region already mentioned, the left groin was filled with a mass of cancerous lymph-glands centrally softened, distending the skin, which had ulcerated. The femoral vein was plugged. The left iliac and lumbar and the right inguinal glands were cancerously swollen, and there was a small cancerous knot upon the surface of the liver.

Old Burlington-street, W.

ETIOLOGY AND CLINICAL BEARINGS OF THE GERM THEORY OF DISEASE.

By DR. GEORGE HARLEY, F.R.S.

The Editor calls attention to the following

Note by the Author.—"Reformed speling: This paper is printed without encumbering its words with redundant, and consequently useles, duplicated consonants."

It must be understood that The Lancet does not adopt the method, but simply complies with the request of Dr. Harley.

CHAPTER III.

Clasification of the Germs which produce Human Diseases.

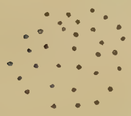
As I shal almost imediately take ocasion to aduce a few facts which tend to the belief that while some of the presently recognised specific species of human disease-germs may in the end turn out to be either mere varieties, or even simply diferent gradational stages in the developmental career of one and the same species of organism, as wel as to show that it is almost certain that other, as yet unknown, species of disease germs wil shortly be discovered, I do not desire it for one moment to be suposed that I subjoin the folowing clasification of human disease-germs as anything more than a tentative one. But I do so, nevertheles, without reluctance, wel knowing that even an imperfect clasification of things always materialy asists in advancing the progres of scientific truth, and I leave it for my readers to value or to condemn it, according to their knowledge and discretion, feeling sure that it wil at least prove useful to both observers and readers until a more advanced stage of our knowledge furnishes us with a beter.

Table of Human Disease-Germs.

(A) Brownian granules: Minute, opaque, solid, moving spherical bodies of the size of 1·50,000th of an inch in diameter, existing normaly in bucal mucous cels, and white blood-corpuscles, and abnormaly in living blood-serum, milk, melanotic mater, and urine, as wel as in al decomposing animal fluids.

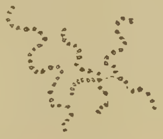
(B) Vibriones: Strings, often branched, of equaly minute particles, in constant motion. Not existing in normal fluids, but only and always in decomposing animal fluids—in or out of the body—such as blood, milk, serum, and urine, as wel as in abnormal living contagious liquids—gonorhœal, syphilitic, ophthalmic, and smal-pox pus.

FIG. 9.



Brownian granules.

FIG. 10.

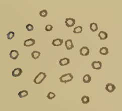


Vibriones.

(C) Micrococi: Homogeneous, spherical pelucent bodies, larger than Brownian granules, usualy floating free, either singly, in groups, or like vibriones in bead-strings. Found under pathological conditions, such as in sheep-pox and smal-pox pus, as wel as in the living blood itself in smal-pox and putrid fevers, and in pus of supurating wounds. In diphtheritic deposits numbers of micrococci are found (Oertel, Klebs, &c.) as wel as in the lymphatics and lymphatic glands of diphtheria. Nepveu found micrococi in the blood (*Jahresbericht*, 1872, i., p. 254), and Orth in the bulæ of erysipelas (*Arch. Exp. Path. u. Pharm.*, i., p. 81).

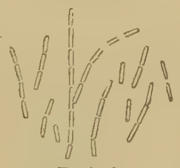
(D) Bacteria: Sausage-shaped germs, sometimes ocuring singly, frequently in longer or shorter strings, like strings of Cambridge sausages—sometimes jointed. Met with in the living fluids under pathological conditions, and among al decomposing animal maters (in the blood of chicken-cholera and catle-plague, Pasteur says). Birch-Hirschfeld thinks the unhealthines of a wound is in proportion to the number of bacteria it contains. He says that he also found them in the blood of pyæmia, but as he speaks of them as being spherical (= microsporon septicum), his remarks have reference to ordinary micrococi.

FIG. 11.



Micrococi.

FIG. 12.

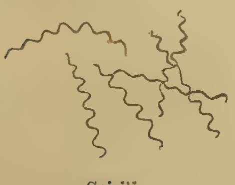


Bacteria.

(E) Spirili: The name of spirili has been given to a species of long hair-like germs of not more than 1-3000th of a line in diameter, of a corkscrew-like form. Like vibriones, they are generaly found in active movement, and have been detected as special organisms in the blood in cases of "woolsorters' disease" and relapsing fever.

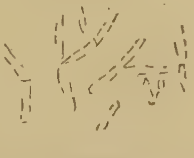
(F) Bacili: Baton or short rod-like germs, of which there are three distinct pathological varieties, although they are exactly the same in apearance, sometimes ocuring single, sometimes double, sometimes multiple, sometimes branched. The varieties are respectively named bacilus malaria, bacilis anthracis, and bacilus septicæmia.

FIG. 13.



Spirili.

FIG. 14.



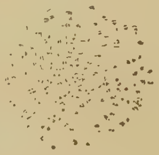
Bacili.

N.B.—When germs are grouped together, and closely-packed into bundles, they are caled a zooglœa.

Lastly, though not least, I ad to them—

(G) Germ-spawn, of al kinds, a fine granular mater, frequently spoken of as clouds of granular débris, which, although infinitesimaly minute, has nevertheles specific pathological characters, and is always visible in al fluids containing mature germs, in which the germs are seen floating in it as if in a cloudy sea when examined under a twelfth of an inch lens. It is even generaly to be readily seen with a good eighth and a proper ilumination. It is met with wherever mature germs exist, and is easily found in decomposing liquids, such as blood, urine, and milk, as wel as in softening tubercle, cancer, &c. Although the various kinds of spawn are entirely indistinguishable from each other by the microscope, they are nevertheles organicaly distinct in their nature, for when injected into healthy animals, they each give results acording to their special kind—smal-pox causing smal-pox, tubercular causing tubercle, putrid blood causing fever, &c. &c. It canot surprise us that al germ-spawn is alike in apearance when we know that the formative cels in almost every bird's eg, fish roe, and animal's ovum, are alike, and yet that each eg, roe, and ovum develops acording to physiological law into a diferent species of mature animal.

FIG. 15.



Germ-spawn.

As is seen in the above table of germs, I make a distinction between Brownian granules and micrococi, vibriones, and bacteria, which many observers imagine are only diferent stages of development of the same organisms. Therefore, lest my opinion should mislead, I must here throw out a word of warning, especialy to the young observer of microscopic organisms, and that is, never hastily to jump to the conclusion that he has discovered a new species when he encounters a family of germs difering either in color, size, or form from those that have been already described, for just as the black and the white turkey, the tiny Shetland pony and the gigantic dray-horse, the tailes [? tail-less, ED. L.] Manx cat, and the long-tailed Londoner, the nut-sized wild turnip, and the enormous field swede, the standard and the drooping ash, in spite of their respective disimilarities, are each in its turn mere varieties of the same species, the results of feeding and breeding; so in many instances the variations in the size, color, and form of microscopic organisms are but the result of a changed habitat and an altered diet. Or, perhaps the variety in size, form, and color may be the mere normal result of diferent stages in their progresive development, just as we notice strange mutations ocur during the life history of the comon parasitical tapeworm, which apears as a measle at one time, a globular hydatid cystic at another, and a long segmented tapeworm at a third. In fact, I am not at al sure that some observers do not think that, even in spite of vibriones (chain-like granules), micrococi (spheroidal bodies), bacteria (sausage-shaped elements), and spirili (corkscrew-like filaments), not only difering in form, but in pathological properties, they may perhaps in the end turn out, like the hydatid and the tapeworm, to be mere gradational morphological forms of development of the same organism, and their difering pathological results be found to be entirely due to the situation they grow in and the food they eat. In a paper comunicated by Dr. George Thin to the Royal Society (March 3rd, 1881), it is said that in cultivating bacteria artificialy he had seen the circular spore or cocus elongate into a rod, then a long rod, and finaly change into a tube, and become filed with new spores or coci. Moreover, he noticed that they sometimes changed their color by taking into their interior the pigment in which they grew. Koch had already (in 1876) made known the fact that vibriones, and chains of micrococi, break up into separate spheroidal germs.

However, it is stil an undeniable fact that there do actualy exist a variety of kinds of diseased germs difering not only morphologicaly, but also stil more, as shal be shown presently, in the pathological efects they produce; equal care is necesary to prevent the young observer from shipwrecking his bark on either shore of the somewhat intricate germ chanel. For be it noted that we never by any chance hear of a typhoid infection germ under any circumstances inducing scarlet fever, or a scarlet fever infection germ in any case whatever leading to an atack of smal-pox; while on the other hand, although we may have measles mixed up with scarlet fever, and scarlet fever with diphtheria, it does not, I think, in any way prove that it was one species of germ that gave origin to the two kinds of diseases, but merely that the patients so afected have at one and the same time become inoculated with two entirely diferent forms of disease germ.

Nay more, I shal presently aduce evidence to show how diferent germs, though introduced into the human body at the same moment and in the same fluid—as hapens when syphilis or glanders is introduced along with vacination lymph—wil hatch, develop, multiply, and run through their whole pathological career, not only quite independently of each other, but without even so much as interfering in the slightest degree with either the course or with the efects of each other.

As I have a good deal more to say on this subject I shal leave it for the present.

Lest, notwithstanding al this, some of my readers may stil think that in the case of such exceedingly minute organisms, many of which are almost morphologicaly identical, it is drawing too fine lines of distinction to give them diferent names, I may as wel inform them that this has not been done on insuficient grounds, as they wil be able to judge for themselves when I tel them that there is quite as great a diference between the constitutions even of two kinds of bacili—notwithstanding their aparent morphological identity—as between a tiger and a zebra, two animals closely resembling each other not only in size and in form, but in having a tail, four legs, as wel as in having striped skins, yet each has, nevertheles, an entirely diferent constitution; for while the one can only subsist on vegetable, the other can only exist on animal, food. Quite as great a diference in constitution is found in two kinds of bacili. For while the bacilus septicæmia flourishes luxuriantly in an infusion of hay, it perishes at once in the serum of the blood of a living animal; while the bacilus anthracis refuses to develop in hay infusion, yet grows and multiplies apace in living blood. What is the food of one germ thus apears to be the poison of the other; yet, strange to say, notwithstanding this aparent disimilarity in constitution, both the septicæmic and anthracic varieties of bacili grow and thrive in a dilute watery extract of muscle. So it must be admited that even as regards their food they poses [? possess, Ed. L.], at least, some points of afinity. In a paper in the *British Medical Journal* of 1880, Lister says that Buchner having observed that spores never formed by the bacilus growing in defibrinated blood, it ocured to him that, perhaps, if it were transfered to extract of meat, and induced to form spores there, the modified organism might yet grow in the blood of a living animal. The carying out of this idea was crowned with suxes [? success, Ed. L.], and, both in the mouse and in the rabit, Buchner suxeeded in producing disease by injecting various diferent quantities containing the organism into diferent animals. When large quantities were introduced the animals died rapidly from the merely chemical toxic efects of the injected liquid; but, in some instances, after the period for these primary efects had pased away, a fatal disease supervened, atended, as in anthrax, with great sweling of the spleen, the blood of which was found peopled, as in that afection, with newly-formed bacili, and the constituents of their spleens afected in this way were found to comunicate anthrax to healthy animals, just like those of animals which had died of ordinary splenic fever.[1] The bacilus malaria is said by Klebs and Tommasi-Crudeli (1879) to infest the soil in the malarial districts round Rome, and when introduced into the bodies of healthy rabits to induce in them an intermitent fever, while Marchiafava has suplemented these observations by saying that in cases of fatal malarial fevers he has found bacili in the blood. There is yet another kind of (an unamed) bacilus, which has not only been met with in the false membrane of the fauces, but in the kidneys and urine in cases of diphtheria.

Nearly al pathologists now admit that although the bacilus anthracis is undoubtedly the cause of woolsorters' disease and splenic fever, and the bacilus septicæmia that of metastatic absceses, the one form of germ has no efect whatever in producing the other's form of disease. So I think that none of my readers wil longer hesitate to acknowledge that although the diferent bacili have identical microscopic characters, they are esentialy diferently constituted forms of disease germs, and consequently have a right to be distinguished by diferent names.

Again, while bacteria and micrococi closely resemble, except in size, Brownian granules and vibriones, the later are generaly to be found in active movement, the former are not. Brownian granules ocur in healthy tisues, micrococi never do. While bacteria are abundantly met with in contagious pus, micrococi are only comon in what is caled laudable pus, such as is obtained from supurating wounds and acute absceses.

It must not be suposed that visible germs must be necesarily found in al purulent, and other kinds of contagious fluids. For, on the contrary, in vacine lymph, for example, it oftentimes hapens that none are to be detected by the microscope. In such contagious fluids I believe that the germ-spawn is alone present, and that unles germ-spawn were actualy present the comunication of disease by the lymph would be entirely imposible. Even in the pus of thirteen typical chronic—so caled cold—absceses, whose duration could be measured by months, and which arose from diseased bones, scrofulous glands, &c., Dr. Ogston says that he could find no germ organisms, although in pus found in other kinds of absceses, he detected them readily (*Brit. Med. Jour.*, 12th March, 1881). Although every medical man knows, or at least ought to know, that the most benign and healthy physiological materials may become malignantly pathological, from either ocupying an abnormal situation, or even a normal situation in an abnormal quantity, it may be as wel for me here, in conexion with the germ theory, to ad a fact not as yet suficiently recognised—namely, that the law that healthy mater when out of place is a morbid product must never be lost sight of in studying by experiments on animals the pathological action of germs. Thus, for example, although Brownian granules are not only harmles, but actualy normal constituents of the bucal secretions, they are not only abnormal but virulent pathological products when placed in the subcutaneous celular tisue. As before said, Brownian granules, in active living movement, are to be met with both in the normal mucus cels of the saliva and the white corpuscles of the blood[2] in perfectly healthy individuals. This was first demonstrated to me six-and-twenty years ago by Profesor Bischoff, one day when I was caling upon him in Giessen, puting some of the saliva from his own mouth under the microscope, and showing me the Brownian particles in active movement in the mucus cels. Strange to say, we failed, on the same ocasion, to find any in active movement in the mucus cels from my own saliva. (N.B. The movement is only visible under a high power, and the higher it is the more distinct it is.) Brownian particles in active movement are not only met with in putrid fluids, but in abnormal quantity in living fluids in disease. I particularly observed this in a case of pyæmia, where there was present an imense exces of white corpuscles in the circulation. I say white corpuscles; but I might have caled them mucus corpuscles or even pus cels, for in so far as their apearance was concerned they had as much right to be caled the one as the other. For had I seen the same cels in saliva I would have caled them mucus corpuscles. While had I seen them in fluid taken from an absces I would unhesitatingly have named them pus cels, and it is only because I found them in blood that I have caled them white corpuscles. Anyhow, they contained an unusual quantity of moving Brownian granules.

Hence we see it is not always the mere presence of germs, but the *quantity* of the germs in the situation which gives to them their pathological significance. The presence of Brownian granules and vibriones in living fluids and tisues, again, is always to be regarded as evidence of morbid action. For, although always to be met with in normal animal fluids—blood, milk, urine, &c.—as the result of decomposition out of the body, they are never met with in any quantity in the living tisues or fluids except as the result of disease. Brownian granules, for example, swarm in melanotic cancerous tisues. While, again, in cases of pyæmia they are abundantly met with in the living circulating blood. Saliva contains a ferment which turns starch into sugar, and most probably this ferment is the viable, active Brownian granules it contains.

The fact above aluded to, that healthy mater out of place is an abnormal pathological product, has recently received remarkable confirmation by the experiments of Vulpian, who, in a note to the French Academy, says that he injected under the skin of rabits saliva colected at the very moment of the experiment from perfectly healthy individuals; and this injection kiled the rabits so inoculated in forty-eight hours. The blood of these rabits was found filed with microscopic organisms, among which was found a special organism, discovered by M. Pasteur in the course of his experiments with inoculation of the saliva of a child who had died of rabies. One drop of this blood, diluted in ten grames of distiled water, and injected under the skin of other rabits, also brought on the death of these animals, the blood of which was similarly filed with microscopic organisms; while other rabits, not in the same way predisposed to the pathological efects of the saliva germs, when operated on under identical conditions with the same saliva, experienced no il efects from their inoculation.

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[1] See Ueber die experimentele Erzeugung des Milzbrandcontagiums aus den Heupilzen, von Haus Buchner. München, 1880.

[2] Those Brownian granules met with in blood corpuscles have received the name of hæmococi by some, microzymes by others; but I prefer to retain the original name of their first discoverer.

Now, although not a single word is here said about Brownian granules, as these are the only living micro-organisms normaly existing, as I have just shown, in human saliva, I have no doubt it was owing to their breeding and multiplying abnormaly in the subcutaneous celular tisue of the rabits that induced their death. The probability of this being the corect theory wil become more aparent as we proceed with the consideration of the life history of microscopic germs.

There are three forms of disease in which the saliva asumes most virulent characters—glanders, rabies, and syphilis; each of which is due to the development in it of an entirely diferent specific germ organism. Numbers of other very comon afections might be pointed out as being due to specific forms of disease germs; as, for example, an influenza cold, which is wel known to be such an infectious disease that even if a cat begins to sneeze from it the chances are that it wil soon spread itself to every human member of the household. It is said by some Frenchmen to be due to the fungoid mould caled the Coprinus domesticus; while the comon thrush in the mouths of children—the "muguet" of the French—is thought to be due to the Botrytis basiana, the same kind of fungus which produces the potato blight and the vine disease, as wel as the epidemic cutaneous diseases of salmon and silkworms.

It must not be for one moment suposed that we are already acquainted with al the diferent species of disease germs, and that al morphological forms subsequently to be met with are to be regarded as mere varieties of known forms; for, on the contrary, I opine that many more "perfectly distinct species" may yet be discovered. For example, the milk from a dairy belonging to a reformatory school of over 150 boys, near Aberdeen, in the begining of April, 1881, apears sudenly to have become impregnated with poisonous germs, for within a few days ninety families who received their milk from the reformatory where the cows were kept were afected with what apeared to be a new disease. Over three hundred persons were atacked, and only twenty of the families suplied with milk escaped. No case of the disease was found in any family that did not receive its milk-suply from the reformatory dairy. The persons were atacked with severe rigors, which might last several hours, or even for a day; these were folowed by marked febrile symptoms. The tonsils were slightly enlarged, but there was no false membrane; and a marked feature was the sweling of the lymphatic glands of the neck and those imediately above the clavicle. The prostration was extreme. The febrile symptoms pased of in a few days; but in a great many cases there was a suden relapse, and the relapse was often more severe than the primary atack. In a few cases the atack was slight, but it proved fatal in three cases where the patients were old and trail, and unable to recover from the prostration. A peculiarity was that the oficials of the reformatory were afected, while the boys almost entirely escaped. The boys got skimed milk while the oficials were suplied with sweet milk. The suply of milk was ordered to be stoped, and the spread of the disease stoped as sudenly as it began. Comisioners investigated the mater, and the evidence clearly showed that the water-suply to the dairy-farm was not satisfactory, for al the water for the cows came from a large and practicaly uncovered cistern, which was placed in the byre where thirty cows were kept. The water, on being analysed, was shown to be bad, but stil that was not suficient to show how the disease originated. It was not shown that this water was aded to the milk, though some of the milk-pans may have been washed with it. The comisioners—Mr. Andrew Rutherford, advocate, and Dr. H. D. Littlejohn of Edinburgh—say on the authority of Profesor Ewart, who examined the milk microscopicaly, that it contained micrococi and bacteria organisms, which seemed in some respects to be of a character entirely new to science. But, as far as the evidence went, they declined to say how these organisms came into the milk. A post-mortem examination was made of the body of one person who died from the disease; but no organisms were found either in the blood or in any of the tisues. Nor were any organisms found in the blood of patients sufering from the disease.

After what was said regarding the variations in form of microscopical germ organisms, the above idea of the species found by Profesor Ewart being "entirely new to science" requires coroboration before it can be implicitly axepted. The only colateral suport it has is in the fact that the pathological symptoms, the organisms produced in the persons they afected, were in themselves of such a most unusual and anomalous kind as leads to the belief that in al probability their exciting cause was equaly uncomon. Further and more complete investigation wil alone reveal the truth.

The next chapter wil be on the Incubation of Disease, and the causes of long intervals of quiescence ocuring between the cesation of one and the outburst of another epidemic of the same kind in the same district.

ON SOME

RARE FORMS OF DISEASE, ACCOMPANIED BY LESIONS OF TROPHIC NERVES OR TROPHIC CENTRES, AND ILLUSTRATIVE OF TROPHIC CHANGES.

BY WILLIAM ALEXANDER, M.D., F.R.C.S.

(Concluded from p. 987.)

MY next two cases illustrate trophic changes produced by lesions of the cortical substance of the cerebral convolutions.

CASE 3. *Sloughing of nose and part of face, the result of a cortical lesion of the brain; death; post-mortem.*—J. O——, aged forty-eight, a labourer, admitted June 15th, 1878, with sloughing of the right cheek and right side of the nose, the result of an attack of erysipelas which began a month ago. As the sloughing process was proceeding rapidly, the diseased tissues were removed completely by the thermo-cautery. This apparently stopped the unhealthy action, granulations soon covered the right cheek, but the bones of the nose were bare, and the nostrils perforated just below the nasal bones from the complete destruction of the upper lateral cartilages. The margins of the nostrils were intact. On August 26th, 1878, a plastic operation was to have been performed, but the wound was found to be slightly phagedænic and the patient feverish, in consequence of which the operation was postponed. A fortnight afterwards a new nose was made from the skin of the forehead; the flap united well, and a small ulcer on the cheek was almost healed by the end of September. In the beginning of October sloughing recommenced beneath and to the right of the flap, which became detached by the destruction and liquefaction of the subjacent and adjacent tissues. The nasal mucous membrane poured forth a profuse and most fetid discharge, and the patient sank into a state of semi-coma, with low muttering delirium and typhoid symptoms. The fetor was so great that removal to a small separate ward became necessary for the comfort and safety of the other patients. In a week, and after being moribund for three days, the symptoms of death abated, and by Nov. 20th the ravages produced by the sloughing were being repaired. The flap was still healthy, though shrunken, and was becoming attached to the neighbouring granulations. On December 5th the patient passed an uncomfortable night, with pains and cramps in the stomach and bowels, and next morning the wound was sloughing. In a few days all was again going on well. On the night of January 16th, 1879, the key to the mystery was discovered. The nurse on going into the ward noticed the patient to be shaking, and on approaching nearer she found him "working" in a fit. On awaking he complained of pain and cramps in the stomach. Next morning, on being closely questioned in regard to the fit, he declared that he had had fits for the past thirteen years, ever since he received a blow upon the head. On looking at the spot indicated, a small depression could be felt on the left parietal bone, rather posterior to its centre. He never recovered from the effects of the fit on Jan. 16th, but gradually sank into a state of coma and low delirium, and died on March 4th.

A post-mortem examination showed that the depressed fracture pressed internally by a sharp protuberance upon the middle of the ascending parietal convolution, and slightly on the convolution in front and behind. An area about the size of a shilling, and apparently not deeper than the thickness of that coin, was greyish and softened. Strange to say, a small patch of grey softening was found on the opposite side of the brain. The remainder of the brain was healthy. The nasal mucous membrane was thick, ulcerated, and sloughy, and the nasal bones carious. All the organs of the body were examined, but do not call for further remark.

Remarks.—It may be reasonably assumed that the original disease for which the patient was admitted to hospital was sloughing of the side of the nose and cheek, excited by a trophic disturbance, emanating from a cortical lesion of the brain. Whether convulsions always accompanied the explosion that ended in such severe trophic mischief it would be impossible to say. Pains and cramps followed the fit, and were always complained of just before the destruction of tissue began. The area of sloughing corresponded with the area of distribution of the superior division of the fifth nerve on the face and in the nose, and on each occasion the destructive action was limited to the same spot. Motion and sensation were unaffected after the removal of the sloughs, and healing always proceeded rapidly, so that the destructive action was temporary in duration and the nervous action of the affected part perfectly normal in the intervals. From a surgical point of view, the case is extremely interesting. The history was unknown till the knowledge of it was useless, and yet, had it been known before, although the connexion between the depressed fracture and the sloughing might have been strongly suspected, the suspicion would scarcely have warranted operation. In a similar case a favourable result might, with confidence, be expected from the use of the trephine.

Avoiding all bearings of the case upon cerebral location and trophic centres, I shall now narrate a case where the diseased action was less violent and more continuous, and where decided relief resulted from operative interference.

CASE 4. *Tertiary syphilis with necrosis of skull and intractable ulceration of the left ala nasi and left half of upper lip; ulceration; cured by removal of part of the diseased calvaria.*—Ellen S——, a prostitute, aged thirty-six years, was admitted to the hospital November 8th, 1876. Has had one child, which was killed by an omnibus running over it. Has suffered from venereal disease for two years. At the time of admission necrosis of the left lower jaw of the upper central region of the frontal bone and of the hard palate was taking place. Besides, she was suffering at the same time from ulceration of the tonsils, and raised, circular, copper-coloured spots could be seen on both hands and arms. On January 15th, 1877, a sequestrum was removed from the diseased jaw. On February 12th another sequestrum had come away from the hard palate, leaving an oval-shaped hole about its centre, and on March 12th a piece of the outer table of the skull came away. In the frontal region, the necrotic and reproductive changes now came to a standstill, and for months no alteration was apparent in the worm-eaten patch on the forehead. During this time the left upper lip and the inner and upper part of the left thigh were the seat of deep ulcerations. These subsided by February, 1878, when a small, painful, flesh-coloured tumour formed in the urethra, causing much depression and mental distress. This was removed on May 28th, but the resulting ulcer healed slowly and was ultimately cured by the retention of a zinc-alum point in the urethra for some hours daily. She had now a rest from active disease for a few weeks, but in 1879 the lip and calvaria became again the seat of active disease. In the former ulceration of the soft parts only, and in the latter the scalp and calvaria were both affected over an area that included the vertical plate of the frontal bone, and the anterior two-thirds of both parietals. In December the frontal sequestrum and part of the parietal were forcibly elevated from the neighbouring parts, and were found to consist of both tables. Beneath it was a quantity of pus lying upon a thick membrane which moved with the pulsations of the brain. It should have been mentioned that the ulcerating process in the lip was accompanied by much pain. Next day this pain had completely disappeared, the "angry" appearance of the part was markedly less so, and in a few days the ulcer was completely cicatrised. Afterwards the greater part of the parietal sequestrum was removed with the exception of a few small pieces which came away some time after in the dressings.

This case is interesting from a syphilitic point of view, but its narration in this connexion is intended to illustrate a fact pointed out several years ago by Mr. Lane, that ulcerations of certain parts of the face, intractable to treatment, heal rapidly when necrosed bone is removed from the calvaria. He recommended the surgeon to assist nature in such cases in opposition to his contemporaries, who thought it better to allow nature to take her own course.

No doubt in this case the brain beneath was irritated on the right side (and probably nearly in the same region as in Case 3) by pressure of the pus beneath the bone, and instead of lesion of motion or sensation the result was a painful ulceration. Where such a connexion is suspected operation is called for, but if the necrotic processes of the calvaria are proceeding innocuously the operation is not indicated, and cannot, except towards the last, hasten recovery.

Liverpool.

WOUND OF ABDOMEN, WITH PERFORATION AND PROTRUSION OF INTESTINE; RECOVERY.

By HENRY WILLSON, M.R.C.S.,
SURGEON TO THE ROYAL SOUTH LONDON DISPENSARY.

ON December 14th, soon after midnight, I was summoned to E. D——, aged twenty-two, who was stated to have been stabbed. I found her supported in a chair in a semi-collapsed condition, with frequent retching. Examination revealed a clean incised wound, one inch and a half long, in the left hypogastric region, extending upwards and outwards in a line parallel to the fibres of the external oblique muscle. From the wound about two feet of small intestine were protruded, the bowel being scratched in one part and divided through half its circumference in another, the rent almost exactly corresponding in size with the external wound and with the incisions through the clothes, which were afterwards examined. The wound of the intestine was on the side distant from the mesentery and very little bleeding took place from it, but the contents of the bowel, of a semi-fæcal character, escaped slightly every time the patient moved. As she was cold and almost pulseless, I decided to do what I could for her without the risk of removal, so, having covered the protruded intestine with warm wet cloths, I left her in charge of my assistant and fetched my friend, Dr. Cyril Jones, who, fortunately, was provided with some carbolised catgut, with which the wound in the intestine was united by a continuous suture. It was found impossible to reduce the bowel till the external wound was enlarged, so chloroform was administered and the abdominal wall slit up for about three-fourths of an inch, using the finger as a director. The intestine, by this time highly congested and cold, was returned with some difficulty and with grave doubts as to the patient's survival. The edges of the external wound were brought together with silk, and a dressing of lint with carbolic oil applied. Small doses of brandy-and-water were administered with marked benefit. As she presented all the appearances of impending collapse, her depositions were taken by the inspector of police. She soon felt great pain in the seat of the injury and in the umbilical region, vomiting was persistent, tongue dry and thirst intense, pulse 120, very small. A grain of morphia was placed in the rectum, and teaspoonfuls of milk and soda-water given frequently, with small pieces of ice to suck. At 4 A.M., I left her, scarcely expecting to see her alive again. During the day she continued with all the symptoms of peritonitis: knees drawn up, abdomen tense and painful; pulse 130, temperature 102°; vomiting continuing, but not so severe.

Dec. 15th.—Condition much the same; vomiting not so frequent; only teaspoonfuls of milk and soda-water retained. After some hæmorrhage from the vagina, an abortion of about three months was expelled, the continuous flow of dark blood causing a suspicion that the uterus had been injured. Wound looking healthy.

Dec. 17th to 19th.—Peritonitis continuing; pulse 130; temperature varying between 102° and 104°. Wound began to gape, and edges very inflamed; suppuration copious. Diet the same, in very small quantities. Morphia suppositories used freely, and nourishing injections given.

From Dec. 19th to the end of the month she continued in a varying condition. The wound gaped from the abdominal tension, and the sutures all gave way. It was impossible to replace them, because of the adhesions that had formed with the parts underneath, appearing to be partly intestine and partly omentum. She frequently vomited, and many of the injections returned. She became very emaciated, and exhaustion constantly threatened. Suppuration was severe, the matter appearing to well up from the peritoneal cavity, and several superficial abscesses formed, the most severe one being over the pubes. These were poulticed and the wound dressed with carbolic lotion and marine tow. The uterine hæmorrhage was occasionally severe. No blood escaped from the rectum with the exception of one small hardened clot, which came away with an injection. The bowels first acted on the eleventh day. The first motions were hard and natural; they afterwards became loose, and resembled thick paint. During the last days of the month she swallowed and retained eggs and milk, and the motions became more copious. She also took teaspoonful doses of mixtures containing liquor opii and home-made chlorodyne.

Early in January, the suppuration continuing severe, and the wound still gaping, I feared that protrusion of bowel might again take place, and recognising the necessity of prompt action in case of such an accident, my friend Mr. Golding-Bird kindly found her a bed in Guy's Hospital; but when all arrangements had been made, she refused to be moved, so she continued under the kindly, but decidedly amateur, nursing of her mother.

From Jan. 8th to Jan. 15th large pieces of curdy matter, the shape of fæces, escaped from the wound, with increased suppuration, but she now took nourishment freely, and her pulse and temperature had become almost normal, the bowels acting about three times a week, the motions being mostly natural.

Jan. 16th.—I was able for the first time to pronounce her out of immediate danger.

17th.—I found her, without my permission, sitting up in bed eating stewed rabbit; wound smaller and granulating; discharge less; another abscess forming over pubes.

18th to 25th.—Patient improving; eats fairly.

From Feb. 1st she gradually improved, and is now in perfect health, suffering no inconvenience or pain in the bowels. She wears an abdominal belt, and is enjoined to be careful not to over-exert herself.

It is noteworthy that the patient should have recovered in the face of so many dangers—viz., the serious injury and peritonitis, the abortion and hæmorrhage, the hurried operation performed by the light of guttering tallow candles, held in our fingers, in a dirty, ill-ventilated room, without antiseptic precautions, or even proper cleanliness, and no skilled nurse to carry out my directions then or afterwards. The morphia suppositories, employed largely at first, were most useful in quieting the nervous system, and keeping the bowels at rest. Much of the good result was owing to the valued assistance of Dr. Jones, and the unremitting care of my assistant, Mr. J. V. Young.

Great Charlotte-street, S.E.

ON THE

EMPLOYMENT OF ENEMATA INSTEAD OF PURGATIVES FOR THE RELIEF OF CONSTIPATION IN ENTERIC FEVER.

BY JAMES W. ALLAN, M.B.,
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IN the following brief note I shall call attention (1) to the objections against the use of purgatives in enteric fever, and (2) to the advantages of enemata.

OBJECTIONS TO PURGATIVES.

OBJECTION 1. *Purgatives may irritate the stomach.*—In enteric fever, as in most febrile disorders, the stomach is easily irritated and upset. It is therefore a matter of great consequence to spare the stomach any needless disturbance, so as to preserve it in the best possible condition for the performance of its function—namely, digestion. Stomachal digestion is of special importance in enteric fever, where we wish to spare the intestines as much work as possible. Again, it must be borne in mind that even mild purgatives, such as castor oil, may induce nausea and vomiting, and the latter, as we are aware, may be attended with the possible danger of intestinal perforation in the advanced stages of the disease.

OBJECTION 2. *Danger of inducing troublesome and exhausting diarrhœa.*—I am satisfied that the indiscreet use of purgatives in enteric fever may give rise to severe and injurious diarrhœa, which may rapidly exhaust the patient, partly by the loss of fluid, and partly by the fatigue of frequently going to stool. It would appear that in some cases of enteric fever a purgative may give rise to sudden and startling prostration.

OBJECTION 3. *Danger of inducing hæmorrhage.* — It cannot be overlooked that if we give purgatives which will throw the ulcerated small intestine into violent action, by so doing we run considerable risk of starting intestinal hæmorrhage. When we call to mind the condition of Peyer's patches in the advanced stages of the disease, it will be apparent that this danger is not a chimerical one.

OBJECTION 4. *Danger of causing intestinal perforation.*—The reality of this danger will also become evident to anyone who reflects on the fact that the bowel may become so thinned by ulceration as to give way readily under the influence of anything approaching to violent action. It is perhaps unnecessary to point out that intestinal perforation attended by passage of fæcal matter into the peritoneal cavity practically means death for the patient. Now, when we reflect that this irritation of the stomach and small intestine is not only useless, but dangerous when we reflect further that this annoyance and risk are incurred in order to cause the evacuation of the rectum, and when we remember that the rectum can be at once relieved without this objectionable roundabout method, it seems to me that enough has been said to condemn the use of purgatives for the relief of constipation in enteric fever.

ADVANTAGES OF ENEMATA.

1. *The enema accomplishes all that you want—namely, the evacuation of the rectum.*—It is in the rectum that we find the hardened fæces which give the poor patient so much misery and distress. The accumulation of hardened fæces in the rectum is a fertile source of mischief and suffering to the enteric patient. If he is afflicted with hæmorrhoids the passage of such a motion gives rise to agony, and it may be loss of blood. The better plan is to avoid this mischievous state of matters; but when the evil has occurred, the quickest and most effectual means of relief is the administration of a copious enema of warm water and soap, with the addition, perhaps, of olive or castor oil.

2. *The relief is practically immediate.*—This is a matter of great importance. You wish to get rid of the source of irritation at once.

3. *The relief is obtained without any disturbance of the higher portions of the alimentary tract, as a rule.*—In conclusion, I do not mean to say that the use of mild, or it may be severe, purgatives in the treatment of enteric fever must necessarily be followed by fatal results, or even alarming symptoms; but I do mean to say that the practice is fraught with danger, especially in the advanced stages of the disease; and I contend that by the employment of enemata we attain our object without subjecting our patient to unnecessary suffering and danger.

NORTH - WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The annual meeting of this society was held in Manchester on the 16th inst. Dr. Kenyon of Chester succeeded Dr. McNicoll as president, Dr. Hughes of Ashton-under-Lyne was elected vice-president, Dr. Pettinger of Stretford, treasurer, and Dr. Vacher was re-elected secretary. The new President read a paper on "The Medical Officer of Health and his Work," in which he alluded to the immense advance recently made in the microscopic pathology of infectious diseases, as affording a prospect of mitigating the ravages of such diseases as measles and scarlet fever. The subject of the contamination of milk then came on for consideration, and it was agreed that Dr. Vacher should be asked to prepare a paper on it, to be read at the next meeting, and in which should be embodied the proposals contained in a memorial on the question to be sent to the President of the Local Government Board.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—Morgagni *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

COLLOID CANCER OF RECTUM; SUCCESSFUL COLOTOMY; SUBSEQUENT PERFORATION AND SUPPURATION OF CÆCUM; PERITONITIS; DEATH.

(Under the care of Mr. Bryant.)

For the following notes we are indebted to Mr. Wright.

Alice W——, aged twenty-five, a barmaid, was admitted into Lydia ward on July 20th, 1880. Seven months before admission the patient was very costive for about a week, and this costiveness was followed by diarrhœa, which continued until February, when a medical man saw her. The diarrhœa frequently recurred. At first the motions were chiefly slime, but for the last three months she had passed clots of blood with fæces, and during this time she had amenorrhœa. She suffered a good deal of pain at night; she looked pale and weak. On pressing the abdomen several hard lumps could be felt, and a growth was discovered in the rectum.

On Aug. 6th, under chloroform, an oblique incision was made midway between the crest of the ilium and the last rib, about six inches in length. The colon was opened, and the edges secured to the margins of the abdominal wound with strong sutures. The edges of the wound were then brought together again. Next day the patient expressed herself as feeling more comfortable; wound very healthy. On the 9th she was much more comfortable. Temperature 99°. On Aug. 11th the temperature was 95·5°. On the 12th the temperature was 97·8°; had a bad night; motion streaked with blood. It was about her menstrual period. Next day she was better again, and fæces passed through the artificial anus. On the 16th she was in a good deal of pain in the abdomen during the night, the pain having come on suddenly over the right iliac fossa. On the 20th she was very ill, and in much pain, which continued all next day. Although a good deal of fæcal matter has passed through the artificial anus and rectum, there was much fulness with tenderness over the cæcum. Under chloroform a transverse incision was made into the cæcum. A quantity of fluid escaped, but nothing hard. A finger was then passed into the opening, and afterwards a director was put in, and a second opening made through the front of the abdominal wall. Patient derived but little benefit from this operation, and died in the afternoon. Relief was given too late.

Necropsy.—General suppurative peritonitis. The anterior wall of the rectum, three inches and a half from the anus, was occupied by a growth running transversely, and occupying two-thirds of the circumference of the bowel. The surface was ulcerated, and showed the growth to be a colloid cancer. In the mucous membrane below the ulcer was a round prominent mass, movable, and covered by mucous membrane. On section, it was a deep red, with translucent patches. The rectum was adherent anteriorly to the uterus and its ligaments, and in two places the wall of the gut was perforated, and little abscess cavities containing fæcal matter existed, bounded by the uterus and broad ligament, and the adhesions. From this situation the inflammation had become general. One ovary was in the wall of a fæcal abscess, and had softened down into a grumous puriform fluid. The operation wound was found healed and healthy. The lumbar glands were involved. There were no secondary deposits.

CARCINOMA OF RECTUM; COLOTOMY; RECOVERY.

The following notes have been furnished by Mr. Row.

Eliza C——, aged twenty-nine, was admitted into Lydia ward on Jan. 29th, 1880. Four months before admission she had much pain in passing motions, which were streaked with blood. A white medicine given by a doctor did not relieve the bowels, but an enema gave relief. About the same time the abdomen began to swell, and became very painful, particularly in the left inguinal region and rectum. Bougies were repeatedly passed.

On admission the patient was very emaciated and feeble. The abdomen was retracted, and scybala could be detected in the left inguinal region. About an inch from the anus a hard mass could be felt constricting the passage of the rectum and preventing the finger from passing. By the vagina the mass was found to extend beyond the reach of the finger.

On Feb. 3rd, under ether, colotomy was performed. On the 7th the patient was comfortable. She had taken milk and soda-water. No motion had passed through the wound, but on the 9th some passed. She took some chicken. On the 15th the wound had healed by first intention. On the 18th she complained of pain in the abdomen, and on manipulation some hard masses could be felt, and there was a hard and tender spot in the inguinal region. On the 20th the patient was in a good deal of pain; the intestines were full of fæces. On the 27th there was pain in the abdomen; scybala very prominent. An injection was given through the artificial anus; nothing passed through the rectum.

On March 11th a large quantity of fæces came away by the artificial anus. On the 17th she went out. She passed motions comfortably by the artificial anus.

On June 5th she was doing well and had gained much flesh.

	Temp. Morn.	Temp. Even.
February 4th	99·2°	99·4°
,, 5th	99·4	99·6
,, 6th	100·0	—
,, 9th	98·6	—
,, 11th	97·8	—
,, 12th	98·2	—
,, 14th	98·4	99 0
,, 15th	—	99·2
,, 16th	98·6	—
,, 18th	98·6	—
,, 19th	98·8	—
,, 20th	98·8	99·1
,, 23rd	98·8	98·9
,, 24th	98·4	—
March 15th	99·8	—

CANCER OF RECTUM; COLOTOMY; RECOVERY.

For the following notes we are indebted to Mr. Row.

Mary Ann T——, aged fifty-nine, was admitted into Lydia ward on Dec. 3rd, 1879. She had a good family history, with no knowledge of cancer. About May, 1878, patient began to suffer from constipation; she had had great difficulty in passing her motions. At night a discharge mixed with blood escaped per rectum. There is no pain in the region of the anus, but for months she suffered from pain across the lower part of the stomach.

On admission, patient was a short, healthy-looking woman. In left inguinal region lumps could be felt, but whether growths or scybala could not be made out. Tongue normal. Oil administered.

On Dec. 9th, under chloroform, an incision was made for colotomy. When the finger was inserted, the part of the colon to be stitched to the side of the wound was found to contain a large scybalum. The needles were inserted through this, and the bowel opened without removing the mass. She was sick several times after the operation. There was no attempt of the scybalum to come through the wound; no bleeding per anum. On the 13th there was no pain or tenderness of abdomen; slept fairly well; wind passes through wound. Fish diet. On the 16th some fæcal matter passed through the wound, and three days later fæces passed through the artificial anus. On the 21st an enema was given per rectum. The fluid came up and escaped at the artificial opening. Next day a mass of well-formed motion was lying outside the artificial anus. Patient appeared very well, but complained that she did not micturate freely. On the 29th there was some fæcal discharge per rectum, which patient said gave much pain. There was also prolapsed colon through the artificial anus, to the extent of about half an inch, about the size of half a walnut. Ordered an injection of warm gruel and olive oil at once and at bedtime.

On Jan. 6th, 1880, fæces passed freely through the wound, which looked very healthy. On Jan. 21st she left the hospital. The carcinomatous growth of rectum was less painful than it had been. She had had a plug made, which kept the upper slightly prolapsed portion of the colon in its place.

	Temp. Morn.	Temp. Even.
December 10th	101·1°	98·8°
,, 11th	99·7	—
,, 12th	99·0	98·0
,, 14th	101·0	101·6
,, 15th	98·0	—
,, 16th	98·8	—
,, 17th	99·7	99·2
,, 18th	98·8	99·0

INTESTINAL OBSTRUCTION; COLOTOMY; RECOVERY.

For the following notes we are indebted to Mr. Underwood.

John E——, aged thirty-eight, a wharfman, was admitted on July 16th, 1880, into Job ward. The patient was married, and the father of seven children. He had scarlet fever in 1866. In 1877 he had diarrhœa, which continued more or less. In November, 1879, he had a good deal of pain, and became costive for a time. A medical man gave him some pills, and the diarrhœa returned, and continued until admission, when it was accompanied with pain, and he applied and was admitted into Stephen ward, from where he was transferred to Job ward. He had had obstruction for about three weeks, and, in spite of medicine, was getting worse. His abdomen was greatly distended and somewhat tender, and his powers were rapidly failing; indeed, he was so low that the propriety of operating was carefully discussed. Mr. Bryant, however, determined to give him the relief which an operation would afford.

Under chloroform left lumbar colotomy was performed, the usual oblique incision being made. He slept well and long; had not much pain next day. On the 24th the discharge had nearly ceased; bowels acted well through anus. On the 28th the edges of the wound were healthy, and healing very nicely; health good. On August 2nd he got up, and on the 11th a belt was ordered. The temperature was normal throughout.

The relief which the operation afforded this patient was striking and rapid. He convalesced without one bad symptom, and when he left the hospital he was quite comfortable.

WANDSWORTH INFIRMARY.

FOUR CASES OF SPINAL CARIES, WITH SUPPURATION NOT PRESENTING EXTERNALLY; NECROPSIES.

(Under the care of Mr. JAMES ALLAN.)

CASE 1. *Caries of dorsal spine; paraplegia.*—William S——, aged sixty-nine, was admitted on Dec. 29th, 1879. In December, 1878, after exposure to cold and wet, the patient felt pains across the lower part of the back. This did not incapacitate him from acting as a messenger until nine months later, when the inferior extremities became weak and dragged slightly. Sensation was impaired; numbness, first noticed in the toes, crept up both limbs simultaneously. He had slight starting of the limbs, chiefly at night, straining on micturition (urine passed most freely in the morning), and soon afterwards constipation. Rapid increase of these symptoms took place during the week preceding admission, but he was not confined to bed. On examination, motor power and sensation of the lower limbs were very limited, and reflex action was increased; there was pain in the lumbar spine; the patient could sit up in bed without difficulty. The urine was normal; bowels constipated. On Jan. 12th he had retention of urine, necessitating the use of a catheter. On the 17th he had complete motor paralysis, with painful starting of limbs. On Feb. 1st incontinence of urine came on; the bowels were moved only by enemata. On the 19th the urine was ammoniacal, and there was a sensation of constriction round the abdomen, together with prominence of one of the lower dorsal spines. On March 19th the skin over the sacrum had given way; there was much pain shooting round the upper part of the abdomen from the level of the two lower ribs; sensation of the limbs was quite abolished; reflex action increased; anorexia. On March 25th the patient died exhausted. He was easiest when propped up in bed; pain was relieved by opium and by small blisters applied near the spine; temperature subnormal.

Necropsy.—Removal of the thoracic viscera exposed at the lower part of chest, two rounded tumours, one on each side of the bodies of the tenth and eleventh dorsal vertebræ; contents fluid, and communicating with each other across the middle line. Incision showed that each contained about an ounce of thick pus, mixed with bone fragments; that the cartilage between the tenth and eleventh vertebræ had disappeared; that the tenth vertebra was eaten away in its lower surface, but to a much greater extent anteriorly than posteriorly, and presented an irregularly convex outline, fitting into a corresponding concavity in the upper surface of the eleventh vertebra, which was not much wasted; and that the opposed surfaces were tolerably firm, covered here and there with small patches of cartilage. The tenth dorsal spinous process was slightly prominent; on removing the spinal arches the body of the tenth dorsal vertebra was found projecting somewhat backwards inferiorly. Above this projection the membranes and cord were normal; below, the dura mater was much thickened, and adherent to the spinal canal by means of an inspissated layer of pus, mixed with bone spicula; the cord was slightly softened, but not adherent. At apices of lungs there was evidence of old cured lung disease; bladder hypertrophied; pus in pelvis of left kidney; small granular kidneys.

CASE 2. *Caries of twelfth dorsal and first lumbar vertebræ; no paralysis.*—Henry C——, aged fifty-five, was admitted on Sept. 3rd, 1879. About four years before he fell from a considerable height on his back; for the last two years he had experienced weakness and pain in the lumbar region. On examination, the last dorsal spinous process was slightly prominent; pain on pressure or movement, and rigidity of the spine were also noted. The urine was normal. While under treatment he frequently had intractable pain in the area supplied by the lateral branch of the last left dorsal nerve. The movements of the left thigh caused pain, and he could not turn readily in bed. No paralysis or difficulty with bowels or bladder; occasionally free of pain; not usually confined to bed. He was relieved by chloral and by blisters; his condition was aggravated by opium. Died rather suddenly of pneumonia on May 30th, 1880.

Necropsy.—The right lung weighed fifty ounces, and was in a state of red hepatisation. There were caseous nodules in the apices of both lungs. There was prominence of the twelfth dorsal spinous process, and slight displacement backwards of the twelfth dorsal vertebra. Over a limited area anteriorly, opposite a large carious cavity in the contiguous surfaces of the twelfth dorsal and first lumbar, the dura mater was thickened, and encrusted with a layer of thick pus and bone spicula, and adherent to the spinal canal. Cord normal. On dissection from the abdomen it was found that no disc existed between the above-mentioned vertebræ, and that a large portion of both bodies had broken down; the space so formed was occupied by thick pus and bone débris; pus had burrowed along each side of the spine in the psoas muscles as far as the third lumbar vertebra; the greater quantity of pus was on the left side, tilting forward the left kidney. The upper surface of the first lumbar presented a concavity excavated to almost the whole depth, and the under surface of the twelfth dorsal was so fashioned as to fit into it. The carious surfaces were soft, and readily broken into. Large white kidneys, 7 oz. each. Liver, 4 lb., fatty.

CASE 3. *Superficial caries of fourth and fifth lumbar vertebræ; tuberculosis.*—James W——, aged sixty-seven, was admitted on April 30th, 1880, on account of a carious cavity in the shaft of the right tibia, near the upper extremity, of ten years' duration. While under observation he was feeble; appetite poor; lost flesh and complained of pain across the lower part of lumbar spine. His chest was emphysematous, but nothing further was detected until a few days before death, when crepitation, dry and small, was heard all over both chests; resonance not impaired. Ten hours before death, on August 5th, 1880, he had a series of convulsive fits, and became unconscious; the fits recurred frequently; consciousness was not recovered; convulsions general and rather violent.

Necropsy.—Several minute hæmorrhages were found in the course of the vessels at the base of the brain, and especially in the Sylvian fissures, none in the cerebral tissue. Both lungs free in the chest; right weighed 29 oz.; left 22½ oz.; both throughout in a state of acute miliary tuberculosis. Heart weighed 10 oz.; right auricle contained a large firm white clot; valves competent. Liver, spleen, and kidneys amyloid; in the liver and kidneys there were several minute purulent collections. Superficial caries of the fourth and fifth lumbar vertebræ anteriorly, and connected with the bare bone about 3 oz. of pus, thick, not mixed with bone fragments, in each psoas muscle, running in the direction of the muscular fibres, and causing considerable destruction of tissue. The carious cavity on the inner surface of tibia reached deeply into the head of the bone.

CASE 4. *Caries of dorsal spine; paraplegia.*—Mary H——, aged sixty-eight, was admitted Dec. 8th, 1880. For three weeks she had felt ill, and on admission exhibited symptoms of gastro-hepatic derangement, foul tongue, tenderness on pressure over stomach and liver, nausea and constipation. The urine was slightly alkaline. On Dec. 14th she had neuralgic pains in the left upper part of abdomen, relieved by blisters applied near the spine. Two days later there was pain on pressure over the lower dorsal vertebræ. On Jan. 27th there was some loss of motor power in the lower limbs, attended with cramp; the bowels were confined. On Feb. 2nd there was complete motor paralysis of inferior extremities, abolition of sensation, sole reflex subnormal, patellar phenomenon normal, painful involuntary flexions of the limbs (pain referred to spine, hips, and abdomen), and loss of sensation in lower part of abdomen; incontinence of urine; bowels moved only by enemata. On Feb. 9th there was flatulent distension of the abdomen. The pain was relieved by opium. Later the patient had a bedsore; for the last month the bowels acted spontaneously. Death took place from œdema of the lungs on April 24th, 1881. A daughter died of hip-joint disease, and a son of hæmoptysis; no history of injury.

Necropsy.—After removal of the spinal arches, on raising the dura mater, it was found adherent anteriorly to the body of the seventh dorsal vertebra, much thickened at this part, and encrusted with caseous pus. At the seat of this lesion the cord was slightly softened and considerably lessened in bulk, but not adherent to the membranes; carious cavity in seventh vertebra. A small soft tumour behind the descending aorta indicated the situation of the affected vertebra, and was due to a local collection of thick pus and bone fragments occupying the cavity in the body of the seventh vertebra, and bulging anteriorly. With the exception of the upper and lower epiphysal plates, the body of this vertebra was almost entirely removed; the intervertebral fibro-cartilages not affected. Lungs emphysematous and œdematous at dependent parts; weight of uterus two ounces, a multilocular par-ovarian cyst on the right side, size of a large orange; the left ovary was implicated in a simple cyst of like dimensions. Great intestine much longer than normal. Fourth ventricle of brain small, central canal not patent at the calamus scriptorius.

Remarks.—It is held that in spinal disease, if cartilage be primarily affected, there is less likelihood of suppuration than when disease commences in bone, and hence the non-occurrence of suppuration is regarded as diagnostic of cartilage disease. The practical value of this distinction is limited by the fact that until pus reaches the surface the state of parts as to suppuration is conjectural. The above cases sufficiently indicate that pointing of pus on the surface of the body is a consummation that may never take place.

Reviews and Notices of Books.

Neurological Contributions. By WILLIAM A. HAMMOND, M.D., assisted by WILLIAM J. MORTON, M.D. No. III. New York: G. P. Putnam's Sons. 1881.

THE third part of these "Contributions" consists of papers entirely by Dr. Hammond, Dr. Morton having disappeared, except from the title-page. The essays are of considerable interest. The first is on "Thalamic Epilepsy." By this term Dr. Hammond designates cases of epilepsy in which there is little or no convulsion, but which are preceded by a visual hallucination. Several of the cases narrated are very striking, but, except in the variability of the warning, they differ little from the not rare cases of epilepsy with a visual aura, and certainly do not possess the unique character which is here ascribed to them. The name given is an embodiment of the theory, put forward in the paper, that the attacks depend upon a morbid state of the optic thalamus. The evidence that this is the seat of the disease is not satisfactory; it certainly is far too slight to justify the designation. The chief support is derived from one or two pathological cases in which hallucinations were associated with actual disease of the thalamus, but this does not at all exclude the possibility that the morbid process underlying the hallucinations occurred in the convolutions, which were in one case also diseased. There is no ground for Dr. Hammond's absolute and dogmatic assertion that "the cortex, or intellectual centre for any sense, cannot form a real or false sensorial impression," but can only judge of the reality or falsity of impressions formed in the optic thalamus, so that the difference between a visual delusion believed to be true and a visual hallucination recognised as false, is that in the former case the cortex is diseased, in the latter it is healthy. We are very far at present from such a knowledge of the physiology of the brain as would justify any similar distinction, but the preponderance of evidence is strongly against the theory, and tends to show that many illusions recognised as false may take origin in the cortical sense centres.

The second paper, on Neuralgia of the Testis, is of a more practical character. The paroxysmal character of the pain, and its relief by firm pressure, are the points relied on by Dr. Hammond in the distinction from the irritable testis of previous writers. The object of the paper is specially to point out the thrapeutical importance of compression of the spermatic cord, which, it is said, will effect a cure without causing any damage to the organ. The pressure must be firm, as a slight degree increases the pain, while greater pressure will arrest it.

After a description of an interesting case of myxœdema comes a startling paper on the therapeutical use of the magnet. The results obtained in France are equalled, if not exceeded, in New York. Attention is drawn to some curious observations by Dr. John Vansart, formerly of the United States Army, on the influence of the different poles of the magnet on hyperæsthetic parts, and which appear to have led Dr. Hammond to use it largely in the treatment of neuralgia. The facts described in this paper relate to chorea and paralysis. In seven out of nine cases of chorea no result followed. In the other two cases "complete cures were produced in a few minutes." In one, for instance, we are told that a little girl, aged ten, came under treatment with chorea of seven weeks' duration. There were "violent jactitations of all the limbs and of the muscles of the trunk and face. She had lost the power of speech." Very large horseshoe magnets were applied to the spine and the sternum at 1.30. At 1.55 all choreic movements had ceased, at 1.57 she spoke a few words, and at 2 spoke well. The magnets were then removed and the cure was permanent! Even more astonishing, however, were the results in cerebral hæmorrhage. We are told of complete anæsthesia from this cause removed entirely in seven minutes, and hemiplegia in three hours, by the application of a horseshoe magnet! Dr. Hammond, however, recognises, at the end of his paper, that the results may possibly not be due to any specific influence of the magnet, but may be owing to the strong mental impression, or may have been coincident, a recognition with which some of the language employed in an earlier part of the paper is scarcely consistent.

The concluding papers are a series of useful suggestions regarding the management of the insane in asylums, and an account of some "cases of obscure abscess of the liver; their association with hypochondria and other forms of mental derangement, and their treatment."

Medical Education and Practice in all parts of the World. By HERBERT JUNIUS HARDWICKE, M.D. London: J. and A. Churchill. 1880.

WE are constantly asked questions about the regulations in foreign countries touching medical qualification and graduation. This book contains a fund of information on such matters, as well as on the regulations of British medical authorities. The whole is preceded by an introduction, which is worth the attention of all persons taking a broad interest in medical education, in the international recognition of degrees and other qualifications. The arrangement of matter admits of some improvement. The index is imperfect. Some weaknesses in home and foreign regulations are too lightly passed over. And it may well be that such a mass of statement will, on experience, be found to be defective at points. But we accept it gratefully, as an attempt to supply a very great want, and we commend some of the reflections of the author on the defects of our own system to all whom it may concern.

THE NEW ST. MARYLEBONE INFIRMARY.

THE new infirmary buildings at Notting-hill, which are to be formally opened on the 29th inst. by the Princess of Wales for the reception of pauper patients of the parish of St. Marylebone, are the latest addition to the series of sick asylums which have been erected under the provisions of what is best known as the Gathorne Hardy Act of 1867, a statute which THE LANCET was mainly instrumental in promoting. Previous to the passing of that Act the condition of sick paupers in the crowded, dark, dingy, ill-ventilated infirmary wards attached to the workhouse buildings was most deplorable, the medical attendance was very inadequate, and the nursing almost entirely entrusted to pauper helps. Attention was repeatedly drawn in our columns at that time to the grave abuses that existed, and the articles of the late Dr. Anstie, who conducted the inquiry on our behalf, roused such a feeling of indignation and horror among all classes of the community, that a large measure of reform was at once insisted on. So that before the provisions of the Act could be carried out by the erection of new infirmaries it was apparent that public opinion had made itself felt, and even in the close overcrowded wards of the old buildings improvements were effected which made the condition of the inmates more tolerable and successful medical treatment possible. Since, however, the opening of the new sick infirmaries, distinct from the workhouse buildings, which now afford accommodation for over 10,000 of our sick poor, nothing is left to be desired with regard to the sanitary and hygienic arrangements and general management, and the provision of necessary appliances for the sick. Pauper nurses are things of the past, and trained nurses under responsible supervision have taken their place, whilst resident medical officers are appointed whose duty it is to devote themselves solely to the work connected with the infirmary; instead, as was too often the case under the old system, of the medical officer living away from the buildings and giving what time he could spare from the demands of his private practice. And although the salaries attached to the posts have not been calculated on a very liberal scale, it is satisfactory to find that hitherto they have proved sufficiently attractive to induce good men to come forward for them.

Some surprise has been expressed that such a wealthy and influential parish as St. Marylebone has been so tardy in following the example set by other, and in many cases smaller and poorer unions. It had long been felt that the infirmary wards in the present workhouse were sadly inadequate for the purpose; whilst during the severe winters of 1878, 1879, and 1880 the wards were dangerously overcrowded—indeed, often so overflowing that cases had to be sent to the infirmaries of other workhouses. The delay, we are assured, was not caused by any desire to evade making adequate provision for their sick inmates, but arose from the difficulty that was found in obtaining a suitable site for the new buildings. This, we believe, was a matter of anxious consideration, since sufficient space could not be obtained in the parish itself without incurring great cost, and it was ultimately determined to erect the infirmary at some distance from the workhouse. The present site seems in every respect a suitable one. It is situate at the western extremity of the Ladbroke-grove-road, and the time occupied in transit from the door of the workhouse to the new infirmary by the Underground Railway is about half an hour. The neighbourhood, too, is not yet encumbered by buildings, and the western and northern aspects of the infirmary still look over green fields, the former over Wormwood Scrubs, the latter towards Kensal-green. The infirmary stands on the top of a slight ridge which slopes abruptly down to the fields below. The buildings are arranged on the pavilion plan in the form of blocks, communicating with each other by means of covered ways. Each block contains two pavilions, and each pavilion three wards. The wards are all of the same size and arranged on the same plan. Each contains twenty-eight beds, and its cubic capacity is 24,192 feet, or 864 cubic feet for each bed. The wards have fourteen windows, seven on each aspect, nearly due west and east, fitted with venetian blinds. The walls are coloured French grey, with a shade of Indian red, and are light, cheerful, and well proportioned. The bedsteads are of iron, furnished with a straw palliasse and a hair mattress, a bolster, and a feather pillow. Two or three large chairs, made of polished pine, after a design of the Master of the Marylebone Workhouse, are placed in the centre of each ward and give it a furnished look. Strips of grey "calmuck" are laid over the floor, and add greatly to the appearance of general comfort. The wards are heated by two of Mr. Saxon Snell's "thermhydric" stoves, which also serve as means of introducing fresh air continuously from without into the wards. In addition, each pair of beds is provided with a system of ventilation of its own. If any pair of beds be moved forwards into the room, it will be seen that next the wall there is a skirting-box with a panelled front, and that the panels immediately under the heads of the bed are formed of perforated zinc. This box covers an aperture in the floor, from which a ventilating pipe descends in slanting direction to the outside of the wall, through which the external fresh air is admitted. In the ceiling over each pair of beds there is another perforated zinc panel running the whole width of the ward, covering a channel (depth 12 inches) which communicates with a large shaft running up the wall like an ordinary chimney flue. By this the foul air is removed. At the end of each ward is a lavatory, with two closets, sink, washing-basin and warm-water bath, all in separate compartments. In addition, each ward has a "separation" room for the treatment of noisy or delirious patients, or for the isolation of infectious cases. The nurse, too, has a "duty" room, where the materials and requisites for ward work may be kept in store; whilst for every two wards there is a day-room for convalescent patients.

The nursing is entrusted to a staff of nurses under the Nightingale system. Each pavilion will be supervised during the day by a head nurse, who will have under her charge three ward nurses, one for each ward. The night nursing will be, for the whole building, entrusted to one head nurse, with one night nurse for each pavilion, a scanty allowance, though it will be eked out no doubt by the employment of scrubbers and cleaners. Over the whole staff will be placed a lady superintendent. Each nurse will have a separate bedroom, and these apartments have been placed in the administrative part of the building away from the wards—a wise and wholesome proceeding. The medical staff consists of a resident superintendent, and an assistant medical officer and a dispenser.

The general domestic arrangements seem to be excellent, and all the necessary appliances have been liberally supplied. The kitchens, larders, laundries, &c., are all constructed on the most approved principles. Each pavilion has its own hydraulic lift, and each floor of each pavilion is furnished with a powerful hydrant. The mortuary and post-mortem room are distinct from the blocks containing the wards; they have, however, been erected a little too close to the administrative block. The water-supply of the establishment is obtained from an artesian well sunk on the premises to the depth of 500 feet, of which 211 feet are in the chalk. In this way a supply, which it is reckoned will yield 4500 gallons per hour, of pure and excellent water is obtained. In this respect the paupers of St. Marylebone have an advantage over the ratepayers, who have still to put up with sewage-tainted Thames water purveyed to them by the West Middlesex Water Company. The drains from each block enter a sewer which lies between two blocks and discharges into the main drainage outside the building. No special provision is made for ventilating these drains except by means of the water-pipes. This is a dangerous practice, especially as those water-pipes pass close to the ward windows, and it cannot always be expected that the joints of these pipes will remain as closely attached as at present, or that the drains of a large institution will always remain in perfect order. It would therefore be advisable to secure efficient ventilation of the drains of each block by means of a special channel, and discharge the water-pipes over gratings, instead of directly into the drains. This and the situation of the mortuary are the only two points in the building on which we can raise any objection, and these can be easily remedied. We think, therefore, Mr. Saxon Snell, the architect, may be fairly congratulated on the result of his labours in the erection of an infirmary equal to any of its class, and which, in many of its details and arrangements, would compare favourably with those of a first-class hospital. Acknowledgment, too, is due to Mr. Edward Boulnois, chairman, and Mr. Bedford, the clerk of the St. Marylebone Board of Guardians, for the personal attention they have given to all matters of detail whilst the works were in progress.

In conclusion, we would point out how in some respects these sick asylums might be rendered still more advantageous to the inmates, as well as to the community generally. In the first place, their usefulness, as we have repeatedly pointed out, is checked by the fact that at the present moment no distinction is made between the *sick poor*—that is, the industrious mechanic who has broken down in health whilst endeavouring to maintain himself and family by honest labour—and the *sick pauper*, the regular inmate of the workhouse. This is a great evil, and is in itself a fertile cause of pauperism, since many a respectable man in his endeavour to avoid the taint of pauperism struggles on outside till an acute disease becomes a chronic one, and ultimately he becomes a permanent instead of a temporary burden on the rates. In these sick asylums much might be done to remove the dislike felt by the respectable poor to becoming inmates if some classification were adopted by which sick paupers and the sick poor were kept distinct. If the St. Marylebone guardians were to try the experiment of setting aside one of the blocks entirely for the use of acute cases occurring among the respectable poor of their parish, they would confer an immense boon on this class, and we believe they would speedily be rewarded by restoring many a working man to health and activity by inducing him to come for relief at an early period of his illness, instead of postponing it till obliged to enter it in an incurable condition.

Then with regard to the nursing system, whilst fully admitting the immense advantage gained by the substitution of trained nurses for pauper helps, we are far from saying that the nursing staffs of these asylums are sufficient to cope with the vast amount of labour entailed by the attendance on the chronic cases which abound in these institutions. In addition to the staff of nurses already engaged, there ought to be at least two probationers attached to each ward. The system of nursing at our workhouses might be made almost self-supporting if the wards were rendered available for the systematic training and education of nurses to supply the requirements of our metropolitan hospitals and the public generally. Such a training could, certainly in its first stage, be more efficiently conducted in the comparative quiet of the infirmary wards than amid the bustle of a large metropolitan hospital; whilst the experience gained in the management of bedridden cases and routine treatment of chronic hopeless cases would be an invaluable training for the young nurse. The experiment, thanks to the enterprise of Mr. Rathbone, has been tried at the Liverpool Workhouse, and has proved completely successful.

Lastly, we would point out how inefficient these infirmaries are with regard to subsidiary clinical assistance. In this respect they are worse off than they were twenty or thirty years ago, when the apprenticeship system generally ensured a staff of assistants who in some measure helped to compensate for the shortcomings of the pauper helps in the nursing department and the hurried visits of their principals. Notwithstanding the appointment of efficient medical officers, who devote the whole of their time to their patients, it is impossible for two men to do anything like justice to 400 or 500 cases. From our own experience of workhouse infirmaries we would say that, in an ordinary institution, it would require the work of two men alone to attend to the proper electrical treatment of the disorders of the nervous system which are so common among the inmates. But if the treatment is to be something more than a pretence, how can the medical officers find time for other duties, such as the constant care and watching that chronic pulmonary affections require, if they hope to relieve the ever-varying forms of suffering these successively pass through, to say nothing of the attention required by stricture cases, chronic bladder affections, ulcerated legs, &c.? How in the case of the new St. Marylebone Infirmary only two medical officers are efficiently to perform a tithe of their duties to the patients with the care of twenty-four wards of twenty-eight beds each, we are at a loss to conceive, unless the guardians provide additional clinical assistance in the form of clerks and dressers.

THE GOVERNMENT INQUIRY INTO CAUSES OF SUMMER DIARRHŒA.

To the Editor of THE LANCET.

SIR,—Will you permit me to address you, and through you my medical brethren about the kingdom, on the subject of the large and most important inquiry into the etiology of "summer diarrhœa," with which the Local Government Board has charged me.

It is an official inquiry, but from the first I have perceived that it would be impossible, even if it were desirable, to conduct it altogether through official channels. Naturally, I have looked for help, first of all, to Medical Officers of Health. Among these there are many earnest workers with whom I am personally acquainted, whose willing aid in the collection of facts I have enlisted, and who are taking upon themselves much labour in my behalf. Through Medical Officers of Health I am seeking to obtain such minute details of statistical information respecting mortality as are necessary for my purpose. There are many of these officers with whom I have been anxious to confer, but time and opportunity have been against me. I shall be glad of volunteers.

But there is another and important class of facts, which can only be supplied by men engaged in medical practice—namely, facts which relate to summer diarrhœa as a disturbance of the system of the individual, or a *disease*, fatal or non-fatal. As such it is met with in all ranks of society, and at all ages, although its fatality is apparently greatest in certain ranks, and at certain ages. Various hypotheses have been advanced to account for the summer incidence of the disease, and for differences in its fatality, and all these hypotheses will have to be passed under consideration. My difficulty is to obtain data, accurate and sufficiently numerous, to enable me to estimate their value; and for these data I now make an appeal to the members of my own profession, in the full belief that there are many among them who will feel an interest in the subject, and that I shall not appeal in vain. Especially I beg for aid from such of my brethren as practise among the well-to-do classes of the community. I particularly want to discover whether summer diarrhœa is a disease of equally frequent occurrence among the well-to-do and among the poorer classes, the rate of fatality of it when it does occur among different classes of people, and the circumstances under which the illnesses happen.

In order to facilitate the giving of the information I require I have prepared, and am now issuing to those practitioners who will kindly help me, small pocket note-books, patterns of which I enclose. I think you will see that in these books I have reduced my actual specific inquiries to a minimum. One of the books is for the record of individual cases of diarrhœa sickness; the other is complementary to it, and has for its object to ascertain with some approach to accuracy what is the practice of mothers in respect of the feeding of infants at different ages, in different ranks of life, and in different parts of the country. Any required number of these little books will be furnished to medical men who are willing to use them, on their writing for them to me at the Local Government Board, Whitehall.

I am, Sir, yours, &c.,

EDWARD BALLARD.

Local Government Board, June 20th, 1881.

THE LANCET.

LONDON: SATURDAY, JUNE 25, 1881.

The forthcoming election of members of Council of the Royal College of Surgeons is likely to be unusually keen and exciting. There are not only twice as many candidates as there are vacancies, but almost everyone of the candidates happens to possess some peculiarity or characteristic calculated to split up the electing Fellows into contending factions. All parties may, perhaps, combine to secure Sir James Paget's election, but there everything like general agreement and co-operation may be expected to cease. For example, there is, we believe, a small party of Fellows willing to see Mr. Haynes Walton re-elected; another section, much larger and more intelligent, is very properly anxious to show its appreciation of Mr. Hulke's merits as a tried friend and servant of the College, as an eminent surgeon, and as a distinguished man of science; another, appreciating Mr. Croft's amiable qualities and his reputation as a sound teacher and practitioner of surgery, would be glad to see him elected as a sort of successor to his *quondam* colleague at St. Thomas's Hospital, Mr. Le Gros Clark; another section, recognising Mr. Heath's services to the College as an examiner, and his well-known business capacities, will spare no effort to secure his election; and, lastly, that section of Fellows which perceives some irreconcilable difference between the interests of surgery as practised in the provinces and in the metropolis, will exert itself as heretofore to secure the election of Mr. Reginald Harrison of Liverpool. Though it is not easy to understand the reason of the fashion of electing every year a provincial candidate, the practice has grown to such a degree that it is now deemed almost a point of honour among Fellows residing out of London to vote for the provincial candidate. If the election of a provincial candidate were only an occasional circumstance, and intended as a mark of esteem to some distinguished Fellow practising in the provinces, it would be a graceful act, and altogether unobjectionable; but the practice of bringing forward every year a candidate resident in the provinces, and especially a *junior* Fellow, is reprehensible, and is likely, sooner or later, to disturb the harmony that has hitherto existed between all classes of Fellows. At the present moment five of the twenty-four members of the Council are Fellows residing in the provinces. Even after the retirement of Mr. Wheelhouse, the provincial Fellows will constitute one-sixth part of the Council. This means that the working power of the Council is limited by this amount, inasmuch as it is scarcely practicable to place those members of the Council who live away from London conveniently on the various committees that practically conduct the business of the College. These labours devolve therefore upon the metropolitan members of the Council, many of whom are known to attend almost daily upon the affairs of the College.

Election into the Council of the College should not be looked upon as a mere compliment or professional honour. The duties of a member of the Council are of such a nature that they can only be safely entrusted to men of known fitness and capacity. The Royal College of Surgeons is now the chief examining body in this country for regulating and controlling the average education of the medical student. The continued defection and decay of the Royal College of Physicians may soon leave it practically without a rival. It is, therefore, of the first importance that those who are elected into the Council to manage its affairs should be familiar with all the phases of medical education and of medical reform. It needs no argument to prove that a man may have earned an enviable position as a practitioner of surgery, and yet be wholly unfit for the duties that devolve upon a member of the Council of the Royal College of Surgeons. It is especially desirable just now to elect only competent men. During the ensuing year many important questions affecting medical education will have to be considered by the Council, and not only the ultimate welfare of the College, but the immediate interests of medical education, may depend on the attitude assumed by the Council towards some of these topics. The Royal Commission on the Medical Acts, now sitting, is not likely to leave things exactly as it found them. Many important changes will be recommended, and these recommendations will have to be considered in a frank and liberal spirit by the Council.

The attitude taken by the Royal College of Physicians with regard to the Medical Acts Commission is not encouraging for the speedy settlement of the long-burning question of medical education; and although the resolutions passed last week were not quite so uncompromising as those originally framed, and the mode in which they are to be brought under the notice of the Commission was also modified in the right direction, they seem to exhibit too keen a desire for the retention of certain privileges of the College. The anxiety thus shown to impress the Commission with the fact that any diminution of these privileges will be detrimental to the public and the profession would have been pardonable in a less well-known body, but the College of Physicians of England, with its long and venerable history, might well have been content to rely on the work it has effected, and would have adopted a more dignified course had it allowed the Commission to find out for itself the value set upon its licence.

Of course it was natural that the College should be mindful of its own interests, and if it had always been so, it might not have been necessary to urge them now. If, instead of abrogating the powers conferred "by charter of King Henry VIII.," it had in past times acted upon them, it might never have been placed in this position; but having suffered these powers to drift, and aimed at creating a select body of high-class practitioners rather than at supervising the whole of medical education, it has come to be not the sole licensing body in the kingdom, nor even one of two, but one out of nineteen, enabled like itself to grant qualifying diplomas which in the eyes of the uninformed are all of equivalent value. It is easy to imagine the demand being made that the same measure should be meted to all, and if the interests of one corporation are to be attacked, why not the interests of all?

Let us see how far the interests and privileges of the College of Physicians are likely to be at stake, and the manner in which the College has chosen to defend itself. Before doing this, we may reasonably inquire how it came to pass that the College was called upon for defence at all. A courteous letter from the secretary to the Medical Acts Commission, asking for information other than that already obtained through the Select Committee, could hardly be the cause of such a flutter in the dovecote. The letter was harmless enough, and conveyed no hidden meaning between the lines, implying that a State Board was to be formed, and the interests of the College to be attacked. It was a circular letter addressed to all corporations, and why the College should, in considering it, have gone out of its way so far as to pass resolutions based upon a hypothetical scheme, is not apparent. It seems as if the College had taken fright at a phantom of its own creation, and whilst under the influence of this apprehension had magnified the proportions of a State Board till it appeared to overwhelm the College, and reduce it to impotence and insignificance. Suppose, however, there be truth in the surmise that the Commission will suggest a radical reform, and, disestablishing all the present licensing bodies, recommend the formation of a central State Board for the purpose of granting licences. The influence of such a board upon the profession generally is one thing, the effect it will have upon the corporations at present granting licences is another. It might well be argued that a State Examining Board, which should be the sole licensing body in the kingdom, would not be nearly as detrimental to the College of Physicians as to the majority of the corporations it would replace; for it is plain that were all these bodies of as high standing and repute as the College, there would be no need of a Commission to inquire into the working of the Medical Acts. There is no doubt that the College is right in believing that "the qualifications implied in the possession of its licence are adequate evidences of professional knowledge, and that its licence is esteemed alike by those holding it, by the whole of the medical profession, and by the public." It is, however, now looked upon as a distinction, and is only sought after by the better class of students, so that the medical practitioners holding its diploma form a minority in the profession. Even if the College were to abandon its licence-granting power, it would have as many candidates as before seeking the equivalent distinction which the College might still grant—for there would be as strong a desire then to obtain something more than the minimum qualification of a State Board. Other corporations might lose their *raison d'être*, and would probably be compelled to abandon their diploma-giving function altogether. It seems, however, as if the College of Physicians were desirous of possessing the power to confer the minimum qualification, a power it claims to have by right, but which it suffered to fall into abeyance, and that it aims at increasing its influence under a new dispensation.

The anticipation of what would follow the formation of a new Board may not be fulfilled as regards its effect on the number of licentiates of the College, so that the actual interests of the College may not be imperilled, if indeed they would not be enhanced; but are the public and the profession likely to suffer by the creation of a body of practitioners who would not be under the control of the Colleges of Physicians and Surgeons? Surely these fears are as groundless as the others, and if seriously entertained might lead to a critical inquiry as to how this control has been exercised in the past. Is it not a fact that as regards the main body of the profession the "control," such as it is, has been exercised chiefly by an authority other than the Colleges? Is it not a fact that these Colleges are hampered by ancient by-laws and restrictions as to practice which are never actually put in force? How many times in the annals of the College of Physicians have the Censors been called upon to exercise their censorial functions, and how have they responded to the call when it has been made? The College—indeed all the colleges and corporations—must look within and see how they have performed that supervision which has become little more than a name. It is a gratuitous assumption that, supposing the State granted diplomas, that the State would not exert a control quite as much for the benefit of the profession and the public as that now exerted by the Colleges. The College of Physicians in this matter has apparently linked its fate with the College of Surgeons—no doubt perceiving that the same arguments adduced in behalf of its licentiateship might be urged in favour of the surgical membership—and the resolution implies, without stating it in so many words, that the difficulties and dangers that will arise from the formation of an independent Board will be met by the establishment of a Board in which these two Colleges shall have the chief share. In other words, the College of Physicians is made to declare in favour of the Conjoint Scheme which has been so long and so fruitlessly advocated.

We have said enough to show that, in our opinion, it would have been more dignified on the part of the College of Physicians had it abstained from making an uninvited protest until the time for such protest had arrived; and its position would have been far more secure had it been contented to prove to the Commission that its licence was sought after and valued by the more highly educated members of the profession, that its examination scheme was ample and framed on an enlightened basis, and that the reasons for its having but a limited number of candidates were chiefly that its licence was not required of the holders of many public appointments. To go beyond this, and to take fright on the ground that its interests *might* be at stake *if* the Commission recommended some new scheme, was neither seemly nor politic.

The second resolution had even less justification. The uncompromising terms of the original draft were altered to an expression of opinion that the high distinction of its Fellowship is bestowed on the best possible principle in the best possible way. What reason was there for this assertion? It would almost seem as if the College felt that an attempt had been virtually made to wrest from it its most highly prized prerogative, or that it was conscious of having failed to employ it with discrimination. The resolution was certainly not politic, and in point of time unduly precipitate, for there was nothing in the circular demanding such an affirmation, and to make it unasked seems very like a defence of an ancient custom which is liable to abuse, and should therefore be endorsed by vote ere it be too late.

Happily the resolutions have lost much of their force and significance, and the College has been saved from a ridiculous position by the alteration of the original intention to send these opinions to the Commission as a reply to its secretary's letter. As instructions to their representative they may be of some service, although we do not envy him his task. He will now be able to say on full authority that the control of the College over its licentiates is salutary and well exercised; that the maintenance of the College licence is essential to medical education; that a new and independent licensing board would inflict undeserved injury upon a venerable and ancient institution; that the mode of conferring its Fellowship could not be altered without dishonour and indignity, and a lowering of the College in the eyes of the profession and the public. How far such an assertion of prerogative will forward the cause of medical education remains to be seen. Of one thing we may be quite sure—that, whatever comes, the College of Physicians will not be seriously affected; it has a future before it as illustrious as its past, and it could well have afforded to have awaited the progress of events before making declarations which at the present time are premature and unnecessary.

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WE recently noticed some observations of HOPPE-SEYLER on the condition of the blood in cases of extensive burns, which went to show that there is no marked destruction of, or change in, the blood-corpuscles to account for the striking general symptoms. Professor TAPPEINER of Munich has followed up these investigations by others more numerous and elaborate, from which more definite results have been obtained, to which it seems worth while to draw attention. His first observations were made on the blood and tissues of four young adult males, who died in from six to seventeen hours after burns extending over about two-thirds of the surface. In three cases a small amount, varying from ·5 per cent. to 2·5 per cent., of the total colouring matter of the blood, was found in the serum—a result in agreement with HOPPE-SEYLER'S, and confirming his conclusion. But in each case the blood was noticed to be remarkably viscid; and on estimating the amount of water, it was found to be notably deficient in relation both to the number of corpuscles and the absolute amount of hæmoglobin. Thus in one case, of 100 parts by weight, the water was found to be 70·17; in 100 parts by volume the hæmoglobin was 19·93, and the number of corpuscles in a cubic millimetre 8·96 millions. The results in the three other cases were closely similar. This condition of the blood naturally led to an estimation of the water in the tissues, in particular the muscles, when it was found that, with the exception of the first case, the amount of water was normal, 77·2 to 78·3 per cent., and in one case 75·9. There was here, then, a condition quite different from that met with in cholera, where there is a loss of water from both the blood and the muscles, which quickly leads to retention of waste products in the tissues; and TAPPEINER points out that this difference probably explains the absence of thirst, cramp, and "cutis anserina" in some cases of burns. It is not difficult to see that one source of loss of water from the blood after burns is by exudation and evaporation from the burnt surface; and, as TAPPEINER points out, inasmuch as the lack of water is observed in the blood alone, the quantity deficient is not greater than can be, and often is, lost in this manner; he indeed estimates that the loss of less than a kilogramme of water would be sufficient to produce the altered composition of the blood found to exist—a quantity quickly provided by the extensive exuding surfaces often met with. To show the extent of this exudation, he found that from the reddened burnt skin of a rabbit thick drops of fluid could always be pressed, and if the animal were placed in a temperature of 100° the fur over the burnt part remained moist, while other parts artificially moistened quickly dried. There is therefore ground for the comparison made by BUHL between the intestines in cholera and the skin in severe burns.

The question at once suggests itself why, when the blood is thus deprived of water, the tissues do not compensate its loss by yielding up their water. To this TAPPEINER gives a twofold answer. First, that the fall of blood-pressure, which is so marked a feature in severe burns, and is to some extent at least caused by the vascular dilatation in the burnt area, removes the vis a tergo from the stream flowing along the lymphatics; as soon, too, as the concentration of the blood has proceeded to any extent, it also reduces the blood-pressure, and still more retards the flow of lymph. This, however, in no way explains why the capillaries do not directly absorb water from the tissues, quite independently of any office of the absorbents proper. But if the exudation from the burnt surface be the cause of the change in the blood, it is evident that that change is not a simple loss of water. No fact in surgery is more familiar to all than that the fluid of the blisters of burns is richly fibrinous, and quickly coagulates; that indeed it is not serum, but liquor sanguinis. An exudation of liquor sanguinis does not of course alter the composition of the fluid part of the blood, but the absorption into the blood of fluid from the surrounding tissues depends upon the difference in density of the two fluids, and therefore after a burn the rate of direct absorption will not be materially altered. The conclusions deducible, therefore, are that after extensive burns so great an exudation of blood-plasma occurs from the burnt surface that the blood is concentrated, and the relative proportions of corpuscles and plasma modified even to a fatal extent; that, owing to a fall in the blood-pressure, the flow of lymph into the blood is slackened, while, the density of the liquor sanguinis not being materially altered, direct absorption of fluid through the capillary walls is not increased, and the loss of fluid is not compensated. The suggestions for treatment that naturally arise from these conclusions are the importance of means to limit exudation from the skin, and the probable value of transfusion of serous fluid in cases of burns not fatal from the first direct shock, but threatened with death from this blood change. The above facts give us a definite explanation of the circumstance that burns of the second degree affect the system far more intensely than do those of the first degree, where the impermeable cuticle is not destroyed, and they are an argument in favour of the old instruction not to remove partly detached pieces of cuticle from raw surfaces.

IT is easy to say that *insanity* means unsoundness of mind and must, therefore, include or comprise all forms of mental defect, disorder, or disease, in which the standard of health is not maintained. What is the standard of mental health by which insanity is to be recognised or gauged? It is high time that this practical question received a sober-minded answer from the collective common-sense judgment of the profession. At the present moment "insanity" would seem to be anything experts choose to make it. There is no clearly formulated ideal of sanity, and the least "strangeness" or weakness is held to be, if the general circumstances appear to render the assumption convenient, a sufficient proof of *in*sanity to deprive an individual of liberty and social privileges. A Master in Lunacy has just ruled that loss of memory is to be regarded as evidence of insanity, although, at least, *one* experienced and expert medical practitioner—not a specialist—had no hesitation in declaring that the patient, or, as we prefer to say, victim, was not insane. It may, or may not, be desirable to place persons with bad memories under the protection of the Court of Chancery. We offer no opinion on this question of policy in the domains of paternal, or what the present Home Secretary once designated "grandmotherly," government.

It is, however, intolerable that a figment of "insanity" should be set up to enable the law to protect the person and property of an individual who is simply "forgetful." We know nothing of the particular case to which this passing allusion is made, and it may happen that the Master in Lunacy was right in fact, as he must be presumed to have been in his technical judgment. It is the general consideration in respect to which we are interested. It is necessary that a protest should be raised in the name of science against the rapidly growing tendency to class every form of mind-weakness or bewilderment as "insanity." Of course incapacity may be so classed, because a mind which is not perfectly sound must needs be unsound; but this is a straining of the term, and when scientific terms are strained for legal or social purposes, it is time that science interposed to prevent what may easily come to be a great abuse.

If "insanity" is still to stand for disease of the mind, it is not expedient that it should also stand for mind weakness. The line between disease and weakness is, it must be admitted, not easy to define; but this circumstance makes it imperative that some arbitrary discrimination should be made. If there be no fixed distinction between disease and weakness, it must ever remain a matter of personal opinion whether or not any man or woman is "insane." Nothing could be more unsafe than the condition of uncertainty to which this points. For example, if loss of memory is to constitute insanity, how much or how little forgetfulness should be held sufficient to justify hurrying the subject of this common mind-trouble into an asylum? Society will surely not be content to leave the question of degree to be determined by considerations of expediency in the individual case! If the determination were so left, it might easily happen that because a wealthy man or woman forgot, or seemed likely to forget, some expectant relative in the distribution of gifts, or in the disposal of his or her property by will, the lapse of memory would be successfully pleaded as a ground for placing the offender under restraint. In short, if weakness in respect to particular mental faculties is to be classed as disease, it is indispensable that some standard or measure of the strength assumed to be *healthy* should be set up. As a matter of fact and experience, the proportion of persons in society who suffer from inability to take care of their money is very large, and if no check were put on the extravagance of such persons, they would be ruined; but it has not yet been deemed desirable to treat spendthrifts as lunatics, although doubtless the majority might be held to fall under that description. The mental counterparts of myopia and colour-blindness, and a multitude of sensory defects and disorders, are recognised. Already we have agaraphobia, and claustrophobia, and gynephobia, and a host of recent additions to the long catalogue of mental disease, loss of memory being duly registered among the number; but hitherto it has been deemed proper to establish the fact of insanity by some obvious and strongly-marked feature of the disease *before* defining the technical peculiarity of its special manifestation. If this safe, though perhaps old-fashioned, method of proceeding is to be abandoned, the reasons for the change should be clearly set forth and generally understood. In respect to the question of scientific expediency, the profession, as a whole, must be the judge, not that limited section of the medical body which lays claim to a special knowledge of mental disease. At least we have the right to know what is going on, even though we may be held incompetent to understand it.

In the days of professional ignorance—before the advanced light of modern thought had discovered the fact that insanity is *in*curable—there was a general agreement that no one should be classed as a lunatic and declared insane unless he was the victim of a delusion likely to be dangerous to himself or others. At that time, no doubt, asylums were houses of terror, and especial pains were needed to save the victims of mind-weakness from incarceration. No humane person would then have thought of consigning a man to the tender mercies of the keeper of a madhouse because he entertained a belief that it was wrong to use the skins or wool of animals as material for clothing! The lunatic asylum of to-day is, however, a pleasant place to live in, and the definitions of insanity have been so extended as to include many forms of derangement which our fathers and grandsires would not have dreamt of so classing. This is one of the disadvantages of the improved system of treatment for the insane, and society must put up with it. Nevertheless, in the interests of common sense, if not of humanity, we must invent some new term for the designation of genuine and actual insanity, if all the pretended and imaginary forms of mind-weakness which the ingenuity of specialism can devise are to be comprised under the old term as occasion may seem to render desirable. We say nothing against the policy of placing half the population under the surveillance of the other half, though it may be difficult to determine which should be the keepers and which those kept, but we do protest against playing fast and loose with terms which still retain, or are supposed to retain, a modicum of scientific significance.

IN another column will be found a letter from a correspondent in the Isle of Wight protesting against our observations on Dr. BALLARD'S report on the sanitary condition and administration of the island, so far as the district in which he is interested (Ventnor) is concerned. He sends us also a copy of a report of a committee of the sanitary authority which shows that in Ventnor, at least, Dr. BALLARD'S report has been properly appreciated, his recommendations being duly acted upon. The Ventnor Sanitary Authority has clearly set an example which only needs to be followed by other sanitary authorities in the island to quickly dispel the very unfavourable impression made by Dr. BALLARD'S report, and to rehabilitate the place in the opinion of invalids and tourists as foremost among English health resorts. It rests, indeed, with the local authorities of the island themselves whether the Isle of Wight shall continue to hold the pre-eminent position as a health resort which it has hitherto occupied from its topographical position, or whether, from the suicidal policy which has characterised its sanitary authorities and their administration, this year will mark the beginning of a regrettable decline in its reputation as a wholesome place to dwell in, even temporarily. The example of Ventnor gives reason to hope that the different sanitary authorities will not hesitate to take active measures for removing the various evils brought to light by Dr. BALLARD. We shall warmly welcome news that the good sense displayed by Ventnor is not confined to the sanitary authority of that district in the island. The subject of the health condition of the Isle concerns, and that very largely, others besides the inhabitants; and nothing will tend so quickly to restore confidence among outsiders as a knowledge of the fact that the several sanitary authorities have set themselves loyally, after the fashion of Ventnor, to place the health conditions of their respective districts in such a position as even Dr. BALLARD would be constrained to approve.

Annotations.

"Ne quid nimis."

THE PRESIDENCY OF THE ROYAL COLLEGE OF SURGEONS.

DURING the ensuing official year the Royal College of Surgeons will occupy a position of unusual prominence and importance. At the International Medical Congress the President and Council of the College will be the recognised representatives of English surgery. Before the Congress meets the term of office of the present distinguished occupant of the presidential chair of the College will have expired, and unless the members of the Council have the courage and good sense either to re-elect Mr. Erichsen or to depart from the customary routine of electing the senior vice-president to the presidential chair, the Royal College of Surgeons of England will, at the International Medical Congress, have for its reputed head a gentleman who, notwithstanding his renown as a dermatologist cannot be regarded as in any intelligible sense a representative English surgeon. With such eminent surgeons on the Council as Mr. Erichsen, Sir James Paget, Mr. John Marshall, Mr. Savory, Mr. Hutchinson, and Mr. Lister, it would be both anomalous and unseemly for the College to choose for its president during the meeting of the International Medical Congress a gentleman whose professional reputation is simply that of a dermatologist. The duty of electing the president is entrusted by charter to the Council itself, and it is incumbent upon the members of the Council in electing the next president to show a proper discrimination between their peculiar tastes, and interests as a social body, and their larger responsibilities as the representatives of English surgery, and the guardians of the honour and dignity of the ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A ROYAL RECOGNITION OF HEROISM IN MEDICINE.

WE learn that the Queen has been graciously pleased to confer the decoration of the "Albert Medal" of the First Class (for gallantry in saving life) upon David Lowson, M.D., of Huddersfield, under the following circumstances:—On the 12th November, 1880, Dr. Lowson was called to attend the child of Police Constable Higginbottom, of Huddersfield, who was suffering from laryngeal diphtheria. He performed the operation of tracheotomy, but suffocative attacks supervened, and on visiting the child next morning he found it in a livid state and breathing only with great difficulty. Seeing that the only chance of saving the child's life lay in sucking the tube clear, he at once, at imminent risk to himself, applied his lips to the tube and sucked out the accumulated mucus, thereby affording immediate relief to the patient. Throughout the day he continued, by means of a pipette, to suck out the mucus from the trachea. Notwithstanding his efforts the child unfortunately died on the third day after the operation. Dr. Lowson's heroism was following by a severe attack of diphtheria, with which he was seized in the course of a few days. Other dangerous illness supervened, compelling him eventually to abandon his profession and to retire from a lucrative partnership. We are much gratified at being able to give our readers particulars of an act, on the part of Her Majesty, which will be deeply appreciated by the medical profession. Such gracious recognitions on her part cannot, in the nature of the case, be very frequent, for the simple reason that such conduct as Dr. Lowson's is, in its principle at least, a matter of not infrequent occurrence. But it is satisfactory to know that deeds of daring done by medical men in quiet sick rooms for the chance of saving life—in this instance a child's life—and in entire disregard of risk, are not overlooked by one whose character and station give to her approval a great value. A plucky deed on the battlefield may have its reward in the enthusiastic plaudits of bystanders, or in the fame which accrues from report and public comment, but the silent courage implied in such an act as Dr. Lowson's is apt to go unreported and unrewarded, except in the consciousness of him who does it.

INTRA-PERITONEAL TRANSFUSION.

THE grave results which often follow the escape of blood into the peritoneal cavity would scarcely lead to the anticipation that it would be found a suitable site for the transfusion of blood. Nevertheless, it has been shown to be such by Ponfick, and several cases in which intra-peritoneal transfusion has been employed have been recently published by Kaczorowski. The injection of the blood is by a trocar introduced through the linea alba, the blood being poured through a glass funnel furnished with a flexible looped tube. The operation is performed under strict antiseptic precautions, and the admission of a little pure air into the peritoneal cavity appears to be harmless. The method is recommended especially in prolonged febrile diseases, in which the heart's action fails, and also in chronic anæmic diseases. The reaction of the serous membrane is said to be slight, and often *nil*. Of the cases recorded, one was a female twenty-one years of age suffering from puerperal septicæmia; two transfusions were made, each of 500 grammes of defibrinated blood; the patient recovered. The second patient was suffering from anæmia, hysteria, and spinal irritation, and recovered after a single transfusion. The third case was one of phthisis, and the patient was improved by the operation, but died three months later. The fourth was that of a woman fifty years of age, very anæmic and depressed, with fungous ulcers in the neck; after the latter had healed there was no improvement in the general condition, but convalescence rapidly set in after the transfusion of 600 grammes of blood. The last patient was a drunkard, forty years of age, suffering from a severe attack of exanthematic typhus, with bedsores. After the transfusion of 400 grammes of blood the fever lessened, the other symptoms improved, and the patient recovered.

THE INTERNATIONAL MEDICAL CONGRESS.

A MEETING of the General Council of the Congress was held at the College of Physicians, Pall-mall, on Wednesday, June 22nd, under the presidency of Sir William Jenner. The report of the Executive and balance-sheet were read and adopted. It was stated that Sir Wm. Jenner would take the chair at the opening meeting of the Congress until the officers are duly elected. His Royal Highness the Prince of Wales has intimated his intention of attending this meeting. A cordial vote of thanks to Mr. MacCormac for his untiring energy was carried by acclamation on the proposal of Professor Acland. Mr. Bowman, in reference to the Treasurer's report, urged the desirability of making the subscription list as wide as possible. We are requested to state that, in addition to the excursions noted last week, the Members of the International Congress are invited to visit the Croydon Sewage Farm, and afterwards inspect the Beddington Female Orphan Asylum, where lunch will be provided. Those desirous of going should intimate their wish to Dr. Alfred Carpenter of Croydon, as soon as possible

"STATE-REGULATION OF VICE."

IT should occasion no surprise that confederations to abolish, or prevent, any sort of interference on the part of the State having for its object to minimise the evils contingent on vice, flourish here and on the Continent. Nor is it strange that excellent, well-intentioned, and even sagacious persons are found in the ranks of the agitators. It is one of the characteristics of modern thought, and would seem to be a striking trait of the most recent development of intense humanitarianism, that the pursuit of the highest good for the greatest number is peculiarly apt to be accompanied with intolerance of the needs of special classes of the community. It is nothing to the impulsive reformer that human nature is, and always will be, so constituted that it must needs be saved from the consequences of its own wrong-doing. These optimist moralists will hear of no concession to weakness, and spurn the thought of conceding anything to the exigencies of our imperfect state. They would not have given so much as a cup of cold water to either of the impenitent thieves, and would have shrunk with horror from the prayer of the devils that they might pass into a herd of swine. Hagar might have perished with her ill-gotten babe in the wilderness, Jonah would have been left to die in the sun, and the manslayer might have been overtaken by the avenger, before one of the agitators against Contagious Diseases Acts, or any other provision for lightening the so-called "penalties of sin," would have striven to help them. The argument would have been, these thieves deserve their punishment, and it will encourage others if we relieve their sufferings. These evil spirits have no claim to our compassion; and we must, for example's sake, turn a deaf ear to their beseechings. If such characters as Hagar are relieved, and the children of their shame rescued from destitution, vice will be fostered. Those who take life must pay the penalty; it will increase the crime to reduce the punishment; even the disobedience of a prophet must be visited with its due recompense. This is precisely how the agitators argue against the Contagious Diseases Acts, against foundling asylums, and other measures to reduce the contingent social and personal effects and penalties of vice. It is no use trying to convince those who can find satisfaction in such reasoning. We are not disposed to prolong the struggle against this movement; our appeal must henceforth be to the common sense of the community. The infatuated few, who think they are doing good service by a crusade against measures for the relief of the sinful and their victims, must be left to their own devices, and hereafter to their own reflections. The spectacle of such a gathering, and so much wasted zeal, as London has witnessed during the last few days, is humiliating; but not more so than many similar manifestations of misguided philanthropy. It is part of the price society has to pay for its advanced civilisation.

DR. BROWN-SÉQUARD'S EXPERIMENTS.

DR. BROWN-SÉQUARD is pursuing vigorously his remarkable investigations into the effect on the central nervous system of peripheral applications. A continuation of his researches was communicated to the Société de Biologie at the meeting on the 11th inst. The experiments first described were on the inhibitory and "dynamogenetic" action of applications of prussic acid. When this has been injected into the neck or limb, near the brachial or cervical plexus, it produces exophthalmos, limited more or less perfectly to one eye, a rosy tint of the blood in the vessels of one side, and also certain other unilateral symptoms. Hence, he assumes, when the excitability of the nerves and muscles is rapidly lost in consequence of the administration of a large dose of the acid, this loss is not due to a direct action, chemical or other, on the nervous and muscular tissues, but chiefly, if not entirely, to an inhibitory influence exerted by the central nervous system under the irritation of the poison. The proof of this is afforded by certain cases in which the poison has been injected under the skin after the phrenic or sciatic nerves have been divided. The divided nerves and their muscles remain excitable two, three, or four times as long as in animals dying of simple asphyxia under similar conditions. If the poison is injected and the nerves are not divided, the duration of their excitability is much less than in simple asphyxia. This may be demonstrated by the section of the phrenic nerve on one side only. Clearly, then, the inhibitory influence produced by prussic acid must descend the nerve from the centre. The same influence may produce the opposite effect, an increase of irritability, shown by its persistence in the divided nerves for a much longer time than in the case of an animal dying of simple asphyxia. It will be remembered that earlier experiments demonstrated that chloroform and anhydrous chloral applied to the skin of the thorax on one side had a dynamogenetic action on the phrenic nerve and diaphragm of the same side, and an inhibitory action on the opposite side. The same effect is often produced by the injection of prussic acid, or of some other violent poison, such as pure digitaline, under the skin of the thorax or into the axillary fold; and digitaline has a similar effect upon the limbs. The most striking dynamogenetic effects have been obtained by section of one-half of the base of the brain or of the spinal cord. An increase of irritability may be found usually on the same side, in the nerves of the brachial plexus, the phrenic, or the sciatic. But there is a curious alternation in the effect. If, for instance, the right phrenic nerve is rendered more irripersed in the Transactions of the Royal, Linnæan, and Zoological Societies, in the *Journal of Anatomy and Physiology*, in the Archæologia, and in the journals of the Geographical Society, the Odontological Society, and the British Association tell the same tale. Whether they, with many other printed documents and lectures, should be collected and published as a monument to his memory, is a matter for scientific men and his friends to determine. He was a sound and accurate scholar as well as a scientific man, and has been heard to say that his father had tutored him so thoroughly in Greek that he was able at ten years of age to read any part of Homer at sight, and at a later period was so familiar with that language that he could think in it. He took great interest in social questions of all kinds. He was popular with the promoters of the temperance cause, and was an earnest advocate of the Permissive Bill. In politics he was a Liberal. But though he had many interests, he devoted his life mainly to the advancement of biological science. When he came to Oxford as a young physician he undertook the readership in anatomy as but a secondary occupation in addition to medical practice, but in entering upon his duties as keeper of the anatomical and physiological collections in the Christchurch Museum his views of biological science expanded. For several years previous to this, assisted by Dr. Victor Carus, Dr. Melville and Mr. (now Professor) Beale, Dr. Acland had endeavoured to give an impulse to practical philosophical biological work as a part of general education in the old Universities, taking the Hunterian Collection as a model on which to base and develop this plan. Dr. Rolleston took up this great question, and when the Linacre Professorship was founded was chosen by the electors to fill it, though then a comparatively unknown youth. He at once relinquished practice. The Oxford Museum, now so well known, was then just completed. The Dean and Chapter of Christchurch decided to allow the anatomical collection under Dr. Rolleston's care to be moved, for university rather than the narrower collegiate purposes, to the new institution. It was then hoped and believed that this institution would gradually extend until it was able to exhibit and advance every scientific department in the most perfect manner. The Radcliffe trustees, in the same hope, transferred their scientific library to the museum. The young anatomist found his biological series and all the workrooms that had been provided for him in close proximity to the palæontological collections of Buckland, the departments of physics and chemistry and the literature of all these allied sciences. From that moment his mind was turned without ceasing to the contemplation, the practical study, and illustration of man as man by every possible method; his descent, his development, his relation to other beings, their relation to each other, and to the organic world. Every department of anatomy, however minute, of physiology, however abstruse, and of ethnology, however complex, from time to time yielded a store of material to his vigorous grasp. Every line of research, from those of Prichard, Max Müller, or Darwin, to those of Lister or Parker, seemed in turn to be taken up. It so happened that in 1860 a circumstance occurred which tended materially to concentrate all the qualities of his nature on the highest biological questions, whether considered from the material or psychological point of view. The British Association met in Oxford, and the famous discussion on the hippocampus in the brain of man as compared with that of the higher apes took place between Professors Owen and Huxley. Bishop Wilberforce brought, as is well remembered by all scientific men, the forces of his ready wit and great reputation to bear against the sincere statements of the younger anatomist. Rolleston's indignation was fired; his sense of justice made him throw heart as well as head into the cause of what, at the moment, seemed the weaker man. It is not possible to say now to what extent that brief scene influenced the ardour and imagination of Rolleston. Be this as it may, all prejudice and even bias derived from the most refined Oxford culture was banished from his mind in dealing with the nature of man. Oxford has the greatest cause to recognise and to remember Dr. Rolleston's character as a teacher. He has many devoted pupils, gradually finding their way to posts of trust in various scientific institutions and hospitals in London and elsewhere. He taught all who were capable of being taught to work with great and comprehensive aims even while engaged in small and laborious details. And with his teaching he instilled also a sense of duty. Especially has this been felt by those of his pupils who have since become teachers. Among the rewards of his labours the one, perhaps, which he most highly appreciated was when his friends or pupils from various parts became contributors towards the completion of his anatomical collections. Warm-hearted, impetuous, with wide sympathies and generous impulses, Rolleston was a delightful companion, an entertaining and a liberal host, and a constant friend. He was a most energetic worker, rising and being often in the museum at 5 A.M., so that he was accustomed to say that between Professor Clifton, whose delicate experiments required the quietude of the night, and himself, the museum was rarely untenanted for an hour. Of him it might truly be said that when, in Oxford, a scholar or a physiologist was the theme his name was not far off.

Dr. Rolleston's health had long been a cause of anxiety to those who were intimate with him. He had shown for two or three years an over-sensitive condition of the nervous system. There had been noticed great and rapid variations in the circulation under excitement, and he had long suspected changes in the arterioles of the brain. In the course of last autumn albumen was first noticed in the urine without casts, and considerable cardiac hypertrophy.

From that time his health began rapidly to decline. He accompanied Sir William Gull and Dr. Acland to Florence in December, to remain on the Riviera for some months. A few weeks before his death anasarca of the lower limbs began, with extreme general malaise. In the last days there were constant convulsions, so that the end was a release from distress which was hard to bear but was borne with gentleness and patience. In Paris he was under the care of Dr. the Hon. Alan Herbert, and Professor Charcot, and was at his earnest desire removed to England, though with difficulty. Dr. Child joined him at Paris, and returned home with him, Dr. Herbert having come with him as far as Boulogne.

Dr. Rolleston married Grace Davy, niece of Sir Humphry Davy, and grand-daughter of Mrs. Fletcher of Grasmere, by whom he leaves a numerous family, none of whom are yet grown up. Mrs. Rolleston lies gravely ill in the house where her husband died. She is in an unconscious state, and is still ignorant of her loss.

Immediately after the funeral a meeting of Prof. Rolleston's old pupils was held in the Museum, with the object of perpetuating his name by some suitable memorial. A committee was formed with power to add to its number, the following gentlemen being elected honorary secretaries: Dr. C. Mansell-Moullin, 17, George-street, Hanover-square, W.; Dr. Theodore Acland, St. Thomas's Hospital, S.E.; Mr. E. B. Poulton, M.A., Wykeham House; and Mr. A. P. Thomas, M.A., Anatomical Department, Museum, Oxford.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Tuesday, Earl Spencer presented petitions from the Liverpool Veterinary Medical Association in favour of the Veterinary Surgeons Bill; also from various persons in Kent and Sussex, being veterinary surgeons in England who are not members of the Royal College of Veterinary Surgeons, against the Bill.

In the House of Commons on Thursday, the 16th inst., the report and evidence of the committee on the position of the medical officers of the navy were presented. On the motion of Mr. Courtney, amended returns were presented relating to convictions under the Vaccination Acts, and on the motion of Mr. H. H. Fowler a return was ordered of the small-pox hospitals in the metropolis. The Blind and Deaf Mute Children Bill was withdrawn.

Treatment of Prisoners in India.

On Friday, Mr. O'Donnell gave notice of the following questions:—To ask the Secretary of State for India if he is aware that the mortality among prisoners in gaol in India averages annually, at present, from 250 per thousand to 390 per thousand; whether he is aware that this fearful mortality is alleged to be mainly due to starvation on the prison diet; whether it is true that 8223 prisoners have been flogged during the year for non-performance of allotted work; whether his attention has been called to statements in the *Bombay Gazette*, *Calcutta Englishman*, and other Indian papers, that "prisoners who, from want of food, were unfit to labour, were dragged to the triangles and flogged by the thousand because they were weak and sick unto death on starvation rations;" and, if these allegations be true, why he has not interfered.

Mr. Gray gave notice that he would move to discharge the order for going into Committee on the Infectious Diseases Notification (Ireland) Bill, and to withdraw the Bill, which it is proposed to refer to a Select Committee.

Fees to Medical Officers.

On Monday, Mr. T. Rogers asked the President of the Local Government Board whether, since the scale of fees payable to the medical officers of Poor-law Unions was furnished many years ago by the Poor-law Board, he would consider the desirability of its revision, especially in relation to those operations for which, as medical science had progressed, the use of anæsthetics was necessary, and therefore the services of an assistant operator were required; and if he would further consider how far, in the absence of any provision for the payment of such assistant operators, the sufferings of the poor, who were constrained to undergo operations, might remain unalleviated or be increased.—Mr. Dodson said he would not fail to consider whether it was desirable to revise the scale of fees payable to the medical officers of Poor-law Unions, especially in cases where the use of anæsthetics was required. At the same time he would remind the hon. member that the policy of the Poor-law Administration had been not to encourage the performance of difficult operations by Poor-law officers, but rather to induce the removal of such cases to the public hospitals, where they might be properly and skilfully treated.

Overworking Telegraph Clerks.

Mr. Fawcett, replying to Lord R. Churchill, gave particulars of the case of a telegraph clerk who was alleged to have become temporarily mentally deranged from overwork. During the week previous to his illness he worked nine hours and twelve hours on alternate days; but during another week prior to that his work only occupied three hours a day. The new regulations would give important relief from excessive overtime. In this particular case the man had always been in delicate health, but as his absence would be only temporary full pay would be allowed him during that absence.

Militia Surgeons.

Dr. Farquharson gave notice that he would on Friday ask the Secretary of State for War whether it is his intention to grant compensation for loss of expectation of pension to those Militia surgeons who joined previous to Lord Panmure's Circular of 1854, and whether it is his intention to compensate Militia surgeons generally for the serious loss of income inflicted on them by recent changes, and in particular by the withdrawal of fees for the examination of recruits.

On Tuesday, the annual report on Irish Lunatic Asylums was presented. The Coroners (Ireland) Bill was considered in Committee. Mr. Corbet gave notice of a question as to the removal to an Irish asylum of an Irish lunatic soldier, enlisted in England. Mr. Sclater-Booth gave notice of a question as to the superannuation of Poor-law officers. Mr. O'Sullivan will on Friday ask whether one of the Kilmainham prisoners is not losing his sight in consequence of his long confinement in prison. Mr. Healey will on the same day put a question as to the appointment of non-qualified veterinary inspectors at Irish ports.

Vaccination.

Mr. P. A. Taylor gave notice of a question for Tuesday, as to the death of a child at Plymouth "from exhaustion, indirectly due to vaccination." The same hon. member will move the following amendment to Dr. Cameron's resolution on Friday, July 8th:—"That in the opinion of this House, the frequent recurrence of small-pox epidemics in London, in the midst of a very generally vaccinated population, raises grave doubts of the efficacy of vaccination as a protection against small-pox, and when to this is added the acknowledged danger of transmitting disease by the process, compulsion at any rate can no longer be defended."

On Wednesday, various petitions for or against the Rivers Conservancy and Floods Prevention Bill were presented, and referred to the Select Committee on the Bill.—Mr. Gray moved to discharge the order for going into Committee on the Infectious Diseases Notification (Ireland) Bill, with a view to withdrawing the Bill pending its consideration by a Select Committee; but Dr. Lyons objected, and the order was deferred.—Mr. O'Shaughnessy deferred to Monday next his question as to the maintenance of Irish lunatics.

On Thursday, Mr. Childers replied to Mr. Corbet that an insane Irish soldier, named Wheelan, had been removed to an Irish workhouse where he applied to be chargeable, and his pension would be credited to the union.

London Fish Supply.

In reply to Mr. Firth, Sir William Harcourt said he had received a notice from the Corporation, stating that a committee would be appointed to inquire into the present unsatisfactory state of the fish supply of the metropolis. He should say, however, that considering how long this question had been in the stage of inquiry, the time has come when something should be done. He hoped that Billingsgate market would be improved. He could not see any reason why the supply of this essential article of food should be a monopoly in the hands of one authority. He thought that the Metropolitan Board of Works, which had accomplished such great and useful work in the metropolis, might well take up the subject.

The Removal of Dust.

In answer to Viscount Newport, Mr. Dodson said the Local Government Board had no jurisdiction over the metropolitan vestries with regard to their dust-carts. He was afraid, therefore, he could not undertake with any advantage to communicate with them on the subject. At the same time he ventured to hope that as the attention of the vestries had been called to the subject by the question of the noble lord, they would be disposed to take the matter into consideration.

Fees for Medical Operations.

In reply to Mr. Firth, Mr. Dodson said his attention had been drawn to the case of Mr. Hele, district medical officer of Plomesgate Union, who, in obedience to an overseer's order, attended a boy for injury and amputated his leg. With the imperfect information before the Board, he was not prepared to express any opinion upon the point, whether the medical officer in question was entitled to perform the operation. With regard to the question of the payment of the fee, it did not appear that the time in which proceedings could be taken had yet expired. Whether the time in which to test the legality of the action of the Guardians should be extended depended in the first instance upon the determination of the question whether the claim was legal. In the present state of the correspondence he could not undertake to lay a copy on the table of the House, but he was not aware of any objection to doing so as soon as it was convenient.

Emigrant Ships.

In reply to Mr. Moore, Mr. Chamberlain said, on the 30th May he stated very fully the course the Board of Trade had taken with regard to the treatment of steerage passengers in emigrant ships. Papers on the subject would be in the hands of members in a few days.—Mr. T. P. O'Connor asked if he was to understand that no further steps would be taken to secure decency and morality on board the ships. He had had communications calling attention to the condition of steerage passengers.—Mr. Chamberlain said that the honourable member would find the matter was fully investigated in the papers, and recommendations therein made. He should be glad to receive any special information on the subject.

Treatment of Prisoners in Bengal.

The Marquis of Hartington, in reply to Mr. O'Donnell, said the excessive mortality in certain prisons appeared to be due partly to the fact that prisoners in weak health were put there from other gaols for treatment, and partly to the establishment of a new prison diet, which was found to be insufficient, and was subsequently changed. It was true that the number of persons mentioned in the question had been flogged, but the Lieut.-Governor had been communicated with on the subject by the Indian Government, and since then there had been a marked diminution in the number of floggings. The substitution of some form of penal labour for corporal punishment was now being considered, it being proposed to reserve flogging for the most serious cases. There was much exaggeration in the newspapers, but he regretted to say there was some foundation for the statements made. Inquiry was being made on the subject.

Medical News.

UNIVERSITY OF OXFORD. — The following gentlemen passed the Final Examination for the degree of M.B.:—

Falls, W. C., B.A., M.R.C.S., Merton College and St. George's Hosp.
Francis, F., B.A., M.R.C.S., Jesus College and London Hospital.
Gresswell, D. A., B.A., M.R.C.S., Christ Church and St. Bartholomew's Hospital.
Jones, Wansborough, B.A., M.R.C.S., Magdalen College and St. Thomas's Hospital.

UNIVERSITY OF CAMBRIDGE. — The following degrees were conferred on June 16th:—

DOCTORS OF MEDICINE. — Arthur Thomas Myers, Trinity; Francis Henry Hill Guillemard, Caius.
BACHELORS OF MEDICINE.—Fredk. Henry Horatio Mahomed, Caius; Charles Fillingham Coxwell, Christ's.

APOTHECARIES' HALL. —The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 16th:—

Sukhia, Jehangir Cursitji, Arlingford-road, Brixton.
Trapp, John Best, Wellfield House, Bedford.

The following gentleman also on the same day passed the Primary Professional Examination:—

Newsholme, Henry Wilkinson, University College.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. Runcy, late of Aberdeen, bequeathed to the Royal Infirmary £500, with a contingent residue of the estate to the Infirmary and to the Dispensary of the town. The Tunbridge Wells Infirmary receives £100 under the will of the late Mr. Samuel Hindley. Mr. Wm. Riches bequeathed £50 to the Clapham Dispensary.

THE WARREN TRIENNIAL PRIZE.—The Warren Prize Committee offer a premium of 400 dollars for the best Dissertation worthy of a prize, upon the following subject:—"Chronic Bright's Disease (Parenchymatous and Interstitial Nephritis). The Nature and Mutual Relations of the Derangements in the Circulatory and Secretory Organs." Dissertations should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before February 1st, 1883.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The new wing of this hospital was formally opened on Wednesday by the Princess Christian of Schleswig-Holstein. Erected at a cost of about £9000, this recent annexe is in reality the initial instalment of a scheme of total rebuilding, intended to replace the overcrowded and inconvenient rooms hitherto in use, and, in fact, to supply a new hospital worthy of the country. After the ceremony, which was attended by a large and distinguished company, the Princess inspected the upper floor of the new building. In the evening an entertainment was given in the new waiting hall.

ST. THOMAS'S HOSPITAL.—On Tuesday the prizes were distributed to the successful students of this hospital by the Earl of Dunraven, who, in the course of his address, urged, as did the Bishop of Gloucester and Bristol last week in the medical school of the latter city, the cultivation by the students of a broad and liberal spirit in the pursuit of their studies. The Mead Medal for Practical Medicine, under Dr. Stone, was awarded to W. Wansborough Jones, of Leek, who also received the Treasurer's Gold Medal for "general proficiency and good conduct." W. Haig Brown of Godalming, received the Cheselden Medal for surgery and surgical anatomy. A. B. Bernays of Stanmore, A. D. Roe, and W. J. Sheppard received the college prizes of £20, £15, and £10 for third year students. W. B. Tomson of Luton, who was a winner of a first-year student prize, received the Musgrove schlolarship of forty guineas and certificate of honour, as a second-year student and a prize as a prosector. G. D. Green of New-cross, received the College prize of £20 and certificate of honour, and F. F. Caiger £10 and a like certificate, as second-year students. R. Lawson of Winthank, North Britain, received the great prize of the year, the entrance science scholarship of £100 and a certificate of honour, also the Wm. Tite scholarship of £30 as the best in first year's studentship. W. H. Lancaster of Leicester, was second in both these classes, receiving a £60 scholarship and the College prize of £20, with certificates of honour. The other winners of prizes were F. W. Hatchett of Neath; R. E. Rouse of Woodbridge; G. A. Carpenter of Lambeth; and G. W. Ford of the Cape of Good Hope.

THE LEVEE.—The following members of the medical profession were presented at the levée held on Wednesday last at St. James's Palace by the Prince of Wales, by command of Her Majesty:—Surgeon-General Sir J. Campbell Brown, K.C.B., Acting Surgeon C. F. Bryan, Surgeon-Major W. E. Cates, Surgeon R. F. Cumming, Surgeon W. Coleman, Surgeon L. O'B. Curtin, Surgeon J. H. Earle, Acting Surgeon W. A. Ellis, Surgeon E. H. Fenn, Surgeon-Major J. F. Fitzpatrick, Dr. W. H. Hart, Surgeon R. C. Johnston, Surgeon T. R. Pickthorn, Surgeon C. Reid, Surgeon S. Westcott. The following attended the levée:—Dr. Watt Reid, Dr. Farquharson, Dr. Ralph Gooding, Dr. Playfair, and Mr. James Startin.

Births, Marriages, and Deaths.

BIRTHS.

DUKE.—On the 20th inst., at The Glen, Lewisham, the wife of John C. Duke, M.R.C.S.E., of a son.

GARDINER.—On the 20th inst., at 13, Harlington-gardens, Edinburgh, the wife of T. Senior Gardiner, of a son.

MILLER.—On the 16th inst., at Trinity-place, Windsor, the wife of Richard Shalders Miller, M.B., B.S., F.R.C.S.E., of a daughter.

POWER.—On the 14th ult., at Kasanli, East India, the wife of Surgeon-Major R. Power, 11th Prince of Wales's Own Bengal Lancers, of a daughter.

PRINGLE.—On the 14th inst., at Angelton, Bridgend, the wife of H. T. Pringle, M.D., Medical Superintendent of the Glamorgan County Asylum, of a daughter.

SMITH.—On the 18th inst., at Charles-street, Berkeley-square, the wife of Barton Smith, M.D., of a daughter.

YOUNG.—On the 11th inst., at Follett House, Devonshire, the wife of David Young, M.D., Florence, of a daughter.

MARRIAGES.

CHAMBERS—COLLARD.—On the 15th inst., at Trinity Church, Broadstairs, by the Rev. G. F. E. Shaw (godfather of the bride), assisted by the Rev. J. H. Carr, Rector of Broadstairs, Eber Chambers, M.B., of 9, Wilmington-square, London, to Annie Laurie, fourth daughter of Thomas White Collard, Esq., of The Limes, Broadstairs.

EYRE—BRIGHT.—On the 15th inst., at Christ Church, Forest-hill, John Joseph Eyre, L.K.Q.C.P.I., L.R.C.S.I., eldest son of Edmond Eyre, Esq., of Shanagolden, Limerick, to Fanny Amy Agnes, eldest daughter of John Meaburn Bright, M.D., of The Glen, Westbourne-road, Forest-hill.

GARDNER—LINTON.—On the 13th inst., at St. Mark's, South Norwood, by the Rev. W. G. Longden, M.A., Vicar, John Twiname Gardner, L.R.C.P.L., M.R.C.S.E., L.S.A.L., of Ilfracombe, Devon, to Kate, youngest daughter of the late W. J. Linton, of South Norwood. No cards.

HARRIS—UPTON.—On the 4th inst., at St. Marylebone Church, London, Benjamin Harris, M.R.C.S.E., third son of the late William Harris, of Park-street, Grosvenor-square, to Mary Anne, second daughter of William Upton, of Woodfield, Upper Norwood, Surrey.

KNOX—THOMPSON.—On the 16th inst., at St. Catherine's Church, Birkenhead, by the Rev. Andrew Knox, M.A., LL.D. (brother of the bridegroom), assisted by the Rev. M. L. J. Mortimer, M.A., Vicar of the Parish, Charles Knox, M.R.C.S.E., L.K.Q.C.P.I., of Bay House, Tranmere, Birkenhead, to Emily Kate, second daughter of Robert Thomson, Esq., of Claremont, Claughton, Birkenhead.

LE QUESNE—LE QUESNE.—On the 1st inst., at the Parish Church, St. Helier's, Jersey, Edwin Joseph Le Quesne, L.R.C.P.L., M.R.C.S.E., of Tring, Herts, to Mary Ann Alice, daughter of W. Le Quesne, Esq., of Balmoral-terrace, Jersey.

NICHOLSON—EDGER.—On the 18th inst., at St. Pancras Registry Office (the civil to be followed by the religious ceremony at the Church of Humanity), Surgeon-Major Edward Nicholson, Army Medical Department, to Sophie Clotilde, third daughter of Henry and the late Millicent Edger, and adopted niece of Dr. and Mrs. Congreve, of Mecklenburgh-square.

WOODMAN—NORRIS.—On the 18th inst., at St. Paul's Church, Tottenham, William Robert Woodman, M.D., of Ford House, Exeter, to Mary, widow of William Lascelles Norris, M.R.C.S.E., and daughter of the late George Garland, Solicitor, of Worcester and Malvern.

DEATHS.

BLOXHAM.—On the 8th inst., at Halesowen, Charles William Milnes Bloxham, M.R.C.S.E., aged 59.

CRISP.—On the 14th inst., at Aix-les-Bains, Savoy, from the result of an accident, Walter Crisp, Surgeon-Major, Army Medical Department, aged 52.

GAWTHORPE.—At Ventnor, Matthew Gawthorpe, L.S.A.L., aged 77.

MUSGRAVE.—On the 21st ult., at Bombay, of heat apoplexy, Reginald Vernon Musgrave, M.R.C.S.E., Surgeon of the P. and O. Co.'s Service, aged 31.

NUTTALL.—On the 21st ult., at San Francisco, California, Robert Kennedy Nuttall, Esq., M.D., F.R.C.S.I., youngest son of the late Colonel J. C. Nuttall, J.P., of Tittour, co. Wicklow, Ireland, aged 66.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths*

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

Anderson, W., F.R.C.S., has been appointed Joint Lecturer on Anatomy at St. Thomas's Hospital.

Barker, H. M., M.B., F.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Brading District of the Isle of Wight Union.

Berry, F. C., M.B., B.Ch., has been appointed Medical Officer for the Eleventh District of the Barnstaple Union.

Burton, R. G., M.D., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Hanwell Rural Sanitary District.

Corry, W., M.D., M.Ch., has been appointed Medical Officer to the Drumquin Dispensary District, vice Johnston, deceased.

Currie, J. L., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Earsham District of the Depwade Union.

Dalton, N., M.B., has been appointed House-Surgeon to the North-Eastern Hospital for Children, vice Steele, resigned.

Ewen, A. B., M.R.C.S.E., L.S.A.L., L.M., has been appointed Surgeon to the Exmouth Dispensary, vice G. W. Turnbull, resigned.

Foster, H., M.R.C.S.E., has been appointed Medical Officer for the Green Hammerton District of the Great Ouseburn Union.

Harris, F. W. H. D., M.R.C.S.E., has been appointed Medical Officer to the Teignmouth, Dawlish, and Newtown Infirmary, vice Taylor, resigned.

Harris, J. D., M.R.C S.E., L.S.A.L., has been elected Surgeon to the Devon and Exeter Hospital, vice C. H. Roper, deceased.

Henderson, G. C., M.B., M.R.C.P.L., M.R.C.S E., has been appointed Curator and Pathologist to St. Mary's Hospital, vice Pepper, resigned.

Hodgson, G. F., M.R.C.S.E., has been appointed Honorary Surgeon to the Brighton, Hove, and Sussex Throat and Ear Dispensary.

O'Donovan, E., L.R.C.S.I., has been appointed Medical Officer for the Knocknalower Dispensary District.

O'Keefe, W. J., L.R.C.S.I., has been appointed Medical Officer for the Monasterboice Dispensary, vice Keelan, resigned.

Roper, A. C., M.R.C.S.E., has been elected Surgeon to the Exeter Lying-in Charity, vice C. H. Roper, deceased.

Simpson, A., M.A., M.B., C.M., has been appointed Police Surgeon to the Burgh of Perth, at a salary of £25 per annum; and also Medical Officer of Health, with charge of Small-pox Hospital, at a salary of £50 per annum.

Streatfield, J. F., F.R.C.S.E., has been appointed Senior Ophthalmic Surgeon to University College Hospital, vice Wharton Jones, resigned.

Thistle, F. T., L.R.C.P.L., M.R.C.S.E., has been appointed Junior House-Surgeon to the Torbay Hospital and Provident Dispensary, Torquay.

Whetford, J. H., L.D.S. R.C.S.E. (of Seaside-road, Eastbourne), has been appointed Honorary Dental Surgeon to All Saints' Convalescent Hospital, and also to the Provident Dispensary.

Medical Diary for the ensuing Week.

Monday, June 27.

Royal London Ophthalmic Hospital, Moorfields. — Operations, 10½ a.m. each day, and at the same hour.

Royal Westminster Ophthalmic Hospital.—Operations, 1½ p.m. each day, and at the same hour.

Metropolitan Free Hospital.—Operations, 2 p.m.

Royal Orthopædic Hospital.—Operations, 2 p.m.

St. Mark's Hospital.—Operations, 2 p.m.; on Tuesday, 9 a.m.

Tuesday, June 28.

Guy's Hospital.—Operations, 1½ p.m., and on Friday at the same hour.

Westminster Hospital.—Operations, 2 p.m.

West London Hospital.—Operations, 3 p.m.

Wednesday, June 29.

National Orthopædic Hospital.—Operations, 10 a.m.

Middlesex Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Thomas's Hospital. — Operations, 1½ p.m., and on Saturday at the same hour.

St. Mary's Hospital.—Operations, 1½ p.m.

King's College Hospital. — Operations, 2 p.m., and on Saturday at 1 p.m.

London Hospital.—Operations, 2 p.m., and on Thursday and Saturday at the same hour.

Great Northern Hospital.—Operations, 2 p.m.

University College Hospital. — Operations, 2 p.m., and on Saturday at the same hour.

Samaritan Free Hospital for Women and Children. — Operations, 2½ p.m.

Thursday, June 30.

St. George's Hospital.—Operations, 1 p.m.

St. Bartholomew's Hospital.—1½ p.m. Surgical Consultations.

Charing-cross Hospital.—Operations, 2 p.m.

Central London Ophthalmic Hospital. — Operations, 2 p.m., and on Friday at the same hour.

Hospital for Women, Soho-square.—Operations, 2 p.m.

North-West London Hospital.—Operations, 2½ p.m.

Friday, July 1.

St. George's Hospital.—Ophthalmic Operations, 1½ p.m.

St. Thomas's Hospital.—Ophthalmic Operations, 2 p.m.

Royal South London Ophthalmic Hospital.—Operations, 2 p.m.

Saturday, July 2.

Royal Free Hospital.—Operations, 2 p.m.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

The Lancet Office, June 23rd, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 17	29·93	S.W.	64	60	95	72	57	·02	Cloudy
„ 18	29·87	S.W.	61	59	80	68	58	·28	Overcast
„ 19	29·80	S.W.	61	56	106	72	54	..	Cloudy
„ 20	29·79	S.W.	65	58	104	71	54	..	Bright
„ 21	29·58	S.W.	64	61	108	73	57	..	Cloudy
„ 22	29·70	W.	60	57	105	71	56	·03	Cloudy
„ 23	30·06	N.W.	64	56	98	70	52	..	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

Poor-law Medical Officers and their Remuneration.

We thank our correspondent from Yorkshire for his communication on this subject, but feel that no observations of ours at the present time would aid him in the least degree. So long as guardians act within their legal rights, and medical men are to be found who will accept salaries which make no pretence of paying profitably a man for the duties he is required to perform; so long, moreover, as medical men can be tempted to contend for unremunerative posts by problematical prospects of other future equally unremunerative appointments dangled before their eyes, as in this case; and so long, further, as both the central and local poor-law authorities approve of these appointments being dealt with on the lowest view of commercial agreement,—that is, as being worth no more than the lowest sum that a person can be induced to take them at,—the medical profession can only submit.

A. W. M.—We are well aware that emigrant ships are inspected before leaving British ports. Our remarks relate to an alleged practice of evading the regulations in force here by shipping from foreign ports under other regulations.

CONCURRENT VARIOLA AND VACCINIA.

To the Editor of THE LANCET.

Sir,—May I be permitted to point out to "In Perplexity" that "invasion" is not merely "coincident with constitutional symptoms," but includes them; for it was used by me to designate that period of marked constitutional symptoms which generally begins three days before the eruption appears.

If there were constitutional symptoms during the preceding incubation period, it was so much the better for my argument; but as I had no knowledge of their existence in O. H.'s case, I said nothing about them.

My contention was, that although the variola had the start of the vaccinia, the latter would probably modify the former at a later stage; and the further history has now shown this to have been the case.

As to the other cases of confluent small-pox showing the same "quick abatement," if we believe that the protective power of vaccinia is diminished by time, we must expect to find patients protected to very various extents by previous vaccination; and I would suggest that patients may possibly now and again be met with who are protected to about the same degree by the declining power of a long previous vaccination, as O. H. was, by the rising power of a vaccination which was performed too late to be completely protective.

I am, Sir, yours truly,
M. B.

Torquay, June 13th, 1881.

Orders for Medical Relief.

Mr. Eustace Firth.—The conditions are not parallel. Accidents are not to be foreseen; confinements may be, and an "order" should in every instance be procured and presented. It is nothing to the point that the patient is on the medical-list, because the guardians may see fit to give her an order for this means of assistance, but may, for sufficient reasons, decline to provide for her attendance during her confinement. For example, she may be referred to her own parish.

Mr. James J. Woodford is thanked for his communication, though we regret that we shall not be able to insert extracts of sermons as we did last year.

THE HEADS OF THE PEOPLE.

To the Editor of THE LANCET.

SIR,—If the facts put forward by Mr. W. H. Smith regarding the alleged decrease in size of the human head are reliable and the reasoning free from fallacy, the prospect would indeed be a melancholy one, for there is no psychological truth better established than, as Professor Bain has put it, "that great mental superiority is accompanied with a more than average size of brain," and, *cæteris paribus*, with a more than average size of head. I would therefore suggest, as an explanation of the hatters' statistics, these two considerations:—1. That change in the shape of hats in accordance with fashion is far more common now than it used to be; and, 2, that it is just those persons who change their hats with every passing fashion that possess heads considerably below the average size. Thus it would happen that the "average demand" is for hats of a smaller size than was formerly the case, while the average size of the human head has remained constant or even increased.

I am, Sir, yours, &c.,
W. J. COLLINS, B.Sc., M.R.C.S.

St. Bartholomew's Hospital, E.C.,
June 20th, 1881.

To the Editor of THE LANCET.

SIR,—I have made inquiries of Messrs. Lincoln and Bennett, of Sackville-street, whose books extend back for thirty years, and find that there is no difference whatever in the present average as contrasted with that of several years ago.—I am, Sir, yours obediently,

Brook-street, W., June 21st, 1881. R. S. GUTTERIDGE, M.D.

SANITARY CONDITION OF THE ISLE OF WIGHT.

To the Editor of THE LANCET.

SIR,—I have read this week your remarks upon the report of Dr. Ballard concerning the Isle of Wight, and in reference especially to the town of Ventnor. I trust that you will publish the following reply. As a journalist myself, I can feel more intimately your willingness to publish that which, as in this case, if allowed to pass unchallenged, must tend to the most serious injury and loss of a large number of persons whose very livelihood must depend upon the acceptance or rejection by the public of the statements that appeared in THE LANCET, published on the 4th of June inst. You speak of the "neglect" and "indifference" of the authorities of the town and of "bad drainage and sewerage, and a polluted water-supply," and you assume that from the time of Dr. Ballard's visit to Ventnor until now (nearly a year and a half) all has been neglected. I have this day had the report of the Sanitary Committee, copied from the minute-book of the Board, and as the most conclusive proof possible of the inaccuracy of the statements into which you have been led, inadvertently I am sure, I have confidence that you will insert this report, which tells of work that was in progress before Dr. Ballard visited Ventnor, and was entered upon the proceedings of the Local Board before his report was given to the world. As to a "polluted water-supply," no water can be purer, rising, as it does, to the chalk of the high downs. Dr. Ballard's objection made on the spot was in reference to the mode of carrying away the overflow from a tank used for supplying the higher levels, and within six hours after his objection was made the communication was severed. As to the flushing for other purposes, the estimate was made that not less than 500,000 gallons of pure water rushes through the main sewers of the town into the sea every twelve hours. Open ventilators, the full number recommended by Dr. Ballard, in addition to those already in use, were fixed last autumn. The certificates referred to in the report were instituted as a means of securing many matters of sanitary arrangement that are not provided for by the Local Government Act. I have made my remarks as brief as possible, knowing how valuable space is to you, and hope that you will be able in your next issue to find a place for them and for the report.

I remain, dear Sir, yours very faithfully,

Ventnor, June 14th, 1881. FLETCHER MOOR.

Extracts from a Report made to the Local Board of Ventnor by its Sanitary Committee, Feb. 1881.

"On account of the Board's having had the advantage of a long conference with Dr. Ballard, a medical inspector of the Local Government Board, who was engaged in making an official visit to the island, the committee feel that the sanitary work prosecuted during the year has been of unusual importance. All of these reasons have decided them to draw up and submit the following report. The meetings of the committee have been held once a week, and the members have kept themselves in constant communication with the surveyor, the medical officer of health, and the inspector of nuisances. The members have endeavoured to give their attention in four special directions—namely, to become acquainted with the sanitary state of every dwelling in the town, to examine into the water-supply, and to bring into thorough efficiency the working of the sanitary administration. . . . . With regard to the first of these, the committee congratulate the Board that during the past year the systematic house-to-house inspection has been completed. . . . . With regard to the sewerage arrangements of the town, it will be remembered that the Board was most anxious to follow the advice of Dr. Ballard in affording free and open ventilation of the main drains. This has received attention, and the number of ventilators is now sufficient to save the traps of the house-drains from any undue pressure of sewage gas. . . . . The committee have given great thought to the subject of the water-supply. The main supply is a typically pure and wholesome water, and the quantity is superabundant. The committee cordially endorse the extreme precautions taken by the Board against the most remote risk of contamination of the water by directing the overflow of the reservoir in an open stream down Grove-road. In cases where houses do not draw from the main supply, but have private sources, nearly the whole of these sources have been examined into chemically by Mr. Hehner, the public analyst for the island, and where his reports have been unfavourable, the committee have recommended the Board to order the closing of the wells. The few private sources still unreported upon are also to be shortly examined by Mr. Hehner. . . . The attention of your committee has been carefully directed to the slaughter-houses in the town, and, while many necessary arrangements have been made, your committee recommend constant supervision in every case. The committee have done their utmost to revive the sanitary administration of the town into a state of vigorous efficiency, and, by acquainting themselves with the work carried on by the several sanitary officials of the Board, and following this work up from week to week, the members believe they have accomplished much in this way. . . . . In conclusion, the committee cannot hand over their duties to their successors without a deep sense of the importance of the sanitary work of the town being carried on with continued vigour, especially so now that sanitary science is attracting so much attention in the country. They urge the Board to be rigid in exacting the thorough compliance of builders with the by-laws, convinced that this will save much labour, expense, and annoyance in the future. They recommend the continuance of reports from the officials with great regularity, even although these reports may be largely of a negative character so far as sanitary defects are concerned. Lastly, they would suggest that the Board should forward copies of this report, and the report of the medical officer of health, to Dr. Ballard as an indication of the value the Board attached to his advice, and the promptitude with which they adopted the suggestions he made.

"The reports are now complete, and every questionable well has been closed, those in gardens and stables not excepted."

ANTISEPTIC VACCINATION.

To the Editor of THE LANCET.

SIR,—Having seen several cases of erysipelatous and septicæmic inflammation following vaccination, and having myself been disabled for three days by the same, I would suggest that, following the acknowledged success of the "antiseptic system," considerable pain and inconvenience might be done away with by the use of the carbolic spray during vaccination and the hermetic covering of the wound afterwards.

I remain, Sir, yours truly,

Paulatim Club, Adelphi-terrace, W.C., E. F. GRUN,
June 12th, 1881. Dresser at the London Hospital.

Anti-Small-pox should consult the instructions to public vaccinators, as given in Seaton's "Handbook of Vaccination."

S.—The question is rather actuarial than medical.

Tyro.—Write to the secretary.

M.D.—An article by Dr. Percy Boulton, published in our columns on Oct. 16th last, will give the information required.

DR. J. H. GALTON'S CASE OF CÆSAREAN SECTION.

To the Editor of THE LANCET.

SIR,—I have just read in THE LANCET of the 4th inst. an account of a case of Cæsarean section by Dr. Galton. It seems a somewhat new thing for this very formidable operation to be at all warranted where there is no pelvic deformity. I am satisfied had I a similar case to deal with I would be able to accomplish delivery without having recourse to Cæsarean section. I should like to learn through your columns how practical men would have dealt with a similar case, at least such of them as do not consider Cæsarean section the proper treatment, and the "best means of saving a few months of painful life" in such a case.

I am, Sir, yours, &c.,

Lower James-street, W., June. 1881. A. C. TWEEDIE.

"THE PATHOLOGY OF ACUTE PERIOSTITIS."

To the Editor of THE LANCET.

SIR,—In the report of the meeting of the Medical and Chirurgical Society, published in your last issue, is an error—a slip of the pen on my own part—which I should be glad to have corrected. On p. 991, last line, the sentence "from the outer to the deeper parts" should be "from the deeper to the outer parts." In the abstract actually read before the Society words to the latter effect were contained.

I am, Sir, yours faithfully,

Chesham-street, S.W., June 22nd, 1881. C. T. DENT.

S. H. B.—Like a majority of the modern constructions placed on the text of Shakespeare, the interpretation is obviously groundless; but probably our correspondent recognises this fact, and makes the quotation humorously.

S. A.—We are continually receiving applications for advice as to the selection of medical practitioners and medical works. It is obvious it would be unjust to render the aid desired.

Dr. W. R. Smith (Cheltenham).—The paper is marked for insertion. We shall be glad to receive the sketches.

"HYPODERMIC INJECTION OF MORPHIA."

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "J.," Dr. Hughes, of Dinorwic Hospital, advises a great many remedies for the prevention of sickness after subcutaneous injection of morphia.

In Dr. Perry's wards in the Glasgow Royal Infirmary a solution of the bimeconate of morphia is used instead of the solution of muriate of morphia, and with marked effect.

Recently Dr. Perry had under his care two patients with sciatica, and to relieve pain injections had to be resorted to. When the muriate was used, sickness and vomiting resulted in both cases; when the bimeconate was injected (1-80th of a grain), pain was relieved at once, with entire absence of all disagreeable symptoms.

I am, Sir, yours faithfully,
QUINTON M'LENNAN, M.B

Glasgow Royal Infirmary, June 11th, 1881.

Reformed Spelling.—We have received several letters on the subject of this spelling, but prefer not to give place to a discussion.

The letter of *Mr. Sparks* (West Cowes) arrived too late for our present number. It will appear in our next.

M. O. H. should apply to the clerk of the Port of London Sanitary Authority.

MANAGEMENT, CONSTRUCTION, AND ARRANGEMENT OF HOSPITALS.

To the Editor of THE LANCET.

SIR,—As a very old subscriber to and correspondent of THE LANCET, I wish to be allowed to endorse the valuable suggestions of Dr. Frederic Mouat as to the management, construction, and arrangement of hospitals.

I agree with most of his remarks, but I consider he advocates and recommends too many subdivisions of management. No public institution or hospital can be efficiently and amicably conducted if committees and subcommittees are to be consulted on every point. If there is confidence in the management and in the honorary officer giving his time to superintend, committees need only meet at stated intervals to check the pecuniary management.

As to the nursing department of hospitals, the common sense of the public and supporters of hospitals will admit that nurses should be entirely under the control of the medical staff.

As an old sanitarian of forty years' standing, and having given an immensity of time to inculcate and promulgate "sanitary principles" (now becoming popular questions), as founder of the Women and Children's Hospital in Leeds in 1853, and having had the honour of reading papers on sanitary subjects before the meeting of the British Medical Association at Oxford (Mr. Simon in the chair), and before the Social Science Association Meeting in Leeds (Dr. Mouat sectional chairman), I hope there is no egotism on my part in expressing my opinion as to the value of Dr. Mouat's communication to THE LANCET.

I am, Sir, yours faithfully,
Leeds, June 14th, 1881. J. IKIN, F.R.C.S.

DIETETIC VALUES OF BEEF AND BREAD.

Ajax.—Beef of the best quality with little fat contains 74·4 per cent. of water, 20·5 albuminates, 3·5 fats, no starchy materials; bread, on the other hand, contains 40 per cent. of water, 8 albuminates, 1·5 fats, and 49·2 of starchy material. Meat, therefore, is rich in albuminates and fats, whilst bread abounds in starchy matter. In the construction of dietaries it is usual to allow one part of meat to three parts of bread.

W. S.—"Gazette Médicale de Paris," Jan. 17th, 1879.

Judex.—The advertisement is most objectionable. It may be assumed as a rule that respectable members of the profession do not advertise.

Esculapius.—The matter is too personal for discussion in our columns. Any lack of courtesy is to be regretted.

Dr. Andrews.—The announcement is an advertisement.

A Tailor has not enclosed the "pattern" to which he refers.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Restall, Birmingham; Dr. Leftwich, London; Dr. Macdonald; Mr. Smale, London; Messrs. Chapman and Co.; Mr. Spratt, London; Mr. Canty, London; Mr. Whitehead, Manchester; Dr. W. R. Smith, Cheltenham; Mr. Firth, Debenham; Mr. Cockell, London; Mr. Maggs, London; Mr. Prowse, Cambridge; Dr. Aveling, London; Mr. Tallack, London; Mr. Woodford, London; Mr. Goodrich, London; Dr. Woodhouse, Fulham; Mr. J. S. Wood, London; Mr. Devis, Hereford; Mr. Chippendale, London; Mr. J. B. Baker; Mr. Bowkett; Dr. Carpenter, Croydon; Dr. Gutteridge; Mr. Packer, Shrewsbury; Mr. Dugin Thornton, London; Dr. Mansell-Moullin, London; Mr. Balmanno Squire, London; Dr. Andrews, Brixton; Mr. Barford, Wellington College; Mr. A. C. Tweedie, London; Commander Blonat, Chelsea; Dr. Thomson, Brisbane; Dr. Grendard, Malvern; Dr. Le Quesne, Jersey; Messrs. Wright and Co., Birmingham; Mr. Hulke, London; Dr. Kartulis, Alexandria; Dr. Mallik, Hooghly; Mr. Mackintosh, Scarborough; Dr. Goyder, Bradford; Professor Buchanan, Glasgow; Dr. Williamson, Ventnor; Mr. Dent, London; Messrs. Gixbert and Co., London; Mr. Coombs; Mr. Damand, Cowes; Dr. Kirkman, St. Leonards; Mr. Calcraft, London; Dr. Gibson, Ashton; Mr. Thistle, Widicombe; Dr. Hodges, Boston, U.S.A.; Mr. Ker, Halesowen; A Member of the College of nineteen years' standing; A Qualified Assistant; S. H. B.; M.D.; Anti-Small-pox; An Observer; W. S.; P.; J. H., Burnley; Better Late than Never; Pro Bono Publico; M. O. H.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mrs. Brady, Chipping Norton; Mr. Bryan, London; Mrs. Buxton, Arlingham; Mr. Floyd, Birkenhead; Mr. Kerslake, Chesterfield; Miss Robinson, Sandwich; Mr. Miller, Haydock; Mrs. Mancott, Hastings; Mr. Mars, Aberdeen; Dr. Thursfield, Shrewsbury; Dr. Aldridge, Rochdale; Col. Hudson, Cheltenham; Mr. Oliver, Newcastle-on-Tyne; Mr. Wall, Wigan; Mr. Cooper, Ross; Messrs. Auld and Co., Edinburgh; Mr. Newton, Chester; Mr. Wainwright, Birmingham; Mr. Pollard, Bayswater; Mr. Brown, York; Miss Sydenham, Bournemouth; Mr. Saunders, London; Messrs. Drinkwater and Co., Bicester; A. B., Leicester; M., Accrington; E. J. B., Edinburgh; Physician, London; M. B. L.; Medicus, Wragby; A. F., West Ham; Spes, Worle; R. W.; A., Glasgow; Beta, Leicester; Surgeon, Bristol; Borax; Q. S.; F.R.C.S.; Medicus; Omega; L. S. A., Newcastle-on-Tyne; W., Peckham; Delta, Cubitt-town; A. B.; Medicus, Hanley; &c., &c.

Melbourne Age, Courier, Philadelphia Trade Journal, La Emulacion, Isle of Thanet Express, Middlesex County Times, Hants and Surrey Times, Birkenhead News, Food and Health, Progresul Medical Roman, &c., have been received.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.

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